

Municipality/Organization: Town of Boxford

EPA NPDES Permit Number: MA 041184/MADEP

MaDEP Transmittal Number: W- 036290

Annual Report Number & Reporting Period: No. 12: May 13-May 14

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: John Dold

Title: Directorintendent of Public Works

Telephone #: (978) 352-6555

Email: Jdold@Town.boxford.ma.us

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or Directorvision 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:

JOHN C. DOLD

Title:

DPW SUPT. / TOWN ENGINEER

Date:

APRIL 15, 2014

Part II. Self-Assessment

The Town of Boxford is on track to complete its obligations under the NPDES Phase II General Permit. Progress in meeting these obligations is detailed in Attachment A.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID#	BMP Description	Responsible Person	Measurable Goals	Progress on Goals Permit Yr 12	Planned Activities
1A	Distribute nonpoint source pollution posters	DPW Director	Post in all schools and town buildings	New messages posted, including North Shore "Greenscapes" program. Made watershed presentation to Spofford School third grade classes.	"Greenscapes" program information and "Scoop It" program to be distributed at Town Meeting May 2014. Display stormwater info at Earthday and Apple Festival. Repeat classroom outreach program.
1B	Broadcast stormwater messages on local access cable channel	Conservation Director	Post one message every month	New messages broadcast on Boxford Cable Access (see Greenscapes 2013 Scope of Services)	Continue to broadcast messages, continue coordination with Greenscapes (see Greenscapes 2014 Scope of Services).
1C	Add stormwater info to Town website	Health Agent, Conservation Director, DPW Director	Update info quarterly	"Greenscapes" Info added to Conservation web page and updated.	Quarterly updates to be made in 2014 to Conservation, DPW and Health Dept. web pages.

2. Public Participation

BMP ID#	BMP Description	Responsible Person	Measurable Goals	Progress on Goals Permit Yr 12	Planned Activities
2A	Form Stormwater Advisory Committee	DPW Director	Hold meetings twice per year	SAC met twice in 2013	SAC to meet twice in 2014

	(SAC)				
2B	Hazardous waste collection	Recycling Committee	Hold waste collection annually	Held November 2013	To be held November 15, 2014
2C	Waste Oil collection and recycling	Recycling Committee	Collect from residents once per month	Collected once per month at Town recycling center	To be collected once per month at Town recycling center
2D	Implement a catch basin stenciling program	DPW Director	Stencil 25% of catch basins annually	Stenciling of all catch basins within the Urbanized Area was completed in 2008, and were refreshed in 2013.	Existing stenciled basins will be refreshed as needed in 2014.
2E	Hold a stream clean-up day	Lakes, Ponds and Streams Committee	Hold clean-up day annually	The Boxford Lakes Ponds and Streams Committee organized a clean-up of several Town waterbodies in 2013.	The Boxford Lakes, Ponds and Streams Committee will organize future clean-ups on April 26, 2014.

3. Illicit Discharge Detection and Elimination

BMP ID#	BMP Description	Responsible Person	Measurable Goals	Progress on Goals Permit Yr 12	Planned Activities
3A	Map outfalls and receiving waters	DPW Director/Conservation Dept.	Map 25% of outfalls in urban area per year	A final map of outfalls was completed in 2008	Done
3B	Review existing bylaws and regulations	Stormwater Advisory Committee	Determine if existing bylaws & regs fulfill EPA requirements	Done. The existing bylaws and regs fulfill requirements	Done
3C	Develop illicit discharge detection & elimination plan	Stormwater Advisory Committee	Make recommendations for inclusion into proposed	Potential pollutant "hotspot" activities have	Done

			plan	been incorporated into a Stormwater Management Bylaw. Boxford has no industry and very little commercial development. Septic discharge is controlled by the Board of Health (see attached measures)	
3D	Develop/modify general illicit discharge bylaw	Stormwater Advisory Committee	Propose recommendations for modifying plan	Potential pollutant "Hotspot" activities addressed in Stormwater Management Bylaw adopted at Spring Annual Town Meeting, May 2006.	Done
3E	Present bylaw for town meeting action	Stormwater Advisory Committee	Make presentations for Town meeting action	Proposed Bylaw was presented and adopted at Spring Annual Town Meeting, May 2006.	Done. Stormwater Management Regulations were adopted by The Conservation Commission in 2007.

4. Construction and Site Runoff Control

BMP ID#	BMP Description	Responsible Person	Measurable Goals	Progress on Goals Permit Yr 12	Planned Activities
4A	Review existing site inspection practices	Planning Dept/Conservation Dept/Building Dept	Determine if existing practices fulfill EPA requirements	Existing practices meet requirements	Inter-departmental inspectional practices continue to be reviewed and

					improved. Sign-off procedure for Building Department to include consideration of site construction access BMPs.
4B	Develop/modify site inspection program	Planning Dept/Conservation Dept	Make recommendations for modifying program	Site inspections are incorporated into stormwater management bylaw, Title 5 permits, building permits, wetland permits	Done, will add pre-construction inspection requirement to Driveway Bylaw permit.
4C	Review existing bylaws and regulations	Stormwater Advisory Committee	Determine if existing bylaws & regs fulfill EPA requirements	Existing bylaws and regulations meet existing requirements	Done
4D	Develop/modify bylaw for construction site runoff	Stormwater Advisory Committee	Propose recommendations for developing/modifying bylaw	Stormwater Management Bylaw adopted at Town Meeting, May 2006.	Done
4E	Present bylaw for town meeting action	Stormwater Advisory Committee	Make presentations for Town meeting action	Stormwater Management Bylaw adopted at Town Meeting, May 2006.	Done. Stormwater Management Regulations adopted by the Conservation Commission in 2007.

5. Post Construction Runoff Control

BMP ID#	BMP Description	Responsible Person	Measurable Goals	Progress on Goals Permit Yr 12	Planned Activities
5A	Review existing site inspection practices	Planning Dept/Conservation Dept	Determine if existing practices fulfill	Existing practices meet requirements	Done

			EPA requirements		
5B	Develop/modify inspection and maintenance practices	Planning Dept/Conservation Dept/Health Dept	Make recommendations for modifying existing practices	Inspection and maintenance practices are incorporated into proposed stormwater management bylaw, Title 5, building permit, wetland permits. Driveway post-construction review included in Occupancy Permit review	Done
5C	Review existing bylaws and regulations	Stormwater Advisory Committee	Determine if existing bylaws & regs fulfill EPA requirements	Existing bylaws and regulations meet existing requirements	Done
5D	Develop/modify bylaw for construction site runoff	Stormwater Advisory Committee	Propose recommendations for developing/modifying bylaw	Stormwater Management Bylaw adopted at Town Meeting, May 2006.	Done
5E	Present bylaw for town meeting action	Stormwater Advisory Committee	Make presentations for Town meeting action	Stormwater Management Bylaw adopted at Town Meeting, May 2006.	Done. Stormwater Management Regulations adopted by the Conservation Commission in 2007.

6. Municipal Good housekeeping

BMP ID#	BMP Description	Responsible Person	Measurable Goals	Progress on Goals Permit Yr 12	Planned Activities
6A	Street sweeping program	DPW Director	Sweep all streets once per year	All streets are swept once per year per contract with third party vendor. New	All streets will be swept in 2014, and will be swept annually.

				sweeper placed in service that will allow more frequent maintenance of sensitive areas around salt shed and public water supply wells	
6B	Catch basin cleaning program	DPW Director	Clean all basins once per year	All basins cleaned once per year per contract with third party vendor and all collected materials disposed of in a secure landfill.	All basins will be cleaned in fall 2014 and annually thereafter.
6C	Perform site visits to examine existing practices at facilities	DPW Director	Target all applicable municipal facilities	Site visits of all other municipal facilities were conducted in 2013. New tight tanks were installed at the West and East Fire Stations to accept wash down runoff.	Regular inspections of all facilities will continue in 2014.
6D	Train municipal employees at each facility	DPW Director	Target all applicable municipal facilities	Training of DPW personnel was held in 2013. The Building Department is conducting Safety training pursuant to 780 MGL 110 for facility personnel in all facilities, including handling of hazardous materials and potential pollutants	On-going Training of DPW personnel will be held in 2014.
6E	Perform follow-ups to ensure required practices are	DPW Director	Target all applicable municipal facilities	Site visit program was continued. Building Department	Site visit program will be continued in 2014

	met			monitors waste disposal affidavits relating to construction debris. Boxford contracts with Clean Harbors to ensure proper reporting for hazardous materials disposal	
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TOWN OF BOXFORD

John C. Dold, P.E.
Superintendent of Public Works
7B Spofford Road
Boxford, MA 01921

jdold@town.boxford.ma.us

Tel: (978) 352-6555

Fax: (978) 352-5558

MEMORANDUM

To: DPW Employees

From: John C. Dold, DPW Supt.

Date: April 8, 2014

RE: Employee Training Storm Water Pollution Prevention

An inspection of the salt storage area, DPW parking lot and garage was performed. The following are my observations:

- 1.) Accumulation of sand/salt product in front of the access door to the shed needs to be swept up on a more consistent basis during the winter. This will help to prevent rain runoff pollution, as the material flows into adjacent ditch and into a neighboring wetland.
- 2.) Pick up empty gallon recycled oil containers and dispose of, either in the garage or in the Recycle Center. All full containers of recycled oil shall be placed into the recycled oil tank.
- 3.) Since we purchased the storage container last year, the barricades and cones have been placed inside and are therefore much more organized.
- 4.) Yellow hazardous materials cabinet shall be closed at all times
- 5.) Tool area should be swept and straightened out on a more regular basis.
- 6.) The garage area, as well, should be swept and cleaned up more regularly.

Pollution Prevention

- 1.) Try to prevent spills. If a spill occurs within the garage or gas depot, we have the absorbent available – use it.
- 2.) We have a location to wash off our trucks. How is this working out?
- 3.) Do not top off when filling equipment with gasoline or diesel at the depot.
- 4.) Where do we dispose of spent solvents – Safety Clean for solvent wash basin
- 5.) Vehicle maintenance – inspect for leaks, dispose of filters properly, do we keep our drip pans in the oil containment area?
- 6.) Continue to store hazardous materials in proper cabinets

- 7.) Grounds maintenance – avoid applying fertilizers, pesticides and herbicides during rainy weather. Keep these products under cover until they are applied.
- 8.) Make sure irrigation systems do not over water. Rain monitors have been installed in all of the irrigated fields.
- 9.) Use correct amounts of fertilizers

The reason for this training is because the Town of Boxford has a permit with the EPA which allows the town to discharge clean storm water into rivers, lakes, ponds and streams. One of the basic premises of the permit is to educate employees and residents about the necessity of maintaining clean storm water.

Greenscapes North Shore Coalition



February 24, 2014

Ross Povenmire
Director of Conservation
Town of Boxford
7A Spofford Road
Boxford, MA 01921

Dear Ross,

Planning for the 2014 Greenscapes program is underway, and we look forward to Boxford's continued participation. Since its inception in 2007, the Greenscapes North Shore Program has been successful in helping communities like Boxford meet the public education and outreach requirements under the NPDES Phase II Stormwater program as well as their water conservation measures required under the Massachusetts Water Management Act.

This year's educational materials include a new school program, "Keeping Water Clean", with hands-on, interactive activities designed for your fifth graders, their teachers and parent volunteers to explore how water moves through the local watershed, how water becomes polluted and what can be done to keep water clean. The "Keeping Water Clean" School Program will be conducted for up to four (4) fifth grade classes in one school of your choosing. Detailed information about this innovative new program is enclosed.

Also provided for 2014 is a full color educational brochure on stormwater to be included in mailings or handed out at town events as well as the newly updated Greenscapes website and the seasonal monthly Greenscapes e-newsletters.

Participation fees for the 2014 Greenscapes Program are \$1500 plus \$300 for the educational school program. Additional Pet Waste pieces from 2013 are also available 10cents/card. One hundred additional copies of last year's "Guide to Greenscaping" are available for free upon request; if you need more copies, there will be a \$25 per hundred fee for additional guides after the first hundred.

We look forward to talking with you about your continued participation in the Greenscapes program. If you have any questions, please contact me.

Warm Regards,

Cynthia Ingelfinger
Outreach Coordinator
Ipswich River Watershed Association
978-412-8200, cingelfinger@ipswichriver.org



Greenscapes North Shore Coalition

2014 Greenscapes North Shore Program

Scope of Work

Salem Sound Coastwatch, Ipswich River Watershed Association, and Eight Towns and the Great Marsh Committee are pleased to offer Boxford the following for the 2014 Greenscapes program:

Program Outreach Deliverables for 2014:

- **"Keeping Water Clean" School Program**
Hands-on, interactive activities have been designed for your fifth graders, their teachers and parent volunteers to explore how water moves through the local watershed(s), how water becomes polluted and what can be done to keep water clean. The "Keeping Water Clean" School Program will be conducted for up to four (4) fifth grade classes in one school of your choosing. For more information or to schedule your school program, contact Liz Rogers, the North Shore Greenscapes Coalition Educator at 978-741-7900 or lizrogers@salemsound.org.
- **Stormwater Brochure**
A full color educational brochure on stormwater that can be used as a mailing insert or distributed alone. The folded size is 8½" x 3½." Quantity: 500
- **"Greenscapes 101" Presentation**
"Greenscapes 101" provides an overview of Greenscaping practices for the homeowner. As a participating community, the North Shore Greenscapes Coalition will make a presentation to the residents of Boxford at the time and venue of your choice. Please contact Cynthia Ingelfinger, your Greenscapes Coordinator to schedule the presentation.
- **Media Relations:** Greenscapes will actively pursue opportunities for print and electronic media coverage of Boxford's participation in the Greenscapes program, and will promote the Greenscapes program through press releases and postings on electronic media sources (such as the local Patch, where available.)
- **Greenscapes Web Site**
The new Greenscapes website is filled with comprehensive and up-to-date program information, downloadable gardening and lawn care information, links to certified landscaping and irrigation professionals and more. www.greenscapes.org
- **Additional copies of the full color "Guide to Greenscaping"**
Upon request, 100 additional guides will be available at no extra charge. If more are needed, there will be a \$25 per hundred charge for additional guides after the first hundred. This multi-page guide provides comprehensive and detailed information about environmentally-friendly gardening and lawn care practices that protect and conserve water supplies. Articles address how to grow a healthy and

attractive lawn that uses less water; alternatives to fertilizers and pesticides; how to make and use compost; how to create a rain garden; suggestions for drought tolerant plants; and more.

- **E-mail Newsletter**

Boxford residents will be encouraged to subscribe to Greenscapes free monthly email newsletters, which are sent from April through October. The e-mail newsletter articles will provide information on various water conservation, stormwater and green lawn care topics.

Total Costs to Boxford:

Membership Fee	\$1,500
Keeping Water Clean School Program & Greenscapes printed materials	\$ 300
Total	\$1,800

Checks should be made payable Salem Sound Coastwatch (fiscal agent for Greenscapes North Shore Coalition):

Mail to:

Salem Sound Coastwatch
201 Washington St, Suite 9
Salem, MA 01970



Greenscapes North Shore Coalition

2014 Program Invoice

In exchange for your financial contribution (see below), the Greenscapes North Shore Coalition promises to provide the Boxford with the following list of Greenscapes deliverables, as described in the 2014 Scope of Work (see attached):

- 1) "Keeping Water Clean" School Program
- 2) Stormwater educational brochure
- 3) "Greenscapes 101" Presentation
- 4) Email Newsletter
- 5) Greenscapes Website
- 6) Media Relations
- 7) Additional copies of the 2012 "Guide to Greenscaping"

-
- Date: February 2014
 - 2014 Annual Program Fee: \$ 1,500.00
Materials and Keeping Water Clean Workshop: \$ 300.00

Total Boxford Invoice Amount: \$1,800.00

1. Please make checks payable to: Salem Sound Coastwatch

2. Please return this form with complete payment by April 1, 2014.

3. Mailing Address:

**Salem Sound Coastwatch
201 Washington Street, Suite 9
Salem, MA 01970
Attn: Barbara Warren**

“Keeping Water Clean” Greenscapes School Program

An educational experience for 5th grade students in your community.

The goal of this program is to engage students in fun, hands-on activities that introduce them to the following concepts: the effect of the built environment on the natural water cycle, what happens to water that enters the storm drain, and how water flows in the local watershed.

Program components:

- Pre-visit classroom activity (power point) that provides students and teachers with background information about the watershed.
- Hands-on, interactive stations for students conducted by *Greenscapes* educators and parent volunteers.
- Post-visit classroom activity (Jeopardy game) that engages students in a fun review of what they learned.

On the day of the program:

- Program will be implemented with up to 4 fifth grade classes at one school in one day.
- Two classes will participate in the program at a time.
- The program will take about one hour per 2 classes.
- Parent volunteers and *Greenscapes* educators will lead all stations.
- Teachers will participate in managing students.

School responsibilities:

- Communicate with our educator to schedule event
- Recruit at least 12 parent volunteers to arrive one hour before the program and stay for the entire program.
- Conduct the pre-visit activity in the classroom before the day of the program.
- Provide 2 classrooms or a large enough space to hold two classes of students (i. e., gymnasium) without carpeted floors for two hours.
- Classroom teachers participate in the program, helping to manage students.
- Conduct the post-visit activity in the classroom as soon after the program as possible.

January 2014

For Immediate Release

Contact information: Cynthia Ingelfinger, Outreach Coordinator, Ipswich River Watershed Association, 978-412-8200, www.ipswichriver.org

This year, the Town of Boxford has partnered with Greenscapes North Shore, a program coordinated by three organizations from across the North Shore — Salem Sound Coastwatch, Ipswich River Watershed Association, and Eight Towns and the Great Marsh Committee — to educate its citizens on the importance of minimizing stormwater runoff and keeping things like pet waste, cigarette butts, fertilizers, pesticides, plastic, automobile oil and gas out of stormwater runoff.

Stormwater is defined as rain and snow that travels across the land to the nearest water body and doesn't sink into the ground. In order to spread the word about the importance of reducing stormwater pollution, the Greenscapes Program has created two public service announcements (PSA) for Boxford's local cable TV station with facts and tips on how and why to prevent stormwater runoff. These PSAs will be coming to your local cable station this winter!

Why is this issue important? As we build more to accommodate a growing population and cover the land with impervious surfaces (parking lots, roads, buildings, etc.) a great deal of rain water can no longer be absorbed into the soil the way it once was. Instead it runs off, ending up in our lakes, streams and ocean. Even lawns can generate up to 90% as much runoff as pavement. In short, we have been dramatically altering the water cycle. Where once only 10% of the rain ran off the land, now upwards of 60-90% does - carrying pollution on the land with it. Stormwater is the number one source of water pollution in Massachusetts and reducing impervious surfaces is the best solution! So how can you help prevent stormwater runoff?

In your town:

- Support open space protection especially near waterbodies.
- Advocate zoning/building regulations that encourage less pavement and other impervious surfaces.
- Support your town's efforts to clean storm drains, sweep the streets and build an effective stormwater infrastructure.

In your yard:

- Add compost to your soil and aerate to reduce soil compaction.
- Add trees, shrubs and 'natural' areas to your property - the roots are efficient water recyclers.
- Plant a rain garden to capture water so it soaks into the soil.
- Use permeable pavers and porous asphalt to build walks and driveways.
- Use organic products in your landscape to reduce the amount of harmful chemicals leaving your property through stormwater runoff

Help the town of Boxford spread the word about stormwater pollution! Tell your friends to look out for the Stormwater PSAs on your local cable station this winter.

This article was created by the Greenscapes North Shore Program, a coalition of three non-profit organizations working to encourage environmentally-friendly landscaping and yard care practices. The Greenscapes North Shore Coalition is made up of Salem Sound Coastwatch, Ipswich River Watershed Association, and EightTowns and the Bay Committee. For more information and to sign up for the Greenscapes email newsletter, visit www.Greenscapes.org.



Greenscapes North Shore Coalition

2013 Greenscapes North Shore Program

Scope of Work

Salem Sound Coastwatch, Ipswich River Watershed Association, and Eight Towns and the Great Marsh Committee are pleased to offer Boxford the following for the 2013 Greenscapes program:

Program Outreach Deliverables for 2013:

- **Pet Waste Education Piece (Rack Card 3.5 x 8)**
This full color, double sided educational piece, which addresses stormwater quality concerns, is for citizens with dogs. The purpose is to encourage residents to pick up after their dogs and dispose of the waste in a safe and environmentally sound way. It can be distributed to residents renewing dog licenses, to local veterinarians, and can be available at town hall and the library. PDFs of the flyer will be provided for town websites as well.
Quantity: minimum \$200 for 500; additional cards are available at a nominal cost.
- **Homeowner's Workshops on Greenscapes Practices**
 - Spring Workshop on healthy soil, composting and organic lawns as well as native plants and rain gardens.
 - Two "Slow the Flow" Workshops focusing on controlling yard flooding and poor drainage with low impact development and infiltration projects. To be held in two different convenient locations in the region.
- **Public Service Announcement (PSA) Videos**
Two PSA videos will be provided to your local public access television station with the purpose of educating residents about how they can prevent pollution from storm water runoff and about the connection between everyday activities and water quality issues.
- **"Greenscapes 101" Presentation**
"Greenscapes 101" provides an overview of Greenscaping practices for the homeowner. As a participating community, the North Shore Greenscapes Coalition will make a presentation to the residents of Boxford at the time and venue of your choice. Please contact Cynthia Ingelfinger, your Greenscapes Coordinator to schedule the presentation.
- **Media Relations:** Greenscapes will actively pursue opportunities for print and electronic media coverage of Boxford's participation in the Greenscapes program, and will promote the Greenscapes program through press releases and postings on electronic media sources (such as the local Patch, where available.)

- **Updated Greenscapes Web Site**

The new Greenscapes website is filled with comprehensive and up-to-date program information, downloadable gardening and lawn care information, links to certified landscaping and irrigation professionals and more. www.greenscapes.org

- **Additional copies of the full color "Guide to Greenscaping"**

Upon request, 100 additional guides will be available at no extra charge. If more are needed, there will be a \$25 per hundred charge for additional guides after the first hundred. This multi-page guide provides comprehensive and detailed information about environmentally-friendly gardening and lawn care practices that protect and conserve water supplies. Articles address how to grow a healthy and attractive lawn that uses less water; alternatives to fertilizers and pesticides; how to make and use compost; how to create a rain garden; suggestions for drought tolerant plants; and more.

- **E-mail Newsletter**

Boxford residents will be encouraged to subscribe to Greenscapes free monthly email newsletters, which are sent from April through October. The e-mail newsletter articles will provide information on various water conservation, stormwater and green lawn care topics.

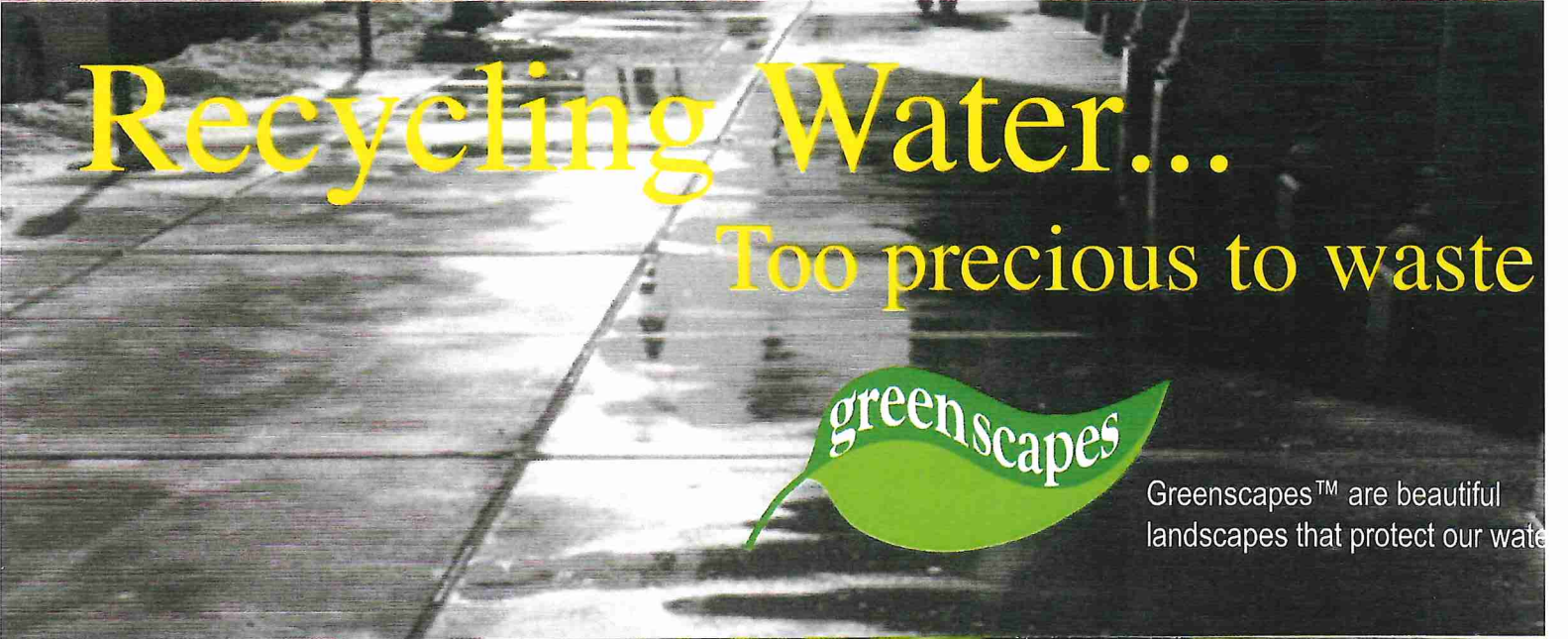
Total Costs to TOWN NAME:

Membership Fee	\$1,600
Materials Fee	\$ 200
Total	\$1,800

Checks should be made payable Salem Sound Coastwatch (fiscal agent for Greenscapes North Shore Coalition):

Mail to:

Salem Sound Coastwatch
201 Washington St, Suite 9
Salem, MA 01970



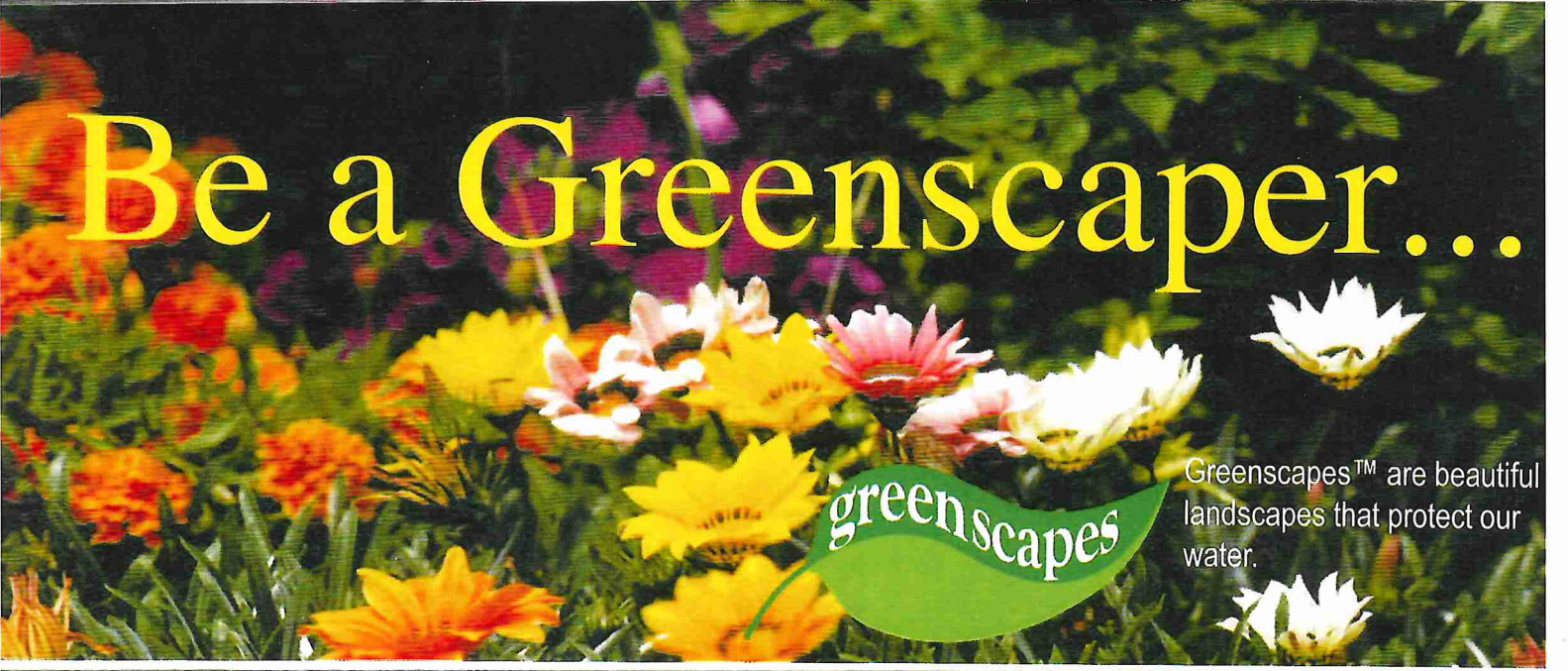
Recycling Water...

Too precious to waste



greenscapes

Greenscapes™ are beautiful
landscapes that protect our water.



Be a Greenscaper...



greenscapes

Greenscapes™ are beautiful
landscapes that protect our
water.



Can you reduce your daily water use by...

5 gallons?



greenscapes



Greenscapes™ are beautiful
landscapes that protect our
water.

Unpave your town

As "stormwater runoff" flows over parking lots, lawns and driveways, it picks up dog waste, oil and gasoline, fertilizers, and even toxic chemicals, carrying them along streets and into municipal storm drains. Most people believe that the runoff in storm drains is sent to a treatment plant before it flows into local waterways, but it is not. This polluted stormwater runoff can close beaches and shellfishing beds, kill fish, and cause thick algae growth.



Impervious surfaces impact our water quality! In watershed areas with 12-20% impervious surface, water quality is considered "threatened"; and at levels above 20% water quality is considered "nonsupporting" of healthy stream habitats. What about your town? Many parts of suburban towns are above the 20% level.

What Needs to Be Done:

- Support your town's efforts to clean storm drains, sweep the streets often, and build an effective stormwater infrastructure.
- Encourage the use of low-impact development principles, which include building with fewer impervious surfaces and the use of alternative materials, like permeable pavers and porous asphalt, and the construction of raingardens and natural drainage swales.

Stormwater is the biggest source of water pollution - reducing impervious surfaces is the best solution!

TAKE THE GREENSCAPES PLEDGE

Watering our lawns can consume vast amounts of water, and pesticides, herbicides and fertilizers from our yards can migrate great distances, polluting our water supply, rivers and ocean.

There is a better way! Be a Greenscaper. Take the pledge. You'll save time, money and our environment.



To learn more about creating a beautiful, eco-friendly yard, go to www.Greenscapes.org.

I will care for my lawn by:

- Watering only at dawn
- Watering only when my lawn is thirsty
- Mowing with a sharp mower blade
- Leaving grass clippings on my lawn
- Keeping my grass at least 3" tall
- Using only compost on my lawn and garden

Sign the pledge at www.Greenscapes.org. You will receive landscaping and water-saving ideas.

How much water do you use?

Gather two recent water bills and use the calculator on the right to see if you have reduced your water use. The state maximum recommended water use is 65 gallons* per person per day, but some households use less. Summer is the true test--water usage tends to double in the summer. How low can you go? Are you below 65? Can you save 5 gallons per person per day more?

Watering one inch of water on a one acre yard consumes 26,000 gallons - more than a standard 16' X 32' swimming pool.

* Massachusetts Dept. of Environmental Protection

Total gallons consumed	Days in billing cycle	# of people in household	=	GALLONS PER PERSON PER DAY
Bill 1 _____	/ _____	/ _____	=	_____
Bill 2 _____	/ _____	/ _____	=	_____

Subtract Bill 2 from bill 1 to see if you were able to save 5 gallons a day per person!

NOTE: If your water bill is in cubic feet (CF), multiply your consumption in cubic feet by 7.48 to convert to gallons, and then make the same calculation above. If your consumption is in hundreds of cubic feet (CCF), then multiply by 748 and follow the calculation.

TIP: Cut down on your water consumption by watering your lawn at dawn & only when necessary as determined by the Walk Test - To learn more go to www.Greenscapes.org.



Greenscapes™ are beautiful
landscapes that protect our water.

greenscapes

Creating a Healthy Yard...

Organic vs. Synthetic - You decide

Organic

- Composed of materials found in nature - decomposed matter, plant extracts, minerals
- Works to build healthy soils full of microbes, which feed plants and loosen the soil
- Increases soil porosity, allowing rainwater to percolate into the soil
- Made of coarse materials, does not run off easily
- Packaged ingredients clearly visible



To learn more about creating a beautiful, eco-friendly yard, go to www.Greenscapes.org

Synthetic

- Composed in part of man-made chemicals, often including known toxins and carcinogens
- Feeds plants, not microbes in soil
- Increases soil compaction, because fewer microbes are available to loosen the soil
- Highly water soluble, easily washed away
- Packaged ingredients rarely divulged

This information is brought to you by your town and the Massachusetts Greenscapes Coalition www.Greenscapes.org

