

# Getting Towns Committed to LID/GSI: a case study from Rutland 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.”

### Getting LID/GSI in Subdivision Regs - Mendon

As part of a Municipal Planning Grant, the Rutland Regional Planning Commission (RRPC) worked with the Town of Mendon Planning Commission (MPC) in 2013-2014 to draft new subdivision regulations.

In the 2000 Mendon Subdivision Regulations, there was some basic language regarding runoff in a small section on erosion and sediment control. There was nothing in the 2000 Mendon Subdivision Regulations about stormwater per se.

In the process of updating the Subdivision Regulations in 2013-2014, a new section was added: **Stormwater Management and Site Preservation** with three subsections:

- Minimize Land Disturbance
- Erosion and Sediment Control During Construction
- Low impact Development (LID) and Green Stormwater Infrastructure (GSI)

LID/GSI-type language was included in the first two subsections: *For effective stormwater management, subdivision and/or site design the layout should...*

- *Incorporate landscaped areas to absorb stormwater runoff from adjoining impervious surfaces;*
- *Incorporate shared driveways and parking areas;*
- *Avoid or minimize the use of curbing and road gutters;*

- *Incorporate naturally occurring ponding and drainage areas.*

The third subsection in the draft regulations, Low impact Development (LID) and Green Stormwater Infrastructure (GSI), was especially robust and specific: *LID is a land planning and engineering design approach which seeks to maintain a site’s pre-development ecological and hydrologic function through the protection, enhancement or mimicry of natural processes. When the impacts of development cannot be fully mitigated through LID due to site constraints or existing infrastructure, green stormwater infrastructure (GSI) is proposed. GSI relies on reuse, infiltration, evaporation, and storage.*

The following LID/GSI standards were suggested (“could be incorporated”):

- Vegetation and Landscaping (such as constructing bioretention, swales, filter strips and buffers)
- Development on Steep Slopes (such as discouraging it on slopes greater than 25%)
- Reduce Impervious Surfaces (such as parking maxi-

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mums)

- Integrated Management Practices (such as small-scale controls to capture, store and infiltrate stormwater close to its source).

All three subsections, including LID/GSI, made it to the final mark-up sessions in December 2013. But then, all of a sudden, LID/GSI was dropped out of the draft regulations altogether.

What happened? It appears that after getting the MPC to consider stormwater and associated regulations, it was an overreach for Mendon to endorse more than the general concepts of LID/GSI regulations. It was apparently too big of a step to include a full page of LID/GSI standards in its first set of stormwater regulations. Chalk it up as a learning experience.

## Getting LID/GSI in a Municipal Plan - Ira

RRPC decided to use a more modest approach in our next attempt: including LID/GSI in a Municipal Plan. In 2014, Ira began work on updating its plan and it contracted with RRPC for assistance. Since the town needed to come up with a new Flood Resilience element for its plan, RRPC suggested incorporating some LID/GSI standards in that section.

This modest approach worked. Ira's draft Municipal Plan included three LID/GSI measures in its Objectives for Flood Resilience:

- Reduce percentage of impervious surfaces;
- Encourage green infrastructure techniques in stormwater regulations;
- Augment municipal plans and zoning bylaws to reduce stormwater runoff volumes and velocity that

can increase flood damage.

The impervious surfaces objective was especially strong: *Limit the number of rooftops and pavement, by using permeable surface materials, employing disconnection practices, by implementing Low Impact Development (LID) principles, and other methods to increase stormwater retention and infiltration.*

The new Municipal Plan was adopted in May 2015. Ira is now committed to using LID/GSI to regulate stormwater. Success on a small scale, but success nonetheless.

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## Challenges to Getting Towns Committed to LID/GSI

It is apparent that not every town in the Rutland Region is ready to embrace LID/GSI in its zoning regulations or even in its broad Municipal Plan objectives. This is going to a gradual process that will require more outreach and education.

## Next Steps

After our experiences with Mendon and Ira, in the future, RRPC will need continue to find each town's comfort level in adopting LID/GSI regulations and objectives. In order for RRPC to make any progress in expanding acceptance, it is clear that this will need to be done town-by-town and with incremental steps.

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

Rutland Regional Planning Commission at (802) 775-0871 or [www.rutlandrpc.org](http://www.rutlandrpc.org)

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