

Polluted Runoff: Solutions

Frederick, MD







The Frederick Food Security Network (FFSN)

mostcenter.org/casestories

■ Problem:

Faculty and staff of the Hood College Center for Coastal and Watershed Studies wanted to address several local issues to help the surrounding community. Local water quality was being impacted by high levels of stormwater runoff, and some residents were facing food insecurity. With little to no grocery stores, parts of Frederick are classified as food deserts.

■Solution:

A Hood College faculty member researched rain gardens used in Australia that divert polluted rooftop runoff to irrigate raised garden beds. If used to grow produce, this unique design presented an opportunity to tackle both water pollution and food access in a single project. In 2017, four vegetable rain gardens were installed at a local homeless shelter based on the Australian model. As a new project, the gardens are currently being monitored in conjunction with the University of Maryland's CONSERVE program. The soil is routinely tested, and captured rainfall is analyzed for bacteria and metals. As of mid-July, over 128 pounds of produce has been grown and distributed in the community. The Frederick Food Security Network regularly assists other community gardens and plans to further expand their network through grant funds from the Chesapeake Bay Trust and EPA.

<u>Community Engagement:</u> During the growing season community involvement runs strong, particularly with local churches and homeless shelter residents. Many users of the community garden gain a sense of ownership. The first growing season has so far produced over 100 volunteers with over 500 volunteer hours.



The space, before vegetable rain garden construction.



Photo credit: FFSN

Key Project Facts

Project Location: Frederick, MD

Year Installed: Two in 2017; two in 2018

Type of Project: Bioretention; Rain Garden

Scale: 4 vegetable gardens installed; 5 community garden sites; 500 gallons of stormwater runoff divert-

ed per site during each rain event

Funding Sources: Chesapeake Bay Trust; Aramark Dining Services; Rotary Club of Carroll Creek; Green Streets, Green Jobs, Green Towns Grant

Cost: \$1,400 per vegetable rain garden bed

Partners: Student Homelessness Initiative Partnership; The Religious Coalition for Emergency Human Needs; Housing Authority of Frederick; Second St. and Hope; Islamic Society of Frederick; Boys and Girls Club of Frederick County; Frederick Memorial Hospital; Community Action Agency Food Bank

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More Info: http://ccws.hood.edu/ffsn/

What is Polluted Runoff?

The growth of our cities has resulted in too many paved surfaces, which prevent rain water from being absorbed by the ground. Instead, the water runs off streets and buildings, collecting trash and dangerous chemicals on its way. This contaminated water overflows into our streams and rivers, creating public health hazards and toxic waters.

Stormwater projects create safe paths for polluted runoff to be captured and filtered before it reaches our waterways. They keep communities healthy and the environment clean.

When communities and their local governments work together to solve big problems like stormwater runoff, that's a story worth telling!