

Stormwater Management

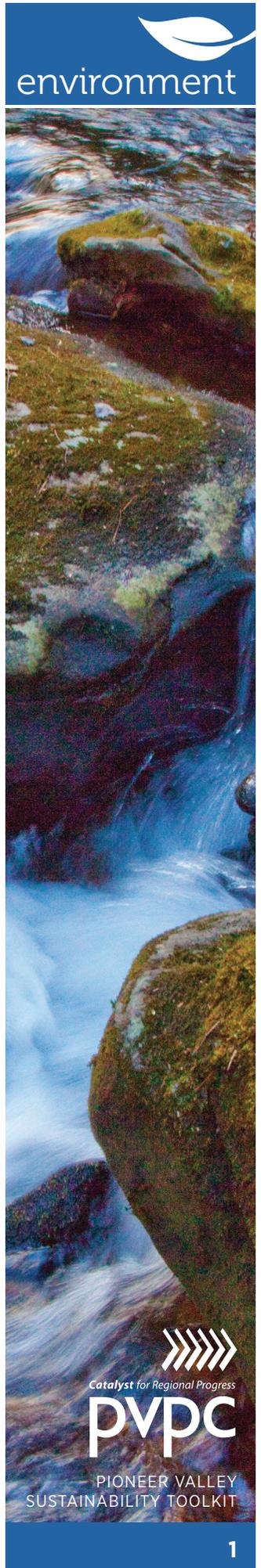
THE CHALLENGE OF STORMWATER

Stormwater runoff is a real problem for cities and towns in the Connecticut River Valley. Stormwater can contain oil, grease, metals, chemicals and sediment that pollute our rivers, lakes, ponds, and aquifers. Without proper management and control, stormwater can cause serious erosion and flooding, destroy aquatic life, deplete groundwater, close waterways to recreation, and result in toxic algae blooms.

The construction of new subdivisions and commercial development can increase stormwater runoff from impervious surfaces such as buildings, parking lots, and roadways. In contrast, undeveloped land and Low Impact Development (LID) stormwater management techniques such as rain gardens, grassed swales and pervious pavers can filter polluted runoff, provide flood control, and slow the flow of water. Redevelopment of downtown areas, which generally have a high concentration of impervious surfaces, and Brownfield properties can present an opportunity for incorporating better stormwater management strategies such as LID techniques.



Rain Garden at Riverfront Park in Orange, MA.



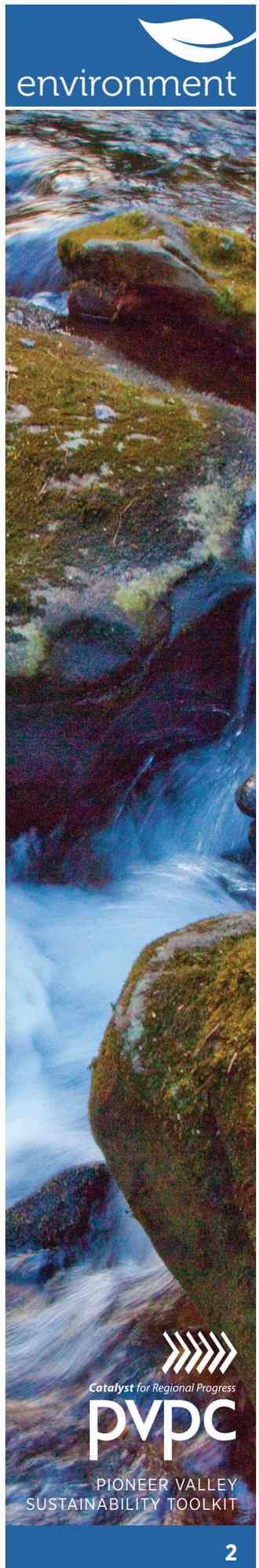
MANAGEMENT STRATEGIES AND STANDARDS

Local governments are responsible for managing stormwater to insure that new development does not diminish the safety and health of or the quality of the environment in their communities. There are a number of strategies and standards your community should consider to improve stormwater management and encourage development that protects your drinking water, wetlands, rivers, ponds and aquifers and safeguards structures and property. Towns can take a comprehensive approach by adopting a Stormwater Management Bylaw or Ordinance; most will need to manage the problem incrementally by:

- » Encouraging the use of Low Impact Development (LID) techniques by developers.
- » Adopting LID Standards in your zoning.
- » Requiring LID techniques to be used in aquifer recharge areas or other environmentally sensitive areas by adding language to an existing overlay district or creating a new overlay district.
- » Requiring Site Plan Review of all development proposals to encourage environmentally sensitive site design and the use of LID techniques.
- » Enacting source controls, pollution prevention standards and/or erosion and sediment regulations.



Pervious pavers used for the walkways at Riverfront Park in Orange, MA.





HELP IS ON THE WAY

Stormwater management is complicated and not easily implemented at the local level where it is most needed and important. However, if your town wants assistance help is available from your Regional Planning Commission or Agency, which will work directly with you to develop strategies to manage stormwater that fit the needs of your community. Also, the State has guidance documents, circuit rider programs, and an internet site that can help you understand stormwater management.

There are 9 Regional Planning Commissions in the Tri-State Watershed that are available to help watershed towns:

Massachusetts – Pioneer Valley Planning Commission and Franklin Regional Council of Governments;

New Hampshire – Southwest Regional Planning Commission, Upper Valley Lake Sunapee Regional Planning Commission, and North Country Council;

Vermont – Windham Regional Planning Commission, Southern Windsor County Regional Planning Commission, Two Rivers Ottauquechee Regional Commission, and Northeast Region Development Association.

The most common site design techniques used to minimize the creation of new runoff, enhance groundwater recharge, and remove suspended solids and other pollutants.

- » Minimize impervious surfaces
- » Fit the development to the terrain
- » Preserve and capitalize on natural drainage systems
- » Use LID stormwater management techniques

STATE RESOURCES

Each state has different resources that can help you understand stormwater management including publications, workshops, websites and circuit riders. For the big picture, explore the EPA web site at

www.epa.gov/nps/

Massachusetts

2008 MASSACHUSETTS REVISED STORMWATER MANAGEMENT STANDARDS AND STORMWATER HANDBOOK

<http://projects.geosyntec.com/NPSManual/>

MASSACHUSETTS NONPOINT POLLUTION SOURCE MANAGEMENT MANUAL
<http://www.mass.gov/dep/water/wastewater/stormwat.htm>

LOW IMPACT DEVELOPMENT TECHNIQUES
http://www.mass.gov/envir/smart_growth_toolkit/pages/SG-slides-lid.html

New Hampshire

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WATER DIVISION
<http://des.nh.gov/organization/divisions/water/stormwater/>

NEW HAMPSHIRE STORMWATER MANUAL
<http://des.nh.gov/organization/divisions/water/stormwater/manual.htm>

UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER
<http://www.unh.edu/erg/cstev/>

Vermont

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION STORMWATER
MANAGEMENT SECTION
<http://www.anr.state.vt.us/dec/waterq/stormwater.htm>

VERMONT EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE
http://www.vtwaterquality.org/stormwater/docs/construction/sw_vermont_field_guide.pdf

VERMONT BETTER BACKROADS
<http://www.vt.nrcs.usda.gov/rc&d/bbcoverpage.html>

VT LID BROCHURE AND TOWN GUIDE
<http://swcrpc.org/wp/programs/watershed-and-basin-planning/Federal>

FOR MORE INFORMATION, PLEASE CONTACT

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