



Rain Gardens and Green Infrastructure in Berkshire County

June 14, 2023

DID YOU KNOW?

Rain and storm events are increasing!

- In Berkshire County, the frequency of heavy rain events has increased in recent years.
- Recent intense storms have washed out roads and increased flooding on streets and private properties.
- Heavy rain events are predicted to occur more often in the future, due to climate change.

Stormwater runoff can cause flooding and erosion!

- Flooding occurs where increased rainfall amounts saturate the soil and cannot be fully absorbed.
- Flooding also occurs where rain or snow melt runs off hard surfaces such as roadways, parking areas, and even roofs more quickly than it would naturally.
- Stormwater flows to the nearest water body or low-lying area, resulting erosion, quickly rising river levels, and flooding.
- Stormwater also collects pollutants on the land surface such as trash, pet waste, oils from leaking vehicles, and even sand/sediment, carrying pollution to local wetlands and waterbodies.

Are you concerned about increased flooding, loss of land due to erosion, and/or property damage,

from future storms bringing more rain and runoff?



Green Infrastructure Is One Solution!

What is Green Infrastructure?

Stormwater is commonly managed with gutters, drains, pipes, and basins, which are referred to as “grey infrastructure”. These help to transport rain and snowmelt away from roads and developed areas.

“Green Infrastructure” mimics nature and collects and absorbs stormwater where it falls, using:

- Rain Gardens
- Permeable pavement
- Vegetative buffers

- Green roofs
- Rainwater harvesting
- Planter boxes

Why do we need Green Infrastructure, or GI?

- Traditional grey infrastructure is not always designed to manage the storms we have today, never mind the rain predicted in the future.
- Adding solutions to our landscape that manage stormwater as nature intended are part of the solution to reduce the frequency and extent of flooding.

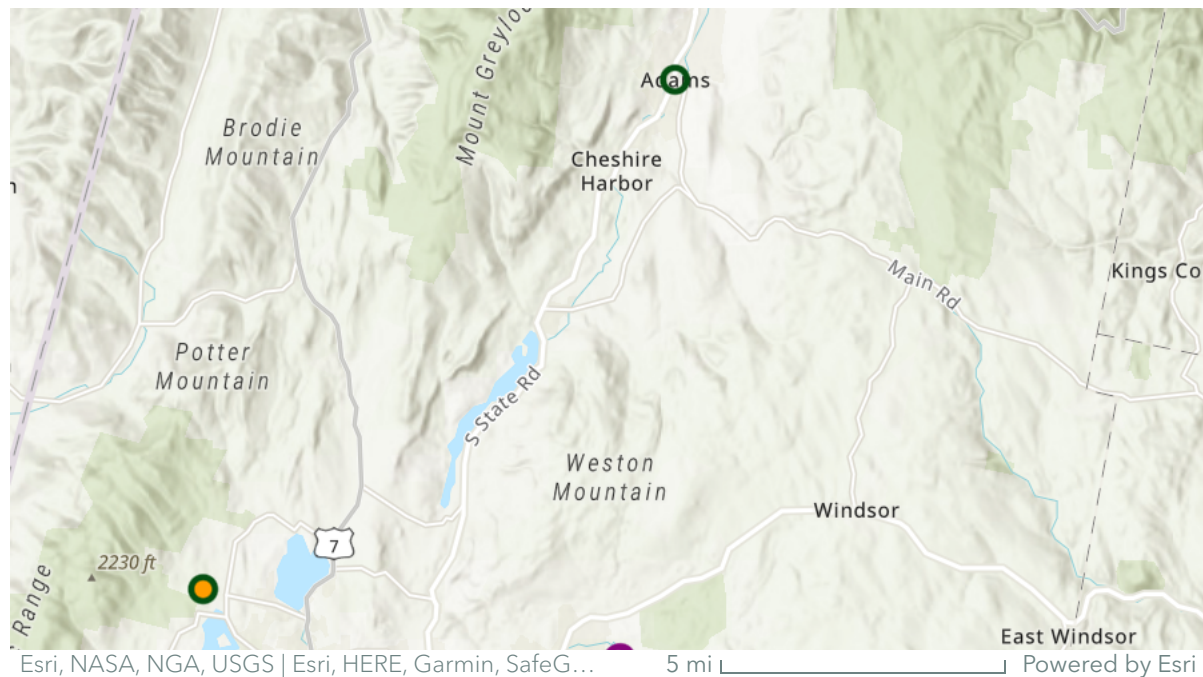


GI has other benefits:

- Climate change resiliency
- Improved aesthetics and property values
- Enhanced ecological functions and support of pollinators
- Improved water quality
- Reduced waterfront erosion
- Protect, restore, and manage ecological systems
- Safeguard public health, provide clean air and water, increase natural hazard resilience, and sequester carbon.

Find Green Infrastructure Near Me

Real examples of Green Infrastructure are right in our backyard – Find GI in Berkshire County on this map



Berkshire County GI

Do you know a green infrastructure site in Berkshire County that's not listed here? Contact [Joanna Nadeau](#) to get it added to the map.

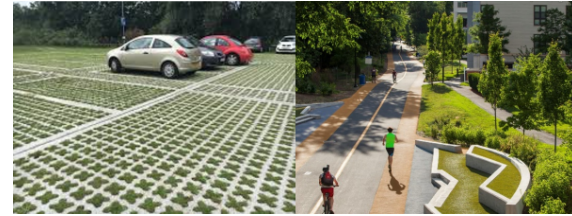
Bioretention Basin / Rain Garden

- At-home and larger scale options
- Parking lot medians or edges, sidewalks, along roadways, buffers in agricultural areas
- Increase green space, reduce UHI



Permeable Paving/Pavers

- Open areas that must remain paved (i.e. parking lots) that do not have significant tree cover or heavy traffic
- Walkways, parking stalls, driveways



Swales

- Used for stormwater conveyance and sediment removal
- Areas with size constraints such as parking lot medians or edges, sidewalks, along roadways, buffers in agricultural areas



Increased Flood Storage / Wetlands

- Identify areas that may add floodplain area
- Additional storage for larger storms



What Can I Do?

**Build Rain
Gardens,
Encourage
Infiltration**

Capturing runoff in a rain garden recharges groundwater, reduces water pollution and provides wildlife habitat.

**Install Rain
Barrels, Use
Stormwater for
Irrigation**

Rainfall from your roof can fill a rain barrel, supplying your outdoor watering needs.

**Plant Native
Plants, Support
Pollinators**

In wet areas, thirsty native plants soak up water. Converting lawn to native plants provides food and housing for pollinators.

**Replace
Pavement,
Reduce Runoff**

Converting
pavement to
vegetated area or
permeable pavement
helps soak up water.

For More Information:

Visit the [GI Fact Sheet](#)

Supported by:

This StoryMap was developed as part of a collaborative climate resilience project that Richmond and West Stockbridge are doing to build a plan for nature-based solutions and projects to mitigate flooding.

To receive further updates about the Richmond and West Stockbridge stormwater projects, add your email address here: <https://tinyurl.com/RWSSignup>.

This project is generously funded by the Massachusetts Executive Office of Energy and Environmental Affairs' Municipal Vulnerability Preparedness (MVP) Grant program, which provides support for cities and towns to plan for climate change and to implement projects to build local

resiliency. More information about this program can be found at <https://resilientma.mass.gov/mvp/>.

Reference Sources

City of Pittsfield

Alison Dixon, Housatonic Valley Association

Municipal Vulnerability Preparedness Program Action Grant
Projects: <https://www.mass.gov/info-details/municipal-vulnerability-preparedness-program-action-grant-projects>