Management Strategies for Goal 4: Engaged Communities

Goal

Engage and grow a community of local stewards and leaders through education, recreation and professional opportunities to ensure the long-term success of restoration and conservation efforts.

Situation Analysis for Goal 4: Engaged Communities

In the table below, the Goal Team has summarized the most critical challenges facing each of its Outcomes that are within CBP's ability to impact or influence. The Goal Team and its Workgroups, as appropriate, have identified those challenges shown in **bold** as critical for Workgroups to begin addressing within the next six years via the development and implementation of Management Approaches. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*).

	Outcomes					
Challenges	4.1 Local Government Leadership	4.2 Public Access	4.3 School District Environmental Literacy Planning	4.4 Stewardship	4.5 Student Environmental Literacy Experiences	4.6 Workforce
Fragmented coordination and communication across organizations and jurisdictions limit collective action.	X	X	X	X	X	X
Uneven capacity, governance structures, and geographic coverage create inconsistent implementation across the watershed.	**X**	**X**	**X**	**X**	**X**	**X**
Limited political commitment and institutional support constrain resources, leadership attention, and sustained support toward outcomes.	X	X	X	X	X	X
Sustaining resources, partnerships, staffing, leadership, and workforce pipelines			**X**	**X**	**X**	**X**

Inconsistent metrics, data sharing, and evaluation approaches limit understanding of collective impact and adaptive management.	**X**	**X**	**X**	**X**	**X**	**X**
Changing environmental conditions can disrupt stewardship, agriculture, education, public access, and engagement activities and affect the timing, safety, and effectiveness of implementation.*	X	X	X	X	X	X
Gaps in agricultural literacy and agricultural workforce development hinder progress toward environmental stewardship and conservation goals.			X	X	X	X
Translating awareness into sustained participation and opportunities for action		X	X	X	X	

Management Approaches for Goal 4: Engaged Communities Goal

Management Approach 4.0.1: Strengthen coordination, capacity-building, and knowledge exchange mechanisms to support more consistent implementation of outcomes across jurisdictions, organizations, and communities. The partnership will identify opportunities to share successful approaches, expand access to technical assistance and resources, and support jurisdictions and partners in adapting strategies to their unique governance structures, community needs, and watershed conditions. Related actions will be incorporated into workplans for all Outcomes under the Engaged Communities Goal.

Management Approach 4.0.2: Build and sustain organizational, leadership, and workforce capacity needed to support long-term community engagement efforts. The partnership will support the development and retention of the leaders, educators, practitioners, and workforce needed to advance Engaged Communities outcomes by strengthening pathways for recruitment, professional development, knowledge transfer, and partnership support. The partnership will identify opportunities to sustain funding, improve access to resources, and enhance organizational capacity so that communities and organizations can maintain engagement efforts over time. Related actions will be incorporated into workplans for Local Government Leadership, School District Environmental Literacy Planning, Student Environmental Literacy Experiences, Stewardship, and Workforce Outcomes.

Management Approach 4.0.3: Establish shared approaches for measuring engagement and using data to guide adaptive management. The partnership will improve the consistency, availability, and use of data needed to evaluate progress toward Engaged Communities outcomes by identifying shared indicators, strengthening data-sharing approaches, and supporting the development of evaluation methods that capture the impact of human-centered actions. The partnership will use shared information and

lessons learned to assess progress, identify gaps, and adapt strategies to improve outcomes across the watershed. Related actions will be incorporated into workplans for all Outcomes under the Engaged Communities Goal.

Local Government Leadership Outcome

Local Government Leadership Outcome: Increase knowledge and support the capacity of local government leaders in decision-making, such as land-use planning, to implement local actions that advance the Chesapeake Bay Watershed Agreement.

- Engage directly (e.g., roundtable discussions) with at least 400 local government leaders annually.
- Engage indirectly (e.g., newsletters) with at least 4,000 local government leaders annually.

Baseline and Current Condition

This outcome was modified during the *Chesapeake Bay Watershed Agreement* revision process in 2025, so no baseline or current condition exists; however, significant work on the previous Local Leadership Outcome can serve as a framework. The targets were developed based on estimated accounts of direct and indirect engagement annually, therefore the baseline will be zero at the start of each calendar year.

- Engage directly (e.g., roundtable discussions) with at least 400 local government leaders annually. A formal process for capturing direct engagement needs to be established to assess the progress of this target.
- Engage indirectly (e.g., newsletters) with at least 4,000 local government leaders annually. A formal process for capturing indirect engagement needs to be established to assess the progress of this target.

The Local Leadership Outcome was first established in the *Chesapeake Bay Watershed Agreement* adopted in 2014. In 2022 and 2024, the Local Leadership Survey was distributed to local elected officials throughout the Chesapeake Bay watershed. The data supported an indicator that measured local official knowledge of federal regulations and self-reported actions of local officials. From 2022 to 2024, the self-reported knowledge of local officials about federal water resource regulations increased. In addition, there was an increase in self-reported actions to implement or enforce local water quality rules or regulations and in self-reported actions to apply for grants or other funding for water resource projects. While the survey indicated progress, it also illuminated the need for continued engagement and education of local government leaders, especially newer officials. Findings showed that local officials with less than two years of experience reported higher uncertainty of federal regulations, and the percentage of local officials adopting new local rules, ordinances, or regulations decreased from 2022 to 2024. Currently, the future of the Local Leadership Survey is uncertain and additional methods to monitor progress may need to be considered. However, results from these surveys can be used to inform future Management Approaches, including those to monitor progress.

Monitoring Progress and Indicators

Monitoring: Direct Engagement with Local Government Leaders

Progress towards this outcome will be captured by documenting the direct engagement led by the Local Government Leadership Workgroup (LGLW) and the Chesapeake Bay Program (CBP) partners that increases the knowledge and capacity of local government leaders in decision-making to implement local actions that advance the *Chesapeake Bay Watershed Agreement*. Progress will be assessed on a yearly basis to quantify achievement of the target. Currently, direct engagement is captured by the workgroup coordinator for internal reporting and focuses solely on direct engagement led by the workgroup. Examples include attendees of the Wandering Waterways Tour Series (Example), attendees of roundtable discussions (Example), attendees of educational workshops and trainings (Virtual Example, In-Person Example). To minimize the reporting burden on local governments, the workgroup will leverage existing state and federal reporting channels to capture direct engagement. Signatory members will be responsible for annually gathering this existing data and sharing it with the workgroup. Another key element of tracking progress will be to coordinate across CBP's goal teams and workgroups to capture the full breadth of direct engagement with local government leaders across the partnership. To ensure consistent tracking across jurisdictions, a definition of "Direct Engagement" is provided below in Management Approach 4.1.1.

Monitoring: Indirect Engagement with Local Government Leaders

Progress towards this outcome will be captured by documenting the indirect engagement led by the LGLW and the Chesapeake Bay Program partners that increases the knowledge and capacity of local government leaders in decision-making to implement local actions that advance the *Chesapeake Bay Watershed Agreement*. Progress will be assessed on a yearly basis to quantify achievement of the target. Currently, indirect engagement is captured by the workgroup coordinator for internal reporting and focuses solely on indirect engagement led by the workgroup. Examples include local government trusted source publications (October 2024 Issue of Borough News (pages 66-68)) and user analytics on the Protect Local Waterways website. Progress towards this target was originally envisioned to be captured by tracking the Protect Local Waterways website analytics, including unique visits to the site and resource downloads. Protect Local Waterways is an online resource hub that serves as a guide on how local government leaders can help protect the health and vitality of local waterways. The future of Protect Local Waterways is uncertain. To minimize the reporting burden on local governments, the workgroup will leverage existing state and federal reporting channels to capture indirect engagement. Signatory members will be responsible for annually gathering this existing data and sharing it with the workgroup. Another key element of tracking progress will be to coordinate across CBP's goal teams and workgroups to capture the full breadth of indirect engagement with local government leaders across the partnership. To ensure consistent tracking across jurisdictions, a definition of "Indirect Engagement" is provided below in Management Approach 4.1.1.

Local Government Leadership Outcome Situation Analysis

The following table identifies challenges that will impact progress toward attaining this outcome and its targets. This analysis considers scientific, environmental, fiscal or policy-

related developments that have already or may influence work during the upcoming six-year Management Strategy cycle. Consideration is given to which challenges are within and outside of CBP's ability to influence. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*). Challenges listed in bold font have been identified by the Goal Team and its Workgroups as being priorities for the Workgroup to seek to address or make progress against through the development and implementation of Management Approaches.

Challenges	Within CBP's ability to influence	Outside CBP's ability to influence
Local government officials' attention is divided by competing interests and priorities.		X
Limited scientific and technical capacity of local officials, including issues related to changing environmental conditions.*	**X**	
Routine turnover of elected and appointed officials		X
Engaging newly elected and appointed officials	X	
The complexity of the watershed and specific needs of each jurisdiction		X
Understanding the needs of local governments and tailoring outreach, education, and capacity building efforts	**X**	
Sustaining resources and funding for tracking knowledge and capacity of local officials	X	
Sustaining resources and funding for developing and maintaining educational events and materials for local officials	**X**	
Addressing needs across the Chesapeake Bay Program workgroups to better engage local officials	X	

Management Approaches for Outcome 4.1: Local Government Leadership Outcome
The Local Government Leadership workgroup relied on previous and existing publications that evaluated how to best increase the knowledge and support the capacity of local government leaders to develop the Management Approaches. This included, but is not limited to: Chesapeake Watershed Local Leadership Development Programs (2015), Strategic Outreach Education Program for Local Elected Officials (2017), Local Leadership Baseline Survey (2022), Planning for Clean Water: Local Government Workshop Reports (2023), Local Leadership Survey (2024), Network Science Technical Assistance (2026) and Local Government Technical Assistance Inventory and Gap Analysis Project (2026).

Management Approach 4.1.1: Measure progress toward increasing the knowledge and supporting the capacity of local government leaders. Local government leaders are

defined as elected officials, appointed officials, and staff who represent their local government at a meeting, training, or event. Direct Engagement is defined as two-way dialogue with active participants. Examples include conference panels, peer-to-peer learning exchange tours, roundtable discussions, hands-on trainings, interactive webinars and more. Indirect Engagement is defined as broadcast style communications that are seen or read by a passive observer. Examples include social media posts, blog posts, newsletters, magazine articles, website views, and more. The workgroup will annually track and report Direct and Indirect Engagement.

Management Approach 4.1.2: Serve as translators of complex scientific and technical resources and information. Many local officials do not have scientific or technical knowledge, particularly around emerging issues, such as changing environmental conditions. Additionally, frequent turnover among elected and appointed officials results in loss of institutional knowledge and an ongoing need to engage and educate new leaders. Moreover, a broad spectrum of important and urgent issues constantly competes with local officials' time and resources. By translating scientific and technical information into plain language and demonstrating how actions to advance *Chesapeake Bay Watershed Agreement* outcomes align with local priorities, the partnership can support implementation of local actions. Because of the complexity of the watershed, outreach and education material will be tailored to the unique needs of each jurisdiction.

Management Approach 4.1.3: Increase the knowledge and support the capacity of local government leaders via existing channels of trusted communications and engagement. Leverage existing channels of communication and engagement to effectively reach elected and appointed officials who lack scientific or technical knowledge, particularly around emerging or evolving environmental issues. Frequent turnover among elected and appointed officials results in loss of institutional knowledge and an ongoing need to engage and educate new leaders through sustained outreach, onboarding, and relationship-building efforts.

Management Approach 4.1.4: Strengthen the networks that support local government leadership capacity. Many local governments do not have in-house scientific or technical capacity and rely on networks of support, such as municipal associations, planning organizations, technical assistance providers, conservation districts, and other trusted sources. By strengthening the capacity of these existing networks and supporting the development of engagement networks where gaps exist, the workgroup can more effectively amplify local and regional level technical assistance and maximize limited resources across the watershed.

Management Approach 4.1.5: Support goal teams and workgroups who want to engage with local officials. Within the goal teams and workgroups of the Chesapeake Bay Program, there is growing interest in engaging local governments. As capacity allows, the Local Government Leadership workgroup will coordinate with these groups to address needs across the partnership to better engage local officials, with a focus on the workgroups

under the Engaged Communities Goal and Healthy Landscapes Goal. The Strategic Engagement Team will be a key partner in this effort.

Participating Partners
The following partners participated in the creation of this Management Strategy and expressed their intention to collaborate on Management Strategy implementation over the next six years. Per the Chesapeake Bay Watershed Agreement, "participation in developing Management Strategies or in the achievement of Outcomes varies by signatory based on differing priorities across the watershed. This participation may include commitments such as sharing knowledge, data or information, educating the public, working on future legislation and developing or implementing programs or verified practices" (2025). Signatory partners may join implementation efforts at any time. Partners also recognize that Signatory participation is voluntary and may vary accordingly.

- **Signatory Partners**
  - State of Delaware
  - District of Columbia
  - State of Maryland
  - State of New York
  - Commonwealth of Pennsylvania
  - Commonwealth of Virginia
  - State of West Virginia
  - Chesapeake Bay Commission
  - U.S. Environmental Protection Agency
- **Other Partners**
  - Metropolitan Washington Council of Governments
  - University of Maryland's Environmental Finance Center
  - Rappahannock-Rapidan Regional Commission
  - University of Delaware's Water Resources Center
  - Pennsylvania Chapter of the American Planning Association

Public Access Outcome

Public Access Outcome: Create new and enhance existing public access sites in the Chesapeake Bay watershed through a combination of actions aimed at improving recreational opportunities and accessibility while addressing barriers to access by increasing the number, quality and geographic distribution of sites.

- By 2040, add at least 100 new sites providing access to natural lands and waters with a strong emphasis on providing opportunities for recreation where feasible.
- By 2040, improve at least 100 of the 1,451 existing public water access sites by upgrading or maintaining site grounds and structures, and expanding the range of active and passive recreation opportunities such as paddling, boating, trails, courts, piers, wildlife viewing and picnic areas.
- By 2040, improve at least 40 of the existing public water access sites by adding Americans with Disabilities Act (ADA) or Architectural Barriers Act (ABA) accessible features.
- Increase access to existing urban and community greenspaces identified in the protected lands dataset.

Baseline and Current Condition

The *Chesapeake Bay Watershed Agreement* adopted in 2014 called for 300 new public access sites to our waterways to be added throughout the watershed by 2025, with 2010 serving as a baseline year. This target was achieved in 2024, and by the end of 2025, a total of 317 new sites has been reported, bringing the number of mapped public water access points to 1,456, which may be viewed through this map viewer.

The *Chesapeake Bay Watershed Agreement* expands the targets of the Public Access Outcome to include an expanded definition of public access sites, calls for continued upgrades and maintenance of existing sites including ADA/ABA accessibility, and includes urban and community greenspaces. The Public Access Outcome reaffirms both the need for and the benefits of providing communities with access to these resources.

New Access Site Target

Public access sites are those used expressly for public access that are owned, operated, and/or managed by any unit of federal, state, or local government, or a non-governmental organization operating under a memorandum of understanding (MOU), grant, or other agreement with a governmental agency.

The four types of water-based access that will be tracked towards the 100 new sites target, the 100 improved sites target, and the 40 ADA/ABA-improved sites target are as follows:

- Boat-related access: boat ramps and soft launches supporting motorized and non-motorized craft, as well as boat-in campsites, which include their own water access site.
- Swimming access: designated areas appropriate for swimming.
- Fishing access: piers, bank fishing facilities, or easements and parking adjacent to the water.
- Viewing access for water, wildlife, and shoreline areas: boardwalks and observation decks located at or leading to the water's edge.

A new access site is defined as:

- Development of a new public access facility on a new site.
- Development of a new type of access at an existing site. For example, if a fishing pier is developed at a site that currently has a boat ramp, the pier would count as a new public access site toward the goal.

The Public Access Workgroup has not yet defined access to natural lands. The workgroup will work to define access to natural lands in 2027, which will be used to track progress towards the 100 new sites target.

The distribution of existing water public access sites is as follows:

- Maryland: 653
- Virginia: 415
- Pennsylvania: 233
- West Virginia: 77
- New York: 40
- District of Columbia: 30
- Delaware: 8

The *Chesapeake Bay Watershed Agreement* redefined public access to include access to our natural lands in addition to our waterways. The Public Access Workgroup will develop a definition for access points to natural lands to support progress tracking toward the outcome.

ADA/ABA Accessibility Target

Of the existing database of public water access sites, the majority do not have an ADA/ABA accessibility attribute included in the dataset. 1181 sites are marked as unknown, 128 sites have at least one ADA-accessible feature, and 124 sites are listed as not ADA accessible. The data also does not specify which features are present. ABA accessibility is not currently attributed. Understanding the full picture of ADA- and ABA-accessible water access sites remains a goal of the workgroup.

Increasing Access to Urban and Community Greenspace Target
Urban and community greenspaces are defined as publicly accessible lands in census-designated places and urban areas that provide opportunities for both passive and active recreation while offering exposure to nature. These public spaces deliver human health, community, and environmental benefits and include, but are not limited to, parks, trails, gardens, sports fields, waterfronts, outdoor gathering areas, and natural landscapes such as forests and grasslands.

Public access is not fully accounted for in the Protected Lands indicator, which limits our understanding of the extent of accessible protected lands within census-designated places and urban areas. Additionally, a complete database of existing greenspaces at the watershed level does not currently exist, although many communities are mapped through the Trust for Public Land's (TPL) ParkServe analysis. Future collaboration between TPL's Park Serve Analysis and the Protected Lands Workgroup will assist in establishing a baseline of access to existing and future urban and community greenspaces.

Monitoring Progress and Indicators
At the beginning of each calendar year, Public Access Workgroup members will gather and submit jurisdiction data pertaining to our targets from the previous year. This data will encompass information on the four targets listed below. The Protected Lands Workgroup will supplement this data with an analysis of greenspace acreage in census-designated places and urban areas.

Annually, the Public Access Workgroup will compile, review, and submit to the Chesapeake Bay Program a comprehensive list of the metrics below related to public access sites:

Monitoring: Add at least 100 new public access sites.
Measurement Tool:

- Number of new public access sites added.

Monitoring: Improve at least 100 of the 1,451 existing public water access sites through upgrades or maintenance.
Measurement Tool:

- Number of sites upgraded. A qualitative list of upgrades will be developed by the workgroup in 2027 for tracking purposes.

Monitoring: Improve at least 40 of the existing 1,451 public water access sites through the addition of ADA or ABA features.
Measurement Tool:

- Number of sites improved with ADA or ABA features. A qualitative list of ADA or ABA features will be developed by the workgroup in 2027 for tracking purposes.

Monitoring: Increase access to urban and community greenspaces.

Measurement Tools:

- Urban and Community Greenspace Acreage Analysis – Acreage of publicly accessible greenspaces within census-designated places and urban areas. This information will be provided in collaboration with the Protected Lands Workgroup and the Trust for Public Land.
- Trust for Public Land's 10-minute Walk Analysis – Percentage of people living in census-designated places and urban areas that live within a 10-minute walk of a community and urban greenspace. This information will be provided in collaboration with the Trust for Public Land.

Public Access Outcome Situation Analysis

The Chesapeake Bay watershed is home to more than 18.5 million people. Ten million of them live along or near the Bay's shores, and another 150,000 people move into the watershed each year. As urbanization increases, fewer people have the opportunity to interact daily with the region's waters, forests, and open lands. Additionally, changing environmental conditions continue to underscore the importance of creating resilient public access spaces, as our natural lands, waters, and urban and community greenspaces serve as places where residents may escape extreme heat, access cooling waters, and protect communities from extreme weather events. Ensuring that these spaces are available, accessible, and distributed throughout the watershed can help communities benefit from the recreational, environmental, cultural, social, and economic value of waterways, parks, natural areas, and urban and community greenspaces.

The following table identifies challenges that will impact progress towards attaining this outcome and its targets. This analysis considers scientific, environmental, fiscal or policy-related developments that have already or may influence work during the upcoming six-year Management Strategy cycle. Consideration is given to which challenges are within and outside of CBP's ability to influence. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*). Challenges listed in bold font have been identified by the Goal Team and its Workgroups as being priorities for the Workgroup to seek to address or make progress against through the development and implementation of Management Approaches.

Challenges	Within CBP's ability to influence	Outside of CBP's ability to influence
Insufficient funding to implement new sites, upgrades, and ADA accessibility projects		X
Lack of community support for new access sites	X	
Lack of publicly owned shoreline to implement new water public access sites		X
Insufficient budget for staff to manage and maintain new sites		X

Lack of community engagement strategies to understand where communities desire public access	X	
Lack of available public land in census-designated places and urban areas for conversion into greenspace		X
Technical expertise in ADA/ABA accessible features and best practices for project managers	X	
Lack of watershed-wide inventory of publicly accessible greenspaces	X	
Missing public access data attribution within the Protected Lands dataset	X	
Missing ADA/ABA accessibility data for existing public access sites	X	
Degradation of existing greenspaces and access sites due to flooding and other extreme weather events.*		X
Few public access technical assistance providers	X	X

Management Approaches for Outcome 4.2: Public Access Outcome

Management Approach 4.2.1: Increase public awareness of existing access opportunities and available amenities. The Public Access Workgroup will improve awareness of public access sites throughout the watershed by promoting accessible, user-friendly information about site locations, amenities, recreational opportunities, and accessibility features. The workgroup will encourage consistent and accurate information about public access sites across websites, maps, signage, and other public-facing resources, including information about ADA- and ABA-accessible features where available. The workgroup will support efforts to make information about public access sites easier to find, understand, and use when planning recreational activities, while encouraging jurisdictions and site managers to update information as site conditions and amenities change regularly. Awareness of existing access opportunities may increase use of these amenities and spaces, which in turn may justify funding for access site creation to meet capacity and community needs.

Management Approach 4.2.2: Identify gaps in public access to better prioritize public access development. The Public Access Workgroup will use available data and planning efforts to identify gaps in public access to our natural lands, waters, and greenspaces throughout the watershed. The workgroup will consider factors such as the distribution and condition of existing sites, proximity to population centers and underserved communities, and other barriers to access. The workgroup will support approaches that identify and address barriers to access, including physical, informational, cultural, and socioeconomic barriers and explore how changing environmental conditions may impact the availability of access sites. The workgroup will use this information to help jurisdictions and partners identify areas where new sites could provide the greatest public benefit.

Management Approach 4.2.3: Facilitate financial support opportunities with jurisdictions for public access projects. The Public Access Workgroup will work to identify state and

federal programs that may serve as funding sources for public access projects. The workgroup will ensure that these funding sources are disseminated throughout our jurisdictions and to practitioners seeking to access these resources.

Management Approach 4.2.4: Increase engagement of the Public Access Workgroup with local governments and organizations implementing public access projects. The Public Access Workgroup aims to provide technical assistance to support various stages of public access projects, including site assessment, planning, project design, and compliance/permitting. The workgroup will encourage partners at all levels to share and use information, data, and recommendations from local and state plans, as well as resources created by the workgroup, and incorporate them into broader planning efforts. The workgroup will serve as a resource to help local jurisdictions enhance accessibility, promote sustainable practices, adapt to changing use patterns, and bolster resiliency efforts.

Management Approach 4.2.5: Facilitate partnerships with parks and community organizations to support the stewardship and maintenance of public access sites. The Public Access Workgroup will encourage partnerships between state agencies, municipalities, counties, park authorities, regional planning organizations, land trusts, trail organizations, watershed organizations, tourism and destination organizations, conservation advisory bodies, community groups, and other local partners to support the ongoing stewardship, maintenance, and management of public access sites. The workgroup will encourage jurisdictions and site managers to develop opportunities for partner organizations to participate in park stewardship activities. The workgroup will also encourage partnerships that engage diverse and underrepresented communities and provide appropriate resources and guidance to sustain their involvement. These recreational partnerships will contribute to creating a broader, more engaged constituency for Bay restoration, conservation, and protection.

Participating Partners

The following partners participated in the creation of this Management Strategy and expressed their intention to collaborate on Management Strategy implementation over the next six years. Per the Chesapeake Bay Watershed Agreement, “participation in developing Management Strategies or in the achievement of Outcomes varies by signatory based on differing priorities across the watershed. This participation may include commitments such as sharing knowledge, data or information, educating the public, working on future legislation and developing or implementing programs or verified practices” (2025). Signatory partners may join implementation efforts at any time. Partners also recognize that Signatory participation is voluntary and may vary accordingly.

- **Signatory Partners**
  - State of Delaware
  - District of Columbia
  - State of Maryland
  - State of New York
  - Commonwealth of Pennsylvania
  - Commonwealth of Virginia
  - State of West Virginia
  - Chesapeake Bay Commission
  - U.S. Environmental Protection Agency
- **Other Partners**
  - Baltimore Greenspace
  - National Park Service
  - NeighborSpace of Baltimore County
  - Trust for Public Land
  - U.S. Department of War
  - U.S. Geological Survey

School District Environmental Literacy Planning Outcome

Increase the number of school districts that have policies and practices in place that support environmental education and sustainable schools.

- By 2040, reach all jurisdictional targets for the number of public school districts that are well prepared to deliver a comprehensive and system-wide approach to environmental literacy. Jurisdictional targets are as follows:
    - 24% of school districts in the District of Columbia
    - 86% of school districts in Maryland
    - 50% of school districts in Pennsylvania
    - 32% of school districts in Virginia
    - 50% of school districts in the West Virginia portion of the watershed

Baseline and Current Condition

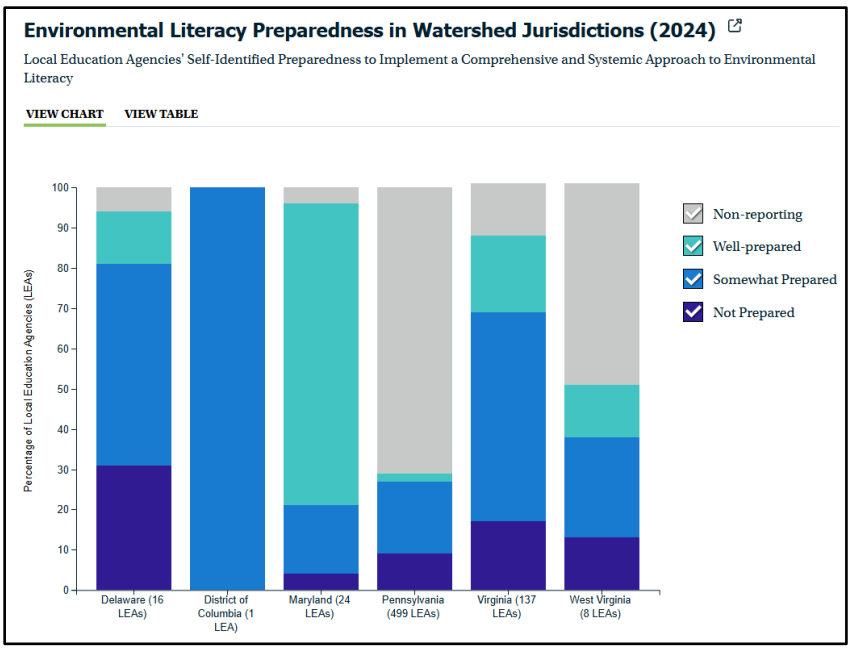
School District Preparedness

In 2024, 302 local education agencies (LEAs)—44% of the total—were represented in the Chesapeake Bay Program's Environmental Literacy Indicator Tool (ELIT). This represents 74% of public elementary, middle, and high school students that live in the region. Students are defined as K-12 learners. ELIT includes questions that measure the degree of environmental literacy preparedness among school districts across the watershed. The survey was distributed to all LEAs within five jurisdictions (Delaware, the District of Columbia, Maryland, Pennsylvania, and Virginia); in West Virginia, the survey was only distributed to the eight LEAs in the watershed.

- 19% of respondents self-identified as "well-prepared" to put a comprehensive and systemic approach to environmental literacy in place.
- 57% of respondents self-identified as "somewhat prepared" to put a comprehensive and systemic approach to environmental literacy in place.
- 25% of respondents self-identified as "not prepared" to put a comprehensive and systemic approach to environmental literacy in place.

While preparedness levels have largely stayed steady over the last four cycles of data gathering, there was substantial evidence in 2024 that districts are improving the infrastructure elements measured in this indicator.

In addition, the number of sustainable schools in the Chesapeake Bay watershed increased by 19% from 501 in 2015 to 597 in 2021, indicating a positive trajectory. More recent data is not available.



Monitoring Progress and Indicators

Indicator: School District Preparedness

Progress toward Local Education Agency (LEA) preparedness has been measured biennially via the Environmental Literacy Indicator Tool (ELIT) since 2019. The 2024 survey data captured data from the 2023–2024 school year along with records from 2022 for districts who responded in 2022 but not in 2024. This resulted in a robust combined baseline dataset representing 302 LEAs across the watershed. The data set represents 74% of all public school students in the region. Larger urban districts have the highest reporting rates. Six elements are included in this indicator:

1. An established program leader for environmental education (providing effective, sustained, and system leadership).
2. An integrated program infusing environmental concepts into appropriate curricular areas.
3. Regular communication among staff responsible for environmental education curriculum and program implementation.
4. A support system in place that enables teachers and administrators to engage in high-quality professional development in content knowledge, instructional materials, and methodology related to environmental education.
5. A plan to ensure opportunities for all students to engage in meaningful watershed educational experiences (MWEEs) at the elementary, middle and high school levels.
6. Established community partnerships for delivery of environmental education, including implementation of MWEEs.

The questions that make up this indicator will be reviewed to determine how best to update the questions to align with the *Chesapeake Bay Watershed Agreement*.

Monitoring: Number and Distribution of Certified Sustainable Schools

Data is collected every two years from Sustainable Schools certification programs that meet criteria established by the Education Workgroup. Certified sustainable schools include public and charter schools within the Chesapeake Bay watershed that have been recognized as sustainable by the following programs: U.S. Green Ribbon Schools, National Wildlife Federation Eco-Schools USA (Bronze, Silver and Green Flag status), Maryland Green Schools, Pennsylvania Pathways to Green Schools, and Virginia Naturally Schools.

School District Environmental Literacy Planning Outcome Situation Analysis

The following table identifies challenges that will impact progress towards attaining this outcome and its targets. This analysis considers scientific, environmental, fiscal or policy-related developments that have already or may influence work during the upcoming six-year Management Strategy cycle. Consideration is given to which challenges are within and outside of CBP's ability to influence. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*). Challenges listed in bold font have been identified by the Goal Team and its Workgroups as being priorities for the Workgroup to seek to address or make progress against through the development and implementation of Management Approaches.

Challenges	Within CBP's ability to influence	Outside of CBP's ability to influence
State and school district leadership understanding of and commitment to advancing the outcome	X	
Limited availability of funding and technical assistance for school district environmental literacy planning	X	
Dedicated staff focused on environmental literacy are not identified for all school districts, particularly in smaller school districts.	X	
Successful environmental literacy planning involves curriculum, facilities, and workforce experts, who rarely come together in a district for comprehensive, interdisciplinary planning.	X	
School districts have varied educational priorities and mandates, and environmental education is not always a focus area.		X
School districts vary in their commitment and resources to integrate sustainability and changing environmental conditions into facilities planning, construction, and operations.*		X
Environmental Literacy Plan templates and resources are not adopted uniformly across states and school districts.	X	

Local assets (e.g., businesses and public nature sites) and nonformal environmental education providers are not fully integrated into school district programming.	X	
Sustainable Schools certification programs are not uniformly known by all schools or districts, and there is no federal certification program.	X	
Lack of understanding of how to integrate environmental literacy into programs that address school district priorities (e.g., attendance, workforce, math, and literacy).	X	
Insufficient opportunities for school districts to collaborate and share best practices on environmental literacy, sustainability, and workforce planning	X	
Tracking and accountability gaps	X	
Policies addressing perceived liability concerns in some districts limit opportunities for outdoor learning.		X
Outdoor learning spaces do not exist on all school campuses, eliminating an easy-to-access, inexpensive opportunity for outdoor experiences.		X

Management Approaches for Outcome 4.3: School District Environmental Literacy Planning Outcome

Management Approach 4.3.1: Support jurisdictional governance and accountability. Build state leadership understanding, support, and accountability for environmental literacy using data-driven metrics and strategic communications. Leverage support to catalyze action at the regional, state, and local level, including improving cross-agency coordination to align policies, practices, and funding to accelerate environmental literacy efforts.

Management Approach 4.3.2: Ensure availability of high-quality planning resources. Create and maintain resources, frameworks, and programming that enable school district leaders and personnel to seamlessly integrate high-quality environmental education, sustainable schools, and environment-based workforce programs directly into environmental literacy plans, capital budgets, and related policy and planning documents, supported by ongoing local feedback loops.

Management Approach 4.3.3: Strengthen state and local networks. Build the capacity of state networks to support local networks, focused on strengthening partnerships between formal and nonformal education communities to develop and implement strategic and efficient systemic environmental literacy planning and implementation.

Participating Partners

The following partners participated in the creation of this Management Strategy and expressed their intention to collaborate on Management Strategy implementation over the

next six years. Per the Chesapeake Bay Watershed Agreement, “participation in developing Management Strategies or in the achievement of Outcomes varies by signatory based on differing priorities across the watershed. This participation may include commitments such as sharing knowledge, data or information, educating the public, working on future legislation and developing or implementing programs or verified practices” (2025). Signatory partners may join implementation efforts at any time. Partners also recognize that Signatory participation is voluntary and may vary accordingly.

- **Signatory Partners**
    - State of Delaware
    - District of Columbia
    - State of Maryland
    - Commonwealth of Pennsylvania
    - Commonwealth of Virginia
    - State of West Virginia
    - Chesapeake Bay Commission
    - National Oceanic and Atmospheric Administration on behalf of the Federal Government
- **Other Partners**
    - Chesapeake Bay Foundation
    - Chesapeake Bay Trust
    - National Wildlife Federation
    - North American Association of Environmental Educators & Affiliates
        - Delaware Association for Environmental Education
        - District of Columbia Environmental Education Consortium
        - Maryland Association for Environmental and Outdoor Education
        - Pennsylvania Association of Environmental Educators
        - Virginia Association for Environmental Education
    - State Environmental Literacy Networks
        - Maryland Environmental Literacy Advisory Network
        - Pennsylvania Environmental Literacy Network
        - Virginia Environmental Literacy Network

Stewardship Outcome

Stewardship Outcome: Increase the public's participation in stewardship actions that contribute positively to lands, waters, wildlife, fisheries and communities throughout the Chesapeake Bay watershed.

- Through 2040, build the capacity of leaders in the community and environmental professionals with the social science data, technical assistance and support needed to develop, improve and carry out individual- and community-level stewardship programs, including those that will help advance *Chesapeake Bay Watershed Agreement* Goals and Outcomes.

Baseline and Current Condition

Achieving the *Chesapeake Bay Watershed Agreement's* water quality, restoration, and conservation goals depends on engaged residents who support community stewardship and take personal action. Historically, the Stewardship Outcome focused on increasing the number and types of volunteers with the knowledge and skills to engage in individual stewardship actions across the watershed. The revised Stewardship Outcome builds on the Chesapeake Bay Program's role as a regional convener, using a coordinated network of partners to influence on-the-ground programs.

In 2017, the first comprehensive survey of stewardship actions and attitudes, completed by 5,212 randomly selected watershed residents, produced a Stewardship Index score of 24 out of 100, with 100 representing the greatest opportunity and likelihood of adopting stewardship actions. The Index includes three components—Personal Action (38), Volunteering (23), and Advocating (19)—that collectively inform the overall score. Conducted again in 2023, the survey showed broad optimism and volunteerism, but persistent knowledge gaps about specific actions. It also found that more residents are willing to advocate for stewardship than are currently doing so. Most believe government involvement is important, though many express doubts about local government responses, suggesting a need to increase visibility of local efforts. Additional details on the surveys are available through Chesapeake Behavior Change.

A capacity assessment led by the Choose Clean Water Coalition, Alliance for the Chesapeake Bay, and OpinionWorks identified systemic capacity gaps that limit nongovernmental organizations' (NGO) ability to engage communities at scale. Without sufficient capacity, organizations may struggle to apply for and manage creative funding streams, engage in professional development, invest in outreach and partnership models, and facilitate best-practices training. While many organizations report maintaining or increasing constituent engagement, a majority rate their engagement capacity as medium or low, and confidence in reaching new audiences remains limited. Addressing these needs is central to supporting community leaders and environmental professionals in designing and delivering effective stewardship programs.

Monitoring Progress and Indicators

Monitoring: Stewardship Network Initiatives in the Chesapeake Bay Watershed

To track increases in capacity, community-level action, and technical assistance, a selection of local stewardship initiatives led by the Chesapeake Bay Program partnership (e.g., Chesapeake Bay Stewardship Fund projects, volunteer cleanups, trainings, community science activities), collaborative networks, and practitioner toolkits will be documented and reported every two years on ChesapeakeProgress. Each project with geographic location information will appear on an interactive watershed map, accompanied by a summary. Where available, additional measures of program reach, participation, capacity, and impact will be reported.

Monitoring: Chesapeake Steward Map

The Chesapeake Steward Map strengthens connections and collaboration by identifying hubs, gaps, and opportunities to share knowledge and resources across the region. Individuals and organizations will be added regularly to help users find partners with shared interests and the expertise needed or offered to support stewardship programs. The number of stewards and organizations on the map, geographic coverage by jurisdiction or community type, and connections facilitated through map outreach will be documented and reported every two years to track and visualize progress towards growing network capacity through 2040.

Monitoring: Bay Stewardship Survey

The Bay Stewardship Survey focuses on the actions that more than 18 million people across the watershed take in their daily lives to improve ecosystem health, the public's perceptions and expectations about restoration, and the conditions that enable success. The survey describes stewardship across three facets—environmentally friendly behaviors, volunteerism, and civic engagement. Subject to future availability of funding, the survey will be conducted every five years and reported with trends by jurisdiction and demographic group to track changes in stewardship participation over time.

Stewardship Outcome Situation Analysis

The following table identifies challenges that will impact progress towards attaining this outcome and its targets. This analysis considers scientific, environmental, fiscal or policy-related developments that have already or may influence work during the upcoming six-year Management Strategy cycle. Consideration is given to which challenges are within and outside of CBP's ability to influence. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*). Challenges listed in bold font have been identified by the Goal Team and its Workgroups as being priorities for the Workgroup to seek to address or make progress against through the development and implementation of Management Approaches.

Challenges	Within CBP's ability to influence	Outside of CBP's ability to influence
Insufficient coordination among funders and local partners limits efforts to align resources, scale regional impacts, and reduce capacity constraints for grantees.	X	X
Creative, replicable models of effective stewardship, behavior-change, and social marketing campaigns are not broadly accessible.	X	X
Funding and capacity gaps limit environmental professionals' and community leaders' ability to implement stewardship programs.	X	X
The ability to measure and track stewardship program impacts is limited by a lack of shared, long-term data and common metrics.	X	
NGOs need greater technical assistance, support with funding applications, and capacity to secure resources for stewardship programs.	X	
Environmental professionals and community leaders have limited professional development and training opportunities.	X	X
A better understanding of watershed residents' knowledge of and willingness to participate in stewardship is needed to guide behavior-change campaigns.	X	
Existing markets often create disincentives for consumers to participate in stewardship actions.		X
Changing environmental conditions and extreme weather affect the success of environmental restoration and individuals' ability to participate in stewardship activities.*		X
Lack of strong political support, enabling policy, and sustained public engagement can deter individual and community participation in stewardship actions.	X	X

Management Approaches for Outcome 4: Stewardship Outcome

Management Approach 4.4.1: Increase strategic coordination and collaboration among local programs to improve stewardship program effectiveness. Partner with local governments, NGOs, and funders to align resources and support pollution reduction, agricultural conservation practices, and environmental restoration goals. Foster partnerships that reduce resource constraints, improve coordination among funded programs, and strengthen stewardship outreach and support for public policy.

Management Approach 4.4.2: Share best practices for stewardship programs and strengthen communications and behavior-change capacity across the watershed. Develop and disseminate replicable program, communications, and social marketing toolkits to support public engagement campaigns. Provide training and technical assistance to help partners adapt, implement, and evaluate successful models that reflect community needs.

Management Approach 4.4.3: Increase volunteer recruitment, engagement, and community-led stewardship programs. Expand volunteer opportunities, including those at public access sites, to build knowledge, experience, and long-term stewardship among adults and youth. Encourage increased federal and state investment to leverage local and private funding for volunteer and community-led projects that provide learning and capacity-building opportunities.

Management Approach 4.4.4: Expand watershed residents' participation in science and monitoring and strengthen shared approaches for measuring stewardship impacts. Coordinate with the Education Workgroup to encourage K-12 student participation in stewardship activities as part of the Meaningful Watershed Educational Experiences (MWEEs) framework. Identify monitoring gaps where community science can support Best Management Practice (BMP) verification and habitat quality assessments. Develop common impact metrics and shared, long-term data systems across partners to track progress.

Management Approach 4.4.5: Increase access to training and technical assistance that support effective stewardship programs. Sustain and expand leadership and technical training platforms, and integrate watershed topics, including changing environmental conditions and social science best practices, into training for environmental professionals, community leaders, and local government staff. Support NGOs and other organizations with grant applications, program design, and implementation.

Management Approach 4.4.6: Expand incentives and career pathways for emerging professionals, community leaders, and individuals engaged in stewardship. Coordinate with the Workforce Workgroup to support programs that combine education, certifications, and hands-on stewardship experience with workforce pathways that attract and retain new talent. Expand funding for programs that reduce barriers to students pursuing environmental careers, replicate community leadership models, and promote incentives for individual stewardship actions.

Participating Partners

The following partners participated in the creation of this Management Strategy and expressed their intention to collaborate on Management Strategy implementation over the next six years. Per the Chesapeake Bay Watershed Agreement, "participation in developing Management Strategies or in the achievement of Outcomes varies by signatory based on differing priorities across the watershed. This participation may include commitments

such as sharing knowledge, data or information, educating the public, working on future legislation and developing or implementing programs or verified practices" (2025). Signatory partners may join implementation efforts at any time. Partners also recognize that Signatory participation is voluntary and may vary accordingly.

- **Signatory Partners**
  - State of Delaware
  - District of Columbia
  - State of Maryland
  - Commonwealth of Pennsylvania
  - Commonwealth of Virginia
  - State of West Virginia
  - U.S. Environmental Protection Agency
- **Other Partners**
  - Alliance for the Chesapeake Bay
  - Cacapon Institute
  - Interstate Commission on the Potomac River Basin
  - Penn State Extension

Student Environmental Literacy Experiences Outcome

Student Environmental Literacy Experiences Outcome: Increase the number of students who participate in inquiry-based environmental literacy instruction with the aim of each student receiving at least one Meaningful Watershed Educational Experience, or MWEE, in elementary, middle and high school.

- By 2040, reach jurisdictional targets to result in at least 75% of public school students being enrolled in a school district that offers a MWEE for all students. Jurisdictional targets are as follows:
    - 65% of public school students in the District of Columbia
    - 97% of public school students in Maryland
    - 60% of public school students in Pennsylvania
    - 85% of public school students in Virginia
    - 50% of public school students in the West Virginia portion of the watershed

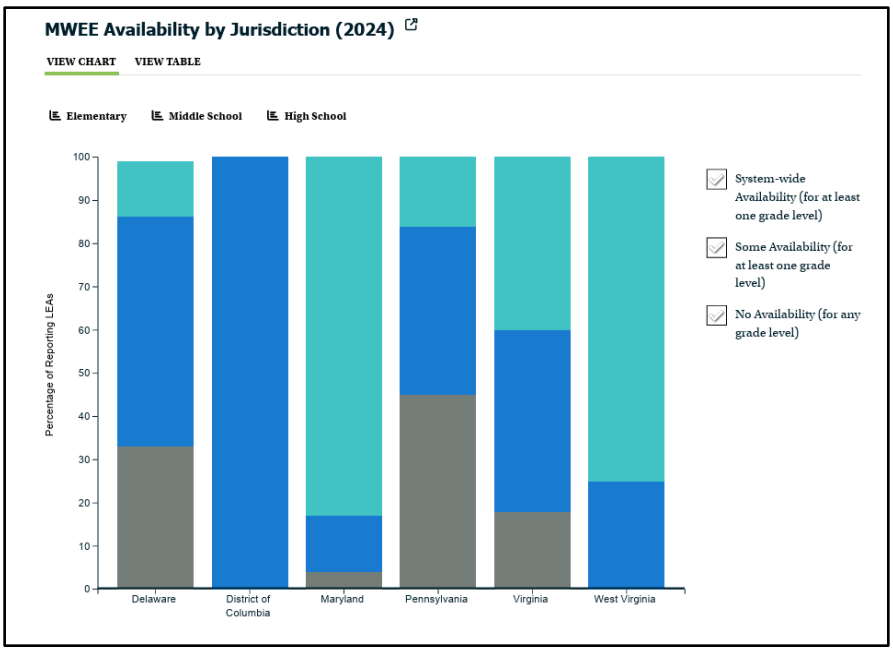
Baseline and Current Condition

Student Participation in MWEEs

In 2024, 302 local education agencies (LEAs)—44% of the total—were represented in the Chesapeake Bay Program's Environmental Literacy Indicator Tool (ELIT). This represents 74% of public elementary, middle, and high school students that live in the region. Students are defined as K-12 learners. ELIT provides data on the extent of Meaningful Watershed Educational Experiences (MWEEs) among schools:

- Elementary School Level: 31% of reporting LEAs provide system-wide MWEEs to at least one grade level, 39% provide some MWEEs to at least one grade level, and 30% have no MWEEs available.
- Middle School Level: 33% provide system-wide MWEEs to at least one grade level, 41% provide some MWEEs, and 26% have no MWEEs available.
- High School Level: 30% provide system-wide MWEEs in at least one course, 44% provide some MWEEs in at least one required course, and 26% have no MWEEs available.

The trend in the data from 2022 to 2024 shows an increase in the availability of MWEEs in elementary, middle, and high schools throughout the region. When looking at the data from districts that reported in both 2022 and 2024, system-wide MWEE availability increased 9.6% at the elementary level, while districts with no MWEEs decreased 9.6%. At the middle school level, systemwide availability also increased 9.7%, while districts with no MWEEs dropped 8.2%. For high school students, the increase in system-wide MWEE availability was 12.6%, while no availability decreased 9.4%. These trends illustrate the continual growth in MWEE availability and engagement at all three grade bands described in this outcome.



Monitoring Progress and Indicators

Indicator: Student Participation in MWEEs by Grade Band

Progress toward the Student Environmental Literacy Experiences Outcome has been measured biennially via the Environmental Literacy Indicator Tool (ELIT) since 2019. The 2024 survey data captured data from the 2023–2024 school year, along with records from 2022 for districts who responded in 2022 but not in 2024. This resulted in a robust combined baseline dataset representing 302 LEAs across the watershed. The data set represents 74% of all public school students in the region. Larger urban districts have the highest reporting rates.

The ELIT survey monitors the depth and reach of inquiry-based environmental education instruction by collecting data on school district leadership, integrated curriculum, and the structural presence of MWEEs across grade bands. MWEE availability is tracked by grade bands (elementary, middle, and high school) and categorized as system-wide, partial, or non-existent.

The presentation of the 2024 data aligns with the outcome in the *Chesapeake Bay Watershed Agreement* adopted in 2014, which called for delivering MWEEs in each grade band. With the shift in the outcome to target a percentage of students rather than the number of school districts in the watershed offering an MWEE, the indicator will need to be recalculated using existing underlying data dating back to 2019.

Student Environmental Literacy Experiences Outcome Situation Analysis

The following table identifies challenges that will impact progress towards attaining this outcome and its targets. This analysis considers scientific, environmental, fiscal or policy-related developments that have already or may influence work during the upcoming six-

year Management Strategy cycle. Consideration is given to which challenges are within and outside of CBP's ability to influence. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*). Challenges listed in bold font have been identified by the Goal Team and its Workgroups as being priorities for the Workgroup to seek to address or make progress against through the development and implementation of Management Approaches.

Challenges	Within CBP's ability to influence	Outside of CBP's ability to influence
Absence or turnover in state education agency staffing for environmental literacy	X	
Not all jurisdictions have state-level environmental education mandates (e.g., regulations, policies, Executive Orders).		X
Existing High-Quality Instructional Materials (HQIM) often do not provide enough opportunities to use local context and the outdoors for instruction.		X
Education is locally controlled by school districts and their boards of education (approximately 800 districts in the region).		X
Not all school districts have partnerships with nonformal educators to help create and implement outdoor, inquiry-based learning.	X	
Inconsistent and fragmented funding streams for school districts and environmental education partners		X
Dedicated staff focused on environmental literacy are not identified for all school districts, particularly in smaller school districts.	X	
School districts have varied educational priorities and mandates, and environmental education is not always a focus area.		X
Tracking and accountability gaps	X	
Teachers often enter the classroom without training in outdoor learning.	X	
Schools are experiencing high teacher turnover and low recruitment for new teachers.		X
Risk aversion and liability concerns related to outdoor instruction		X
Underutilization of existing outdoor spaces on school grounds for MWEEs and the perception that MWEEs require expensive transportation to outdoor sites	X	

Management Approaches for Outcome 4.5: Student Environmental Literacy Experiences Outcome

Management Approach 4.5.1: Maximize use of impactful environmental literacy resources. Develop and disseminate environmental literacy resources that equip educators to advance state education priorities using inquiry-based instruction and MWEEs. Use a process that includes regional development, state-level promotion, and local network vetting and dissemination.

Management Approach 4.5.2: Scale and sustain inquiry-based learning and MWEEs. Leverage intentionally connected regional, state, and local networks to secure funding, deliver training, and strengthen collaboration between formal and nonformal partners in support of systemic inquiry-based learning and MWEE programming.

Participating Partners

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    - Pennsylvania Association of Environmental Educators
    - Virginia Association for Environmental Education

- State Environmental Literacy Networks
  - Maryland Environmental Literacy Advisory Network
  - Pennsylvania Environmental Literacy Network
  - Virginia Environmental Literacy Network

Workforce Outcome

Workforce Outcome: Increase the ability of all job seekers in the watershed to understand, participate and succeed in career pathways that positively support the Chesapeake Bay watershed.

- By 2040, inform and grow implementation of strategies that help students, educators and job seekers become aware of and understand environmental careers, and the in-demand skills and pathways to access these opportunities.
- By 2040, increase the number of postsecondary institutions and training providers offering industry-recognized credentials that support *Chesapeake Bay Watershed Agreement* Goals and Outcomes.
- By 2040, engage employers to support greater hiring and retention of workers trained in fields necessary to support *Chesapeake Bay Watershed Agreement* Goals and Outcomes.

Baseline and Current Condition

In 2024, the Chesapeake Bay Program partnered with WE Strategies to perform a Landscape Analysis regarding workforce programming and retention across the watershed. Participants in this study highlighted several gaps they have experienced, including the lack of awareness of green job pathways, lack of relationships between training providers and employers, and lack of professional development and advancement opportunities. Understanding this baseline perception of the green workforce landscape will aid in creating strategies to address these gaps.

The following themes arose from this study, which showcase the current conditions of workforce perceptions in fields that support *Chesapeake Bay Watershed Agreement* goals and outcomes:

- "Green jobs" are commonly thought of as jobs that are directly involved with environmental science, conservation, and being outdoors;
- Funding for professional development and career education opportunities is limited;
- Youth and emerging professionals may not have a clear understanding of important skills and future career paths within these fields, even after training programs are completed;
- Salary and availability of permanent, long-term jobs are seen as barriers by prospective employees;
- Clear communication is lacking between training providers and employers, acknowledged by 84% of study participants.

A 2021-2022 study titled *Reviewing the Capacity of the Chesapeake Bay's NGO Community* reveals additional insights regarding recruitment, training, employment, and

retention challenges for non-profit organizations across the Chesapeake Bay region. Non-profit organizations are important to consider when seeking to achieve the Workforce Outcome, because they represent a major type of employer engaged in Chesapeake Bay watershed implementation and improvement efforts. Study participants emphasized that lean staffing and difficulty recruiting and retaining staff were a large concern. Frequent staff turnover "damages the ability to build and maintain relationships with constituents and places a burden on remaining staff" (p.2). Staff turnover at funder organizations was cited as a challenge that makes non-governmental organization (NGO) efforts to secure funding through already complex grant requirements more difficult. NGOs cite limited access to funding for professional development, training opportunities, and coordination, outreach, and engagement of both jobseekers and employers as a barrier to success for an NGO's ability to maintain or grow their workforce or support workforce development programs.

Similarly, challenges in achieving Chesapeake Bay Program (CBP) goals due to workforce shortages have been discussed by the Scientific and Technical Advisory Committee (STAC) and the Local Government Advisory Committee (LGAC). In July 2021, a STAC report, *Overcoming the Hurdle: Addressing Implementation of Agricultural Best Management Practices (BMPs) Through a Social Science Lens,* recommended that the CBP should support new incentive structures for the development and retention of conservation professionals. In the 2019 *Stormwater and Green Infrastructure Workforce Development Report*, LGAC found there is significant demand for workforce to support implementation of BMPs and water infrastructure in local jurisdictions. LGAC followed up with a letter to the Executive Council recommending that they take a leadership role in promoting green infrastructure workforce development, training, and certification programs to support local economies and continue watershed restoration efforts.

The Workforce Workgroup intends to work strategically to ensure that all stakeholder groups in the Chesapeake Bay region are meaningfully included in efforts to achieve the Workforce Outcome and are brought into leadership and decision-making roles. Progress to achieve the Workforce Outcome will also be influenced by changing environmental conditions. Some careers and skillsets will increase in demand and new career opportunities and pathways will develop. New and emerging skills may be required, and the existing workforce may require enhanced skillsets to adapt to changing environmental conditions.

Monitoring Progress and Indicators

The following potential indicators and monitoring approaches are proposed for the Workforce Outcome as a starting point for future decisions. A subcommittee of Workforce Workgroup members, industry representatives, and supporting staff will be convened to define target industries, evaluate available data, reach agreement on final indicators and relevant sector definitions, and establish the process and responsibilities for data reporting. The subcommittee should include a mix of training providers and representatives from signatories' Department of Labor and comparable relevant agencies,

that are familiar with, and have access to, employment, job outlook, wage, and credentialing data. The subcommittee will work to finalize indicators by the end of June 2027. Because the industries that directly and indirectly touch the green sector are so broad, the subcommittee will identify 10-15 example occupations and sectors, defined as "Indicator Job Species," to more effectively and efficiently track and monitor progress towards this outcome across the Chesapeake Bay jurisdictions.

Monitoring: Job Placement within Chesapeake Bay Employment Sector

The Workforce Workgroup indicator development subcommittee will work to define a methodology and set of data to monitor job placement within the Chesapeake Bay employment sector. Potential data sources could include the Quarterly Census of Employment and Wages to track employment rates for a defined list of industry codes, data collected via programs like EARN Maryland, and more. Demographic data and current unemployment and underemployment status for a subset of indicator jobs should be monitored with placement, if possible, to ensure that all job seekers are participating and succeeding in career pathways. One source of this data is the US Equal Employment Opportunity Commission.

The Workforce Workgroup indicator development subcommittee will identify 10-15 indicator jobs that are essential to Chesapeake Bay restoration and conservation progress. Indicator jobs will be linked to their Standard Occupational Codes (SOCs) as established by the Bureau of Labor and Statistics. The subcommittee will prioritize jobs which are representative of workforce needs to achieve *Chesapeake Bay Watershed Agreement* outcomes. Indicator jobs will also be organized and selected to ensure representation across educational requirements, geography, and sector, and identified via SOCs (e.g., Environmental Engineers (17-2081) and Agricultural Technicians (19-4012)). Indicator jobs will be representative of both degree-requiring and non-requiring pathways. Indicator job selection will also consider and reflect new, emerging, and changing in-demand skillsets and occupational developments associated with changing environmental conditions. For example, occupations related to adaptive management, stormwater, or natural emergencies could emerge as jobs to track. Once an array of indicator jobs and associated data sources are identified, the workgroup will track employment-related trends to measure progress towards achieving the Workforce Outcome.

Monitoring: Increased Awareness, Resources, and Engagement

The Workforce Workgroup will track the cumulative development of tools, resources, products, and programming developed to support awareness of environmental careers and the in-demand skills and pathways to access these opportunities. Example resources and engagement activities include career days, seminars and webinars, efforts to embed workforce development in K-12 curriculum, career counselor engagement, creation of career guides and maps, and communication to promote and increase the availability of careers, career networks, internships, and mentorship opportunities.

Monitoring: Industry-Recognized Credentials Attained

More work is needed to define the method for how and what data will be collected under this potential indicator. One option is to use the Annual Workforce Innovation and Opportunity Act (WIOA) state performance reporting data and incumbent worker training outcomes for credential attainment for a defined sector. Signatories may have other ways of tracking attainment of industry-recognized credentials that could also be used. Once the indicator development subcommittee selects 10-15 indicator jobs, the industry recognized credentials (IRCs) associated with those jobs will be tracked and monitored. The Workforce Workgroup will seek to identify gaps and barriers in credentialing. Gaps may be more prevalent for indicator jobs associated with emergent in-demand skills or occupations (e.g., skills associated with changing environmental conditions). The workgroup acknowledges that not all industry-recognized credentials are recognized or valued by employers equally, and that work will be required to understand gaps in industry-recognized credentials, where new credentials may need to be developed, and how to effectively communicate these pathways.

Monitoring: Average Annual Sector Wages

The Workforce Workgroup will consider tracking wage growth and stagnation in identified sectors and jobs. Average wages of indicator jobs could be monitored on an annual basis and compared to a baseline year and relative to inflation. Wage growth or stagnation, particularly of the indicator jobs, may prove a valuable metric to track progress and challenges to achieve the Workforce Outcome. Cross-comparison of wage growth or stagnation with the availability and accessibility of credentialing under the identified sectors may provide valuable insights about upward mobility, economic security, and other employment trends or needs across the Chesapeake Bay region.

Monitoring: Placement Trends in Green Career Training Programs

The Workforce Workgroup will monitor and track the success of select green career training programs including apprenticeships, fellowships, internships, corps, and corps-adjacent programs with primary success being defined as placement into a permanent job after completion of the program. Other values and successes from these types of programs could include attainment of credentials, skills, and initial work experiences that are supportive of a long-term career in the industry.

Workforce Outcome Situation Analysis

The following table identifies challenges that will impact progress towards attaining this outcome and its targets. This analysis considers scientific, environmental, fiscal or policy-related developments that have already or may influence work during the upcoming six-year Management Strategy cycle. Consideration is given to which challenges are within and outside of CBP's ability to influence. Challenges associated with Changing Environmental Conditions are denoted with an asterisk (*). Challenges listed in bold font have been identified by the Goal Team and its Workgroups as being priorities for the Workgroup to seek to address or make progress against through the development and implementation of Management Approaches.

Challenges	Within CBP's ability to influence	Outside of CBP's ability to influence
Funding, organizational capacity, and structural challenges:		
Lack of funding for workforce development programs for green careers	X	
Lack of organizational capacity to apply for and host workforce development opportunities	X	
Lack of technical assistance providers providing strategic support to increase awareness and opportunities for green sector jobs	X	
Low organizational capacity and insufficient funding to coordinate outreach and engagement to students and jobseekers (e.g., career fair attendance, materials distribution)	X	
Low organizational capacity and insufficient funding to coordinate outreach and connect employers with training providers	X	
Lack of access to funding for professional development, training opportunities, and skill-building to attract and retain prospective jobseekers	X	
Prevalence of low-paid and seasonal entry-level positions create economic barriers, such as long-term job insecurities and retention challenges		X
Difficulty recruiting and retaining workers for jobs that occur outdoors (e.g., BMP maintenance) with increasing extreme weather*		X
Lack of networks connecting jobseekers to training providers	X	
Need for increased transparency in application and hiring processes, including salary transparency		X
Need for a shift toward skills-based hiring practices that are not highly restrictive to degree or background requirements	X	
Lack of capacity building funding to support NGOs in their real-time Human Resources and administrative needs		X
Policy and economic shifts could have impacts on certain sectors (e.g., visas, immigration, Artificial Intelligence).		X
Jobseeker awareness, clear pathways, and sector integration:		
Lack of clear definitions of "green careers" and "green workforce"	X	

Need for the identification of job codes associated with green careers and sectors	X	
Lack of clear pathways to support progression from entry to higher level roles	X	
Chesapeake Watershed Agreement-related jobs not prioritized by state labor offices	X	
Lack of universally accepted or required credentials and certifications		X
Need to identify existing and emerging industry-recognized credentials and understand their accessibility and value*	X	
Need for an increase in internship, apprenticeship, and work-based learning opportunities to increase K-12 student awareness of and interest in green careers	X	
Career awareness programming is seldom included in existing environmental literacy programming in meaningful or impactful ways.	X	
K12/CTE instructors lack access to and awareness of resources that support programming related to CBP jobs or need areas.	X	

Management Approaches for Outcome 4.6: Workforce Outcome

Management Approach 4.6.1: Engage schools and workforce development partners to increase student, educator, and job seeker awareness and understanding of skills and pathways to participate in green careers. Expand career awareness and navigation by developing educational resources, supporting educator professional development, integrating career exploration into environmental literacy programs, supporting work-based learning experiences, and embedding workforce programming into school district policies and plans.

Management Approach 4.6.2: Increase access to, and attainment of, Industry Recognized Credentials (IRCs) that support *Chesapeake Bay Watershed Agreement* goals and outcomes. To advance CBP goals, the Workforce Workgroup will serve as a data clearinghouse and convenor that identifies and shares aligned IRCs, develops new credentials of value to fill existing gaps, and evaluates the investments and barriers involved in accessing these occupational opportunities.

Management Approach 4.6.3: Engage employers to support greater hiring and retention of workers trained in fields necessary to support *Chesapeake Bay Watershed Agreement* goals and outcomes. By leveraging jurisdiction networks of employers, training providers, and public agencies, the Workforce Workgroup will foster opportunities for employers to discuss challenges, needs, and opportunities across sectors with each other and with training partners to support pipeline development from job training to hiring. Among other

activities, the workgroup will encourage mentorship programs as a method for increasing localized hiring, job retention, career advancement, and pathways that support job seekers in accessing sustainable living wage opportunities.

Participating Partners

The following partners participated in the creation of this Management Strategy and expressed their intention to collaborate on Management Strategy implementation over the next six years. Per the Chesapeake Bay Watershed Agreement, "participation in developing Management Strategies or in the achievement of Outcomes varies by signatory based on differing priorities across the watershed. This participation may include commitments such as sharing knowledge, data or information, educating the public, working on future legislation and developing or implementing programs or verified practices" (2025). Signatory partners may join implementation efforts at any time. Partners also recognize that Signatory participation is voluntary and may vary accordingly.

- **Signatory Partners**
  - District of Columbia: Department of Energy & Environment, Workforce Investment Council, DC Infrastructure Academy, DC Water
  - State of Maryland: Department of Natural Resources, Department of Environment, Department of Labor
  - Commonwealth of Virginia: Secretariat of Natural and Historic Resources, VA Department of Workforce Development and Advancement (Virginia Works)
  - Federal Government: National Oceanic and Atmospheric Administration, U.S. Environmental Protection Agency
- **Other Partners**
  - Chesapeake Stormwater Network
  - Howard EcoWorks
  - Chesapeake Conservation Landscaping Council
  - Alliance for the Chesapeake Bay
  - Choose Clean Water Coalition
  - Chesapeake Bay Foundation
  - Boxerwood
  - Baltimore Urban Water Partnership
  - Chesapeake Research Consortium

Appendix 1. Snapshot of Signatory Programs

Managing a large and difficult restoration and conservation program with "no assurance about the level of funds that may be available beyond the short term" (GAO, 2008) is a challenging undertaking that requires individual and collaborative action from signatory partners, as well as the many communities and individuals who live, work, play and learn in our region. This "Snapshot of Signatory Resources" seeks to better recognize the significant contribution that individual signatory partners and federal agencies make towards outcome attainment. The existing programs and funding spotlighted below are not intended to represent the full range of resources available or required to support progress towards outcome attainment; only the "biggest ticket" programs are included for each outcome and signatory partner. It is important to note that funding is reported from a single point in time (fiscal year 2025) and is not representative of future investments. Identifying the most critical programs and resources that exist at a particular moment in time can help the partnership focus its collaborative efforts on activities that have the greatest impact, and which don't duplicate the work of existing programs.

Local Government Leadership Outcome

State of Delaware

- DNREC Office of Environmental Finance (Estimated $111 million in FY2025 in Chesapeake Bay Watershed) administers the Delaware Pollution Control Revolving Fund and provides technical and financial support to Delaware municipalities, private organizations, nonprofit organizations, and private organizations to promote water quality, protect natural resources, and reduce the risk of pollution from septic tanks and underground storage tanks.
- University of Delaware's Institute for Public Administration (IPA) (Estimated $118K in FY2025 in Chesapeake Bay Watershed) addresses the policy, planning, and management needs of its partners by helping municipal and county officials understand planning, public service, and resource management.

State of Maryland

- Watershed Restoration Specialists (5 FTEs in FY2025) provide planning and technical assistance support to local governments throughout the state in implementing restoration activities.
- Bay Restoration Fund ($127M in FY2025) is a dedicated fund collected and distributed in partnership between the state and local governments to upgrade Maryland's wastewater treatment plants and onsite septic systems to address local priorities and improve water quality, and to support technical assistance.
- Planning Services Division and Local Assistance and Training ($2.7M in FY2025) unit of the Maryland Department of Planning focuses on providing technical support, outreach, and training to Maryland's 23 counties and 157 municipalities, helping officials make decisions that advance the Agreement's outcomes.

State of New York

- Climate Smart Communities Grant ($90,000 in FY2025) helps local governments take steps in their communities to reduce greenhouse gas emissions and adapt to climate change.

Commonwealth of Pennsylvania

- Department of Environmental Protection Community Clean Water Coordinator Program (approximately $1.8 million in FY2025) supports local leadership and capacity-building in Chesapeake Bay watershed counties by funding coordinators who convene partners, engage municipalities, secure implementation funding, track progress, and facilitate Countywide Action Plan (CAP) implementation. Coordinators serve as local hubs connecting county governments, conservation districts, watershed organizations, and state agencies to advance water quality goals.
- Department of Environmental Protection Countywide Action Plan (CAP) Implementation Grants ($24 million in FY2025, including approximately $9.6 million from Pennsylvania's Environmental Stewardship Fund and $14.4 million in federal EPA funding) support county and local implementation of Chesapeake Bay restoration priorities while strengthening local decision-making, intergovernmental coordination, and watershed planning. The grants fund projects identified through locally developed Countywide Action Plans and incentivize sustained engagement by county and municipal leaders.
- State Conservation Commission Dirt, Gravel, and Low Volume Road (DGLVR) Program (estimated $15-18 million annually in Chesapeake Bay watershed counties) helps municipalities reduce sediment pollution from locally owned roads through technical assistance, project grants, and required Environmentally Sensitive Maintenance (ESM) training. Delivered through county conservation districts, the program builds the knowledge and capacity of township supervisors, roadmasters, and municipal officials to integrate watershed protection into everyday infrastructure management and road improvement decisions.

Commonwealth of Virginia

- Planning District Commissions ($870,000 FY2025) deliver outreach, technical, and administrative assistance to local governments related to WIP programmatic actions and implementation activities.

Chesapeake Bay Commission

- As a tri-state legislative commission, the Chesapeake Bay Commission advances the goals of the Chesapeake Bay Watershed Agreement by working collaboratively with Bay Program partners to identify and pursue legislative, budgetary, and policy needs within the legislatures of our member states and the U.S. Congress.

Federal Government

- U.S. Environmental Protection Agency Signatory Implementation Grant Funding ($39.5M in FY2026) supports the management mechanisms established under the *Chesapeake Bay Watershed Agreement*, with an emphasis on state programs for control and abatement of nonpoint source nutrient and sediment loads.

Public Access Outcome

State of Delaware

- The DNREC Open Space Program (Estimated $3.3 million in FY 2025 in Chesapeake Bay Watershed) is guided by the Delaware Open Space Council, coordinates the acquisition of parks, open space, natural areas, forests, wildlife habitat, greenways, and waterways by expanding state parks and preserves, fish and wildlife areas, state forests and cultural resource sites.
- The DNREC Waterway Management Program (Estimated $433K in FY2025 in Chesapeake Bay Watershed) oversees public access infrastructure such as state-managed channel navigation, dredging priorities, and local boat ramps that allow public boating, fishing, and crabbing access to coastal lagoons, rivers, and bays.

District of Columbia

- DC's Statewide Comprehensive Outdoor Recreation Plan (4 FTEs in FY2026) identifies priority needs for outdoor recreation and directs investment toward accessible, high-quality public spaces, including waterfront parks, trails, and boating access sites. The plan strengthens the District's contribution to the Chesapeake Bay Program's public access outcome by expanding equitable opportunities for residents to reach DC waterways and greenspaces.
- Clean (Green) Marinas Program supports public access by improving environmental performance at marinas and boating facilities and promoting best practices that keep waterways safe and clean for recreational users.
- Office of District Waterways Management ($270,000 in FY2026) advises District agencies on waterways adjacent land-use and infrastructure decisions that affect local rivers. Through the development of the Waterways Advisory Plan, ODWM identifies priority access points and supports projects that improve connectivity, safety, and equitable access to waterfront spaces across the District.

State of Maryland

- Waterway Improvement Fund ($21.5M in FY2025) offers local governments funding for motorized boating needs. Supported initiatives include constructing or updating public boating facilities for waterway access, dredging and enhancing navigation in heavily used recreational channels, and procuring marine fire and rescue vessels to enhance public boating safety.
- 2026 Adaptive Facilities Transition Plan (1 FTE in FY2025) provides guidance on prioritization of renovation of facilities.
- Program Open Space ($65.1M in FY2025) provides various grant programs, including the greenspace equity program and rural legacy program, conserving natural resources while providing outdoor recreation opportunities for all citizens.

State of New York

- DEC Accessibility Program – NYSDEC is composed of ADA Accessibility Coordinators and focuses on expanding access for people of all ages and abilities.

Commonwealth of Pennsylvania

- Fish and Boat Commission Boating Facility Grant Program (funded through boat registration fees, motorboat fuel taxes, restricted revenue accounts, and federal

boating access funds) provides grants to municipalities, counties, and nonprofit organizations for the planning, acquisition, development, expansion, and rehabilitation of public boating facilities. The program supports new and improved boat launches, courtesy docks, parking areas, restrooms, and ADA-accessible features that expand public access to Pennsylvania's waterways and encourage recreational use of rivers, lakes, and streams.

- Department of Conservation and Natural Resources Community Conservation Partnerships Program (C2P2) (approximately $50 million awarded annually) supports local governments and nonprofit organizations in developing parks, trails, greenways, river access sites, and recreation infrastructure across Pennsylvania. Through planning, land acquisition, conservation, and rivers development grants, the program improves public access to natural lands and waterways while strengthening outdoor recreation opportunities and community connections to local natural resources.
- Pennsylvania Environmental Council (PEC) Statewide Water Trail Mini-Grant Program ($30,000 in FY2025, funded in part through DCNR's Community Conservation Partnerships Program) provides competitive mini-grants to public entities and nonprofit organizations for projects along designated Pennsylvania Water Trails. Grants support improved physical and inclusive access to waterways, enhanced paddling and recreation opportunities, trail-to-trail connections, education and stewardship efforts, and projects that connect residents and visitors to Pennsylvania's rivers and streams.

State of West Virginia

- West Virginia Division of Natural Resources (WVDNR) Statewide Wildlife Management Program improves public access to wildlife management areas (WMAs) by building and maintaining access roads, parking lots, trails, and public shooting ranges.

Chesapeake Bay Commission

- As a tri-state legislative commission, the Chesapeake Bay Commission advances the goals of the Chesapeake Bay Watershed Agreement by working collaboratively with Bay Program partners to identify and pursue legislative, budgetary, and policy needs within the legislatures of our member states and the U.S. Congress.

School District Environmental Literacy Planning Outcome

State of Delaware

- Delaware Pathways developed (1) environmental literacy competencies for Career Technical Education (CTE); (2) an environmental literacy framework expanding on these competencies; and (3) technical assistance and professional learning plan for implementation in related CTE programs of study.
- The Delaware Science Coalition (Estimated $573K in FY2025 in Chesapeake Bay Watershed) manages science policy, curriculum, and professional development in

participating districts and charter schools. The coalition works with district and charter representatives on science initiatives.

District of Columbia

- District Environmental Literacy Plan (24 FTEs in FY2025) creates the framework for standards, achievement, professional development, assessment and leadership for individuals to thrive and achieve innovation in education.

State of Maryland

- Maryland Outdoor Learning Partnership (2 FTES in FY2025) is a public-private stakeholder group that fosters state-wide collaboration, coordinates resources, and delivers recommendations so that all of Maryland's youth are empowered to grow as environmental stewards that access, conserve, and restore our natural resources to ensure a climate-ready Maryland.
- Maryland Association for Environmental and Outdoor Education ($281K in FY2025) MAEOE provides mini-grants and stipend opportunities, which are funded through the Maryland State Department of Education under the Maryland Green Schools Act of 2019, the Maryland Green Schools program includes 702 schools in 23 local education agencies (LEAs) and a network of 45 Green Centers to support schools gaining and maintaining the award.

Commonwealth of Pennsylvania

- Pennsylvania Environmental Literacy (PA ELit) Network (statewide; supported by the Pennsylvania Department of Education, U.S. Environmental Protection Agency, NOAA, and partner organizations) helps school districts build capacity for environmental literacy through six regional hubs, educator professional development, MWEE training, environmental literacy planning resources, and implementation support for Pennsylvania's STEELS standards. The network connects schools with environmental education providers and promotes systemic integration of environmental literacy across K-12 education.
- Intermediate Unit MWEE/STEELS Development Programs (delivered through Pennsylvania's Intermediate Units) provide school districts with technical assistance, professional development, curriculum support, and implementation planning for Meaningful Watershed Educational Experiences (MWEEs) and the STEELS standards. These programs help districts integrate environmental literacy and sustainability into classroom instruction, establish districtwide implementation plans, and expand outdoor and inquiry-based learning opportunities for students.
- Pennsylvania Gateway to Green (statewide; supported by PDE and partner organizations) serves as Pennsylvania's online hub for environmental literacy education. The platform provides school districts with STEELS-aligned instructional resources, environmental literacy planning tools, watershed education materials, and connections to environmental education providers that support district-wide implementation of environmental literacy programs.

Commonwealth of Virginia

- Virginia Office of Environmental Education aims to collaboratively engage organizations to support non-formal and formal educators to cultivate environmentally literate K-12 graduates across the state of Virginia.

- Virginia Naturally Schools Recognition Program ($5,000 in FY2025) recognizes the exemplary efforts undertaken by Virginia schools to increase the Environmental Literacy of its students.
- Virginia Department of Education will offer grants to school divisions to develop outdoor learning spaces to enhance student learning about the environment.

State of West Virginia

- Project Learning Tree (WVPLT), run through the West Virginia Division of Forestry, uses forests as a window to teach critical thinking, math, science, and resource stewardship through professional educator workshops
- Project WET (Water Education Today), managed alongside the WV Department of Environmental Protection, offers interdisciplinary water-science activities, classroom guides, and statewide water festivals for students
- Youth Environmental Program (YEP) unites schools, 4-H clubs, and scouts to complete hands-on community environmental projects and local conservation efforts
- West Virginia Outdoor Learning Network Initiative (OLNI) is a partnership of nonprofit organizations, school districts, and other local entities committed to advancing environmental literacy for students in the portion of West Virginia within the Chesapeake Bay Watershed. OLNI supports high-quality Meaningful Watershed Educational Experiences (MWEEs), the gold standard in environmental literacy.

Chesapeake Bay Commission

- As a tri-state legislative commission, the Chesapeake Bay Commission advances the goals of the Chesapeake Bay Watershed Agreement by working collaboratively with Bay Program partners to identify and pursue legislative, budgetary, and policy needs within the legislatures of our member states and the U.S. Congress.

Federal Government

- National Oceanic and Atmospheric Administration Bay Watershed Education & Training (B-WET) Program supports school district planning grants in the region.
- U.S. Environmental Protection Agency Environmental Education Grants Program supports environmental education projects that promote environmental awareness and stewardship and help provide people with the skills to take responsible actions to protect the environment.

Stewardship Outcome

State of Delaware

- The Stewardship Program offers multiple tax incentive programs to keep properties in active forest management, along with offering a small state cost share program when timber revenues allow.
- Delaware Community Conservation Assistance Program (DeCAP) ($628K in FY2025) supports community and landowner-level implementation of backyard best management practices, including but not limited to tree plantings and riparian tree buffers, in the Chesapeake Bay watershed.

District of Columbia

- Kingman Rangers Workforce Development Program ($262,000 in FY 2025) provides paid stewardship positions to full-time and part-time rangers that support operations, maintenance, and ecological restoration on the Islands and engage participants in environmental education and stewardship programs.
- Trash Free Communities: Trash Reduction Through Behavior Change ($115,000 in FY2025) supports a litter reduction campaign that focuses on creating behavior change in local District communities.
- Community Stormwater Solutions Grants ($284,000 in FY2025) provides funding for innovative, community-centered projects that improve the District's waterways.

State of Maryland

- Keep Maryland Beautiful ($238,751 in FY2025) supports community-based organizations working to increase civic engagement, promote stewardship practices, and develop solutions to local environmental problems.
- Chesapeake Bay Trust Capacity Building Initiative ($972,761 in FY2025) supports nonprofit organizations and local governments working at the intersection of natural resource protection and community well-being across the Chesapeake Bay watershed.
- Chesapeake Bay SAV Watchers Program (No specific funding; 2 FTEs supported the program in FY25) is a program that provides volunteer scientists with engaging and educational experiences with submerged aquatic vegetation (SAV) while also generating useful data for Bay scientists and managers.

State of New York

- Citizens Statewide Lake Assessment Program (CSLAP) is a statewide volunteer lake monitoring program directed by DEC staff in collaboration with the NYS Federation of Lake Associations (NYSFOLA).
- Water Assessments by Volunteer Evaluators Program (WAVE) is a statewide DEC program where volunteers collect, or sample “stream bugs” to assess water quality in wadable streams in New York State.

Commonwealth of Pennsylvania

- Master Watershed Steward Program trains and supports volunteers to become local leaders in watershed stewardship through science-based education, restoration activities, and community outreach.
- Lancaster Watershed Leadership Academy develops community leaders who are inspired to act on local water quality challenges through a year-long program combining watershed education, leadership development, peer networking, and hands-on learning.
- Riparian Rangers trains and supports volunteers to monitor and maintain newly planted riparian forest buffers throughout the Chesapeake Bay watershed.

Commonwealth of Virginia

- Stormwater Local Assistance Fund ($48,663,103 in FY2025) provides matching grants to local governments for the planning, design, and implementation of

stormwater best management practices (BMPs) that address cost efficiency and commitments related to reducing water quality pollutant loads.

- Virginia Recreational Trails Program ($1,798,344.72 in FY2025) supports the development and maintenance of both nonmotorized and motorized recreational trails and trail-related facilities.

State of West Virginia

- Green Streets, Green Jobs, Green Towns ($1.3 million in FY2026) supports design and implementation of green streets, community greening, and urban tree canopy projects that enhance livability in cities and communities.
- West Virginia Master Naturalist Program trains individuals in natural history, interpretation, and environmental stewardship to support local conservation projects and outdoor education.
- WV Save Our Streams trains watershed residents to monitor and protect local wadable streams and rivers using biological evaluations.
- Forest Stewardship Program, administered by the WV Division of Forestry, helps private landowners manage and protect woodland properties for wildlife, timber, and recreation.

Chesapeake Bay Commission

- As a tri-state legislative commission, the Chesapeake Bay Commission advances the goals of the Chesapeake Bay Watershed Agreement by working collaboratively with Bay Program partners to identify and pursue legislative, budgetary, and policy needs within the legislatures of our member states and the U.S. Congress.

Federal Government

- U.S. Environmental Protection Agency U.S. Environmental Protection Agency Small Watersheds Grant Program ($11M in FY2025) promotes voluntary, community-based efforts to protect and restore vital habitats in the Chesapeake Bay and its tributary rivers and streams.
- U.S. Environmental Protection Agency Innovative Nutrient and Sediment Reduction Grants Program ($11M in FY2025) accelerates regional watershed restoration projects to reduce nitrogen, phosphorus, and sediment pollution from entering the Chesapeake Bay.
- U.S. Environmental Protection Agency Local Science Monitoring Grant ($499,972 in FY2025) supports capacity expansion and integration of local science-based monitoring partners into the Chesapeake Bay Program partnership through the Chesapeake Monitoring Cooperative.

Student Environmental Literacy Experiences Outcome

State of Delaware

- Delaware DNREC Division of Parks and Recreation provides environmental education programming for K-12 audiences through educational centers operated by the Division of Fish and Wildlife.

- The Delaware Science Coalition manages science policy, curriculum, and professional development in participating districts and charter schools. The coalition works with district and charter representatives on science initiatives.

District of Columbia

- K-12 Energy and Environmental Education Program Grants ($300,000 in FY2025) provide student MWEEs through the fourth-grade Nature Near Schools program and the fifth-grade Overnight program.
- Meaningful Watershed Educational Experiences (MWEE) ($700,000 in FY2025) MWEEs are a framework that connect standards-based classroom learning with outdoor learning experiences to create a deeper understanding of the environment. The District funds a Nature Near Schools (NNS) program for fourth-grade students that includes multiple hands-on and outdoor experiences throughout the school year, and the Overnight MWEE for fifth grade students that includes a three-day, two-night field study.
- Middle Schools Meaning Watershed Educational Experience ($25,000 in FY2025) funded the sixth-grade Middle School MWEE that focuses on sub-watersheds.

State of Maryland

- Maryland DNR's Chesapeake and Coastal Grants Gateway ($150,000 in FY2025) provides funding to improve student ability to take actions benefiting Chesapeake and coastal ecosystems through outdoor learning and stewardship.
- Chesapeake Bay Trust's Environmental Education Grants Program ($290,000 in FY2026) uses state funds to support programs and initiatives in Maryland that advance environmental literacy and result in students having the knowledge, skills, attitudes, and motivation to take informed and responsible actions to protect and improve the environment.

Commonwealth of Pennsylvania

- Department of Environmental Protection Environmental Education Grant Program ($700-800,000 awarded in FY2025) supports schools, conservation districts, nonprofits, colleges, and other organizations in delivering hands-on environmental education programs for youth and adults. Funded through Pennsylvania's Environmental Education Act, the program supports MWEEs, field investigations, STEELS-aligned curriculum, teacher professional development, and environmental stewardship projects that connect students directly to local environmental issues and solutions.
- Dive Deeper Summit provides professional development for educators that strengthens their ability to deliver high-quality water education, MWEEs, and STEELS-aligned instruction. Through hands-on training, watershed-focused learning, and connections to educational resources and partners, the summit equips teachers to expand environmental literacy experiences and outdoor learning opportunities for students throughout Pennsylvania.
- Department of Conservation and Natural Resources Watershed Education Program provides inquiry-based watershed education for students in grades 6-12 through classroom and field investigations, stream monitoring, data collection and analysis,

stewardship projects, and community engagement. Delivered through Pennsylvania State Parks, the program supports STEELS standards and MWEEs by helping students investigate local watershed issues, conduct authentic environmental research, and participate in stewardship and civic-learning activities.

Commonwealth of Virginia

- Virginia Department of Conservation and Recreation Watershed Education Programs Project ($250,000 in FY2025) program provides funding for exemplary MWEEs within Virginia's Chesapeake Bay watershed.
- Virginia Department of Wildlife Resources Wildlife Grant Program ($48,200 in FY2025) provides funding for outdoor activities such as boating, fishing, hunting, recreational shooting, and wildlife viewing.
- The Virginia Trees for Clean Water Grant Program ($55,000) encourages the creation of long-term, sustained canopy cover to improve water quality across the Commonwealth. Schools and organizations may apply to fund tree-planting efforts that raise public awareness of the benefits of trees and impacts on water quality.

State of West Virginia

- West Virginia Outdoor Learning Network Initiative ($204,000 in FY2025) provides watershed education to all 4th grade students in Berkeley, Jefferson, and Morgan counties, which represents 70% of the 4th graders in the Potomac Highlands of West Virginia.
- Cacapon Institute PHLOW Program is a primary champion of MWEEs in West Virginia's Eastern Panhandle. Through their PHLOW (Potomac Headwaters Leaders of Water) initiative, they provide hands-on resources, classroom teaching assistance, and guidance.

Chesapeake Bay Commission

- As a tri-state legislative commission, the Chesapeake Bay Commission advances the goals of the Chesapeake Bay Watershed Agreement by working collaboratively with Bay Program partners to identify and pursue legislative, budgetary, and policy needs within the legislatures of our member states and the U.S. Congress.

Federal Government

- National Oceanic and Atmospheric Administration Bay Watershed Education & Training (B-WET) Grants Program ($1.25M in FY2026) provides grants to school districts and their partners to deliver high-quality STEM education for students and professional development for teachers.
- U.S. Environmental Protection Agency Environmental Education Grants Program supports environmental education projects that promote environmental awareness and stewardship and help provide people with the skills to take responsible actions to protect the environment.

Workforce Outcome

State of Delaware

- Delaware Pathways Program (Estimated $3 million in federal funds in FY2025 in the Chesapeake Bay Watershed) helps to develop (1) environmental literacy competencies for Career Technical Education (CTE); (2) an environmental literacy framework expanding on these competencies; and (3) a technical assistance and professional learning plan for implementation in related CTE programs of study.

District of Columbia

- Kingman Island Rangers ($262,000 in FY 2025) is a job training initiative that prepares adults for entry-level jobs in the green sector while helping to beautify Kingman and Heritage Islands.
- Green Fellows Leadership & Development Program ($54,000 per fellow, average 4-7 fellows/year) is a competitive paid opportunity designed for graduate-level students who are currently enrolled in a Master's degree program focused on public policy, public administration, urban planning, sustainability, energy, public health, or related fields.
- Green Zone Environmental Program ($250,000 in FY2025) offers six-week paid summer employment opportunity for 200 young adults (14-24) learning environmental science and leadership development.
- University of the District of Columbia College of Agriculture, Urban Sustainability, and Environmental Science is a public land-grant HBCU offering certificates, associates, bachelors, professional, and postgraduate degrees to students, as well as master naturalist, master gardener, food hubs/farmers markets to community members.

State of Maryland

- Maryland Department of Natural Resources Conservation Corps ($332,220 in FY2025) provides young adults with opportunities for service in the community and the environment by preserving, protecting, enhancing, and restoring Maryland's natural resources.
- Maryland Department of Natural Resources Veterans Conservation Corps ($192,560 in FY2025) supports veterans in professional development through training and on the job experience within the Maryland Park Service and the Department of Natural Resources.
- Maryland Department of Natural Resources Historic Trades Corps provides young adults with opportunities for professional and personal advancement through hands-on skill development in preserving, protecting, enhancing, and restoring Maryland's cultural and historic resources in State Parks.
- Maryland Department of Natural Resources Whole Watershed Program ($100,000 in FY2027) invests in efforts led by our local partners to support workforce training in green jobs.
    - Chesapeake Watershed Restoration Academy - Grow Home in partnership SBGP and the Greater Baltimore Wilderness Coalition, designed to use Middle Branch Resilience Initiative actions as teaching tools and employment opportunities for individuals entering the green job field.
    - The Annapolis and Anne Arundel County Resilience Authority are using the Maryland Reentry Resource Center program, Greenlift, to hire formerly

incarcerated individuals and train them to do green jobs like maintenance on green infrastructure projects that are installed to improve water quality, mitigate invasive species, plant and maintain trees and living shoreline installations in the Severn Watershed.

State of New York

- NYS Environmental Bond Act includes significant labor provisions and will promote job creation by establishing an estimated 84,000 green jobs.

Commonwealth of Pennsylvania

- Pennsylvania Department of Environmental Protection and State Board for Certification of Water and Wastewater Systems Operators Water and Wastewater Operator Certification Program created the State Board for Certification of Water and Wastewater Systems Operators.
- State Conservation Commission Agricultural Conservation Technician Apprenticeship Program provides paid, structured training for future conservation professionals, helping address workforce shortages in agricultural conservation and water quality implementation while developing the next generation of conservation district staff and technical assistance providers.
- Department of Conservation and Natural Resources and Department of Labor and Industry Pennsylvania Outdoor Corps ($5 million in FY2025) provides paid conservation work experience, environmental education, and training opportunities for young adults ages 15-25. Participants gain hands-on experience in habitat restoration, trail development, forestry, recreation management, and environmental stewardship while exploring career pathways in conservation, natural resource management, and outdoor recreation.

Commonwealth of Virginia

- Virginia Department of Workforce Development and Advancement – Registered Apprentice Program ($2,016,058 in FY2025) supports paid, work-based training that develops skilled workers in occupations critical to Chesapeake Bay restoration, including water infrastructure, environmental, and natural resource careers.
- Virginia Department of Workforce Development and Advancement - Community College FastForward & Workforce Credential Grant Program ($15M in FY2025) provides tuition assistance for short-term workforce training and industry-recognized credentials in high-demand fields, helping build the skilled workforce needed for occupations that support Chesapeake Bay restoration, infrastructure, and natural resource management.
- Virginia Department of Workforce Development and Advancement – VA Career Works ($53.9M in FY2025; rolled up into Virginia Works funding) connects job seekers with employers through regional workforce services, career training, and employment resources that help build Virginia's workforce, including occupations supporting Chesapeake Bay restoration and natural resource management.
- Virginia Department of Workforce Development and Advancement HIRED Fund ($1,136,000 for FY2025) incentivizes employers to take on registered apprentices in fields like clean energy, and reimburses costs of training, education, and supplemental support services.

- Virginia Marine Resources Commission - Waterman's Internship Program trains the next generation of Virginia watermen, helping sustain the skilled workforce that supports Chesapeake Bay fisheries, working waterfronts, and coastal communities.
- Virginia Department of Conservation and Recreation – Ranger Conservation Corps ($210,483 in FY2026) engages young adults in paid, hands-on conservation projects while developing workforce skills in natural resource management, habitat restoration, and public land stewardship.

State of West Virginia

- West Virginia HER/HEAR Program is an 8-month apprenticeship program to build a robust energy efficiency workforce. Apprentices work alongside certified mentors to master residential and commercial building energy audits, green retrofits, and compliance.

Federal Government

- National Oceanic and Atmospheric Administration Chesapeake Bay Internship Program ($37,000 in FY2025) offers summer internships in a range of fields including fisheries management, habitat assessment, ecology, scientific field support, data analysis, and education.

Signatory Statutory Authorities Driving Outcome Attainment

The law and regulation of signatory partners may support, justify or motivate their participation in the collaborative work of the Chesapeake Bay Program related to the attainment of specific Outcomes and Targets of the Watershed Agreement.

The following documentation identifies core statutory authorities that provide part of the impetus for the attainment of Chesapeake Bay Watershed Agreement Outcomes and their related Targets. While Chesapeake Bay Program partners acknowledge that the Chesapeake Bay Watershed Agreement is voluntary, subject to the availability of appropriated funds, and does not preempt, supersede or override any other law or regulation applicable to each signatory, they also acknowledge that the law or regulation of individual signatories can support each partner's participation in outcome attainment. The table below is not an exhaustive list of all relevant laws and regulations. Rather, this appendix identifies the driving motivators that can bring about signatory partner engagement in efforts described in this Strategic Plan, associated Management Strategies, and Workplans.

Goal 4: Engaged Communities

Outcome: Local Government Leadership	
Signatory	**Statutory Authority**
State of Maryland	COMAR 26.03.13 Bay Restoration Fund
	COMAR 8.2A.02 Bays Trust Fund
Commonwealth of Pennsylvania	Pennsylvania Constitution, Article I, Section 27 (Environmental Rights Amendment)

	Pennsylvania Municipalities Planning Code (Act 247 of 1968)
	Pennsylvania Clean Streams Law (Act 394 of 1937)
Commonwealth of Virginia	VA code § 62.1-44.15:67
	VA code § 62.1-44.15:75
	VA code § 62.1-44.39
	VA code § 15.2-1804.1
	VA code § 29.1-103.8
	VA code § 10.1-104.6.
Chesapeake Bay Commission	Va. Code § 30-240
	MD Natural Resources Code §8-301
	1985, June 25, P.L. 64, No. 25
Federal Government	Clean Water Act Section 117
	Clean Water Act Section 319

Outcome: Public Access	
Signatory	**Statutory Authority**
State of Delaware	Delaware Land Protection Act (7 Del. Code, Chapter 75).
District of Columbia	D.C. Law 24-20. Comprehensive Plan Amendment Act of 2021.
	D.C. Law 19-192. Anacostia Waterfront Environmental Standards Amendment Act of 2012.
	D.C. Law 24-336. Office of District Waterways Management Establishment Act of 2022.
State of Maryland	MD Natural Resources Code § 5-9 Program Open Space
	MD Natural Resources Code § 8-707 Waterway Improvement Fund
State of New York	Executive Law, article 15
Commonwealth of Pennsylvania	Pennsylvania Constitution, Article I, Section 27 (Environmental Rights Amendment)
	Conservation and Natural Resources Act (Act 18 of 1995)
	Pennsylvania Municipalities Planning Code (Act 247 of 1968)
Chesapeake Bay Commission	Va. Code § 30-240
	MD Natural Resources Code §8-301
	1985, June 25, P.L. 64, No. 25

Outcome: School District Environmental Literacy Planning	
Signatory	**Statutory Authority**
District of Columbia	DC Healthy Schools Act: Local Wellness Policies

	DC Official Code § 38–826.01(b)(2)(A): Establish goals for improving the environmental sustainability of schools.
	DC Official Code § 38–826.01(b)(2)(D): Establish goals for developing and implementing an Environmental Literacy Program.
State of Maryland	COMAR 01.01.2024.15 Maryland Outdoor Learning Partnership
	COMAR 13A.04.17.01 Environmental Literacy Programs
	SB0383 Maryland Association for Environmental & Outdoor Education
Commonwealth of Pennsylvania	Environmental Education Act (Act 24 of 1993)
	Public School Code of 1949
	22 Pa. Code Chapter 4 Academic Standards and Assessment (STEELS Standards)
Commonwealth of Virginia	VA code § 15.2-1804.1
	VA code § 29.1-103.8
	VA code § 10.1-104.6.
Chesapeake Bay Commission	Va. Code § 30-240
	MD Natural Resources Code §8-301
	1985, June 25, P.L. 64, No. 25
Federal Government	33 U.S.C. § 893a(a),NOAA Ocean and Atmospheric Science Education Programs

Outcome: Stewardship	
Signatory	**Statutory Authority**
District of Columbia	The Water Pollution Control Act of 1984, effective March 16, 1985, as amended, (D.C. Law 5-188; D.C. Official Code § 8-103.01 et seq.) and Water Quality Research Grant Regulations of 1988
	D.C. Law 18-55. Anacostia River Clean Up and Protection Act of 2009
State of Maryland	COMAR 01.01.2024.15 Maryland Outdoor Learning Partnership
	COMAR 13A.04.17.01 Environmental Literacy Programs
Commonwealth of Pennsylvania	Pennsylvania Constitution, Article I, Section 27 (Environmental Rights Amendment)
	Pennsylvania Clean Streams Law (Act 394 of 1937)
	Conservation District Law (Act 217 of 1945)

West Virginia	West Virginia Code §31-21-4 outlines the mission to assist the Department of Environmental Protection (DEP) with a voluntary land stewardship program. [1]
	Voluntary Land Stewardship Program: West Virginia Code §31-21-7 allows site owners and remediation parties to enroll properties for long-term monitoring and environmental oversight
Chesapeake Bay Commission	Va. Code § 30-240
	MD Natural Resources Code §8-301
	1985, June 25, P.L. 64, No. 25
Federal Government	Clean Water Act Section 117

Outcome: Student Environmental Literacy Experiences	
Signatory	**Statutory Authority**
State of Delaware	14 DE Admin. Code 501: Established Next Generation Science Standards (NGSS) as the adopted Content Standards in science.
	14 DE Admin. Code 503: Instructional programming aligned to NGSS (state adopted standards) in which all public school students in each grade K to 8 shall be enrolled in a science program that demonstrates alignment to the Department of Education's adopted science content standards, and all public school students in grades 9 to 12 shall complete the credits in science necessary to graduate from high school through courses that demonstrate alignment to the Department of Education's adopted science content standards.
District of Columbia	DC Healthy Schools Act: Environmental Literacy Program
	DC Official Code § 38-821.01(a): An Environmental Literacy Program is established within the Office of the State Superintendent of Education.
State of Maryland	COMAR 01.01.2024.15 Maryland Outdoor Learning Partnership
	COMAR 13A.04.16.02 Environmental Education
	COMAR 13A.03.02.03 Graduation Requirements
Commonwealth of Pennsylvania	Environmental Education Act (Act 24 of 1993)
	Conservation and Natural Resources Act (Act 18 of 1995), Section 311 Environmental Education
	Smith-Lever Act of 1914 (7 U.S.C. §§ 341-349)
Commonwealth of Virginia	8VAC2for AWS S0-132-70
	8VAC20-132-51
Chesapeake Bay Commission	Va. Code § 30-240

	MD Natural Resources Code §8-301
	1985, June 25, P.L. 64, No. 25
Federal Government	33 U.S.C. § 893a(a),NOAA Ocean and Atmospheric Science Education Programs

Outcome: Workforce	
Signatory	**Statutory Authority**
District of Columbia	Subchapter II. Programs for Youth Employment§§ 32.342 – 32-347
State of Maryland	COMAR 8.2A.02 Bays Trust Fund
	MD Natural Resources Code § 21-209 Career & Technical Education Committee
State of New York	ARTICLE 58 Implementation of the "Clean Water, Clean Air, and Green Jobs Environmental Bond Act of 2022 " Environmental Conservation (ENV) CHAPTER 43-B | NY State Senate
Commonwealth of Pennsylvania	Pennsylvania Workforce Innovation and Opportunity Act (WIOA) Combined State Plan
	Conservation District Law (Act 217 of 1945)
	Smith-Lever Act of 1914 (7 U.S.C. §§ 341-349)
	Water and Wastewater Systems Operators Certification Act
Commonwealth of Virginia	Code of Virginia § 2.2-2037 – Powers and duties of the Department of Workforce Development and Advancement
	Code of Virginia § 2.2-2043 through 2.2-2053 – Registered Apprenticeships Authority
State of West Virginia	State Workforce Development Board & "High-Paying" Green Careers Statute: WV Code §5B-2B-3 and §5B-2B-4
Chesapeake Bay Commission	Va. Code § 30-240
	MD Natural Resources Code §8-301
	1985, June 25, P.L. 64, No. 25
Federal Government	33 U.S.C. § 893a(a),NOAA Ocean and Atmospheric Science Education Programs