

# A Local Government Guide to the Chesapeake Bay

## Overview of Educational Modules

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## Reference Matrix

Inventory of source materials connecting CBP Watershed Agreement Outcomes to Local Government Priorities.

## Thematic Outlines

Using Matrix, identified seven themes to develop modules around. Shared and refined based on collaborative input.

You are here

## Draft Modules

Developed seven modules, pulling in source material, additional research, interviews, and a lot of graphic design. Expert reviewers see each module at least twice. Drafting one pagers to accompany each module. Matrix will crosswalk outcomes with modules.

## Final Products

By the end of March, final versions of all modules, one pagers, overview materials will be delivered to the project coordinator, CBT, and CBP.

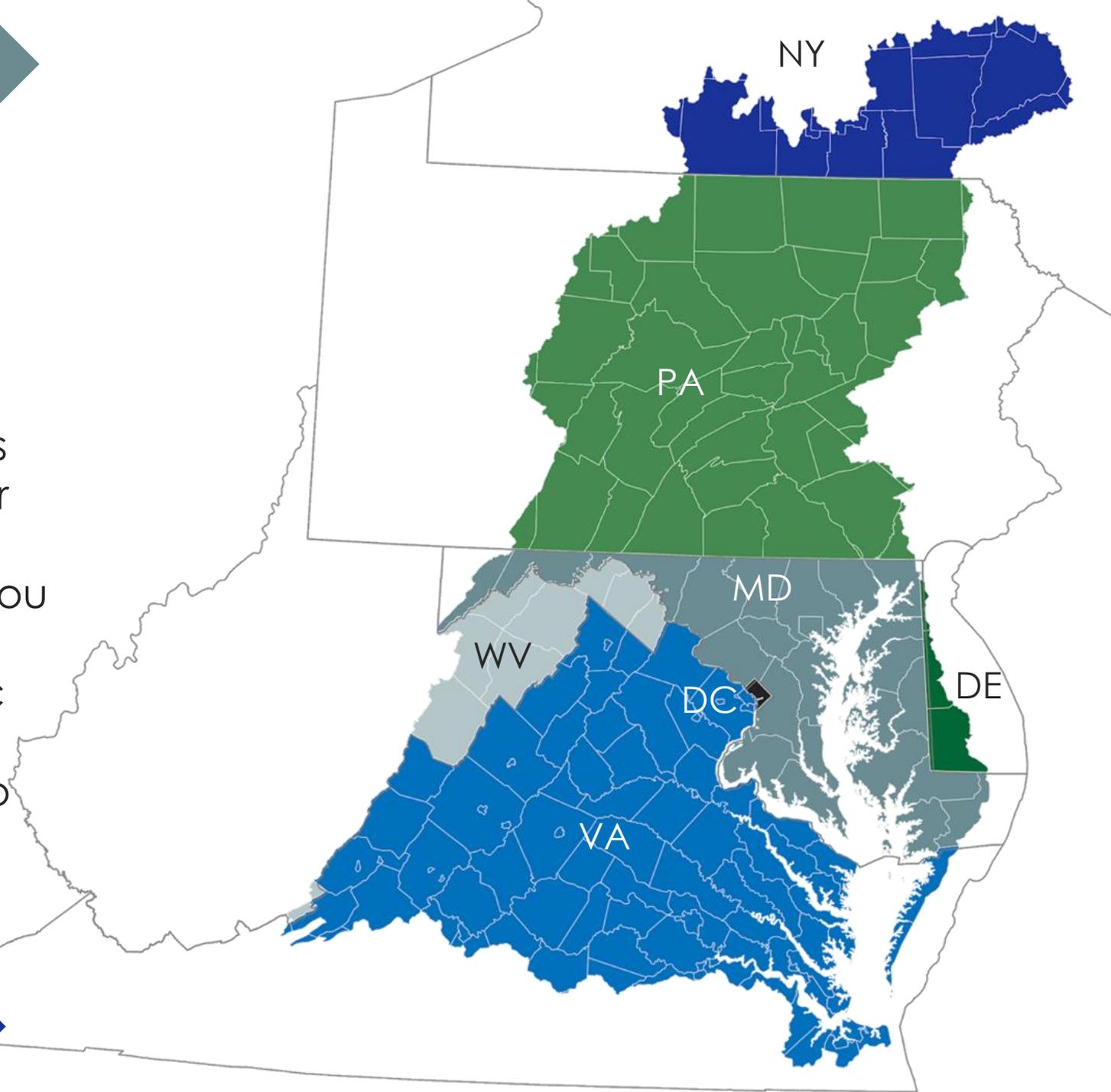
# Empowering local decisions

**A Local Government Guide to the Chesapeake Bay** is a series of seven educational modules to inform and empower decision at local levels.

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 your local waterways and the Chesapeake Bay. You can achieve mutually beneficial outcomes by prioritizing local economic development, infrastructure resiliency, public health, and education, while also protecting your environment.

Modules Overview

Local Leaders



# About the modules

Developed as self-guided, very visual PowerPoint presentations. Each module is under 30 slides, designed to be easily customized and shared, along with a companion one-page handout. The icons below represent key local government priorities and are used throughout the modules to help you better understand how the information in the modules aligns with your specific priorities and interests.



Economic Development



Public Health & Safety



Infrastructure Maintenance & Finance



Education





# Overview of Modules

Each module consists of a customizable presentation, one page handout, a .pdf and video versions of the presentation. In addition to the module themes below, we have included connections to Diversity, Equity, Inclusion, and Justice, and Climate throughout the modules. Each features an overview of the full list of modules and a bottom of slide tracker.



## 1. How Your Watershed Works

Foundational knowledge of the Chesapeake Bay watershed and water cycle and connects the importance of a healthy watershed to the economic development, public health and safety, infrastructure maintenance and finance, and education priorities of local government officials.



## 2. Foundations of Clean Water

An overview of the laws and agreements relevant to protecting and restoring the Chesapeake Bay. These protections are the foundations for healthy local waterways across the region.



### 3. Clean Water for the Economy

Highlights the economic importance of clean water and healthy habitats to lucrative fisheries, like blue crab and oyster, and recreational activities, like hunting, bird watching, and fishing.



### 4. Capitalizing on the Benefits of Trees

Presents how tree canopy, forest buffers, and forest conservation can provide a broad spectrum of benefits for local communities, from economic development to significant public health and safety benefits.



### 5. Preserving Local Character and Landscapes

Highlights the economic, ecological, cultural, and recreational value of the conserved landscapes around the Chesapeake Bay watershed to the people and communities of the region. Conserving these landscapes protects water quality, quality of life, and the many community values associated with these lands.



## **6. Protecting Community Infrastructure Through Stormwater Resiliency**

An overview on how managing stormwater runoff and increasing resiliency can mitigate flooding and flood-related damages to local community infrastructure, while also improving water quality.



## **7. Building the Workforce of Today and Tomorrow**

Highlights the growth in stormwater management and green infrastructure projects and the importance of educating a strong and diverse workforce in operating and maintaining projects.

# Module Features

The modules are developed to be cohesive but can be taken any order. For consistency, each identifies learning objectives, local case studies, and resources for local implementation.

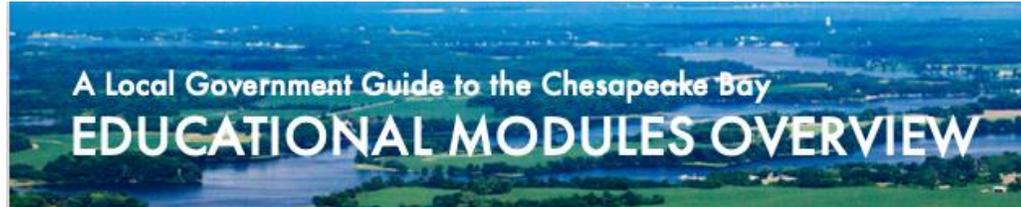
- **What You'll Learn** - learning objectives and questions that will be answered throughout the module.
- **What You Can Do** - actionable items to engage your community and where applicable, financial assistance to support local actions.
- **To Learn More** - additional resources for further learning about each of the module topics.

Each module references a variety of statistics and data to support its learning objectives. **Reference sources** for statistics, data, and photos can be found along with photo credits within the notes for each of the individual slides. **Glossaries** defining keywords can also be found at the end of each module.

The screenshot shows a module page with the following sections:

- What You'll Learn**: A grid of four questions: "What is the Chesapeake Bay Program and how did it begin?", "What governs watershed protection and restoration efforts?", "How is the health of the Bay connected to jobs and human health?", and "What can I do to make my local waterways healthier?".
- Foundations of Clean Water**: A sub-header for the module.
- What You Can Do**: A list of actionable items:
  - Reduce impervious surfaces in your jurisdiction**: To reduce pollutants entering your local waterways. Use these EPA resources to get started:
    - [The Green Infrastructure Municipal Handbook](#)
    - [Enhancing Sustainable Communities With Green Infrastructure](#)
    - [Local Water Policy Innovation: A Road Map for Community Based Stormwater Solutions](#)
  - Plant trees and preserve forested areas**: Trees provide a wide array of community and ecosystem benefits.
  - Invest in environmental education and projects within your school systems**: To provide dividends in citizen stewardship, community health, and clean water protections.
    - EPA provides \$2 to \$3.5 million in environmental education grant funding each year. [Learn more here.](#)
  - Lead your community**: To achieve environmental and local government goals by exploring technical and funding resources like grants from the [National Fish and Wildlife Foundation](#), [EPA](#), and your state.
  - Share this information with others**: To create an even stronger, more resilient community.
- To Learn More**: A list of additional resources:
  - Chesapeake Bay Commission's [40th Anniversary Webinar recording and presentation](#)
    - Learn about the history of the Chesapeake Bay watershed protections
  - Chesapeake Bay Program's [Restoring the Chesapeake Watershed](#)
    - Hear a brief overview of the formation and progress in this five-minute video
  - Chesapeake Bay Program's [Understanding Chesapeake Bay Modeling Tools: A history of updates, governance, policy and procedures](#)
    - Explore TMDLs, the Chesapeake Bay Watershed Model, and more in this short document
  - [The EPA Administrators: Looking back at 50 years of environmental protection](#)
    - Hear EPA administrators throughout history talk about their time at the EPA in a 7-minute video

# Overview One Pager

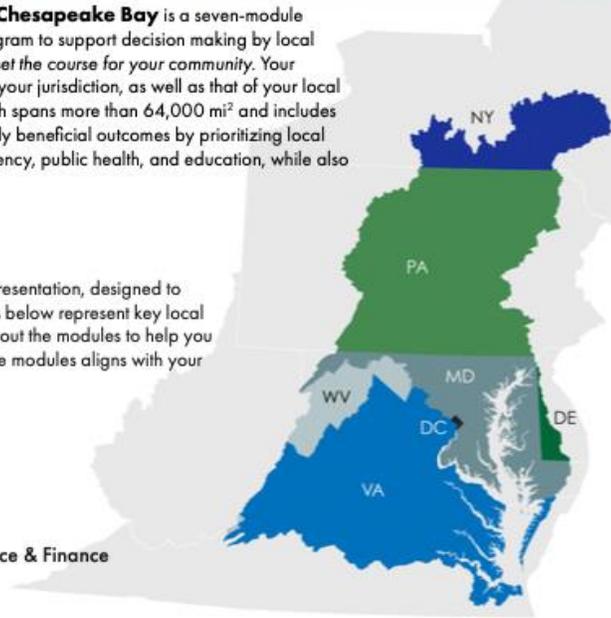


**A Local Government Guide to the Chesapeake Bay** is a seven-module series created by the Chesapeake Bay Program to support decision making by local officials. As a local leader, *your decisions set the course for your community.* Your actions determine the health and vitality of your jurisdiction, as well as that of your local waterways and the Chesapeake Bay, which spans more than 64,000 mi<sup>2</sup> and includes seven jurisdictions. You can achieve mutually beneficial outcomes by prioritizing local economic development, infrastructure resiliency, public health, and education, while also protecting your environment.

## ABOUT THE MODULES

Each module is a self-guided PowerPoint presentation, designed to be easily customized and shared. The icons below represent key local government priorities and are used throughout the modules to help you better understand how the information in the modules aligns with your specific priorities and interests.

-  Economic Development
-  Public Health & Safety
-  Infrastructure Maintenance & Finance
-  Education



## HOW TO USE THE MODULES

Each module is a self-guided PowerPoint presentation, designed to be easily customized and shared. All modules contain the slides listed below to identify learning objectives, local case studies, and resources for local implementation.

- **What You'll Learn** provides learning objectives and questions that will be answered throughout the module.
- **What You Can Do** identifies actionable items to engage your community and where applicable, financial assistance to support local actions.
- **To Learn More** provides additional resources for further learning about each of the module topics.

Each module references a variety of statistics and data to support its learning objectives. **Sources** for any referenced statistics, data, and photos can be found within the notes for each of the individual slides. A **glossary** defining keywords can also be found at the end of each module.

## A Local Government Guide to the Chesapeake Bay EDUCATIONAL MODULES OVERVIEW

The modules include the following:



### 1. How Your Watershed Works

*How Your Watershed Works* provides foundational knowledge of the Chesapeake Bay watershed and water cycle and connects the importance of a healthy watershed to the economic development, public health and safety, infrastructure maintenance and finance, and education priorities of local government officials.

### 2. Foundations of Clean Water

*Foundations of Clean Water* provides an overview of the laws and agreements relevant to protecting and restoring the Chesapeake Bay. These protections are the foundations for healthy local waterways across the region.

### 3. Clean Water for the Economy

*Clean Water for the Economy* highlights the economic importance of clean water and healthy habitats to lucrative fisheries, like blue crab and oyster, and recreational activities, like hunting, bird watching, and fishing.

### 4. The Benefits of Trees

*The Benefits of Trees* explains how tree canopy, forest buffers, and forest conservation can provide a broad spectrum of benefits for local communities, from economic development to significant public health and safety benefits.

### 5. Preserving Local Character and Landscapes

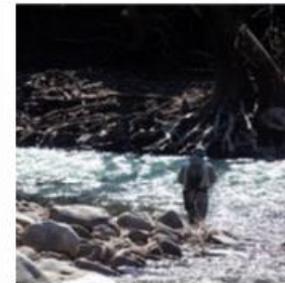
*Preserving Local Character and Landscapes* highlights the economic, ecological, cultural, and recreational value of the conserved landscapes around the Chesapeake Bay watershed to the people and communities of the region. Conserving these landscapes protects water quality, quality of life, and the many community values associated with these lands.

### 6. Protecting Community Infrastructure Through Stormwater Resiliency

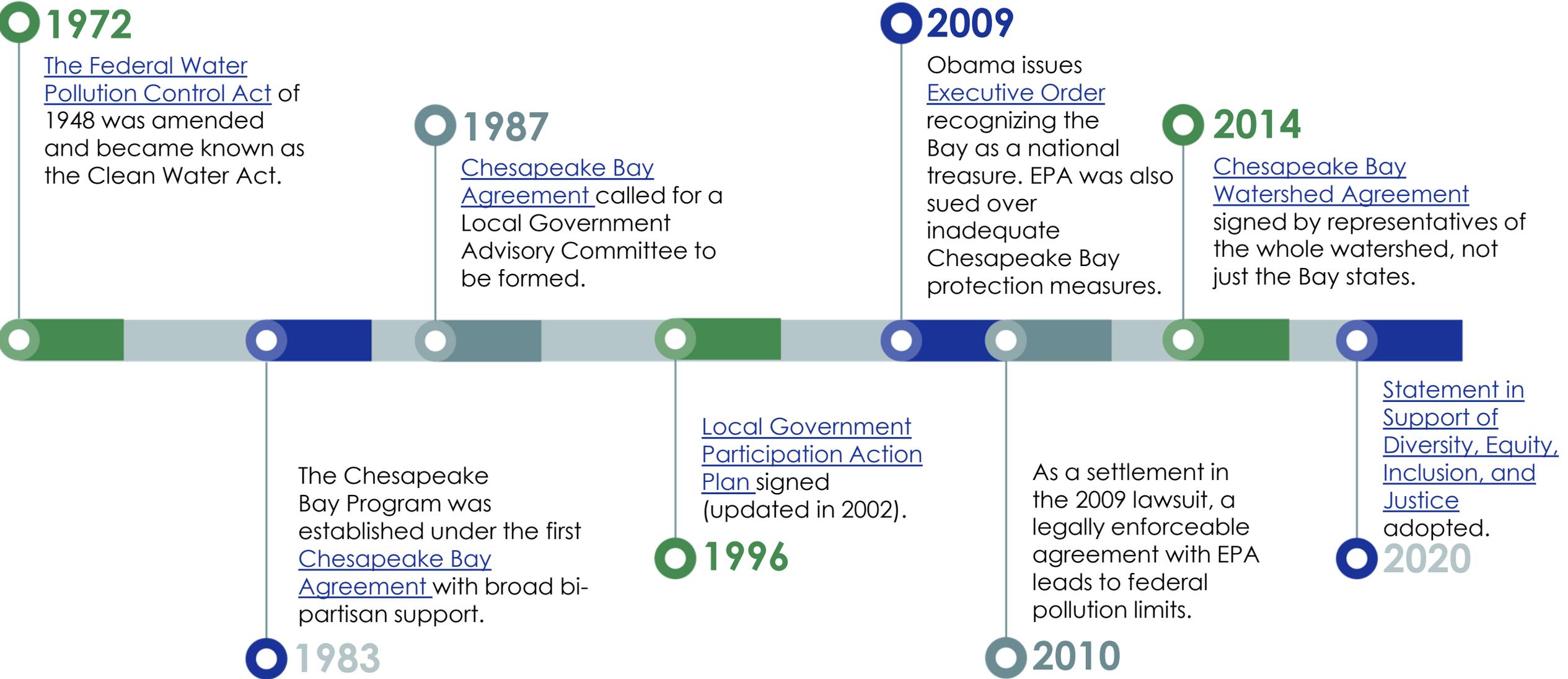
*Protecting Community Infrastructure Through Stormwater Resiliency* provides an overview on how managing stormwater runoff and increasing resiliency can mitigate flooding and flood-related damages to local community infrastructure, while also improving water quality.

### 7. Building the Workforce of Today and Tomorrow

*Building the Workforce of Today and Tomorrow* highlights the growth in stormwater management and green infrastructure projects and the importance of educating a strong and diverse workforce in operating and maintaining projects.



# History of Chesapeake Bay Protections



# Living Shorelines

A living shoreline refers to a shoreline management practice or suite of stabilization and erosion control measures. A living shoreline can be non-structural with only vegetated and natural elements, or hybrid with vegetation plus hard structures such as stone sills. Benefits include reduced erosion, improved water quality, shoreline access for wildlife, visual appeal, and a lower cost than bulkheads and rock walls.

Learn more about whether sites in your community are a good fit for a living shoreline project with this [guide from NOAA](#). If you want to move forward, these [planning tools](#) can get you started.

## Climate Connection

Sea levels are predicted to rise around the Bay, increasing erosion risk.

See how your area may be impacted with the [Sea Level Rise Viewer](#).

# Module Reviewers

Module	Module Name	Subject Matter Expert/Bay Program	LLWG	LGAC
	<b>ALL</b>	Rachel Felver Kristin Saunders Greg Barranco Amy Handen Emily Trentacoste	Laura Cattell Noll	Jennifer Starr
1	<b>How the Watershed Works</b>	Scott Phillips, USGS	Shannon Moore Jessica Trimble	Ann Simonetti Bruce Williams
2	<b>Foundations of Clean Water</b>	Carin Bisland	Martha Narvaez Andy Fellows	Richard Baugh
3	<b>Clean Water for the Economy</b>	Gina Hunt Bruce Vogt Elliott Campbell Kelly Shenk	Nancy Nunn Jim Sullivan	Penny Gross
4	<b>The Benefits of Trees</b>	Julie Mawhorter Sally Claggett Katie Brownson	Heidi Bonnaffon Ben Alexandro	Patty Bubar
5	<b>Preserving Local Character and Landscapes</b>	Renee Thompson John Griffin Jennifer Miller Herzog Britt Slattery Jonathan Doherty	Pam Shellenberger Michelle Edwards	Mark Dobbins
6	<b>Protecting Community Infrastructure Through Stormwater Resiliency</b>	David Wood Julie Reichert-Nguyen	John Maleri Megan Lehman	Andria McClellan
7	<b>Developing the Workforce of Tomorrow</b>	Matt Fleming Beth Ginter	Matt Pennington Mark Hoffman	Don Philips Jasmine Gore
	<b>Climate Call-out Boxes</b>	Julie Reichert-Nguyen Breck Sullivan Katie Matta		
	<b>DEIJ Call-out Boxes</b>	Tuana Phillips Briana Yancy Ola-Imani Davis		

# Next Steps & Questions

- Finalizing modules to deliver materials to the project team.
- Module launch by CBP and partners
- Reviewers have requested additional modules and features for a possible future phase:
  - Sea level rise and tidal flooding
  - Deeper exploration of human health implications
  - More videos to include interviews
  - Webinar walk-throughs and discussions
  - Tailoring modules state by state
  - Certificates of completion and a logo/symbol as a marketable “seal”

Questions and comments welcome: [Paula@GreenFinStudio.com](mailto:Paula@GreenFinStudio.com)

[Modules Overview](#)

[Next Steps](#)

