

Partners

Virginia Department of Conservation and Recreation

Virginia Department of General Services

City of Richmond

The Alliance for the Chesapeake Bay

Special thanks to:

Messer Landscape of Virginia

BioForm Landscape Architecture

Civil Engineering Services

Tetra Tech

Nevue Ngan Associates

Environmental Protection Agency

Visit www.greenvacapitol.org for details about design and water-quality monitoring related to this project.

To see how the city of Richmond is improving stormwater management, visit www.richmondgov.com/PublicUtilities/StormwaterUtility.aspx.

Greening Virginia's Capitol is one of 160 projects selected worldwide to participate in the Sustainable Sites Initiative, or SITES. SITES is a new rating system similar to LEED that focuses on water use, soil and vegetation management, materials selection, human health, construction, operations and maintenance. For more information, visit www.sustainablesites.org.

Results of Greening Virginia's Capitol

- Polluted stormwater flowing from Capitol Square into Richmond's sewer system will be reduced by a projected 64 percent.
- Amounts of nitrogen and phosphorus that run off Capitol Square will be reduced by a projected 60 percent. (Excess nitrogen and phosphorus can deplete our waters of oxygen, harming aquatic life.)
- Stormwater runoff will be monitored to compare pre- and post-project levels of volume and pollution.

Green your home!

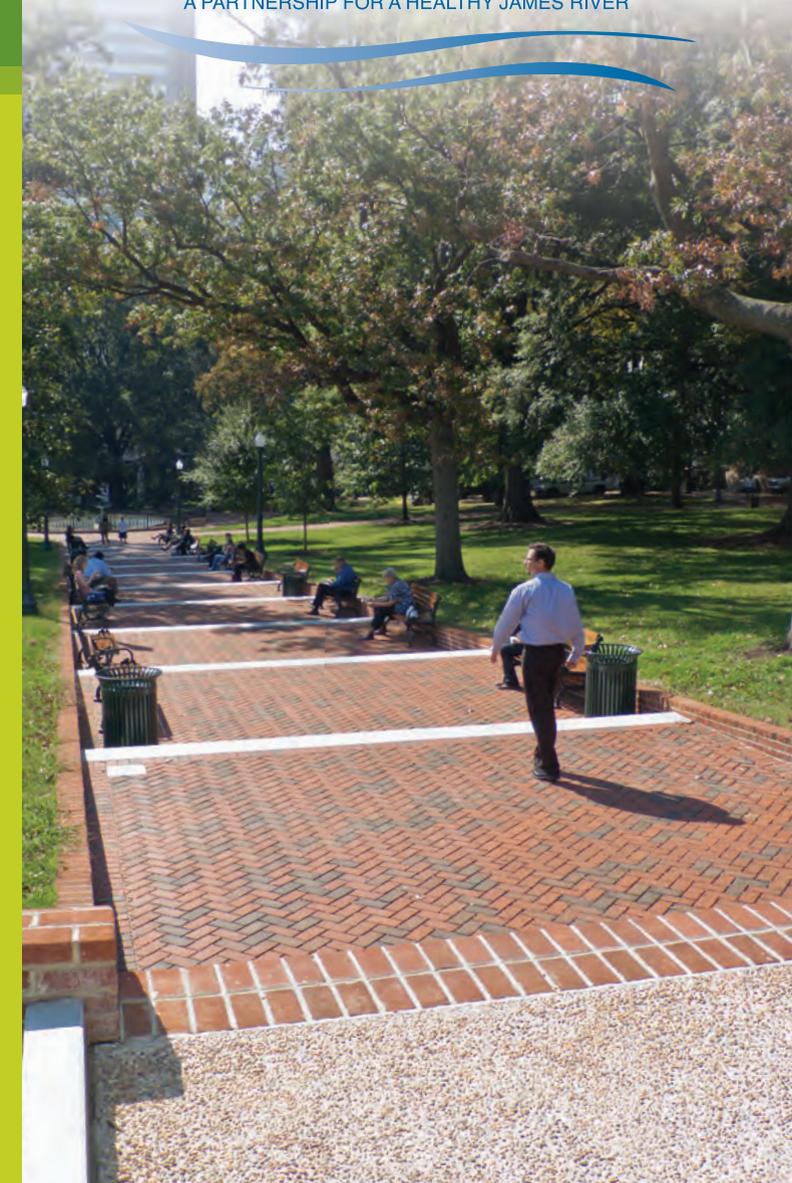
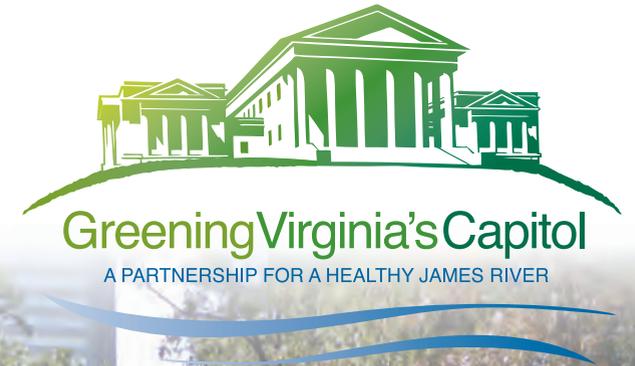
Many of the practices used to "green" Virginia's Capitol can be applied to your own home. Starting in 2010, Richmond began offering a credit on the stormwater utility fee to property owners who reduce impervious surfaces. For more information, go to <http://www.richmondgov.com/dpu/StormwaterCredits.aspx>.



Photo by Kristin Foringer

A few tips:

- Reduce impervious surfaces. When adding a driveway, patio or pathways, use materials such as permeable bricks or open paving blocks.
- Plant more native trees and plants. Reduce lawn areas that don't capture runoff as well as trees and plants.
- Disconnect your downspout. Direct flow to a rain barrel, rain garden or other area of landscaping instead of directly to the street.
- Apply fertilizer to your lawn and garden sparingly, if at all. Chemicals and nutrients in fertilizer collect in stormwater runoff and are major pollutants in rivers and streams.
- Leave grass clippings on the lawn. This reduces the need for fertilizer.
- Pick up after your pet to prevent fecal matter from entering streams and rivers.



A great deal of history has taken place at Virginia's Capitol. On Aug. 3, 2010, a new kind of history broke ground when Capitol Square started "going green."

This project, **Greening Virginia's Capitol**, improves how stormwater runoff is managed on and around Capitol Square. Several low-impact development practices have been put in place to reduce the amount of polluted stormwater that flows from this area into the James River and ultimately to the Chesapeake Bay.

This project helps protect the James River and beautifies Virginia's Capitol with environmentally friendly landscaping. In addition, it sets an example for visitors and other communities to follow when dealing with stormwater runoff issues.

Stormwater runoff: Why does it matter?

Stormwater runoff is water that flows over land and into rivers and streams during and after rainfall or when snow melts. What many people do not realize is unmanaged stormwater carries excess nutrients, sediment and other contaminants that pollute our waterways and cause excess erosion and flooding. Stormwater runoff can be especially problematic in urban areas where paved roads and sidewalks prevent stormwater from absorbing into the ground and naturally filtering through the soil.

Greening Virginia's Capitol



1

An underground tank, or cistern, was installed to harvest rainwater. The water will be used to irrigate the lawn and plants and to provide water to the Bell Tower fountain in Capitol Square.



2

Rain gardens were installed on the southwest corner of Capitol Square near the Bell Tower. Water-tolerant plants help remove pollutants in stormwater.

Aging, impervious brick walkway and terraced steps on the Capitol's west side were reconstructed with a porous paving system, allowing the ground to absorb stormwater.

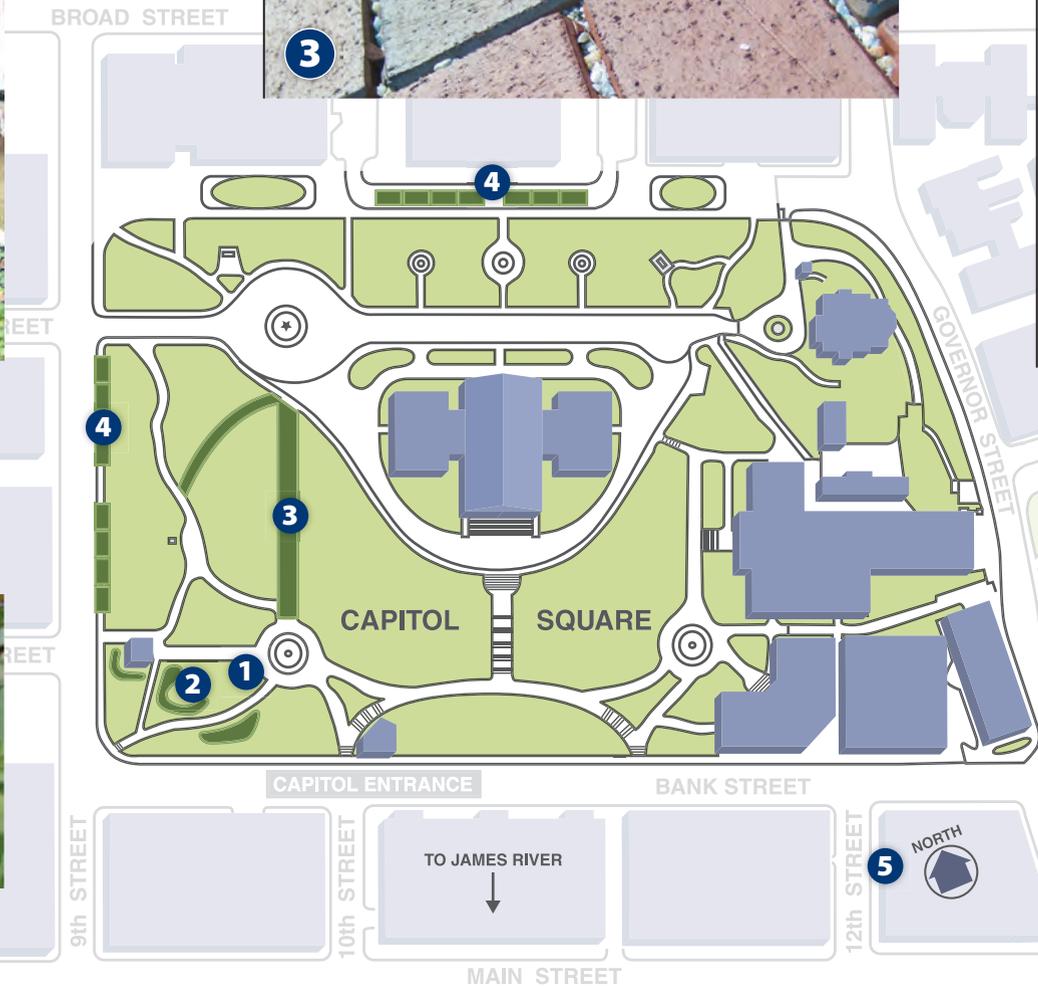


3



4

The Darden Garden parking area adjacent to Capitol Square is now Richmond's first "green street." Stormwater plantings collect and filter runoff. A portion of 9th Street was also transformed into a "green street" using the same stormwater-planter technology.



5

Through a partnership with the city of Richmond, the alleys of 5th and 12th streets were transformed into "green alleys" featuring porous paving systems.