



Tackling Stormwater Education and Outreach: Developing A Master Strategy for Middletown

Education Goal #1:

Stormwater is polluted, and it contributes to beach closures.

Audience #1:

Homeowners

Key Messages:

- When it rains, water landing on driveways, roofs, roads and other surfaces picks up pollutants and carries it directly to wetlands, streams, ponds and the Bay without treatment.
- Storm drains carry water away without any treatment—anything that goes down a storm drain goes to local waters.
- Stormwater pollution is responsible for beach/shellfish closures and threatens drinking water supplies.
- The Town is taking big steps towards reducing stormwater pollution; residents can help do their part.

Hooks To Incorporate Within Messages:

- Fishing, boating, and swimming at local beaches are directly affected by what goes down storm drains.
- Property values are directly tied to the quality of local water resources.

Overview of Possible Methods for Audience #1 (Homeowners):

Method	Resources	Contact
Direct mail to residents using cartoons and <i>It's That Time of Year Series</i> ; direct mail costs could be minimized, if this was incorporated with the Town tax bill ¹	URI Binder Section 1	
Ads in the <i>Newport Daily News</i> , using cartoons and <i>It's That Time of Year Series</i>	URI Binder Section 1	



Op-Ed articles in the <i>Newport Daily News</i> , addressing general storm drain awareness and the issue of pet waste as a pollutant	URI Binder Section 1	
A static screen display for the local Cox cable channel, using elements from our 2008 statewide campaign ²		
Create a stormwater page on Middletown’s website that introduces residents to this information; use URI Binder materials as well as links to articles about beach closures related to stormwater	http://www.RIStormwaterSolutions.org Resources Link; Strategies Link URI Binder Section 1	
Radio ad ³	URI Binder Section 7	
Incorporate storm drain info through Kid’s Watershed display, with accompanying fact sheets for parents (the homeowners!), at a school, library program, or at Norman Bird Sanctuary Events (if appropriate)	URI Binder Section 6	-Norman Bird Sanctuary -School science teachers -Local library -Stormwater Education Programs (URI Binder Section 6)
Use “Scary Dad” life-sized display at local beaches	Life-sized display available from URI	

Footnotes and Ways URI Can Help:

1. Existing materials could be customized to make a connection between stormwater issues and taxes, if the information was mailed with a tax bill. When necessary, we can help adapt any of the existing materials contained within the binder, so that they are customized for Middletown. Many of the suggested methods could be used to highlight what the Town has done or already is doing to tackle stormwater pollution problems.



2. To check out the ads that we aired on buses and in bus shelters in the summer of 2008, visit our website at:

http://www.ristormwatersolutions.org/SW_statewidecampaign.html

We could customize the Speedo ad or the "Scary Dad," if you thought it was appropriate for your residents, so that: it includes a reference to local water bodies (Easton's Beach, North Easton's Pond, Bailey Brook); it mentions the non-human sources of fecal pollution; and/or includes the Town's website in addition to ours. We would need to verify that Cox Cable can use a static image. Middletown is welcome to use the bus kings and bus shelter ads, but the costs might be prohibitive.

3. We can contact an audio/video resource at URI about editing and creating radio ads, if you want to customize the existing radio ad that we used in our statewide campaign to mention local water resources.

We can assist with any questions or coordination with other groups.

Education Goal #1:

Stormwater is polluted, and it contributes to beach closures.

Audience #2:

Local business owners

Key Messages:

- Connections that send sewage, process wastewater, wash water, or indoor drains or sinks to the Town’s storm drain system are illegal and must be removed, as specified in the Illicit Discharge Detection and Elimination (IDDE) Ordinance.
- Contaminated stormwater runoff from business sites also contributes directly to the impairment of local waters.

Hooks To Incorporate Within Messages:

- Fishing, boating, and swimming at local beaches are directly affected by what goes down storm drains.
- Tourism is directly tied to the quality of local water resources.
- Businesses offer a public face that makes them ideal to help lead the movement toward better stormwater management in the town.
- Publicized activities, promoted as stormwater-friendly or “green,” might boost the recognition and appeal of a local business.

Overview of Possible Methods for Audience #2 (Businesses):

Method	Resources	Contact
Prepare a list of all local business owners (or those in targeted areas such as those adjacent to water bodies) and develop a mailing list		-Chamber of Commerce -Town database
Customize a letter and send with the self-inspection checklist	URI Binder Section 5	
Offer to meet with businesses or civic groups to discuss the IDDE ordinance and its impacts on local businesses	URI Binder Section 5 (including a sample PowerPoint presentation)	- Chamber of Commerce



Send an Op-Ed piece to the <i>Newport Daily News</i> , highlighting the ordinance and what businesses can do or are already doing (could be co-authored by town and business groups)	URI Binder Section 5	
Consider adopting a business program within Aquidneck Island communities, as done with the <i>In Business for the Blackstone</i> Program	URI Binder Section 5	<ul style="list-style-type: none"> - Ad Hoc Stormwater Committee - Aquidneck Island Planning Commission - Aquidneck Island Watershed Council

Footnotes and Ways URI Can Help:

When necessary, we can help adapt any of the existing materials contained within the binder, so that they are customized for Middletown.

We can assist with questions or coordination with other groups.

Education Goal #2:

Animal waste contributes to stormwater pollution.

Audience #2:

Pet owners; people who might feed waterfowl; property owners with property adjacent to water resources

Key Messages:

- Always pick up your pet’s waste. It’s easy to do when you’re prepared, so carry a bag with you, put the waste in the bag, and throw it in the trash – never in a storm drain!
- Don’t feed waterfowl; it causes them to concentrate in higher numbers than they would if they had to rely solely on natural food supplies, and that results in large quantities of waste that are carried by stormwater to local ponds, rivers, and the Bay.
- Create a buffer of higher vegetation on your property’s border with the water to discourage waterfowl such as geese from coming ashore. In time, they will stop feeding in areas that are not hospitable.

Hooks To Incorporate Within Messages:

- Fishing, boating, and swimming at local beaches are directly affected by what goes down storm drains.
- Tourism is directly tied to the quality of local water resources.

Overview of Possible Methods:

Method	Resources	Contact
Adopt and advertise a pet waste ordinance; tie the adoption of the ordinance directly to pet waste as a source of water contamination	URI Binder Section 4 Including a model ordinance, sample press releases, and sample op-ed article	
Contact all local vets and animal shelters and ask to place the <i>Do You Scoop The Poop</i> fact sheet and/or the Bousquet Pooper Scooper cartoon in their offices; for those that use postcards as reminders, ask to use the cartoon as the postcard	URI Binder Section 4: List of RI Animal Shelters and Veterinarians URI Binder Section 1: Fact sheet	
Radio ad ¹		



Op-Ed article addressing the issue of pet waste as a pollutant and/or Bousquet's Pooper Scooper cartoon (placed as an ad) in the <i>Newport Daily News</i>	URI Binder Section 1	
Direct mail to residents with waterfront property about buffers that deter geese populations	DEM's <i>Dealing With Resident Canada Geese</i> publication	
Signage at water bodies where people feed waterfowl		

Footnotes and Ways URI Can Help:

1. We can contact an audio/video resource at URI about editing and creating radio ads, if you want to customize the existing radio ad that we used in our statewide campaign to *mention bags of dog waste down storm drains as a "real," local pollution source.*

When necessary, we can help adapt any of the existing materials contained within the binder, so that they are customized for Middletown. Some of these methods might present the opportunity to share the results of the DNA sampling that revealed non-human sources to be the most significant contribution of fecal bacteria to local waters.

We can assist with questions or coordination with other groups.

Education Goal #3:

Support adoption and promote compliance with a stormwater ordinance designed to keep stormwater runoff onsite with new construction, expansion and redevelopment on individual parcels. Incorporate into zoning, other ordinance or subdivision regulations.

Objectives:

Prevent increase in volume of stormwater runoff from existing or pre-development conditions to

- prevent nuisance flooding to neighboring properties;
- reduce stormwater volume and pollutants entering drainage system;
- promote pollutant removal by filtering and infiltration, maintain groundwater recharge and stream flow.

Primary Audience:

- Council, board and commission members
- Developers, builders
- Property owners
- Applicants for building permits.

Options:

Does a general ordinance already exist that applies to individual parcels? If so, educational materials can focus on existing requirements, information to be included in an application, and example solutions.

Example ordinances from other municipalities

1. The following East Providence zoning provision ties the allowable increase in impervious area to the lot building coverage.

East Providence

Code of Ordinances

Chapter 19 Zoning

<http://clerkshq.com/default.ashx?clientsite=eastprovidence-ri>

ARTICLE VIII. DEVELOPMENT PLAN REVIEW

Sec. 19-455. Drainage/erosion standards.

(10) Stormwater management. All developments shall be constructed and maintained such that adjacent or neighboring properties are not unreasonably burdened with surface waters as a result of such developments. More specifically:

- a. No development may be constructed or maintained such that development unreasonably impedes the natural flow of water from higher adjacent or neighboring properties across such development, thereby unreasonably causing substantial damage to such higher adjacent or neighboring properties;
- b. No development may be constructed or maintained such that surface waters from the development are unreasonably collected and channeled onto lower adjacent or neighboring properties at such locations or at such volumes as to cause substantial damage to such properties. The drainage plan shall address potential impacts on downstream property based on a 25-year storm. Off-site analysis shall be included in the drainage plan when required by the DPR committee; and
- c. Storm drains shall be designed based on a ten-year storm design.

(11) Impermeable surface coverage.

- a. Impermeable surfaces. For the purposes of calculating the amount of impermeable surface coverage, impermeable surfaces shall include all roads, driveways, parking areas, buildings, decking, rooftop landscapes and other impermeable construction covering the natural landscape. Swimming pool surface water areas for pools which discharge to the storm drainage system shall also be included. Water quality and detention basins, swales, and conveyances for drainage purposes only shall be calculated as impervious cover.
- b. Amount permitted. The maximum amount of the site that may be covered by an impermeable surface shall be determined by adding 20 percent of the site area to the maximum percent of lot building coverage established in schedules in sections 19-145 and 19-146, as applicable, of the zoning ordinance. For developments located near (within 200 feet of surface waters which are sensitive to runoff impacts, or for any developments from which runoff is discharged into any wetland or coastal feature, as defined by the state department of environmental management or the RI CRMC, the DPR committee may require a reduction of up to ten percent of the maximum allowable area of impermeable surface in order to mitigate the potential impact to the surface waters or wetland system. For developments located near wetlands or coastal features, compliance with requirements imposed by the DPR committee shall not remove the need to obtain appropriate state or federal approvals and to comply with any associated conditions.
- c. Design. Applicants shall integrate the location of permeable surfaces with the overall drainage plan for the site. Natural buffer

strips should be maintained adjacent to surface waters. Where this is not possible, vegetative filter strips, using seed mixtures recommended for this purpose and which require minimal or no fertilization should be used.

d. Parking areas. For developments located near surface waters, or for any developments from which runoff is discharged into any wetland, the DPR committee may permit the use of permeable paving materials for surfacing parking areas, provided adequate provisions have been made for delineation of parking spaces and for maintenance. It is the intent of this section that permeable surface areas shall be landscaped, and use of permeable paving materials for parking areas shall be permitted only where warranted by water quality and drainage enhancement considerations.

2. The following Narragansett ordinance requires stormwater control for projects increasing impervious cover more than 10%. The standards for keeping runoff onsite could be stronger and also apply to redevelopment projects.

Narragansett

Code of Ordinances

Chapter 78 Utilities, Article III. Sewers

<http://www.municode.com/resources/gateway.asp?pid=11204&sid=39>

(Ch. 789, § 4, 9-20-1999; Ch. 811(1), § 1(7.6), 3-4-2002; Ch. 878, § 2, 7-3-2006)

7.7. Supplementary drainage requirements.

No land alteration, construction, or development in the town of Narragansett may result in an increase in the rate or volume of stormwater runoff, erosion, or sedimentation off-site or downstream. All proposed construction and development which will increase the impervious surface on any lot or tract by more than ten percent of the lot area shall include systems to manage stormwater and to control erosion and sediment.

(1) *Stormwater management.* The stormwater management system for any site shall be designed to offset the increase in the rate of stormwater resulting from the proposed development. It shall implement the techniques and measures recommended in the most current revision of or supplement to "Urban Hydrology for Small Watersheds, Technical Release No. 55," prepared by the United States Department of Agriculture, Soil Conservation Service.

The system shall incorporate, to the maximum extent practicable, the natural drainage features of the site, including natural drainageways and permanent and periodic ponding areas. It also shall include stormwater control facilities such as pipes, ditches, culverts, swales, and, if necessary, water retention areas and structures.

The system shall prevent the discharge of stormwater runoff onto adjoining property in a manner which causes flooding or impairs the use or development of the property. Temporary stormwater and erosion control facilities adequate to protect adjoining property shall be installed at the commencement of construction, excavation, grading, or removal of vegetation. For purposes of this section, any property which faces a construction site across any street or highway shall be deemed adjoining property.