

# Case Study: Bennington Region

## Vermont Municipal Green Infrastructure toolkit

Green Infrastructure (GI) means different things to different people depending on the context in which it is used. In Vermont we define it as “a wide range of multi-functional, natural and semi-natural landscape elements located within, around, and between developed areas at all spatial scales.” This includes everything from forests and meadows to wetlands, floodplains, and riparian areas. For municipalities Green Infrastructure can be promoted in two ways: by using Low Impact Development (LID) concepts at both the macro-level of town planning and site design and by promoting the use of Green Stormwater Infrastructure (GSI) practices and techniques. LID seeks to maintain a site’s pre-development ecological and hydrological function through the protection, enhancement, or mimicry of natural processes.” GSI consists of systems and practices that restore and maintain natural hydrologic processes in order to reduce the volume and water quality impacts of the built environment while providing multiple societal benefits.”

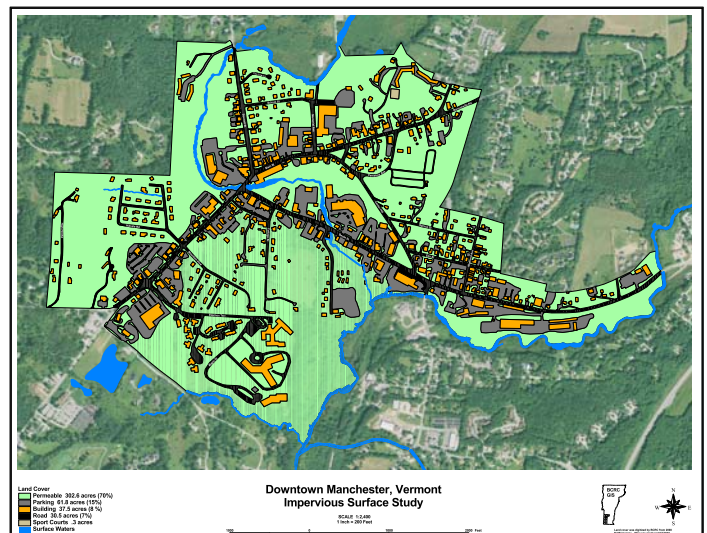
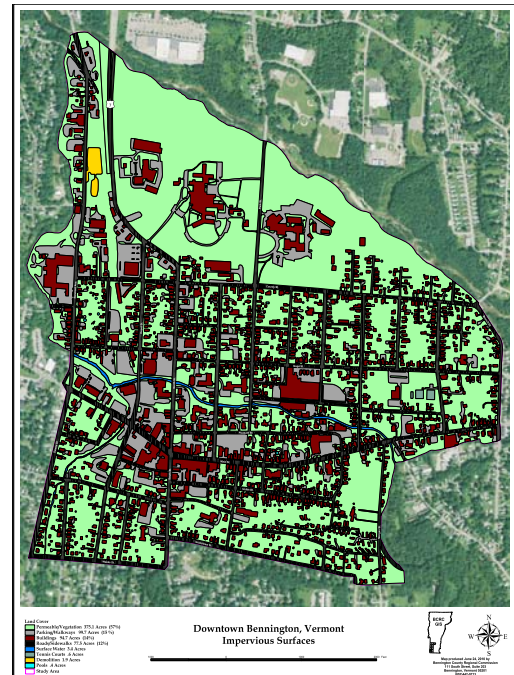
### Manage That Stormwater

As part of a project with the Vermont Agency of Natural Resources and with other Regional Planning Commissions in Vermont, the BCRC conducted stormwater management and flood resiliency outreach to a number of municipalities in the Bennington Region. Model town plan language and regulations were provided to the towns of Arlington, Bennington, Dorset, Manchester, Sandgate, Shaftsbury, Sunderland and Woodford.

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The BCRC and The Department of Environmental Conservation held a regional flood preparedness workshop, inviting all residences within the special flood hazard areas through direct mail. This workshop, where the new flood maps were viewed and information about flood insurance was provided, was very well attended.



## Next Steps

While all of the municipalities are poised to have adopted Flood Resiliency Town Plan elements and Flood Hazard Regulations which meet FEMA's standards, Shaftsbury remains the only town to incorporate stormwater management techniques in their newly adopted Town Plan. BCRC will continue to provide stormwater management and flood resiliency outreach to interested towns and home owners.

## One World Conservation Center Showcases Green Stormwater Infrastructure

Shortly after purchasing the former Howard Johnson's restaurant in Bennington to establish the One World Conservation Center, The New England Tropical Conservatory (NETC) realized that they had a drainage problem. Much of the roof and parking lot runoff was collected and diverted to the in-ground septic system while some downspouts caused site specific flooding during major storm events. Action was needed to address the issues and it was decided that Green Stormwater Infrastructure was the most cost effective solution while also providing an important educational opportunity.

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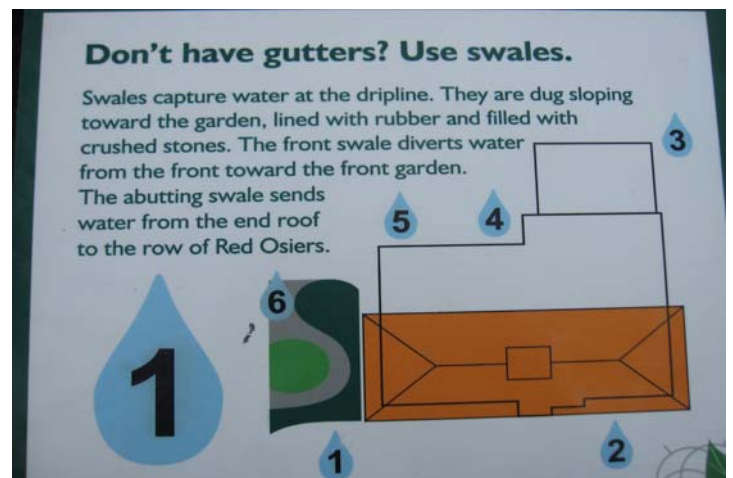
Teaming up with The Bennington County Conservation District, Bennington County Regional Commission and The Bennington County Career Development Center, NETC designed and built a rain garden to collect much of the roof runoff. All the roof downspouts were then



Newly built rain garden at The One World Conservation Center.

disconnected from the septic system. The front gutter was removed, the runoff was collected by a stone lined drainage swale and diverted to the rain garden. One downspout was piped directly into the rain garden. The most distant downspout was connected to a rain barrel.

Interpretive signs highlighting each component of the new drainage system were constructed and connected by a "trail" of rain droplets painted on the sidewalks. Once completed, The Team held a stormwater management workshop, attended by over twenty people, complete with a tour of the new drainage system.



For more information on building Green Infrastructure in Bennington County, please contact BCRC:

802-442-0456 or [www.bcrvt.org](http://www.bcrvt.org)

or, visit <http://vpic.info/GreenInfrastructureToolkit.html>