



**IPSWICH RIVER  
WATERSHED  
ASSOCIATION**

*Connecting  
Communities from  
Source to Sea*

The Ipswich River Watershed serves as the voice of the Ipswich River. Through outreach, education, monitoring, and advocacy, we seek to connect the people, communities, and ecosystems integral to a healthy watershed.

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# Keeping Water Local at Riverbend

## Demonstration Project #6: *Green Roof*

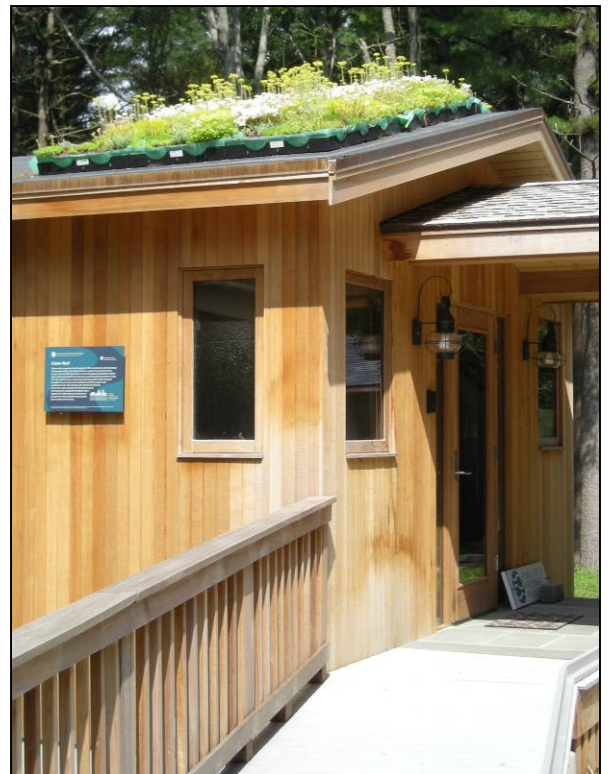
Water normally runs off a roof and, unless harvested as in Demonstration Project #5, the drainage from all the roofs in the watershed can contribute to both flooding and low-flow problems.

One way to address these problems is to create a “green roof.” This is a rooftop that is covered with a waterproof membrane, prepared with a lightweight soil or planting medium, and then planted with suitable plants. Green roofs reduce the amount of water running off the roof, and can also act as an insulating blanket, thus reducing heating and cooling costs. Other benefits include greater longevity for the roof, greater sound insulation, and improved micro-climates.

There are different types of green roof installations, depending on the steepness of the roof, and whether the plantings will be actively managed or left to grow with little regular maintenance. On flat roofs, plantings can include trees and shrubs, and may be used as a rooftop garden. On pitched roofs, low-maintenance plants are usually selected. Plants like sedums are often chosen because they are drought tolerant and do well in a sunny location; however, other plants, including grasses and mosses, may be suitable for specific locations. See [www.greenroofs.org](http://www.greenroofs.org) for more information.

Europe has led the way in developing and promoting green roofs, which are now becoming more common in U.S. cities like Chicago and Portland, Oregon. Another green roof was recently installed on a flat roof near Town Hall in Ipswich, MA.

IRWA encountered significant limitations for our green roof project. The loading capacity of the building was insufficient to bear the additional weight of a green roof; thus we decided to install the green roof on only the new entry, which has a different roof structure. This entry is on the north side of the house, and the roof itself is quite shaded in summer, which obviates some of the cooling benefits of the green roof and is not the optimal location for the sedums and other drought tolerant plants that are often used for green roof installations. However, other plants, including mosses that are very drought tolerant, provide a suitable and attractive alternative. Modular planting frames allow planting to be done prior to installation, rather than having to do the planting on the roof itself.



*The green roof reduces rain water running off of our roof and looks nice too!*

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