

Case Study: Managing stormwater in Chittenden County

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.”

Urban stormwater management

As part of a project with the Vermont Agency of Natural Resources and with other Regional Planning Commissions in Vermont, the Chittenden County RPC first sought to assess regulatory gaps and barriers to the adoption of green infrastructure programs and practices in several of our towns. We first surveyed a number of our member municipalities;

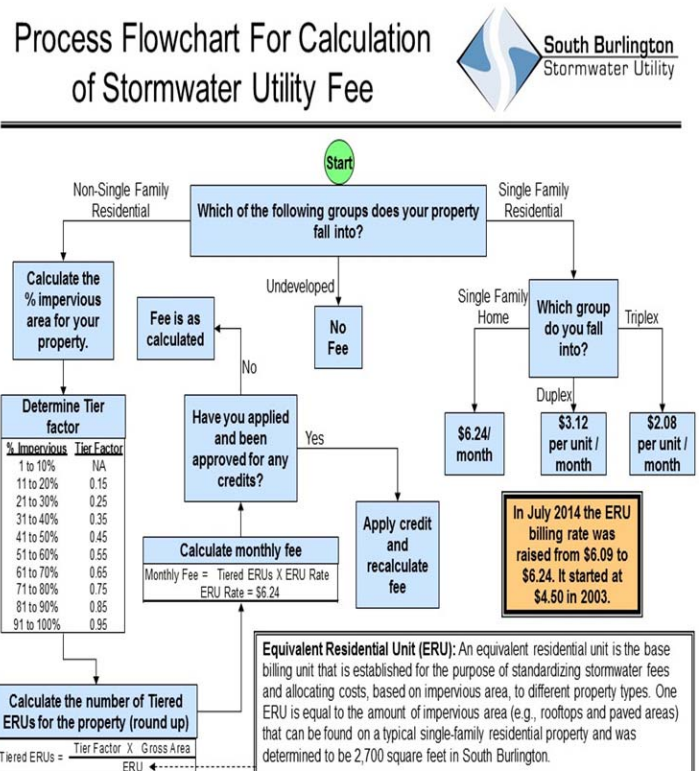
Creating a stormwater utility may be an effective way to manage these issues in more urban communities...

several were working on these issues, but were still in process of determining how best to proceed. It also became clear that managing stormwater may be a very different challenge in urban and rural communities. As other RPC case studies will focus on more rural initiatives, we have chosen to highlight here existing programs in three urban municipalities: Burlington, South Burlington, and Williston.

South Burlington has formed a separate stormwater utility; Burlington and Williston have dedicated sections within their public works departments. All function similarly, in charging a fee upon most or all properties, tiered to intensity of use or % of impervious land cover, to help fund stormwater management services.

South Burlington Stormwater Utility Fee

Williston’s fee structure is fundamentally similar...



An advantage of a fee structure is that it provides a dedicated funding stream for this work, and allows for clear accounting of revenues and expenses, and thus

Managing stormwater is not just an urban issue; it is very important for rural communities, as well.

helps ensure consistent implementation of programs, projects, and staffing specific to stormwater management.

Rural stormwater management

However, stormwater is not just an urban issue. Under new state laws, all municipalities must begin to manage stormwater in a more comprehensive manner. Rural communities will now be responsible, as well, including more intensive management of unpaved roads, and requirements for state permitting.

Of course, this will all cost money. To help raise funds, rural towns may wish to implement a fee structure to help accomplish essential and mandated goals. By way of example, the Town of Williston charges \$4.25 per month for each 4000 square feet of impervious area on each property. Most single family homes pay that amount. Under that formula, commercial or industrial properties with larger buildings and parking lots pay more, due to their larger impervious surfaces or structures, which generate proportionally more stormwater runoff that must be managed.

Of course, different communities will have different needs, opportunities, challenges, and costs. Two other examples from other areas that include both explanations and prospective fees are found below. Just as local needs will vary, so, too, may fees—these might be based upon land use, zoning district, % of impervious land cover. Best is often to construct a simple approach or formula that's easy to understand, and is proportional to impact created, parcel size or use, or other rational basis.

http://www.red-wing.org/media/files/departments/public_works/Understanding%20Stormwater%20Utility%20Fees%20-%206-24-14.pdf

<http://www.invergroveheights.org/DocumentCenter/Home/View/1660>

Roadway damage in Richmond, VT

June, 2015 storm



For more information on building Green Infrastructure in the Chittenden County region, please contact: CCRPC at (802) 846-4490 or info@ccrpcvt.org

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