Green infrastructure is an approach to water resource management that incorporates vegetation, soils, and natural processes into the built environment to manage stormwater, mitigate the impacts of climate change, and maintain healthy and sustainable communities.

Green infrastructure’s ability to capture, absorb, and filter stormwater before it flows into groundwater or surface waters has provided economic, social, and environmental benefits to numerous communities. Nonetheless, the approach is still relatively new and many still have questions.

As the benefits of green infrastructure have become more widely known, barriers still often block the adoption of green infrastructure approaches. These barriers can occur throughout the planning and development process, and can take many forms.

The barriers to green infrastructure typically fall into four main categories:
1. Technical and Physical Barriers
2. Legal and Regulatory Barriers
3. Financial Barriers
4. Community and Institutional Barriers

Many of the barriers in these categories are due to unfamiliarity with green infrastructure; however, there are strategies to overcome these barriers.

BARRIERS IN NH AND STRATEGIES USED TO OVERCOME THEM

In 2013, a working session was held with local decision makers to identify the existing barriers to the implementation of green infrastructure projects in New Hampshire. Participants included municipal staff, volunteer board members, and elected and appointed officials. In addition to identifying local barriers, participants also developed specific strategies and approaches to address them. What follows is an overview of the results of this working session.

Technical and Physical Barriers

Technical and physical barriers to green infrastructure at the local level include limited or no maintenance of existing infrastructure, unfamiliarity with green infrastructure, little or no trust in the science and technology behind it, and a lack of understanding how green infrastructure is relevant to local stormwater issues.

Some of the specific technical and physical barriers include:
- The practice is new, not widely understood, and unproven,
- The limited ability of local DPWs to maintain existing infrastructure
- Existing maintenance and capital improvement priorities.

Many of the technical and physical barriers at the local level are the result of limited outreach and education, limited resources, competing interests, and a lack of confidence in local government.

To overcome these barriers, local governments and municipalities need to:
- Develop training programs for staff
- Increase training opportunities for staff
- Improve documentation of maintenance activities.

Overcoming Barriers to Green Infrastructure
Legal and Regulatory Barriers
Legal and regulatory barriers at the local level include resistance to new rules and regulations, perceived adverse impacts to property owners, and an inability to understand its importance.

Some of the specific legal and regulatory barriers include:
- overly prescriptive, inflexible, and conflicting rules,
- complications associated with property rights, and
- lack of a clear regulatory framework.

The acceptance and implementation of green infrastructure projects is dependent on the leadership, knowledge, and support by local officials.

To overcome the legal and regulatory barriers, local governments and municipalities need to:
- ensure and maintain local control rather than allow state and federal agencies to mandate standards,
- ensure that property rights are not adversely impacted, and
- make available cost benefit analyses showing the cost effectiveness of green infrastructure and its positive impacts on the local economy.

Financial Barriers
Currently, most local governments and municipalities are experiencing a time of fiscal constraint where limited resources and funds are available for infrastructure projects. Therefore, in order to implement green infrastructure projects local governments and municipalities must find innovative ways to fund these projects. Even without current fiscal constraints, a number of financial barriers remain.

Some financial barriers include:
- a perception that the community cannot afford green infrastructure investments,
- a low priority for green infrastructure projects compared to other infrastructure projects, and
- the perception that green infrastructure may be an unfunded mandate from state and federal governments.

Green infrastructure can be less costly over its operational life span and has the ability to meet multiple development and stormwater management objectives. Therefore, it can be an efficient and cost effective alternative compared to conventional stormwater infrastructure.

In order to overcome perceived financial barriers:
- local governments are encouraged to share with the public the multiple benefits and avoided costs associated with green infrastructure
- local officials need to consider providing incentives that encourage the use of green infrastructure over conventional infrastructure.

Community and Institutional Barriers
Community and institutional barriers at the local level are a considerable constraint to green infrastructure projects. The characteristics and values of a community significantly influence a community’s acceptance of green infrastructure and may represent critical barriers to its implementation. These barriers include public knowledge and perception, landowner preferences, development plans, resistance to change, and a lack of political commitment and leadership.

Barriers in this category include:
- insufficient and inaccessible information about green infrastructure and its benefits for political leaders, administrators, agency staff, developers, builders, landscapers, and others, including the public,
- a lack of integration of green infrastructure in local rules and regulations,
- a lack of understanding concerning the interconnectedness of our water resources, and
- resistance by developers to integrate and use green infrastructure.

Overcoming these barriers will require local governments to:
- generate public understanding and potential support,
- conduct education and outreach, and
- ensure broad stakeholder participation.

This can be most easily achieved if local government leaders gain a better understanding about opportunities, funding, benefits, and avoided costs associated with green infrastructure.