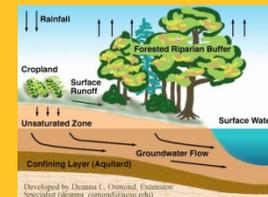




Storm water management in Acton *or* *complying with NPDES II*

Water Resources Advisory Committee
February 16, 2010





What and why?

- Storm water runoff caused by impervious surfaces
 - All paved areas, rooftops, compacted soils
- Storm water affects surface and groundwater
- EPA has mandated stringent storm water focus
- Storm water illegal discharge by-law
a required first step



EPA Mandate: Illegal discharge detection & elimination (IDDE)

- Map stormwater outfalls
(partly done)
- IDDE bylaw
(in process)
- IDDE program:
(needs to be ramped up)

2/16/2010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

*Bob Mail
10/2/09*

You are receiving this letter because your municipality operates a Phase II small municipal storm sewer system (MS4) permitted to discharge storm water to waters of the United States by the United States Environmental Protection Agency (EPA). Your storm water permit, issued in 2003 (2003 Permit), requires your community to control storm water discharges to waters of the United States through implementation of a storm water management program comprised of control measures specified by the Permit. One such requirement is the implementation of an Illicit Discharge Detection and Elimination (IDDE) Program.

The IDDE program is designed to prohibit the discharge of sources of non-storm water, such as raw sewage, to storm sewer systems to eliminate the discharge of polluted stormwater into water bodies. Such discharges can include raw sewage from illegal sewer connections, infiltration from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain. These discharges contribute bacteria, heavy metals, toxics, oil and grease, solvents, nutrients, viruses and bacteria to New England waters. In fact, polluted urban storm water runoff, which includes storm sewer discharges, are a primary cause of impaired water quality in the United States. Such discharges cause approximately 70% of surface water pollution in New England.

EPA understands the economic pressure faced by many cities and towns. However, the elimination of this significant environmental threat is something we must all seek to achieve. Consequently, to increase protection of our rivers, ponds, lakes, streams and coastal waters, more stringent MS4 permits will be issued in the near future to communities in New Hampshire and Massachusetts. These updated permits will require the implementation of more stringent storm water management programs. This includes more rigorous IDDE control measures than required by your current permit. IDDE control is an issue throughout New England, and we are working cooperatively with all the New England states to address this important problem.

Unfortunately, EPA has documented significant instances of municipal noncompliance with the 2003 Permit, which continues to be in effect. In response, our regional office recently initiated civil penalty enforcement actions against MS4 communities in Massachusetts and New Hampshire. These actions address failures by those municipalities to:

- Identify and map their storm water outfalls;
- Pass municipal regulations prohibiting illicit discharges; and
- Create and implement an IDDE program.



Acton's storm water management plan

Acton SWMP



- 5 year plan filed with the EPA in 2003
- Illicit discharge bylaw required as per SWMP
- Concord has been fined \$50,000
- Acton bylaws up against EPA deadline

Practice/Responsible Dept. Contact	Year 1 (Mar 03 – Mar 04)	Year 2 (Mar 04 – Mar 05)	Year 3 (Mar 05 – Mar 06)	Year 4 (Mar 06 – Mar 07)	Year 5 (Mar 07 – Mar 08)
BMP #ID 1 Generate a comprehensive Storm Drain Map for the Town/Doug Halley BOH	Drainage Map with Watershed delineations (completed) Reassess eligibility criteria	Field Verify drainage map features for 25% streets older than 1960. Update map as new drainage is installed or replaced Reassess eligibility criteria	Field Verify drainage map features for 25% streets older than 1960. Update map as new drainage is installed or replaced Reassess eligibility criteria	Field Verify drainage map features for 25% streets older than 1960. Update map as new drainage is installed or replaced Reassess eligibility criteria	Field Verify drainage map features for 25% streets older than 1960. Update map as new drainage is installed or replaced Reassess eligibility criteria
BMP #ID 2 Implement a Town By-Law/ Roland Bartl Planning Dept. & Doug Halley BOH	-	Review & Analyze existing bylaws and rules and regulations. Develop bylaw if required with stated penalties governing illicit discharges	Continue to develop bylaw with stated penalties governing illicit discharges	Present Bylaw and Rules and Regulations to Public for comment.	Bring bylaw in front of Town Meeting
BMP #ID 3 Perform an illicit discharge detection campaign/ Doug Halley BOH	Submit Grant proposal to conduct Acton Watershed Health Monitoring and Management Plan to identify potential problem areas (complete)	Conduct investigation and sampling of outfalls discharging to Assabet River (an impaired waterway on 303(d) list)	Conduct testing in areas identified as potential locations for illicit connections.	Conduct dry weather flow observation effort and sampling program.	Pinpoint sources of illicit discharges



Storm water overview

- Impacts of storm water include:
 - degraded water quality,
 - Increased frequency and severity of flooding
 - Decreased aquifer recharge
 - Altered stream flow
- Watershed health may be impaired by more than 10% impervious cover
- Significant impacts may occur with more than 25% impervious cover



Outfall to Assabet River



Illegal discharges bylaw "U"

- Defines illegal discharges to storm system
- Identifies exempted sources
- Permits clean discharges
 - sump pumps, crawl space pumps
- Enforcement and reporting by Board of Health
- Conforms with EPA NPDES mandates



What are illegal discharges ?

- Discharges of pollutants or process water [§8.1]
- Illicit connections [§ 8.2]
- Obstructions [§ 8.3]



Photo R Beck, 11-09



What will be required

- End all illicit discharges to MS4
- Timely notification of releases of prohibited materials
- Permits required for sump pumps, multi-family and commercial properties that discharge to the MS4.



What will Acton get?

- Compliance with EPA conditions
- Improved surface and ground water conditions
- Better long term safeguarding of water supply
- Improved maintenance of storm water system



Main St crosses water supply zone one



Consequences of no action

- Town in violation of Clean Water Act
- EPA typical actions:
 - comprehensive monitoring requirements
 - extensive program activities required
 - inspections and oversight
 - financial penalties





Who has been involved

- Committee members:
 - Ron Beck, Chairman
 - Carol Holley, ACES
 - Helen Probst, Citizen
 - Barry Rosen, Acton Water District
 - Joanne Bissetta / Michael Kreuze, Acton Board of Health
- Health Department staff, Justin Snair
- Acton Water District staff, Matt Mostoller
- Board of Selectmen liaison, Lauren Rosenzweig
- Numerous interested citizens