



ACTON BOARD OF HEALTH

National Pollution Discharge Elimination System

Acton Stormwater Plan
Permit Year Two



ACTON BOARD OF HEALTH

Public Education & Outreach

Tips for Keeping Stormwater Clean

Don't Dump Drains to Stream

Car care tips:

- Maintain your car to prevent fuel leaks, oil drippings, and battery leaks.
- Use a commercial carwash that treats and/or recycles the wash water.
- If you wash your car at home, wash it on the lawn so that the water can seep into the soil, and use low-phosphate detergents in small amounts.

NEVER pour or dump ANYTHING down a storm drain!

What you should do when you pour or dump:

- Pour or dump into a storm drain.
- Pour or dump into a storm drain.
- Pour or dump into a storm drain.

Pollutants from Lawns: Fertilizer, Pesticides, Herbicides

Lawn care and garden tips:

- Use fertilizer products and herbicides sparingly.
- Try using organic lawn care methods.
- Mow to 2-3 inches high to encourage dense growth and shade weeds.
- Match lawn clippings and leaves to your lawn.
- Do not overwater your lawn.
- Reduce lawn-care use on lawns of young children or natural vegetation.
- Clean and oil your car and report lawn care to your town.

Other Stormwater Pollutants: Salt, Bacteria, Sewage, Chemicals

Car Care Tips: Wash your car at home, wash it on the lawn so that the water can seep into the soil, and use low-phosphate detergents in small amounts.

STORMWATER SURVEY

The word "stormwater" is new to me: yes no

1) The water that flows into a storm drain in the street most likely

goes to a wastewater treatment plant.

goes to the nearest storm drain or waterway.

stays in the drain until it seeps into the ground.

2) Used motor oil can be:

poured down the drain.

recycled by household hazardous waste collection programs.

accepted by the place where purchased with a receipt.

put down a storm drain because it will be treated there.

3) When I wash my car, it is best to:

use a commercial car wash.

wash in the street.

wash on the lawn.

4) If I use too much fertilizer on my lawn, the rain will:

wash it deeper into the soil.

wash it into the nearest stream or pond.

disappear and make a fertilizer.

5) The best way to dispose of paint water is:

to dump it in a storm drain.

to pour it on the lawn or lawn.

to dump it in the trash or bulk it down the toilet.

6) Polluted stormwater might impact the quality of:

my drinking water.

the bacteria loading or swimming spot.

the environment for aquatic species.

7) Stormwater is a problem for:

my household.

the government to fix.

the town residents to fix.

8) My age bracket is:

40-50 30-40 20-30

9) I completed the survey **but after reading** **others** **hundreds of pages** **reading the list or depth of other material...**

Name: _____

Address: _____

City: _____

Phone: _____

STORMWATER POLLUTANTS

0187800078 02

10/10/00

SUASCO Watershed Community Council
P.O. Box 176
Maynard, MA 01754

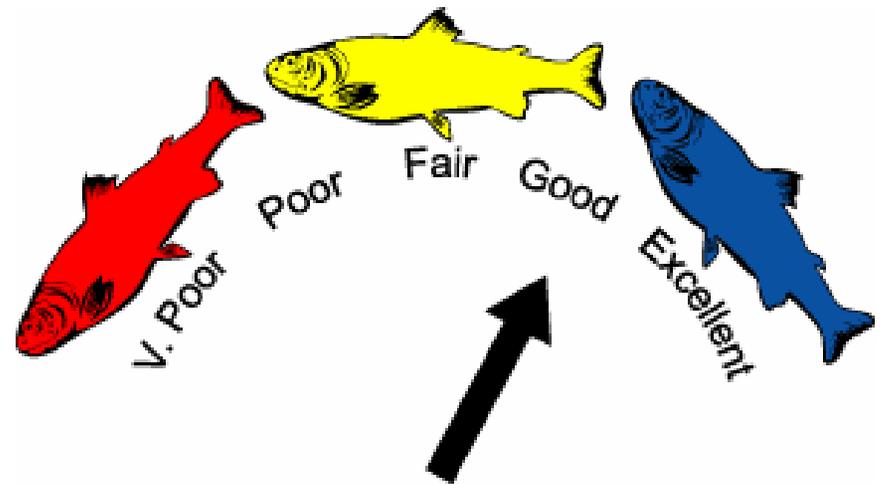


SUASCO provided a Stormwater Flyer, Stormwater Curriculum, Stormwater questionnaires were Distributed with an Umbrella raffle.



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Public Participation/ Involvement



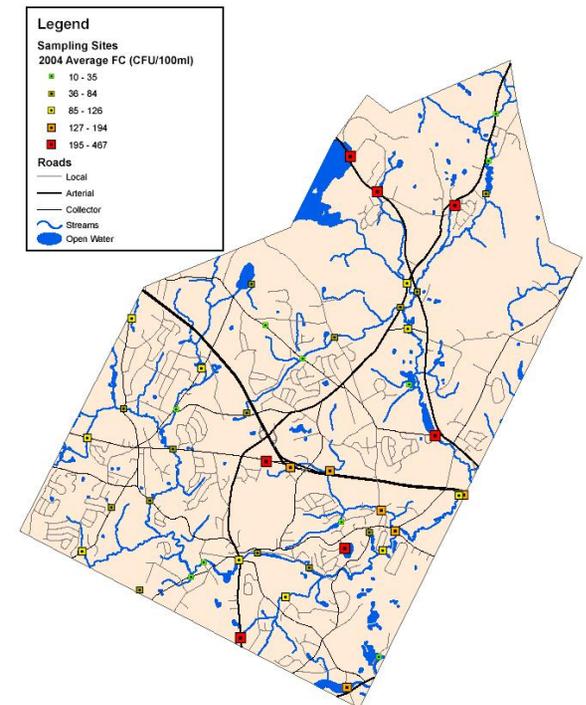
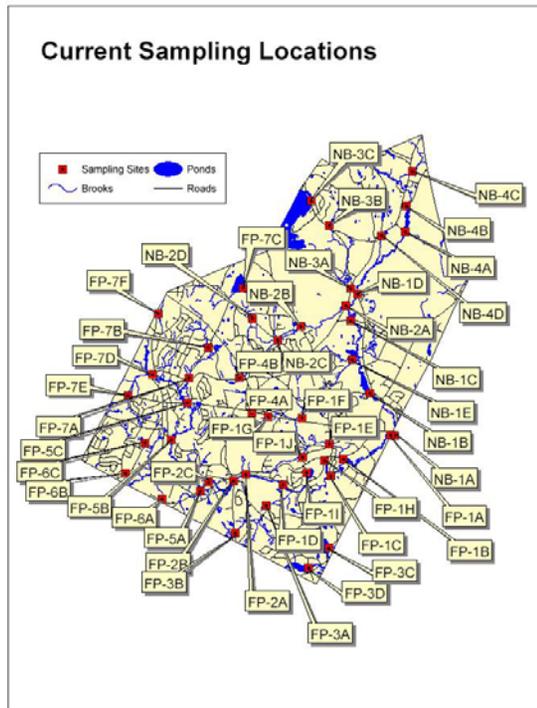
Stream Health

Stream Team & SUASCO Projects



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Illicit Discharge Detection & Elimination





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Construction Site Runoff Control

ACTON ZONING BYLAW (Bylaw)		STATE STORMWATER POLICY HANDBOOK (SPH)		NOTES
Section	Requirement	Number	Standard	
Entire Bylaw (& Subd. Rules)		"Applicability"	For projects of any size, direct discharges of untreated stormwater from pipes to wetlands or waters are not allowed.	The implementation of the Bylaw and Subdivision Rules generally follows this standard, but it is not specifically written anywhere in the Bylaw or Rules.
3.5.17.12	Contents of a Golf Course Special Permit application	8	Stormwater management systems (SMS) must have an operation & maintenance plan	Bylaw doesn't specifically reference that information on infrastructure operations and maintenance after construction must be submitted.
3.8.1.5.k	Adequate drainage shall be provided for Common Drives	2,4,5,9	Requirements: Post-development = or < pre-development peak discharge; system must remove 80% of the average annual load of total suspended solids (TSS); BMPs in critical areas; operation & maintenance plan	Bylaw discusses drainage onto streets & subsurface discharge to a public drain - unable to find any specific references to these issues in the SPH, but the overall goal and result of this Bylaw section is consistent with SHP standards. Bylaw discusses design based on a 10-year storm only, but SPH also discusses 100-year storm.
3.8.1.5.l	Common Drive design requirements	4,5	System must remove 80% of TSS; BMPs required in critical areas	Bylaw Common Drive design standards are very general so cannot determine complete consistency w/SPH BMP standards
4.1	Flood Plain Overlay District	1-9	No new stormwater conveyances may discharge untreated stormwater directly to or cause erosion in wetlands or waters of MA; stormwater discharges to critical areas must utilize certain BMPs	Bylaw section 4.1 should probably refer to SPH and the general purposes of SPH
4.1.9	Submittal requirements for persons wanting to erect a structure, excavate, fill, grade, etc. in the roadway or roadway fringe	8	Erosion and sediment controls must be implemented	Bylaw section might need to require an erosion & sediment control plan be submitted

4.2.3.5.e	Common land in open space developments (OSDs) may contain stormwater detention & retention facilities	4,5	System must remove 80% of TSS; BMPs required in critical areas	Unsure if the stormwater infrastructure standards in this section of the Bylaw are consistent w/SPH
4.3	Groundwater Protection District requirements	6	Discharges to critical areas must utilize certain BMPs	"Critical areas" as defined by SPH includes cold water fisheries and surface drinking water. If Acton has any cold water fisheries and/or if Nagog Pond isn't completely surrounded by Town of Concord land, these Bylaw requirements might have to be extended to those areas too
4.3.3.8	Definition of Impervious Cover	4,5,6	Roof runoff except from certain metal roofs may be infiltrated. If infiltration is allowed, roofs do not count as impervious cover	The Bylaw and SPH define impervious cover differently. For example, the Bylaw doesn't differentiate between different roof types - they're all considered impervious.
4.3.5	Depth to Groundwater	"Applicability"	Standards apply to subdivisions with 5 or more lots, or 4 or fewer lots if in a critical area	Bylaw requirements for Groundwater Protection Zones 1-3 do not apply to any single-family residential uses or buildings
4.3.5.3	Design of Groundwater Recharge Facilities in Zones 1-3	4,6	Pretreatment is required for certain BMP technology	Unsure whether SHP pre-treatment standards & other standards would apply to Bylaw section 4.3.5.3.
4.3.6.2	Watershed Recharge	3	Annual groundwater recharge from post-development should approximate the annual recharge from pre-development or existing conditions, based on soil types	The Bylaw requirement appears similar requiring that post-development recharge cannot be less than pre-development recharge
4.3.6.3	Treatment & Renovation of runoff in Zones 1-3	4,6	Discharges to critical areas must utilize certain BMPs	Unsure whether stormwater facilities in Bylaw are consistent with SHP BMPs
4.3.7.2	Prohibited Uses in Zones 1-3	4,6	Discharges to critical areas must utilize certain BMPs	Unsure whether SHP prohibits certain uses altogether from critical areas (similar to the Bylaw)



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Post-Construction Runoff Control

Acton's COW Results

Principle #	Score	Out-of	%	Section Score	Section Deficiency	Total Deficiency	Target Areas
1	4	7	57%		8%	3%	
2	1	1	100%		0%	0%	
3	4	4	100%		0%	0%	
4	2	5	40%		8%	3%	
5	0	4	0%		10%	4%	✓
6	2	5	40%		8%	3%	
7	1	4	25%		8%	3%	
8	1	5	20%		10%	4%	✓
9	0	1	0%		3%	1%	
10	4	4	100%	48%	0%	0%	
11	8	8	100%		0%	0%	
12	2	6	33%		11%	4%	✓
13	2.5	6	42%		10%	4%	✓
14	6	6	100%		0%	0%	
15	3	6	50%		8%	3%	
16	4	4	100%	71%	0%	0%	
17	3	4	75%		4%	1%	
18	4	4	100%		0%	0%	
19	1	3	33%		8%	2%	
20	3	3	100%		0%	0%	
21	0	4	0%		17%	4%	✓
22	6	6	100%	71%	0%	0%	

Composit Score 62%

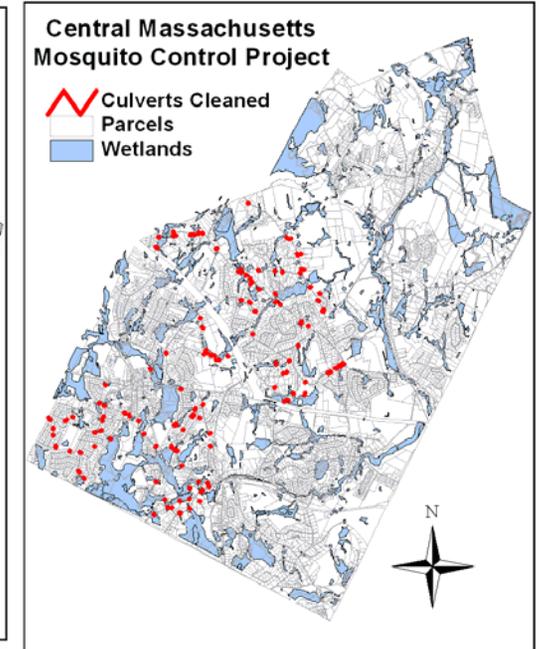
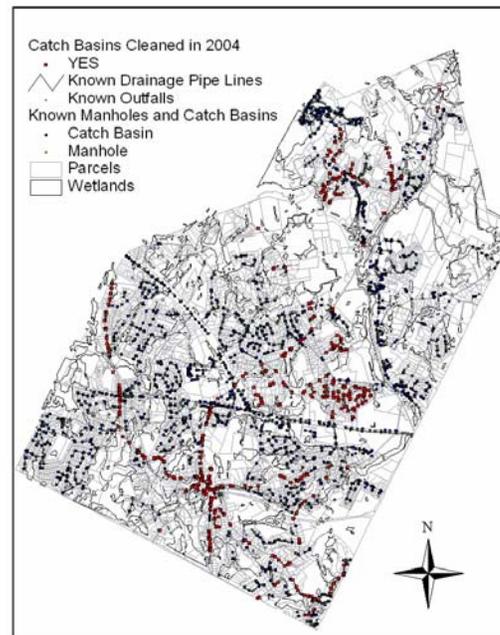
COW Score Comparisons

	Principle #	Possible Score	Acton, MA			Comparative Studies			
			Raw Score	Score (%)	Target Area	Average Raw Score	Average Score (%)	Target Area	
Section 1	Residential Streets and Parking Lots	1	7	4.0	57%	✓	3.6	51%	✓
		2	1	1.0	100%		0.7	72%	
		3	4	4.0	100%		1.7	42%	
		4	5	2.0	40%	✓	2.6	51%	
		5	4	0.0	0%	✓	2.0	50%	
		6	5	2.0	40%	✓	1.3	27%	✓
		7	4	1.0	25%	✓	1.7	43%	
		8	5	1.0	20%	✓	2.8	57%	
		9	1	0.0	0%		0.0	0%	
		10	4	4.0	100%		2.7	67%	
Section Subtotal		40	19.0	48%		19.1	48%		
Section 2	Lot Development	11	8	8.0	100%		6.3	79%	
		12	6	2.0	33%	✓	3.0	50%	✓
		13	6	2.5	42%	✓	3.1	52%	✓
		14	6	6.0	100%		4.2	70%	
		15	6	3.0	50%	✓	3.8	63%	
		16	4	4.0	100%		3.6	89%	
Section Subtotal		36	25.5	71%		23.9	67%		
Section 3	Conservation of Natural Areas	17	4	3.0	75%		2.3	56%	
		18	4	4.0	100%		2.2	54%	✓
		19	3	1.0	33%	✓	2.2	72%	
		20	3	3.0	100%		1.8	59%	
		21	4	0.0	0%	✓	2.6	65%	
		22	6	6.0	100%		3.9	66%	✓
Section Subtotal		24	17.0	71%		14.9	62%		
Total Score		100	61.5			57.9			
Overall Percentage				62%			58%		



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Pollution Prevention/ Good Housekeeping

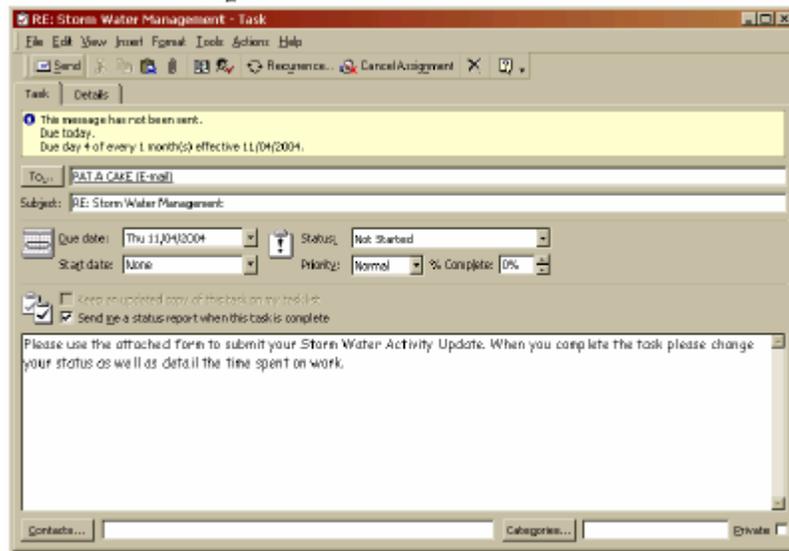




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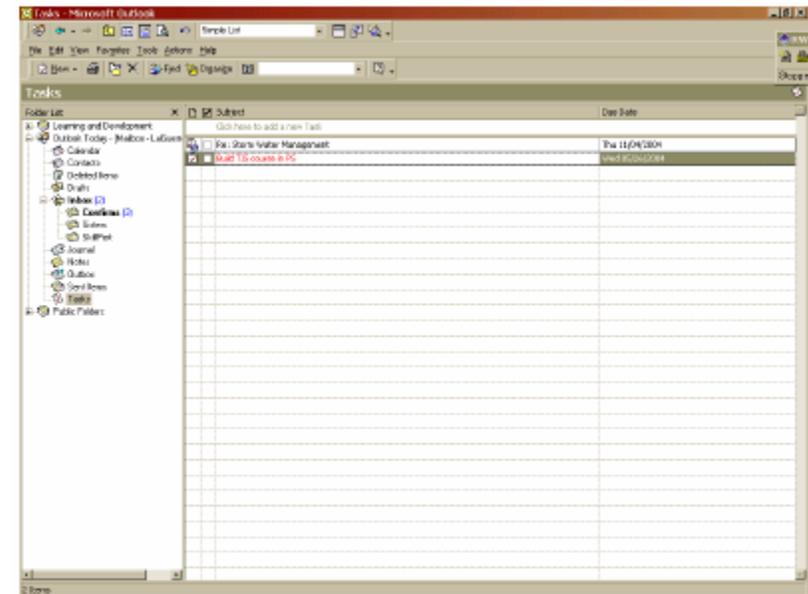
Administrative Enhancement

RE: Storm Water Management - Task



16. Click Send.

Tasks - Microsoft Outlook



17. Double-click
RE: Storm Water Management

18. You have completed this task.