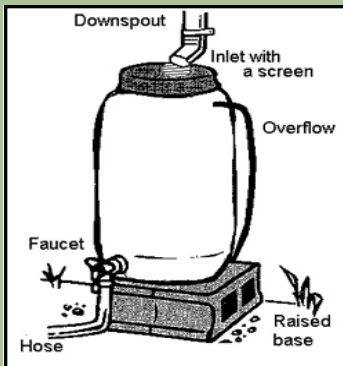


Low Impact Development Practice: *Rain Barrel*



Rain Barrel diagram

<http://environmenterie.org/programs/revitalization/storm-water-management/>

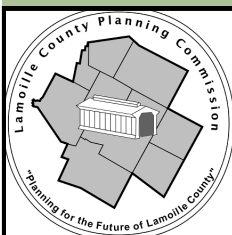
Regional Example



Rain Barrels painted by St. Albans students help to retain stormwater and lessen pollution in St. Albans Bay.



The pink rain barrel at the corner of the Barlow Street School is the sole water source for the gardens.



Location

Distributed through St Albans, Vermont

Applicable Land Use

Commercial, Residential, Businesses, Non-profit Organizations

Problem

Potable water is being used for irrigation, and stormwater that collects on rooftops of buildings is leaving the site and entering the storm drain or nearby tributary and ends up the Lake Champlain.

Description

Rain barrels are containers designed to collect rain water that comes down the downspout of connected gutters. They collect and retain stormwater rooftop runoff and typically range in size from 20 to 100 gallons. This practice can also be done where there are no gutters by placing the rain barrel under a roof valley. Collected stormwater can be used for landscape irrigation or other non-potable water uses.

The Northwest Regional Planning Commission worked with Local high school students at Bellows Free Academy in St. Albans to paint and disseminate 60 rain barrels within the Stevens and Rugg Brook Watersheds. Each rain barrel holds approximately 50 gallons of water and is equipped with a mesh lid to allow water in while keeping out insects, leaves, etc. The barrels also have a spigot which can be attached to a hose or used to fill a watering can.

Benefits

Rain barrels reduce the use of potable water for irrigation of lawns and gardens, which reduces the demand on the public water system and associated costs for those services. Capturing of rooftop rain also reduces the amount of runoff from the site and prevents excess sediment and nutrients (phosphorus) from entering nearby streams. The natural rain water is actually healthier for the plants because it does not have the minerals, chlorine, fluoride, and other chemicals that are commonly found in treated drinking water.

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Low Impact Development Practice: *Rain Barrel*

Additional Examples



*U32 art teacher painting barrel.
Source: Winooski Natural Resources
Conservation District*



*Barrel installed at a household in
Montpelier. Source: Winooski Natural
Resources Conservation District*

Maintenance

Periodic inspection rain barrel and gutters to ensure system is not leaking, is free of obstruction, and removal of any deposits in bottom of tank. Check that overflow is draining in non-erosive manner. Rain barrels should be drained and disconnected during cold weather to prevent damage due to freezing.

Project Specifics

Timeline: Rain barrel distribution in 2007

Total Project Value: These projects are a low cost to construct

Funding Sources: This project was funded through an EPA grant to the Northwest Regional Planning Commission

Project Contact: Northwest Regional Planning Commission, 524-5958

Water Quality Best Management Practices

<i>Structural:</i>	<i>Used:</i>	<i>Non-Structural:</i>	<i>Used:</i>
Bioretention or Rain Garden		Conservation Design	
Infiltration Basin		Cluster Development	
Infiltration Trench or Gallery		Open Space Preservation	
Dry Well		Preserve Natural Areas	
Constructed Wetland		Shared Driveway	
Vegetated Swales		Minimize Pavement Widths	
Tree Boxes/Planters		Minimize Setbacks & Frontage	
Rain Barrels/Cisterns	X	Disconnect Impervious Surfaces	
Porous Pavement		Soil Restoration	
Green Roof		Riparian Buffer/Filter Strip	

Resources

- Vermont Agency of Natural Resources - Karen Bates at Karen.Bates@state.vt.us or 802-879-2339
- Vermont DEC Small Sites Guide for Stormwater Management - http://www.anr.state.vt.us/dec/waterq/stormwater/html/sw_LID.htm
- Winooski Natural Resources Conservation District – http://www.vacd.org/~winooski/winooski_rainbarrels.shtml

This resource is part of an effort to increase awareness of Low Impact Development. It was funded by the Vermont Department of Environmental Conservation using funds from the American Recovery and Reinvestment Act of 2009, the Vermont Agency of Commerce and Community Development, and the member municipalities of the Lamoille County Planning Commission.