

Bioswale Maintenance

Recently, the City of New Haven, Urban Resources Initiative, EMERGE CT, Inc., and other partner organizations installed a rain garden, or **bioswale**, in front of your residence or place of work. This installation is part of an ongoing initiative to construct approximately 200 bioswales throughout the City's downtown area. While it may look like an ordinary street-side planter, this bioswale is engineered to collect stormwater runoff from the street and sidewalk, much like a regular storm drain. Unlike a storm drain, however, the bioswale retains and helps clean this water through natural processes of infiltration and plant uptake. When operating together with the existing storm drain system, bioswales can help reduce flooding throughout downtown New Haven and limit pollution into the Long Island Sound in a way that minimizes cost and construction demand.

How does it work?

In order to perform these functions effectively, the bioswale has been built with some unique design features as highlighted below.

Plants are a mixture of shrubs and perennials suited to withstand the challenges of life in a bioswale.
Peastone helps protect against erosion and prevent weed establishment.



The **gabion** serves as a quick-release mechanism, allowing water to rapidly drain into a layer of buried gravel.



Each bioswale is **graded** to have a U-shaped interior, where soil in the center is lower than soil at the edges. This helps water pool and properly drain.

Edging installed along the sides of a bioswale provides visual interest and can help prevent the unintended growth of grass and weeds.

The **inlet** is where stormwater runoff enters into a bioswale. A raised bump on the splashpad helps minimize how much water runs past.

Do's and Don'ts of Bioswale Care

Over time, the bioswale will collect debris including trash, leaves, soil, and other materials carried in runoff water. While this process is normal, it can critically impair the bioswale's ability to absorb water. Bioswales will be professionally maintained at regular intervals, but will not be cleaned after every storm. We encourage you to take the following steps to ensure the bioswale continues to function at the highest level possible:



With the arrival of winter, snow will be a major concern. Please **do not load snow into bioswales**, as this can permanently damage or kill the plants inside. If you use an outside service for snow clearance, inform them of the location of nearby bioswales in order to avoid damage to snow removal equipment or the bioswale system.



Avoid blowing leaves or trash into the bioswale system, as this clogs the system and causes localized flooding. Please **consider pulling out trash and excess leaves** so that the bioswale remains beautiful and functional and continues to infiltrate stormwater.



Inform City of New Haven staff about any major issues – including damage to bioswale infrastructure, missing or destroyed plants, and poor drainage or flooding. Dawn Henning, Project Manager for the bioswale project, can be reached at dhenning@newhavenct.gov or (203) 946-8101.

Keep an eye out for more bioswale installations in the downtown area this winter and spring and thank you for helping to steward New Haven's growing system of green infrastructure solutions!