A Local Government Guide to the Chesapeake Bay
# PROTECTING YOUR INFRASTRUCTURE THROUGH STORMWATER RESILIENCY

A Local Government Guide to the Chesapeake Bay is a seven-module series created to support decision making by local officials. As a local leader, your decisions set the course for your community. Your actions determine the health and vitality of your jurisdiction, as well as that of local waterways and the Chesapeake Bay. You can achieve win-win outcomes by prioritizing local economic development, infrastructure resiliency, public health, and education while also protecting your environment. This fact sheet accompanies a module focused on stormwater and flooding.

WHAT IS STORMWATER?

Stormwater, or runoff, is precipitation that does not evaporate or soak into the ground but instead runs across the land and into the nearest waterway. Along its path, it picks up pollutants (like litter, toxics, nutrients, and bacteria) and erodes the land, carrying sediments and pollutants directly to local waterways and the Chesapeake Bay. The amount of stormwater that your community experiences is likely to increase due to projected increases in precipitation.

THE WATER CYCLE

Condensation

Precipitation

Evaporation

Stormwater Runoff
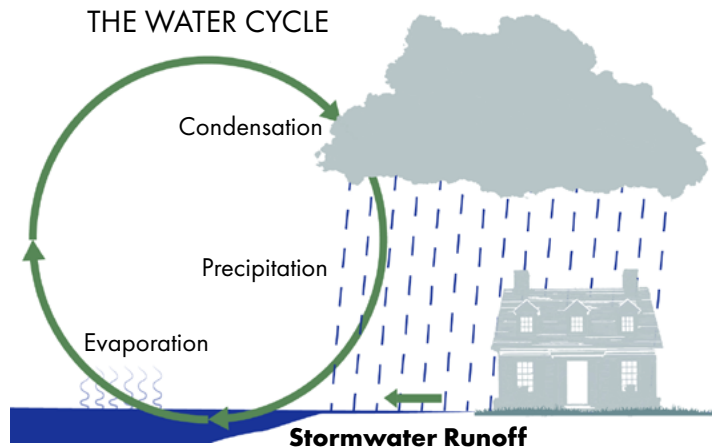
IMPACT ON YOUR COMMUNITY

Flooding can disrupt education through extended building closures, impassable bus routes, lack of internet access, and more.
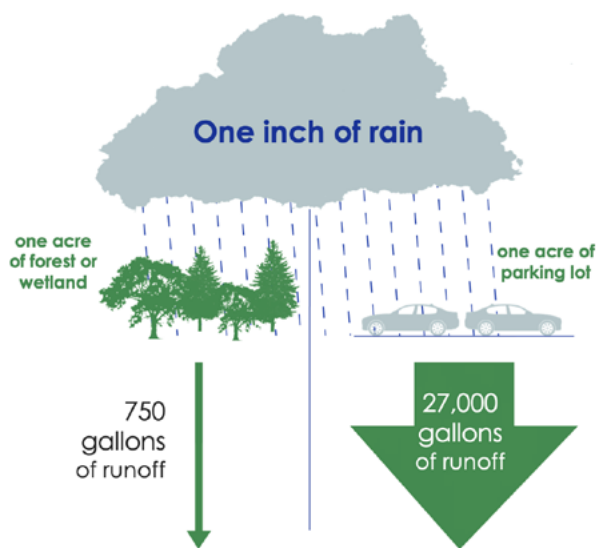
Pollution carried in runoff can make local waterways unsafe. Recreation and eating local fish and shellfish may become unsafe. Stormwater runoff can also threaten drinking water in your community or downstream.

Diversity Equity Inclusion Justice

Flooding in the United States disproportionately harms African American neighborhoods.

Read the report from Scientific American

Natural landscapes reduce runoff in your community. Adding more parking lots, roofs, and roads changes landscapes and can have negative impact on stormwater resilience.

One inch of rain

one acre of forest or wetland

one acre of parking lot

750 gallons of runoff

27,000 gallons of runoff

Data from Pennsylvania State University

Every **$1** invested in natural hazard mitigation steps saves **$7** in emergency response and recovery costs in the future.

Data from the National Institute of Building Sciences

PROTECT YOUR COMMUNITY

WHAT YOU CAN DO

Meet with your MS4 coordinator or stormwater engineer to discuss strategies, like implementing green infrastructure, to reduce strain on your stormwater management systems.

Protect and restore valuable wetlands and other natural landscapes that act as nature's flood insurance, filter stormwater, and protect your community's infrastructure.
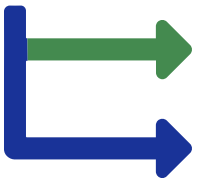
Build flexibility and adaptability into your community's plans to allow for changes in design and construction, as well as maintenance of infrastructure, as conditions change.

A FEW RESOURCES

Beyond this module, here are a few other resources you may find useful.

University of Maryland's Municipal Online Stormwater Training Center (MOST)
https://mostcenter.umd.edu/
Online courses ranging from financing to construction and a library of resources, including case studies.

First Street Foundation
https://firststreet.org/
Information and research on flooding, plus search for flood risk in your community with Flood Factor.

Wetlands Watch
http://wetlandswatch.org/landscape-resources
Resources on sea level rise, floodplain management, conservation landscaping, and citizen action.

EPA's Green Infrastructure Portal
https://www.epa.gov/green-infrastructure
Hear EPA administrators throughout history talk about their time at the EPA in a 7-minute video.

Chesapeake Bay Program's Stormwater Runoff
http://bit.ly/CBPstormwater
Primer on stormwater runoff and the Chesapeake Bay, including short 1:30 minute video.

Naturally Resilient Communities
http://nrcsolutions.org/
Includes case studies and funding information for nature-based solutions to flooding.