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Municipality/Organization: Town of Wilmington

EPA NPDES Permit Number: MA041234

MaDEP Transmittal Number: W-040988

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: Donald Onusseit Title: Director, Department of Public Works

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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: Michael A. Caira

Title: Town Manager

Date: 4/4/06

PART II. SELF-ASSESSMENT

The Town of Wilmington has completed the required self assessment and has determined that we are in compliance with all this year's permit conditions, with the exception of some areas which will require greater emphasis during next year's permit period:

Part 2-2: Due to budgetary constraints, the Town has not been able to fund two (2) Household Hazardous Waste Collection Days. The Town has had one (1) day during the reporting period and has another day scheduled in May 2006. Postings have been made on the DPW website for residents to take advantage of the "Minuteman Household Hazardous Products Facility" located in Lexington, which accepts household hazardous waste on 8 selected dates per year. As a compromise, the Town has reviewed alternatives and offers a relatively extensive recycling program. Mercury is collected 5 days a week year round, while white goods and Cathode Ray Tubes (CRTs) are collected by a private recycle company once a week at no cost to the residents. The DPW accepts waste oil from Wilmington Residents year round, Monday through Friday. Yard Waste was collected at residences during their normal trash collection day for 5 weeks in the spring, 2 weeks in the summer, and 5 weeks in the fall. Furthermore, residents had the opportunity to drop off yard waste and brush this past reporting year at the Town Recycling Center on selected Wednesday and Saturday dates during the spring and fall. BMC corporation, a local private composting facility, offered to accept grass clippings from Wilmington Residents with no dumping fee.

Part 3-(1-3): Although approximately 95% of the Town's MS4 has been mapped and hand superimposed onto the Town's topographic map system (to include pipe materials, sizes, and flow direction), the Town has procured the services of SEA Consultants through an advertised procurement process to develop a complete Drainage System Master Plan, which includes the GPS mapping of the Town's drainage system. The majority of the Town's drainage outfalls have already been located as a result of a subsequent water quality study performed by SEA consultants. This year, the Town plans to work cooperatively with SEA Consultants to GPS the entire drainage system, including all catch basin and drain manhole structures. Subsequently, necessary testing of outfall discharges will be performed by SEA Consultants as needed depending on outfall survey results. The final Master Plan, when completed, will provide a prioritized schedule of town drainage projects and recommendations to improve the infrastructure as a whole.

Furthermore, additional programs that are not listed as requirements in our Stormwater Management Permit have been active this past reporting year. Crews from the Massachusetts Mosquito Control Project continue to perform outfall cleaning and maintenance (plus removal of vegetative debris and trash) to reduce the amounts of standing water, thus improving water quality. The sixth grade science class at the Wilmington Middle School has been participating in a comprehensive stormwater quality and erosion control curriculum, which was included in Appendix 3 of last year's report (March 04 – March 05). Furthermore, the highly publicized Low Impact Development (LID) project as Silver Lake has undergone construction and is planned for completion at the opening of the Silver Lake Beach Season.

PART III. SUMMARY OF MINIMUM CONTROL MEASURES

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
1-1	Educational Material	DPW	Measurable goals for this BMP will be: 1) procurement, development or modification of four brochures or fact sheets that include stormwater information, and 2) posting of stormwater information on the Town's web site. During Years 2 through 5, distribute one of the brochures or fact sheets annually to property owners based on Assessors records and update the web site semi-annually.	The second Stormwater Informational Brochure has been distributed to Wilmington Residents through a recent spring newsletter mailing, "Town Topics". The DPW has made this year's recycling brochure available for download on the DPW website. Included in the brochure is a collection schedule, information regarding specific collection items, hazardous waste information, a recycle hotline for more information, and the link to the DPW website. A copy of the brochure has been included in Appendix 2 of this report. The sixth grade science department at the Wilmington Middle School has continued to include a stormwater/wastewater curriculum in the annual plan that provides hands-on learning methods for students. Parents have been actively involved in take-home assignments and demonstrations. The Town of Wilmington Department of Public Works has continued to update the new website with stormwater and recycling related information. Separate links on the website have been dedicated to Phase II stormwater information, an illicit discharge reporting hotline, and recycling scheduling and FAQ's. The website can be viewed at http://www.town.wilmington.ma.us/old/dpw/index.html. A copy of the stormwater management page has been included in Appendix 3 of this report. Additional information regarding water conservation techniques, recycling information, and warnings about feeding waterfowl have been printed on bookmarks and handouts which have been available to Wilmington Residents. Copies of this information has been included in Appendix 5-8 of this report.	Continue to develop and distribute the remaining stormwater informational brochures. Continue to update the Department of Public Works web page with stormwater-related information and modify/add FAQ's. Continue to distribute the recycling informational brochure to Wilmington residents and responding to hotline inquiries.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
2-1	Stormwater Task Force	DPW	The individuals who will serve on this task force will be identified within the first two months of the permitting period. On a yearly basis, this task force will hold meetings every four months, will be responsible for the development of material, and will keep track of the status of the control measures and record keeping associated with programs being developed	The Town of Wilmington has procured the services of SEA Consultants through and advertised bid process to develop a 3-phase Townwide Drainage System Master Plan. The plan includes the complete GPS mapping and inventory of the current Wilmington Drainage System, the analysis of the current capacity and integrity of the system, and the development of a Master Plan to improve the drainage system. Since SEA Consultants has developed the Town's highly publicized Comprehensive Water Resource Management Plan (CWRMP), the development of the Drainage System Master Plan by the same consultant will efficiently address the recommendations of the CWRMP. The development of recommended drainage projects in Phase II and III of the Master Plan will involve the input of multiple Town Officials and the general public. The Wilmington Board of Health has helped to include a more stringent illicit discharge provisions into their Health Regulations.	Members of the Planning and Conservation Office, the Engineering Department, and the Department of Public Works will continue to meet with the Master Plan Consulting Firm and review their work as it is presented to the Town. In addition to generating a Master Plan, the Team will review and seek to improve the existing Town regulations.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
2-2	Promote Public Programs	DPW/BoH	The Town will hold a household hazardous waste day two times per year and will support community clean-up days by providing clean-up materials and will pick up and dispose of the waste collected	Due to budgetary constraints, the Town has held one hazardous waste day this past year, and another is scheduled for May 6, 2006. No cars are turned away during this collection day, regardless of the amount of hazardous waste. Nearly 850 cars dropped off hazardous waste during this past year's collection. Mercury is collected 5 days a week year round, and Cathode Ray Tubes (CRTs) are collected by the Town Recycle Company once a week, by special pickup at no cost to the residents. The DPW accepts waste oil from Wilmington Residents year round, Monday through Friday. The Town has supported community clean-up programs for local volunteer groups to perform stream and roadway clean-up and has provided materials and safety equipment at the expense of the Town. Yard Waste was collected at residences during their normal trash collection day for 5 weeks in the spring, 2 weeks in the summer, and 5 weeks in the fall. Furthermore, residents had the opportunity to drop off yard waste and brush this past reporting year at the Town Recycling Center on selected Wednesday and Saturday dates during the spring and fall. BMC corporation, a local private composting facility, offered to accept grass clippings from Wilmington Residents at no dumping fee. Postings have been made on the DPW website for residents to take advantage of the "Minuteman Household Hazardous Products Facility" located in Lexington, which accepts household hazardous waste on 8 selected dates per year.	The Town will continue to hold household hazardous waste days and support citizen group clean-up efforts. Also, the DPW will continue to investigate the possibility of sharing hazardous waste days with surrounding communities to maximize opportunities for area residents.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
3-1	Map Stormwater Assets	DPW	Using GPS, the exact locations will be identified for outfalls. All information from field investigations will be attached to the database. During the first two years of this permit, this mapping will be updated on a quarterly basis to integrate all information into the database system from investigations. Following the first two years, this schedule will be revised based on the amount of data to be added, however, at a minimum, the database will be updated every six months. A Goal of completing mapping of 50 percent of surface water outfalls, major stormwater drainage structures, and receiving surface water bodies by the end of Year 5.	Approximately 95% of the Wilmington Storm Drain System including such structures as catch basins, manholes and outfalls have been mapped and hand superimposed onto the Town's topographic map system. Pipe sizes and materials, direction of flow, and estimated age of the subsystem have also been included in the mapping. The Town Storm Drain System Map can be viewed upon request at the Department of Public Works. As part of the Drainage System Master Plan, the Town will be obtaining GPS coordinates for the entire Drainage System. SEA Consultants has already obtained GPS locations for the majority of the Town's stormwater outfalls.	Phase I of the Drainage System Master Plan will provide GPS mapping of the system's drainage structures and will provide the Town will a more versatile electronic version of the storm drain system map. The Wilmington Engineering Department is planning to continue their internship program which will help to provide outfall inspection man-power for next year's reporting period.
3-2	Detection and Elimination Program	DPW/Boh	The goal is to identify a plan for completing dry weather sampling during the first year of the permit term. Subsequent years will include completing dry weather investigations of all outfalls along the Ipswich River and Maple Meadow Brook, and 50% of outfalls along other waterways	Although the detection and elimination program has not made physical progress in the past year, the procurement of SEA Consultants to prepare the 3-phase Drainage Master Plan has ensured that the mapping ,and therefore illicit discharge detection program, will commence this spring/summer.	The Wilmington Engineering Department is planning to obtain another co-op student during next fiscal year (FY 07). Initial inspections will be made by this individual using the town's outfall inspection form, as presented in last year's report.
3-3	Conduct Illicit Discharge Education Program	DPW	See BMP 1-1 and BMP 6-1	See BMP 1-1 and BMP 6-1	See BMP 1-1 and BMP 6-1

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
3-4	Proposed by-law to prohibit illicit discharges and illegal connections	DPW	The draft bylaw will be developed by the end of Year 2 of the permit period, and the final bylaw will be prepared by the end of Year 3. The bylaw will be presented to Town Meeting in Year 4. If it is not approved, it will be revised, if appropriate, and presented to Town Meetings in Year 5.	Although a single Draft Bylaw has been created which addresses illicit connections, construction site runoff / erosion control, and post construction runoff / erosion control (presented in last year's report), the implementation of a final Stormwater Bylaw will be considered as part of the Drainage System Master Plan recommendations. In the meantime, the Wilmington Health Department has amended their environmental regulations to include a specific "illicit discharge" regulation which includes a $300 per day fine. A summary of the amended Health Regulation, Section 11, is included in Appendix 4 of this report.	The Town will continue to monitor the effectiveness of the newly amended Health Regulation regarding Illicit Discharges. The implantation of a final, stand-alone bylaw will be considered as part of the Drainage System Master Plan's Phase III recommendations.
3-5	Enforce illicit discharges and illegal connections By-law	DPW	The draft changes to regulations and policies will be developed by the end of Year 2 of the permit period. The final changes will be prepared by the end of Year 3. Adoption of the new regulations and policies will be dependent upon approval of the bylaw. Regulations will be proposed for adoption within one year of approval of the bylaw	See BMP 3-4 above.	See BMP 3-4 above.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
4-1	Revise Site Plan Review Bylaw	Planning	Draft changes to the bylaw will be developed by the end of Year 2 of the permit period. The proposed changes will be presented to Town Meeting in Year 4. . If they are not approved, they will be revised, if appropriate, and presented to Town Meeting in Year 5.	See BMP 3-4 above.	See BMP 3-4 above.
4-2	Improve Site Plan Review Process	DPW	The revised process will be developed with departments involved in the Construction Site Plan Review Process. A checklist or similar tracking tool will be developed during the first year of the permitting period. This tool will be adopted during the second year of the permitting period and employed as described thereafter	See BMP 3-4 above. A draft site plan review checklist has been developed and was presented in last year's yearly report.	The draft site plan review checklist will be finalized with the help of the Engineering Department and SEA Consultants as part of the Drainage System Master Plan.
Revised			Once the recommendations of the CWRMP are finalized, this BMP will be revisited.		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3	Planned Activities – Permit Year 4
4-3	Develop Procedures for receipt and consideration of information submitted by the public	Planning	This program will be developed with departments involved in the Construction Site Plan Review Process. The review of existing procedures will be completed by the end of Year 2. If revisions to the procedures are deemed necessary, they will be drafted by the end of Year 3 and adopted during Year 4.	See BMP 3-4 above. The CWRMP's local media publicity and public meetings have helped to provide the public with a public input forum. Futhermore, the Town has received a grant from EPA through the Department of Conservation and Recreation for an LID techniques demonstration project at Silver Lake. Several public hearings have been held at Wilmington Town Hall to publicize this innovative project. Meetings include the televised presentation to the Board of Selectmen, Conservation Hearings, and several "Informational Meetings" for the abutting residents.	The local media publicity and public hearings pertaining to the CWRMP and the new Drainage System Master Plan, which is in the beginning stages, will continue to provide an informational forum for the residents of the Town of Wilmington. Furthermore, the Silver Lake LID project includes a public outreach program that will educate the public on why and how the LID techniques were chosen. The consulting engineering firm for the Silver Lake Project has agreed to conduct a public tour of the LID demonstration project at Silver Lake once completed.
4-4	Develop site inspection and enforcement of control measures program	DPW	The program will be developed by the end of Year 2, and will be implemented in Years 3, 4 and 5.	See BMP 3-4 above. Current inspection and enforcement control measures are being exercised by the Engineering Department, the Health Department, and the Conservation Department.	The Engineering department and conservation office will continue with their inspections as required and as needed. Once the recommendations of the Drainage System Master Plan have been finalized, amended enforcement procedures will be considered, as needed.

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 3	Planned Activities – Permit Year 4
5-1	Develop Post-construction runoff bylaw, regulations and guidance	Planning	A draft of the post-construction runoff bylaw will be completed by the end of Year 2. The final bylaw will be developed for inclusion on the Town Meeting warrant for Year 3. If the article does not pass, it will be revised as appropriate, and presented at Town Meeting in Years 4 and 5. The associated regulations and guidance will be developed in Year 3. If and when the bylaw is approved, a public meeting will be held to solicit input from municipal departments and the public on the regulations and guidance. If necessary, the regulations and guidance will be modified, and they will be presented for a vote at a public hearing of the Planning Board.	Post-construction runoff has been covered in as part of the overall Stormwater Draft Bylaw. A copy of the Draft Bylaw was included in last year's report. The post construction regulations will be revisited as part of the Drainage System Master Plan's recommendations.	The post construction regulations will be revisited as part of the Drainage System Master Plan's recommendations. Members of the Planning and Conservation Office, the Engineering Department, and the Department of Public Works will provide input and work with the Master Plans consultant to finalize post construction efforts.
5-2	Develop Post-construction monitoring program	Planning	The post-construction monitoring program will be developed during Years 3 and 4, and implemented in Year 5, provided the bylaw is approved by Town Meeting.	Preliminary efforts include inspections on an as-needed basis and the involvement of enforcement power of the Health Department and Conservation Dept.	The post-construction monitoring program will continue to progress with the development of the recommendations of the Drainage System Master Plan.

5-3	Ensure adequate long-term operation and maintenance of BMPs	DPW	A draft procedure for evaluation of BMPs for operation and maintenance issues will be developed by the end of Year 2 of the permitting period, and the final procedure will be prepared by the end of Year 3. This effort will be coordinated with the revisions to the procedure for joint boards review of construction projects. During Year 2, the DPW and Planning Board will investigate potential funding mechanisms, develop a draft warrant article, and hold a public meeting to solicit input from the community. During Year 3, the draft article will be revised if necessary and presented to Town Meeting. If it is not approved, it will be revised, if appropriate, and presented to Town Meeting in Years 4 and 5, if necessary	See BMP 3-4 above. Long term operation and maintenance has been discussed as part of the requirements of the Drainage System Master Plan. This will be revisited as the plan further development of the Master Plan recommendations progress.	This will be revisited with the input of the Engineering Department, the Conservation Department, and the Health Department Progress as the development of the Master Plan recommendations progress.
Revised			The potential funding and public input will be in conjunction with discussions and public forums of the CWRMP and Drainage System Master Plan		

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 3	Planned Activities – Permit Year 4
6-1	Educate Municipal Employees	DPW	General stormwater training sessions will be held by the Department of Public Works on an annual basis. The goal will be for 90% of municipal employees with storm water management responsibilities to attend at least one session over the permit period. Department specific training sessions will be held annually, with a goal of 50% of personnel responsible for storm water management attending 90% of the sessions.	The second in a series of training sessions was held for employees of the Department of Public Works during the month of April 2006, for this reporting year. Comprehensive Environmental Incorporated (CEI) has been hired by the Town to perform the in-house training for DPW Staff. Scheduling conflicts have postponed the training by 1 month. Sign-in sheets will be available upon request.	Education efforts will continue throughout the permit period.

6-2	Develop and adhere to operation and maintenance schedule	DPW	The Municipal Operation and Maintenance Schedule will be created and implemented within the first two years of the permit period	The Town owns two vacuum street sweepers and contracts for a third mechanical sweeper. This additional equipment has enabled the Town in increase its street sweeping and catch basin cleaning schedule, and helps the Town achieve spring cleaning by the end of May. Each catch basin in Wilmington is cleaned at least every three years, and high-load areas are cleaned multiple times every year. A draft plan for residuals management has been developed and is currently still being reviewed by the DEP. The Town of Wilmington is part of the Mosquito Control Project, which performs routine stream maintenance throughout the year. Furthermore, a summer crew was hired last year to perform stream cleaning activities throughout the Town.	The DPW will continue to hire summer employees to perform stream-cleaning activities and will continue to provide regular street sweeping and cleaning operations throughout the Town.

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 1	Planned Activities – Permit Year 2
1-1	Educational Material	DPW	See BMP 1-1	See BMP 1-1	See BMP 1-1
3-3,4,5	Conduct Illicit Discharge Education Program, Propose & Enforce Illicit Discharge By-Law	DPW	See BMP 3-4	See BMP 3-4	See BMP 3-4
5-1,2,3	Develop Post-Construction Runoff By-Law, Regulations & Guidance, Develop Post-Construction Monitoring Program, & Ensure Long-Term O&M of BMP's.	DPW	See BMP 5-1	See BMP 5-1	See BMP 5-1

7b. WLA Assessment

A relatively small portion of Wilmington lies within the Shawsheen River basin, for which the TMDL has been developed. The entire Stormwater Drainage System has already been mapped within the Shawsheen River Basin, and GIS locations for most Town outfalls have been obtained during the development of the Town's Comprehensive Water Resource Management Plan (CWRMP) by SEA Consultants. Furthermore, the recommendations of Drainage Master Plan will seek to target high priority areas, in conjunction with standards of the Massachusetts Stormwater Management Guidelines.

Part IV. Summary of Information Collected and Analyzed

As presented in BMP ID#3.1 of this report, the majority of the entire MS4 for the Town of Wilmington has been mapped and labeled for pipe material, size, and approximate age of the sub-system. Laboratory tests have not yet been performed, as outfall inspections are scheduled to be performed during next reporting year in conjunction with Phase I of the Drainage System Master Plan. Please refer to last year's report for a copy of the standard outfall inspection form that will be utilized during these inspections.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created / staffed	(y/n)	No
Annual program budget / expenditures	($)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	95%
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	N/A
Household Hazardous Waste Collection Days		
• Days sponsored	(#)	1
• Community Participation	(%)	Unknown
• Material Collected	(tons or gal)	516 carloads
School curricula implemented	(y/n)	Yes

Legal/Regulatory

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

Mapping and Illicit Discharges

Outfall mapping complete	(%)	40%
Estimated or actual number of outfalls	(#)	143
System-Wide mapping complete	(%)	80% (non-GPS)
Mapping Methods		
• Paper / Mylar	(%)	80%
• CADD	(%)	
• GIS	(%)	20%
Outfalls inspected / screened	(# or %)	0%
Illicit discharges identified	(#)	-
Illicit connections removed	(#) (est. gpd)	-
% of population on sewer	(%)	15
% of population on septic systems	(5)	85

Construction

Number of construction starts (>1-acre)	(#)	3
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%

Tickets / Stop work orders issued	(# or %)	1 (Kansas Road)
Fines Collected	(# and $)	0
Complaints / concerns received from public	(#)	5

Post-Development Stormwater Management

Estimated percentage of development / redevelopment projects adequately regulated for post-construction stormwater control	(%)	80%
Site Inspections Completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	40,000 gpy est.

Operations and Maintenance

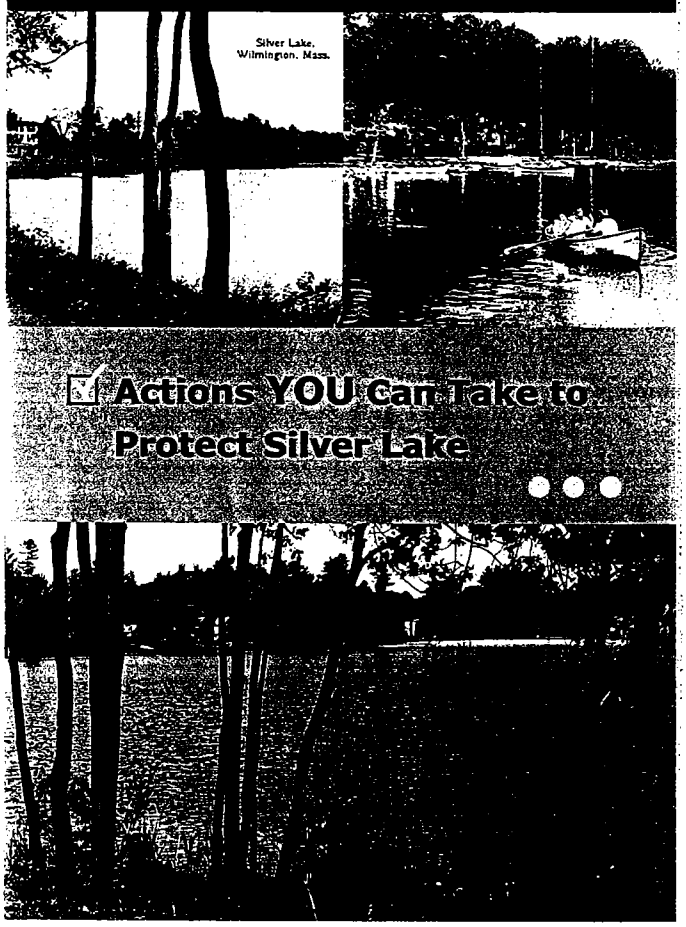
Average frequency of catch basin cleaning (non-commercial / non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial / arterial or other critical streets)	(times/yr)	2
Total number of structures cleaned	(#)	3,200
Storm drain cleaned	(LF or mi.)	1,500 LF
Qty. of screenings / debris removed from storm sewer infrastructure	(lbs. or tons)	80 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial us, etc.)		
Cost of screenings disposal	($)	
Average frequency of street sweeping (non-commercial / non-arterial streets)	(times / yr)	1
Average frequency of street sweeping (commercial / arterial or other critical streets)	(times / yr)	2
Qty of sand / debris collected by sweeping	(lbs. or tons)	50 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Mix residuals
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased / leased	(#)	2
Vacuum street sweepers specified in contracts	(y/n)	No

Reduction in application on public land of: (N/A – never used; "100%" elimination)		
• Fertilizers	(lbs. or %)	50%
• Herbicides	(lbs. or %)	50%
• Pesticides	(lbs. or %)	100%
Anti-/De-Icing products and ratios	%NaCl %$CaCl_2$ %$MgCl_2$ %CMA %Kac %KCl %Sand	50% 50%
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-Velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	20%
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	N/A

APPENDIX 1

SILVER LAKE LID BROCHURE

The Silver Lake Stormwater Improvement Project



Contact Information:

The Silver Lake Stormwater Improvement project is a cooperative effort of:

dcr
Massachusetts

MA Department of Conservation and Recreation
For more information about this project, including opportunities to become involved as a volunteer, please contact:
Sara Cohen (617) 626-1374

The Town of Wilmington
Contact: Jamie Magaldi, Asst. DPW Superintendent (978) 658-4481

USGS
science for a changing world

Project Partner:
United States Geological Survey

Project funding provided by:
U.S. Environmental Protection Agency - Targeted Watersheds Grant

For more information on **how you can help keep our lakes and ponds clean**, please visit
www.mass.gov/lakesandponds

For more information on **Low Impact Development** stormwater techniques, please visit
www.mass.gov/envir/lid

GeoSyntec Consultants
www.geosyntec.com

This brochure was developed by **GeoSyntec Consultants**
289 Great Road, Suite 105, Acton, MA 01720
Phone: 978) 263-9588

dcr
Massachusetts

How YOU Can Help!

- Keep litter, leaves, and debris out of street gutters and storm drains. These outlets drain directly to Silver Lake, local streams, and wetlands.

- Don't feed waterfowl! Bread and snack food is harmful to waterfowl and can lead to malnutrition. Feeding waterfowl discourages winter migration, can lead to aggressive behavior, and encourages large bird flocks that degrade the Silver Lake beach and shoreline with droppings.

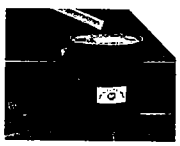
- Apply lawn and garden chemicals sparingly (if at all) and according to directions.

- Dispose of used oil, antifreeze, paints, and other household chemicals properly. Do not dump these products in storm drains or on the ground!

- Clean up spilled brake fluid, oil, grease, and antifreeze. Do not hose them into the street where they eventually reach Silver Lake or other water bodies.

- Pick up after your pet! Use biodegradable doggie bags to collect pet waste. Don't dispose of pet waste in storm drains.

- Control soil erosion on your property by planting ground cover and stabilizing erosion-prone areas.



- Wherever possible, re-use rainwater for irrigation. Rain barrels are a low-cost way for homeowners to capture and re-use roof runoff for lawn and garden watering.

The Silver Lake Stormwater Improvement Project

...restoration project in the Ipswich River Watershed, the Massachusetts Department of Conservation and Recreation and the Town of Wilmington are developing innovative designs to reduce the amount of stormwater runoff entering Silver Lake. Improve the lake's quality and reduce beach closures.

To reduce polluted stormwater runoff from paved surfaces, "porous paving" systems will be installed at the Silver Lake beach parking lot.

"Porous Pavers are permeable alternatives to concrete or asphalt."

Porous Pavers are permeable alternatives to concrete or asphalt. Porous pavers allow stormwater to soak into the ground between paving units, reducing the surface runoff pollution while improving groundwater recharge.

Porous asphalt is similar to standard asphalt, except that the smallest particles have been screened out, allowing water to pass through. Underneath the pavement is a bed of sand and gravel which allows stormwater to slowly percolate into the underlying soil.

Both of these porous paving systems will be part of the Silver Lake parking lot demonstration project.

Low Impact Development (LID) techniques will be used in three stormwater drainage areas.

Attractively landscaped "bioretention cells" and "raingardens" will be used to temporarily retain and filter stormwater using specialized plantings and soils. An important goal of the project is to control stormwater in ways that not only protect water quality, but are an attractive part of the Silver Lake neighborhood.

Raingardens will be constructed on selected residential properties in the Silver Lake neighborhood to promote infiltration and improve stormwater runoff quality.

A planted swale will be installed on the southeastern end of the Town Beach to filter and infiltrate runoff, replacing a stormwater pipe and preventing erosion during large rain storms.

A "pocket wetland" will be created to provide a natural filter where a stormwater pipe currently discharges directly to Silver Lake at Lake Street.

In addition to the above LID techniques, select catch basins in the Silver Lake neighborhood will be improved, including replacement with deep-sump catch basins and infiltrating devices to trap sediment and pollutants and recharge groundwater.

56 PAGES, 4 SECTIONS • 75¢

N ADVOCATE

UNE 9, 2005 www.wilmingtonadvocate.com

OS BY HOLLY SCHMIDT

'05

The cost of saving water

Town to participate in $1.45M grant program

BY MELISSA RUSSELL
CORRESPONDENT

Here's an interesting fact:

Homeowners throughout the region use about 15 million gallons of water daily to water their lawns during the summer.

During the same time period, the Ipswich River runs about 15 million gallons per day lower than it should.

Coincidence?

Not only is it not a random event, but the lowered flow of the Ipswich River, stressed by lawn watering and other discretionary use, has earned it the designation of the third most endangered river in the country, according to Sara Cohen, a water resources specialist with the Massachusetts Department of Conservation and Recreation.

And due to Wilmington's location on the river, state and federal governments are willing to pay residents and the town to save some of the water they waste.

Cohen says that because Wilmington is in the headwaters of the Ipswich River Basin – a very sensitive area of the river – the town has been selected by the DCR to participate in a $1.45 million federal grant program to study water conservation and methods to

■ SEE **WATER,** PAGE 7

BUSINESS NEWS

Town to participate in conservation plan

■ **WATER,** FROM PAGE 1

filter storm water directly into the river rather than into storm drains as runoff.

The town is only one of 14 selected nationwide to participate in the conservation program.

Cohen says her office wanted to take advantage of the grant program in order to measure effects on the environment in the short term.

"There is a clear need in the watershed," she said. Cohen explained that low water flows in Ipswich River contribute to a higher concentration of pollutants and more algae bloom which leads to less dissolved oxygen, and ultimately less species diversity.

The grant will pursue two types of strategies: water conservation and low impact development projects.

The conservation projects will seek to determine what happens if less water is pulled out of the ground and is left to feed the river, Cohen said.

"When wells draw water, the river dries up. We need to figure out ways for people to use less water," said Cohen.

The low impact development projects will demonstrate building techniques that mimic natural hydrology, flushing storm water back into the ground, not into drains, Cohen says. The new methods, which are catching on throughout the state, preserve open space and natural areas, use plant and root filtering systems instead of impervious paving materials, which creates waste water that is "a lot cleaner than washing off a parking lot into a stream."

"People like it, it's much prettier," Cohen says.

Wilmington residents who meet certain criteria will be invited to take part in the water conservation study by having 200-or 400-gallon tanks installed at their homes in order to collect roof runoff, Cohen says. About 35 to 40 systems will be installed throughout town.

The tanks, significantly larger than the standard 55-gallon rain barrel many homeowners purchase, are equipped with pressure pumps to provide equivalent pressure as the town water supply in order to drive the hose. They would also come with a flow meter to monitor water usage.

Although the water collected would not be adequate to water a large lawn, it would be enough to meet all "hand held water needs," of a small- or medium-sized home, Cohen says.

Phil Reidy, president and owner of Rainwater Recovery of Waltham, provider of the barrels, said the tanks come in several configurations, horizontal, vertical, cylindrical or box-shaped. Grant coordinators have not yet determined which barrel design will be installed, but yards would be expected to accommodate whichever design is chosen.

Criteria will be driven by water usage, size of house, yard and garden size, Reidy says, as well as roof size and shape.

"We need to know if the roof is large enough to collect enough water to meet the demand," Reidy says.

Wilmington's Silver Lake will also reap the benefits of the study, Cohen says. The U.S. Geological Survey will monitor the effectiveness of a pervious parking lot, which will let rainwater percolate into the ground.

The goal, according to Cohen, is to eventually disconnect underground pipes that transfer wastewater, and replace them with vegetation and soil to clean up storm water. Water would be graded to flow into the "rain garden" during storms, and the site could be landscaped, and made attractive, Cohen says.

Residents interested in participating in the program are invited to contact Cohen at 617-626-1374, or email at sara.cohen@state.ma.us. Representatives for the study will appear before the Board of Selectmen at its scheduled June 27 meeting to present information about the program.

PHOTO BY SANDRA FLETCHER

From left: Sara Cohen and Marilyn McCrory from the state's Department of Conservation, Wilmington resident Pat Ward, and [illegible] Jamie Magaldi, at Wilmington's Silver Lake Tuesday, discussing the conservation project that will bring $1.45 million to the town and its residents to save water from the Ipswich River. Wilmington is one of only 14 communities around the country to participate in this type of project.

A wait, mate, for Sirtex to open radioactive facility

■ **SIRTEX,** FROM PAGE 1

project director of Burlington-based EBI Consulting, which is assisting Sirtex in the [illegible]oval process.

[illegible]cManus said the delays will push back manufactu[illegible]

Getting it right has caused Sirtex to push back plans until next year.

Wilmington facility that the beads will be "coated" with radioactive Yttrium-90. The plant will employ between five to 12 people.

All radioactive material at be stored on the site for cleaning and other uses. All waste from the lab, including clothing, must be removed by a certified waste disposal firm.

Silver Lake Stormwater Improvei

Plans for new state sponsored approach to stormwater control to be unveiled

BOSTON - As previously reported in the Town Crier, the Massachusetts Department of Conservation & Recreation (DCR) and the Town of Wilmington have announced their collaboration on a series of projects to improve water quality in Silver Lake, a prime recreational resource in Wilmington. The project is one of nine demonstration projects funded through a Targeted Watersheds grant from the U.S. Environmental Protection Agency (EPA), aimed at restoring the Ipswich River.

According to a representative from the Wilmington Board of Health, Silver Lake has been degraded by polluted stormwater runoff, which flows over paved surfaces and through the storm drain system directly into the lake. Over the past five years, the Wilmington Board of Health has had to close the town beach at least once each season because of high bacteria counts.

The Silver Lake demonstration projects will showcase "low-impact development" (LID) techniques designed to reduce runoff and provide some treatment of stormwater before it enters the lake. Design plans for the Silver Lake project are currently being developed by GeoSyntec Consultants of Acton, and are expected to be complete by the end of the summer. Construction will begin after the prime beach season ends in September.

A public meeting is planned for Tuesday, July 26th at 7:00 p.m. at Wilmington Town Hall to present the design plan for the projects. A brochure explaining the project will also be mailed to all Wilmington Water Department customers with their July water bills.

"Stormwater recharge is a key element of the state's new Water Policy," said Stephen Pritchard, Massachusetts Secretary of Environmental Affairs. "This grant partnership offers an opportunity to demonstrate the benefits of low-impact development techniques, which not only reduce runoff, but also promote stormwater recharge."

"Decreased runoff and increased recharge are really two sides of the same coin," explained Robert W. Varney, regional administrator of EPA's New England office. "The Targeted Watershed grant provides an opportunity to see how LID techniques can help valued recreational resources like Silver Lake and highly stressed rivers like the Ipswich River."

According to DCR project manager Sara Cohen, LID techniques to be installed around Silver Lake include "bioretention cells" and "rain gardens," which are landscaped areas that use special soils and plantings to retain and filter stormwater. Rain gardens will be installed near the street edge on selected properties along Silver Lake Avenue and Dexter Street, two streets that currently drain directly to the lake. Bioretention cells will be constructed in the town beach parking lot. The parking lot itself will be reconstructed using two types of porous paving materials, which allow stormwater to sink into the ground, reducing pollution from surface runoff, while promoting groundwater recharge.

Another project element consists of the replacement of a stormwater pipe at the town beach with a vegetated swale, which will both filter and infiltrate runoff and eliminate goose habitat. Goose droppings on the lawn have been identified as a likely source of bacteria that has led to beach closings in the past. Elimination of the geese habitat is expected to eliminate the droppings.

Lastly, the project will incorporate a "pocket wetland," which is a small area with water-loving plants to filter runoff as it enters the lake at the base of Silver Lake Avenue.

"We are delighted to partner with DCR and EPA on this project," said Jamie Magaldi, Assistant Public Works Superintendent in Wilmington. "It enables us to revitalize a high-profile area of town. Residents will notice a big improvement in the appearance of the beach parking lot, which will include plantings that will have the dual function of filtering runoff and looking attractive."

The U.S. Geological Survey, another projec monitoring ch quality and associated wit techniques.

The EPA Targ Program is a gram that supp protect and re

The Tow the spir appear glimpse

"Nosey

by LARZ F

It's been many Town Crier had Nosey Nancy, k all the local chi

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Nancy first sta estate business i her husband. T ten children liv Street at the cor Avenue, in wh Methodist Par operated County with an office West streets.

After the mar business split up a partnership Then the partne hurry, and Nanc $75,000 in debt w feed. She staye paid off the deb family together.

WILSON WOLFE REAL ESTATE

Office space, high visibility, all utilities included! $750 a month. Wilson Wolfe Real Estate (978) 658-2345

Wilmington $649,900 | *Wilmington $479,900*

DAM

by LARZ F

ater Improvement Project

rmwater control to be unveiled at public meeting July 26

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The U.S. Geological Survey, another project partner, will be monitoring changes in water quality and runoff volumes associated with all the above techniques.

The EPA Targeted Watersheds Program is a nationwide program that supports projects to protect and restore the country's water resources through a holistic watershed approach to water quality management. DCR received one of 14 grants awarded nationally, from Alaska to New Hampshire, in 2004.

At the July 26th public meeting, DCR representatives will also provide an update on the Rainwater Harvesting Demonstration Project in Wilmington, another project funded by the EPA grant.

The Town of Wilmington lost two of the people who most defined the spirit of Wilmington this week. Although their obituaries appear elsewhere in this paper, we feel the readers deserve a glimpse into the character of these outstanding "Wilmingtonites".

"Nosey" Nancy Clark

by LARZ F. NEILSON

It's been many years since the Town Crier had a column called Nosey Nancy, keeping tabs on all the local chit-chat.

In the 1960s, Nancy Clark owned the Wilmington railroad depot, where she had a real estate office. Afternoons, she would commute to the North Wilmington railroad depot to write her column and set type for the Town Crier.

Nancy first started in the real estate business in the 1950s with her husband. They and their ten children lived on Church Street at the corner of Thurston Avenue, in what is now the Methodist Parsonage. They operated County Real Estate, with an office at Lowell and West streets.

After the marriage and the business split up, she went into a partnership with a builder. Then the partner left town in a hurry, and Nancy found herself $75,000 in debt with ten kids to feed. She stayed the course, paid off the debt and held her family together.

They lived for many years at the end of Floradale Avenue, next to Barney McMahon. The house was seldom quiet, and there wasn't much grass in the front yard, from all the kids playing there. She always called them "the clan," and they were

a loyal and loving family.

She opened her own real estate office, Depot Real Estate. After selling the depot, she moved across the street into the building that had been Huntley's Lunch.

She was elected to the Wilmington School Committee for a couple of terms in the 1970s.

Nancy had a deep voice and a positive, energetic manner. Her use of nicknames was topped only by Bobby Shelley, and it was hard to keep track of who she was talking about.

Nancy was a very faithful and patriotic attendee at Wilmington's Memorial Day and Veterans' Day exercises. There were many years when the Veterans' Day observance attracted only a handful of townspeople, other than those in the veterans' organizations or the band. Nancy was always there, standing next to her friend Higgy.

In her later years, she moved to North Andover and took a job with the Internal Revenue Service. But Nancy Clark always remained close to people in Wilmington.

ington $479,900

DAMEY

by LARZ F. NEILSON

ing short of genius. One exam- windshield wipers repaired. I told her she'd better pray for a

Town Crier
6/29/05

Town

50TH YEAR NO. 26 PHONE 978-658-2346

Improvements slated for...

Silver Lake

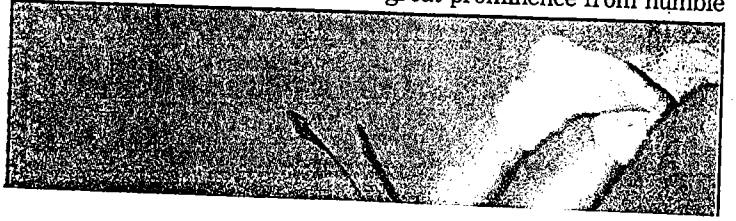
EPA funds Stormwater Improvement Project

By STEPHEN BJORK

WILMINGTON - The Board of Selectmen received a presentation outlining conceptual plans for the upcoming Silver Lake Stormwater Improvement Project to be implemented by the Massachusetts Department of Conservation & Recreation through a grant from the Environmental Protection Agency (EPA).

This project is one of only fourteen projects funded nationally by the EPA and is one of nine demonstration projects located throughout the Ipswich River Watershed. The Ipswich River is currently considered the third most endan-

CONTINUED PAGE 13



Readying

By STEPHEN BJORK

WILMINGTON - The I. Fred DiCenso Trust, for the second year in a row, stands as the single largest contributor of scholarships to Wilmington High School graduates. For two consecutive years, the Trust has provided Wilmington's youth with nearly $25,000 towards further education. The scholarships, totaling nearly $50,000 in just two years, is a fitting philanthropic tribute to the late Mr. I. Fred DiCenso, a well-respected Wilmington businessman who, in the true spirit of the American Dream, grew to great prominence from humble

The I. Fred DiCe
School, providin

Silver Lake

FROM PAGE 1

gered river in the United States with Wilmington situated right in the headwaters of the watershed.

"Stormwater recharge and conservation in Wilmington stand to have some of the most dramatic benefits to the river," said Sara Cohen, Ipswich River Grant Project Manager.

Wilmington is the Massachusetts Department of Conservation & Recreation's largest municipal partner in this project due in part to the town's location and in part, Cohen said, to Department of Public Works Superintendent Donald Onusseit's extensive ideas for implementing the project.

According to Jamie Magaldi, Assistant Superintendent of the Wilmington Department of Public Works, the project will showcase a variety of innovative techniques in the emerging field of Low Impact Development, commonly referred to as LID.

"The purpose of this project is to demonstrate the environmental benefits of LID to the public and to contractors, while improving the quality of water in Silver Lake" Magaldi explained.

Silver Lake is primarily fed by stormwater run-off.

Impervious surfaces, such as buildings and asphalt covered parking lots and streets, inhibit stormwater from reaching the groundwater system evenly. LID focuses on recharging stormwater back into the groundwater system in as close a manner as would have occurred prior to any development.

The installation of porous asphalt, for instance, is one of the ways in which the Silver Lake Stormwater Improvement Project will implement LID techniques. No streets will be dug up to accommodate the installation, but the Silver Lake parking lot will feature porous asphalt and some work will be done alongside public streets.

Areas surrounding the parking lot will be re-done to make them less "goose-friendly," since geese contribute bacteria to the lake.

As a component of the project, and as reported in the Town Crier last week, a select number of Wilmington residents will be provided with rainwater harvesting systems.

"We didn't know how much interest there would be in the harvesting systems," Cohen said. "We are collecting information from interested parties now and expect to have a large group to choose from."

Residents will be chosen by a random lottery, but Cohen hopes to have a majority of the residents located in the Silver Lake area. The systems are aimed at reducing the amount of water taken from the Ipswich River.

The rainwater harvesting systems consist of tanks that collect rainwater from rooftop downspouts and then store the water for later use outdoors, such as in the lawn or garden. In addition to the storage tank, the systems include a pressure pump, a spigot for a hose, and a meter to measure flow. DCR is offering up to 35 systems in two sizes, 200 gallons and 800 gallons, and two larger systems that would store up to 10,000 gallons.

According to Phil Reidy of Rainwater Recovery Systems, a 200-gallon tank, filled to capacity, would provide, on average, 40 minutes of continuous watering. An 800-gallon tank, filled to capacity, would provide approximately 160 minutes of continuous watering.

A 500-square-foot roof can collect approximately 150 gallons of water in a small storm typical to this area.

By some calculations, lawn watering accounts for 15 to 20 million gallons per day of water use in the Ipswich River watershed, according to Cohen.

"Interestingly, the amount of water used for lawn watering equals the amount of water scientists estimate we would need to return to the Ipswich River to provide healthy flows again," Cohen said.

Massachusetts Department of Conservation & Recreation will measure the volume of water pumped from the rainwater harvesting systems.

Wilmington's water supply has been extremely stressed since February 2003, when contamination in the Maple Meadow Brook Aquifer forced the town to shut down five of its wells. Since then, the Massachusetts Department of Environmental Protection (DEP) has required the town to ban sprinkler systems and severely restrict outdoor water use.

"We're excited to participate in the DCR study," said Mike Woods, Superintendent of Wilmington's Water Department. "We may be facing a complete ban on outdoor watering in the future, so we're very interested in seeing how rainwater harvesting can help reduce demands on our water supply."

Other grant project partners include the Ipswich River Watershed Association and the U.S. Geological Survey as well as the Towns of Wilmington, Reading, North Reading, Topsfield, Middleton, Hamilton and Peabody.

For more information or to express interest in receiving one of the rainwater harvesting systems, contact Sara Cohen at (617) 626-1374 or e-mail sara.cohen@state.ma.us.

Preferred Mortgage Group, Inc.

APPENDIX 2

RECYCLE PROGRAM MAILING

Wilmington Recycling Information 2005-2006

For Residents With Municipal Trash Collection

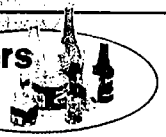
Paper

Place in Paper Bags

- Newspapers/inserts, junk mail, office paper, books, magazines, catalogs, phone books
- Paperboard, remove plastic liners (cereal, cracker boxes)
- Corrugated cardboard, flatten & bundle in 2' x 2' pieces
- Brown paper bags
- No wax paper, plastic coated paper, plastic bags, soda holders, pizza boxes, or egg cartons

Containers

Place in Bin



- Glass bottles/jars, all colors & sizes
- Aluminum/tin/steel cans and lids
- Plastic containers labeled ⚠1-⚠7
- Milk cartons and juice boxes
- No broken glass or other items (e.g. window glass, dishes, glasses, Pyrex, ceramics, light bulbs)
- No aluminum foil or other metal items, plastic bags
- No cans or bottles containing paint, aerosol or hazardous materials

Curbside Recycling Collection Schedule

Recycling is collected every other week on your regular trash day.

Drop-Off Recycling

M-F, 6:30 A.M. - 3:00 P.M. (Motor Oil Only)
Department of Public Works, 135 Andover Street

Holiday Schedule

When a scheduled collection day falls on a holiday that day's collection and all remaining collections for the week will be delayed one day (See calendar).

Blue Week **Green Week**

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31						

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Drop-Off/Special Collections

Auto Items

- Motor oil-drop off only @ DPW; show proof of residency; M-F 6:30 AM -3PM

Christmas Trees

- Remove tinsel, twine, ornaments, nails, etc.
- Collection days: Early January

Electronics*

- TVs & computer monitors
- Collected Fridays by appointment only

Hazardous Waste*

- Collection usually held early May
- Mercury Thermometers can be dropped off at Town Hall, call Board of Health (978) 658-4298

Large Appliances*

- Washers, dryers, stoves, ACs refrigerators, dishwashers
- Remove doors
- Collected Fridays by appointment only

Yard Waste

- Place in barrel or paper leaf bags
- Leaves, grass, other easily raked materials.
- No plastic bags
- No branches/stumps
- Collected on normal trash day during weeks of: Sept. 12, Oct 31, Nov 7, Nov 14, Nov 21, Nov 28
- Brush drop off: Nov 2, 8AM 2PM; Nov 5, 9AM-4PM at Recycle Center on Old Main St.
- Call (978) 658-3311 for compost bin

*For More Information Call (978) 658-4481 or Visit www.town.wilmington.ma.us/publicworks

APPENDIX 3

WEBSITE STORMWATER PAGE

Town of Wilmington
Massachusetts

Department of Public Works

How Do I...?

- Hotlines
- Services
  - Trash Removal Schedule
  - Recycling Services
  - Hazardous Waste
- Projects
  - Current
  - Recent
  - Plans and Records
- Road Opening Permit
- Cemetery Fees
- Stormwater Program
- Town Maps
- Picture Gallery
- DPW Home

General Office Hours:
7:30 am - 4:00 pm
Mondays - Fridays
---
135 Andover Street
Wilmington, MA 01887

» Phase II Stormwater Management Program

The **Wilmington Department of Public Works** is currently working to implement a 5-year Stormwater Management Plan as required by the Massachusetts Executive Office of Environmental Affairs and US Environmental Protection Agency. The primary components of the plan include public education & outreach, public involvement & participation, illicit discharge detection & elimination, construction site stormwater runoff control, post-construction stormwater management, and pollution prevention & good housekeeping. Click on the link below for helpful tips and frequently asked stormwater related questions.

• **Nonpoint Source Pollution & Stormwater Runoff** - Nonpoint source (NPS) pollution is defined as pollution that comes from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and man-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. If we all do our individual parts in reducing nonpoint source pollution, together we can greatly improve the conditions of our lakes, rivers, and wetlands.

10 Ways to Prevent Nonpoint Source Pollution

1. Use fertilizers sparingly.
2. Regularly inspect and pump your septic system.
3. NEVER dump anything into a storm drain.
4. Replant disturbed soil as soon as possible.
5. Regularly maintain your automobile to prevent fluid leaks.
6. Dispose of hazardous waste properly at Wilmington's Hazardous Waste Day.
7. Direct roof drains away from bare surfaces and bare soil.
8. If you must wash your car at home, wash it on the lawn to encourage infiltration and use low phosphate detergents in small amounts.
9. Pick up after your pets!
10. Clean up spills of vehicle fluids and household chemicals promptly and properly.

For more information on pollution prevention, go to EPA's National Pollutant Discharge Elimination System (NPDES) website or The Center of Watershed Protection.

• **Illicit Discharge Detection & Elimination** - An illicit discharge is defined as any release into the Municipal Separate Storm Sewer System (MS4) of contaminated water, or any non-stormwater discharge that contributes pollutants to receiving waters.

Examples of illicit discharges are:

1. Sanitary wastewater from crushed or collapsed pipes or surcharges.
2. Direct septic connections into the storm drain system.
3. Overflow from septic tanks, car wash wastewater.
4. Laundry wastewater.
5. Improper disposal of automobile and household products.

The following exceptions are not considered illicit discharges:

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising or outbreaking groundwater
5. Uncontaminated pumped groundwater (includes clean sump pump discharges)
6. Potable water source discharges
7. Foundation drains
8. Dechlorinated swimming pool discharges
9. Stormwater runoff from streets and sidewalks

The Town of Wilmington Department of Public Works will be conducting inspections of stormwater outfalls throughout town as part of our ongoing compliance to our Phase II Stormwater Management Plan. If pollutants or irregular flows are detected, the system will be traced back to find the source of the illicit discharge. Please note that regulations are currently being proposed within the town to develop an enforcement and fining procedure for illicit discharges found within the Town's MS4. Any discharge deemed a threat to public safety or public health is automatically in violation of the health code and is thus subject to a removal order and/or fines by the Health Department.

For more information on illicit discharges, view the New England Interstate IDDE Manual website at http://www.town.wilmington.ma.us/old/dpw/stormwater.html# . Click on "Publications and Resources" at the left of the screen and then click on "Illicit Discharge Detection and Elimination".

For more information regarding the Phase II Stormwater Management Program, contact the Wilmington Department of Public Works at 658-4481

- **Tips**

Car Care & Maintenance

- Recycle motor oil and antifreeze
- Use commercial Car Washes that recycle wash water
- Use low-phosphate detergents when washing your car at home
- Check for fluid leaks regularly

Lawn & Yard Care

- Mulch leaves and grass clippings
- Reduce the size of your lawn by utilizing decorative rock gardens & natural vegetation
- Use organic lawn care products
- Do not overuse fertilizer
- Re-plant bare areas to discourage soil erosion

-- top ^

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APPENDIX 4

HEALTH DEPARTMENT
ILLICIT DISCHARGE REGULATION

Section 11 Environmental

11.1 Any person who places, throws, deposits, discharges or causes to be placed, thrown, deposited or discharged, any trash, refuse, rubbish, garbage, debris, scrap, waste, demolition materials, oil, chemicals, or any other material of any kind which may be harmful to the environment or to the public health, on any land public or private, or into any drain or drainage system, regardless of ownership, in such a manner which is not approved by these or other governmental regulations shall be in violation of this Section. The penalty for a violation of this Section is $300.00 for each offense.

11.2 No person shall release an *Illicit Discharge* into the Town's Drainage System. An *Illicit Discharge* is defined as any release of contaminated water, or any discharge that is not an Exempted Discharge, into the Town Drainage System. The penalty for a violation of this Section is $300.00 for each offense. The following are considered Exempted Discharges unless such discharge would result in a substantial increase in Pollutant levels in receiving waters, as determined by the granted authority:

1. Water line and hydrant flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising ground water
5. Pumped ground water
6. Discharges from potable water sources
7. Foundation drains
8. Air conditioning condensation
9. Springs
10. Water from crawl space pumps (sump pumps)
11. Footing drains
12. Individual residential car washing
13. Flows from riparian habitats and wetlands
14. De-chlorinated swimming pool discharges (less than 1 ppm of chlorine)
15. Street, sidewalk, and yard runoff
16. Roof Runoff

APPENDIX 5

WATER-WISE GARDENING BROCHURE

Water Wise Gardening

How to Have a Healthy Lawn and a Healthy Water Supply

Wilmington Water Department

Improve Your Lawns and Save Water, Too!

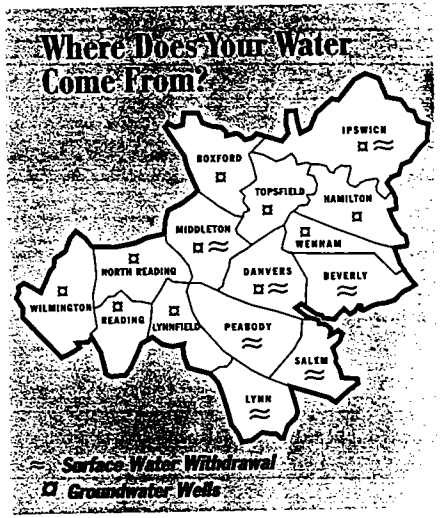
Wilmington is one of 14 towns and cities that get their water from the Ipswich River. The river is one of the most important drinking water sources north of Boston.
Approximately 30 million gallons of water a day are withdrawn from the river, its tributaries and its groundwater. Water usage in the summer increases 2-3 times that amount.

This overuse of a valuable resource results in seasonal water shortages and outdoor watering restrictions. During the summer, most of our increased water use goes to keeping our lawns green. As a result: the Ipswich River is often pumped dry, stranding fish and other creatures.

Less Is More

Overwatering can be very harmful to your lawn. It is natural for your grass to turn yellowish during hot, dry spells. This is a normal state called dormancy, which lawns can survive if they are healthy and deep rooted. By making some easy changes to your routine lawn maintenance, you'll enhance the overall health of your lawn, decrease the amount of water it needs, and *help the Ipswich River.*

Communities relying on the Ipswich River to meet their drinking water needs must pay special attention to protect existing water supplies.



The 14 cities and towns listed above utilize the Ipswich River for their drinking water. Approximately 30 million gallons of water a day are withdrawn from the river, its tributaries and its groundwater. Water usage in the summer increases 2-3 times that amount. Please help conserve our precious resource.

This project was produced by
Ipswich River Watershed Association and funded
by Massachusetts Environmental Trust.

Follow these 5 steps and achieve a healthy lawn, a reduction in your water bills, and protect your water source, the Ipswich River.

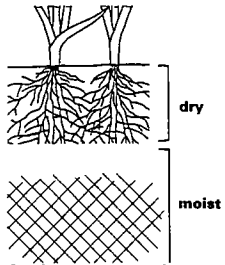
1 HEALTHY LAWNS DON'T NEED THAT MUCH WATER.

Lawns, like people, can get fat and lazy. The truth of the matter is, lawns like to dry out a little rather than be watered a lot. Watering too often keeps the grass from driving its roots deep into the earth. Let your lawn tell you when it's thirsty. It will "remember " when someone walks across it and footprints will be visible in the grass. When you water, deep soak your lawn, allowing moisture to soak down to the roots. Watering deeply creates healthier root systems that are more water-efficient and drought-tolerant.

Keep in mind that a healthy lawn can survive drought by going dormant and turning brown. It will "green up" again when the rains return.

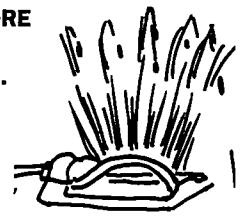
2 MOW YOUR LAWN AT A 3" MINIMUM HEIGHT

This is the single, most important step you can take to improve the health of your lawn. Short grass is a heavy drinker. Keeping your grass a bit longer will allow it to develop a larger root system that requires less water to stay healthy. A lawn mowed at a higher setting also shades out weed seedlings. Do not mow off more than 1/3 of the height of the grass blades. Also, keep your lawn mower blades sharpened to reduce the damage that can result from a dull blade.



Cutting your grass too short causes it to put down tiny roots which can't reach deep into the soil to access moisture.

3 WATER BEFORE 8 A.M. OR AFTER 8 P.M.



As the sun rises so does the mercury. After about 8 a.m. heat steals moisture from your lawn through evaporation. Watering during the heat of day can actually harm your lawn. "Scald" or "burn" damage occurs when hot sunlight hits water droplets that cling to leaves. The tiny droplets imitate powerful, miniature magnifying glasses. When you water EARLY, you can water LESS because more of the water is absorbed into your lawn. You can save time and money when you water at daybreak.

4 LEAVE GRASS CLIPPINGS ON THE GRASS.

Forget the fertilizer and give the rake a break. Leaving grass clippings on the lawn after mowing is one of the best ways to protect and care for your lawn. Every test that's been done has proven that those lawns do best where clippings are left on. In just two weeks time, the nitrogen from the clippings is integrated into the soil.

5 REDUCE THE SIZE OF YOUR LAWN.

Design your landscape to include a smaller lawn, along with planting more shrubs, trees, and wildflowers. These plants don't require as much watering or upkeep. You'll save maintenance costs (and time) too! Also, the planting of more trees adds shade, keeping your lawn green longer during a drought.

APPENDIX 6

"WATCH YOUR WASTE" BOOKMARK

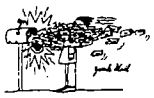
Ten Ways to Be a "Trash Terminator"

1. Recycle more! Find out about all the items you can recycle at 1-800-CLEANUP or www.earth911.org.

2. Choose products with minimal packaging and buy in bulk. Avoid individually-wrapped items. A jumbo box of cereal uses less packaging than several single serving-sized boxes.

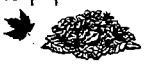
3. Choose durable, reusable products over single-use, disposable items. Use cloth napkins instead of paper ones. Get your coffee in a refillable mug. Use canvas bags for shopping.

4. Reduce junk mail. Find out how to get your name removed from unwanted mailing lists at www.mass.gov/consumer.



5. Reuse bags, containers, packaging materials, and other items. Bags, cardboard boxes, bubble wrap, packing peanuts and padded envelopes can be used many times. Be creative!

6. Compost. Recycle leaves, grass, food scraps and paper towels into great garden soil.



7. Donate unwanted items to charities or have a yard sale.

8. Choose items with a recycled-content label. This saves precious resources and is the key to making recycling work!

9. Keep toxic home and garden products out of the trash. Learn about non-toxic alternatives at www.turi.org/community.

10. Reduce your use of paper. Use e-mail, get bank statements and newsletters on-line, and use the library.

Watch Your Waste!

Did you know that Massachusetts residents fill enough trash bags each year to circle the earth two-and-a half times?

Did you ever wonder where all that trash goes?

Two-thirds of our trash could be recycled or composted, but only one-third of it actually is. The rest is either burned or buried in Massachusetts, or shipped out of state for disposal. What a waste!

There are lots of simple things you can do to reduce waste, save money and protect our environment.

Look on the other side of this bookmark for ten ways you can be a "Trash Terminator!"

Recycle. a little effort a Big difference

Prepared by the
Massachusetts Department of Environmental Protection

For more information:
www.mass.gov/dep and www.epa.gov

Printed on post-consumer recycled content paper
January, 2003

APPENDIX 7

WATERFOWL BROCHURE

CAUTION
Feeding Waterfowl May be Harmful!

Regular feeding can cause:

- ☐ Dependency on people for food
- ☐ Bird/People conflicts
- ☐ Spread of Disease
- ☑ All of the above

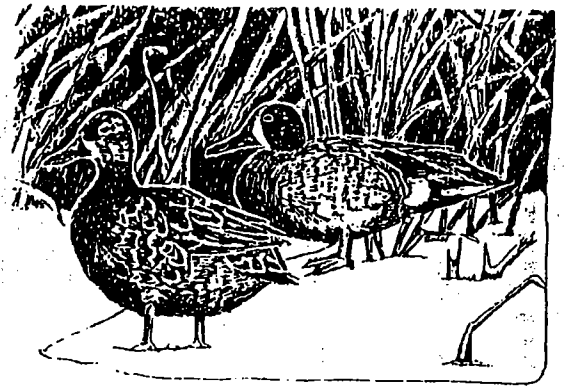
If you care for waterfowl, here's what you can do to help them retain their "wildness" and maintain their well-being . . .

- Stop feeding them! They don't understand the problem . . . You do.
- Purchase a Federal Duck Stamp at most post offices, State Department of Natural Resources Offices or National Wildlife Refuges. *ALL* proceeds from the sale of these stamps are used to purchase wetlands which provide natural habitat for our nation's waterfowl.
- Learn more about waterfowl by visiting a library, nature center, museum, state wildlife management area or National Wildlife Refuge . . . then teach others what you know.
- Preserve the spirit of America by allowing waterfowl to stay wild . . . observe and appreciate them from a distance.

Painting by Arthur G. Anderson selected for use on the 1987 Migratory Bird Hunting and Conservation Stamp.

TOWN OF WILMINGTON
BOARD OF HEALTH
121 GLEN ROAD
WILMINGTON, MA 01887
TEL: # (508) 658-4298

TAKE PRIDE IN AMERICA



ver the centuries waterfowl have developed
ns of seeking out and feeding on highly
ious marsh and grassland plants. These
vation patterns are passed on to each
eding generation. Survival of waterfowl
ately depends upon their ability to make use
d and habitat sufficient to maintain healthy
ations.

thern regions of the United States the
ne cold and blanketing snow of the fall and
r months severely reduce the quality and
ity of marsh and grassland plants. Thus, each
nost waterfowl, like many other birds, migrate
ndous distances south in search of food and
t to carry them through the winter months.
spring they again migrate, this time
ing to their northern breeding grounds.

ll waterfowl, however, complete the entire
tional cycle. Many are sidetracked when they
o feed and rest in the lakes and marshes
in urban environments. There they are
ed by city dwellers who enjoy the beauty of
magnificent wild birds. And there they are
people who unknowingly are enticing the
nto delaying their migration and often into
ing permanent residents.

urban environments can provide sufficient
and food for *small* populations of waterfowl.
ver, as thousands of waterfowl concentrate in
because handouts are non-threatening and
attainable, the once *wild* birds can soon

The human future depends on our ability to combine the knowledge of science with the wisdom of wildness.

CHARLES LINDBERGH

migration. Lack of fear of cars or planes can
traffic problems as birds casually stroll or sit
middle of roadways or fly across airport run
Of increasing public concern is the damage
waterfowl cause to parks, golf courses and
residential lawns where large numbers of bir

graze, trample and defecate on the grass. Exce
nutrients in ponds, caused by waterfowl dropp
may also result in water quality problems such
noxious algal blooms in the summertime.

Food handouts often result in large numbers o
birds competing for very limited food supplies
small concentrated areas. Such crowding and
competition for food combined with the stres
less nutritious food and harsh weather increas
their susceptibility to life threatening diseases
avian cholera, duck plague and avian botulism.
These diseases have the potential to kill off la
numbers of waterfowl.

APPENDIX 8

RAINWATER HARVESTING PROGRAM

department of Conservation and Recreation | dcr

EPA Targeted Watersheds Grant

Announcing
Free Rainwater Harvesting Systems

The town of Wilmington is cooperating with the Department of Conservation and Recreation (DCR) on a study of water-conserving rainwater collection systems.

DCR is offering up to 35 free systems to Wilmington residents who qualify.

What Is Rainwater Harvesting?

Rainwater harvesting is a centuries-old method of collecting rainwater, generally from a rooftop.

The rainwater is stored in a tank or vault for nonpotable uses, such as lawn or garden watering.

Why?

DCR has funding from the U.S. Environmental Protection Agency to demonstrate the benefits of rainwater harvesting in reducing demand on potable water supplies. Studies have shown that:

- **Upper stretches of the Ipswich River went completely dry in 1995, 1997, 1999, and 2002.**
- **Use of drinking water for outdoor irrigation is a major stress on the Ipswich River.** (The same sources of groundwater that provide your drinking water feed the river.)
- **Reducing the amount of potable water used for irrigation would help to balance the "water budget" for the Ipswich River basin.**

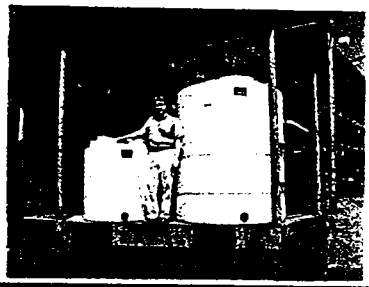
department of Conservation and Recreation | dcr

EPA Targeted Watersheds Grant

What Does the Offer Include?

- **A storage tank in one of two sizes: 200 or 800 gallons**
- **A spigot for a hose**
- **A pressure pump to aid in distribution of the water**
- **A flow meter to measure volume of water used**
- **Free installation**

For more information, see www.rainwaterrecovery.com



How Will I Benefit?

- **Save money on your water bills**
- **Reduce demand on the town's potable water supply**
- **Cut down on pollution from stormwater runoff**
- **Help reduce stresses on the Ipswich River**

Frequently Asked Questions

1. **How quickly will the tank fill up?**
   This depends on the area of roof feeding the downspout and the intensity and frequency of storms. The 200-gallon tank is likely to fill in one of our typical half-inch New England storms.
2. **What happens during a heavy downpour?**
   Rooftop runoff that exceeds the storage capacity of your tank is discharged through an overflow spout.
3. **Will the tank breed mosquitoes?**
   No. The tank's inlet contains a screen.
4. **Can I use the water I collect for drinking?**
   Not without treatment. Collected rainwater can be used for nonpotable uses, such as lawn and garden watering and vehicle washing.

How Do I Participate?

Contact DCR with your name, daytime telephone number, and/or e-mail address:

Sara Cohen, Project Manager, (617) 626-1374
Sara.Cohen@state.ma.us

Supported by a grant from the U.S. Environmental Protection Agency to the Massachusetts Department of Conservation and Recreation, in cooperation with the town of Wilmington and other partners.

APPENDIX 9

HAZARDOUS WASTE DAY BROCHURE

IT'S TIME TO BRING THE SKELETON'S OUT OF YOUR CLOSET!

Clean Harbors will help you banish the evil spirits that haunt your closet, basement and garage.

What To Bring

Unneeded household hazardous waste in sealed containers (use original containers when possible)

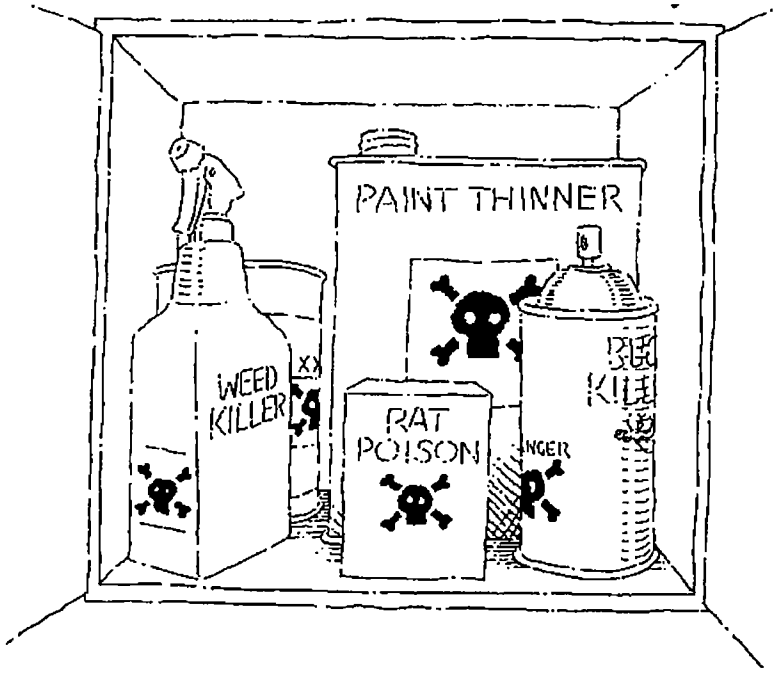
- Oil Paints
- Stains, Thinners & Strippers
- Solvents & Varnishes
- Adhesives, Glues, Resins
- Waste Fuels (Kerosene, Gasoline)
- Engine Degreaser, Brake Fluid
- Transmission Fluid
- Poisons, Insecticides, Weed Killers
- Wood Preservatives
- Hobby Supplies, Artist Supplies
- Photo Chemicals, Chemistry Sets
- Cleaners, Spot Removers
- Swimming Pool Chemicals
- Car Batteries, Dry Cell Batteries
- Aerosol Cans
- Pesticides
- NiCad Batteries
- Hearing Aid (Button) Batteries

- Tires –
  - Car: $2.00each
  - Truck: $8.00 each

For More Information Call:

DPW

978-658-4481



Household Hazardous Waste Day

Date:	**May 6, 2006**
Time:	**9am -2pm**
Place:	**West Int. parking lot**
Who:	**Wilmington Residents**

Proof of Residency Required – Such as a Driver's License

Free, Drop-off Service, You never leave your car!

What Not To Bring

- Unknown Compressed Gas Cylinders
- Ammunition, Fireworks, Explosives
- Prescription Medicines/Syringes
- Infectious & Biological Waste
- Radioactive Waste
- TV's & Computer Monitors

To Ensure Safety, Please:

- Tighten caps and lids leaving materials in original labeled containers.
- Pack containers in sturdy upright boxes and pad with newspaper.
- Sort and pack separately: paint, pesticides, household cleaners.
- NEVER MIX CHEMICALS!
- Pack your vehicle and go directly to the site.
- NEVER SMOKE while handling hazardous materials.
- **Do not place waste in a garbage bag.**

CleanHarbors®
ENVIRONMENTAL SERVICES, INC.

*KIDS, NEVER TOUCH HAZARDOUS MATERIALS. ASK YOUR PARENTS TO PACKAGE THESE PRODUCTS.

APPENDIX 10

MINUTEMAN HOUSEHOLD HAZARDOUS WASTE DAY

Minuteman Household Hazardous Products Facility Collections 2006 Schedule

60 Hartwell Avenue
Lexington, MA

9:00 a.m. to 2:00 p.m.

Saturday, April 29

Saturday, May 20

Saturday, June 17

Saturday, July 15

Saturday, August 19

Sunday, September 17

Saturday, October 21

Saturday, November 18

http://ci.lexington.ma.us/OCD/Health/HazWaste.htm

Town of Lexington
Department of Public Works
Administration

William P. Hadley, Director of Public Works

Tel: (781) 862-0500 x252
Fax: (781) 863-2350

March 10, 2006

Greg Erickson
BOH
121 Glen Road
Wilmington, MA 01887

Dear Mr. Erickson:

Every year, the Minuteman Household Hazardous Products Facility (MHHPF) at 60 Hartwell Avenue in Lexington holds 8 household hazardous products collections from April through November. These collections are open to residents from any community and are a convenient way for people to dispose of their HHP.

Although many communities have HHP collections once or twice annually, this facility gives New England residents an option to safely get rid of their waste 8 times throughout the year.

We are asking your help in publicizing the facility to your residents, as residents from Wilmington have utilized the facility in the past. The price for a half car load of household hazardous products, defined as up to 10 gallons and 10 pounds of materials, is $35. The price for a full car load, defined as up to 25 gallons and 25 pounds of materials, is $60. Users will be assessed the fee at the site.

There is also an option for municipalities to become Guest Communities, where the municipality pays its residents' fees. The residents pre-register with the municipality and then the Minuteman HHP Committee bills the municipality after the collection. This way the town/city can control it's costs, but residents can still take advantage of the hazardous waste collections at no cost to them. If you are interested in becoming a guest community, please contact me.

For questions or information on directions, allowed materials, hours, or dates, please do not hesitate to contact me or to visit the MHHPF website at http://ci.lexington.ma.us/OCD/Health/HazWaste.htm. Thank you for your assistance.

Sincerely,

Kelly McKay Zeoli
DPW Management Analyst
781-862-0500 x288
kzeoli@ci.lexington.ma.us