ALLIANCE
for the Chesapeake Bay

# GREEN INFRASTRUCTURE TECHNICAL ASSISTANCE FOR TOWNS

VML Elected Officials Conference - January 8, 2026

Photo by Chesapeake Bay Program

# AGENDA

- **Who is the Alliance for the Chesapeake Bay?**

- **Technical Assistance Program Overview**

  - **Final Product Walkthrough**

- **Case Study: Moving Towards Implementation in Mt Crawford**

- **Other Resources for Local Governments**

# VISION

We envision clean water and resilient landscapes, cared for by all the people who live, work, and play in the Chesapeake Bay watershed.

# MISSION

The Alliance restores the lands and waters of the Chesapeake Bay watershed. Our collaborative and action-oriented approach delivers on-the-ground solutions, technical assistance, and builds capacity to achieve healthier lands and cleaner water.

# VALUES

- Adaptive - We design tactics to achieve common goals.
- Collaborative - We partner across sectors and regions.
- Result-Oriented - We deliver efficient, measurable, and holistic programming.
- Equitable - We prioritize inclusivity in directing our impact.

AGRICULTURE

FORESTS

GREEN INFRASTRUCTURE

STEWARDSHIP & ENGAGEMENT
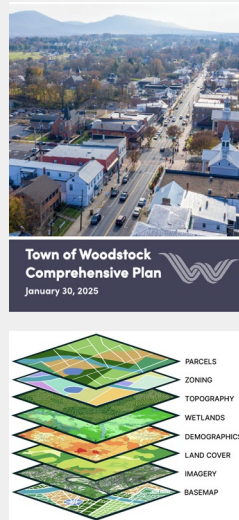
# GREEN INFRASTRUCTURE TECHNICAL ASSISTANCE FOR TOWNS

# PROGRAM OVERVIEW

- Goal: Provide recommendations to VA Towns to utilize green stormwater infrastructure (GSI) to address erosion and flooding issues.

**Site Visits**



**+**

**Desktop Analysis**



Town of Woodstock Comprehensive Plan
January 30, 2025

PARCELS
ZONING
TOPOGRAPHY
WETLANDS
DEMOGRAPHICS
LAND COVER
IMAGERY
BASEMAP

Image: NASA Earthdata

**+**

**Collaboration**



VIRGINIA
DEPARTMENT OF
FORESTRY

friends of the
RAPPAHANNOCK

THRASHER
ARCHITECTURE | ENGINEERING | FIELD SERVICES

HAMPTON ROADS
PDC

**=**

**Product**



GREEN INFRASTRUCTURE ACTION PLAN
Mount Crawford, Virginia

ALLIANCE
for the Chesapeake Bay

Photo credit: VisitRockingham.com

# GREEN INFRASTRUCTURE ACTION PLAN

- **Recommendations**



Explanation of the practice

Maintenance requirements

Estimated costs

Photo of the practice

# GREEN INFRASTRUCTURE ACTION PLAN

- **Recommendations**



Potential funding sources

Suggested implementation partners

Design considerations

Permitting requirements

Community engagement strategies

# GREEN INFRASTRUCTURE ACTION PLAN

- ## What else is in the plan?



For our forests. For our streams. For our future. | allianceforthebay.org

# WHO WE ARE WORKING WITH

MT. Crawford Virginia 1825



TOWN OF LOUISA VIRGINIA 1873



Historic Village of Irbington
CARTERS CREEK
Circa 1891
Irbington, Virginia



WOODSTOCK Virginia



SMITHFIELD VIRGINIA
OLD COURTHOUSE BUILT IN 1750
INCORPORATED 1752

# MOVING TOWARDS IMPLEMENTATION IN MT CRAWFORD



Tree/shrub plantings to control erosion

# THANKS

- **Key Partner**
  - Virginia Municipal League

- **Funding**
  - National Fish and Wildlife Foundation

# 2026

- **We have acquired funding for 5 more towns in 2026!!**
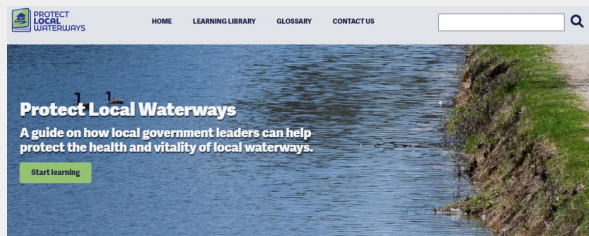


## Capacity Building Initiative (CBI)
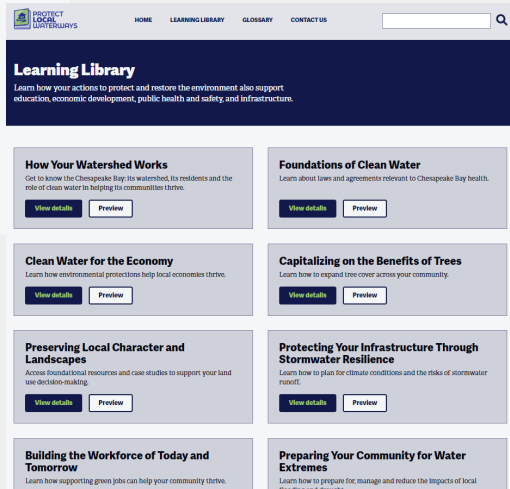
# WHO WE ARE WORKING WITH

Is your town interested?

# OTHER RESOURCES

# PROTECT LOCAL WATERWAYS



## Resource Hub for Local Officials
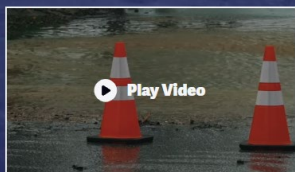*Designed by Local Officials for Local Officials*

# PROTECT LOCAL WATERWAYS

## Protecting Your Infrastructure Through Stormwater Resilience

Managing stormwater runoff and increasing stormwater resilience can mitigate flooding and flood-related damages to local infrastructure. Stormwater runoff can carry bacteria and other pollutants into waterways used for drinking water, fishing, swimming and other recreational activities. This module explains how to protect your community by planning for climate conditions and the risks of stormwater runoff.

Read the video transcript ➔

**Preview**

▶ Play Video

### IN THIS TOPIC YOU WILL LEARN

**1** What is stormwater and how can it be dangerous to my community?

**2** What can I do to mitigate flood-related damages?

**3** How will future climate conditions impact infrastructure?

---

A Local Government Guide to the Chesapeake Bay

Module 6: Protecting Your Infrastructure Through Stormwater Resiliency

Photo by M. Rath/Chesapeake Bay Program of stormwater overflowing a drain in Annapolis, MD

---

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

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

Please visit the Chesapeake Bay Program website for more information.    March 2021

---

## Case Studies You'll Find Inside

Henrico County   Pennsylvania   Claud E. Kitchens Outdoor School   Binghamton   **Norfolk**

Annapolis

### Norfolk
**NORFOLK, VIRGINIA**

#### Preparing for Weather Extremes

In 2018, Norfolk, Virginia, adopted a zoning ordinance that directs new and more intense development to be built on higher ground. In an effort to mitigate the impacts of sea level rise, the ordinance established a Coastal Resilience Overlay zone, wherein development must meet new flood resilience requirements, and an Upland Resilience Overlay zone, designed to encourage development in areas of the city at lower risk of flooding.

*A line of cars drives down a flooded street. (Envato Elements)*

---
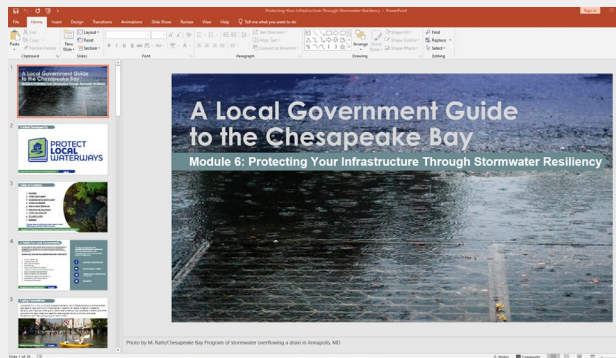
## Highlights

**Education**
Excess stormwater runoff can cause flooding and other damage to school buildings, leading to extended closures and missed school days. Excess runoff can also disrupt bus routes and impact internet access that is needed for schoolwork.

**Economic Development**
Flooding harms businesses, damages private property and threatens the health of local waterways, which often support tourism and outdoor recreation.

**Public Health and Safety**
Stormwater runoff picks up litter, toxic contaminants, nutrients, sediment and other pollutants as it passes over the land. These pollutants are typically discharged directly into local waterways, without having been treated.

**Infrastructure Maintenance and Finance**
Flooding endangers critical community infrastructure, including roads, bridges, power lines, cellular phone service and access to drinking water.

---

### Glossary

**A**

**Agricultural byproducts**
Pesticides, fertilizers, hormones and more that can harm the health of humans and wildlife. For example, antibiotics used to treat animals could facilitate antimicrobial resistance.
This term can be found in Capitalizing on the Benefits of Trees

**Agritourism**
Farms that contain a recreational or educational enterprise, such as tours or pick-your-own fruits.
This term can be found in Preserving Local Character and Landscapes, Understanding and Supporting Your Agricultural Allies

**Airshed**
The area of land over which airborne pollutants can travel to reach a particular river, lake, bay or other body of water. The Chesapeake Bay's airshed is 570,000 square miles, stretching north to Canada, west to Ohio and south to South Carolina.
This term can be found in Your Health and the Environment

JUMP TO LETTER
A B C D E F G
H I J K L M N O
P Q R S T U V W
X Y Z ↑ TOP

---

# PROTECT LOCAL WATERWAYS



**Visit protectlocalwaterways.com or scan the QR code!**



Online resource library designed by local government leaders for local government leaders.

Downloadable resources, case studies, and examples of actions that protect and restore the environment while supporting education, economic development, public health and safety, and infrastructure.

For our forests. For our streams. For our future.   |   allianceforthebay.org

# WATERSHED CURRENTS NEWSLETTER



Watershed Currents
Resources for Local Governments

Photo by Michael Land/Chesapeake Bay Program

Bi-monthly newsletter that highlights local case studies and provides resources for local governments. Each newsletter is themed around key issues impacting local governments.

**Scan the QR code to sign up for our newsletter!**

# THANK YOU!

**Christina Bonini**
Senior Green Infrastructure Projects Manager
cbonini@allianceforthebay.org
O: 804-775-0951

**Rick Mittler**
Local Government Projects Coordinator
rmittler@allianceforthebay.org
C: 540-661-7497

 @Allianceforthebay

 @AllianceForBay

 @allianceforthebay

## FOR OUR FORESTS. FOR OUR STREAMS. FOR OUR FUTURE.