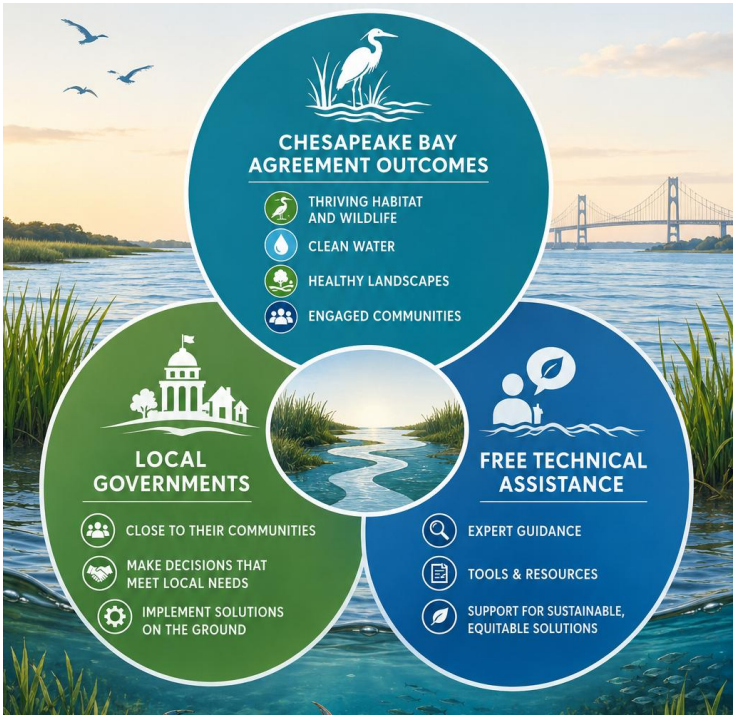
Local Government Technical Assistance Inventory and Gap Analysis Project

Environmental Policy Innovation Center, May 2026



ENVIRONMENTAL POLICY INNOVATION CENTER

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We would also like to thank the many respondents to the data collection effort and interviewees who took time to share with us their experience working with local governments across the Chesapeake Bay watershed. A list of interviewees is provided in Appendix C of this report.

Last but certainly not least, thank you to the Steering Committee for this project, who came from across the Bay and spent time over the course of the project providing expert insights and feedback: Phil Briddell, York Township, Pennsylvania; Maura Christian, Chesapeake Bay Outreach Coordinator, Virginia Department of Environmental Quality; Jen Cotting, Director, University of Maryland Environmental Finance Center; Amy Dubois, Matthews County, Virginia; Michelle Edwards, Regional Planner, Rappahannock Rapidan Regional Commission, Virginia; Rick Mittler, Local Government Projects Manager, Alliance for the Chesapeake Bay, Virginia Office; Martha Narvaez, Associate Director, Water Resources Center, University of Delaware; Laura Cattell Noll, Local Government Initiative Director, Alliance for the Chesapeake Bay, Pennsylvania Office; Pam Shellenberger, Chief, Long Range Planning, York County Planning Commission, Pennsylvania; Kathy Stecker, Planner, Water and Science Administration, Maryland Department of the Environment; and Jim Sullivan, DNREC Nonpoint Source Program, Delaware Department of Natural Resources and Environmental Control (DNREC).

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Executive Summary

The Chesapeake Bay Program's wide-ranging, multi-state effort to improve water quality in the Chesapeake Bay while improving the environmental conditions for all people and wildlife who call the Bay home is largely implemented at the local level. The more than 1,800 local governments within the Chesapeake Bay watershed have a critical role to play in understanding the environmental challenges, solutions and opportunities that exist within and across their jurisdictions. The Local Government Leadership Workgroup (LGLW) and the Local Government Advisory Committee (LGAC) of the Bay Program have worked to support local governments in advancing environmental projects that can help meet the Chesapeake Bay Agreement goals. A key area of work has been understanding where and how technical assistance (TA) can provide local governments with the knowledge, tools, capacity, and expertise to identify and implement these projects. LGAC recently recommended to the Chesapeake Bay Program Executive Council that TA programs for local governments be expanded in the Bay states. In response to this recommendation, the Chesapeake Bay Program Management Board committed to identifying currently available local government technical assistance. To meet this commitment and guide resource allocation decisions, the Local Government Technical Assistance Inventory and Gap Analysis Project was implemented in order to provide information to the Bay Program and constituent states on the scale and scope of current TA providers and programs (TAPs) across the Bay watershed.[1]

The project focused on free TA available to local governments across the six Chesapeake Bay watershed states (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) that is relevant to the Chesapeake Bay Agreement goals.[2] Through desk research, interviews, and circulation of a standardized data collection tool, the project identified **122 TAPs** (collated into a TAP inventory) that support achievement of the Chesapeake Bay Agreement goals. The TAPs include academic institutions, state and federal agencies, nonprofit organizations, and various collaborations and partnerships. The TAPs cover a

[1] The report uses the term TAP to refer to both TA providers and programs. Some TA providers do not have specific program names through which they deliver their TA, while others do. For simplicity, the report refers to both providers and programs as TAPs as they both represent provision of TA.

[2] The scope of the current study did not include the District of Colombia (DC). DC is unique within the Chesapeake Bay watershed because it has consolidated municipal, county and state authorities. Within the Chesapeake Bay Program, DC functions as a state-equivalent partner but itself functions more like a local government. Because the scope of this project is limited to available TA to municipal and county-level governments within the watershed states, D.C. was not included in this inventory. However, many of the Bay-wide TA programs inventoried are available to DC.

broad range of Bay Agreement goals and provide TA to many different communities across Bay states.

Gaps in Technical Assistance

- **Geographic gaps:** The mapped service area of TAPs suggest that more TA resources relevant to Bay Agreement goals are available in states closer to the Chesapeake Bay: Maryland, Delaware and Virginia have a larger quantity of TA providers than the other Bay states. Areas farther from the Chesapeake Bay show fewer TA providers. Some areas, such as communities within the Susquehanna watershed in Pennsylvania, are identified as geographic areas for further inquiry given the importance of the watershed to Bay health.
- **TA services gaps:** The TAP inventory suggests that TA is concentrated in the early stages of the project cycle. Education for local government officials and project planning were more significantly available as a TA service that TAPs provide; later-stage project cycle TA, such as for monitoring and maintenance, was less available. The availability of free engineering services were also noted by a number of interviewees as an important gap in TA to be addressed.
- **Bay Agreement goal gaps:** Many Bay Agreement goals are relevant to the decision-making jurisdiction that local governments have. Water quality-related goals such as nutrient reduction and tree planting exhibited strong TA support in the inventory. However, toxic contaminants, public access, and fish passage were three notable goals for which available TA is low.
- **Capacity gaps:** Previous work of the LGLW and other entities of the Bay Program have underscored the capacity gaps within local governments, where governments may lack engineers, planners, or full-time staff in general. The project also showed that TAPs have capacity gaps - only a small portion of TAPs allocate 75-100% of their time to TA. These TAPs include informal networks focused on knowledge sharing and learning for local governments, such as Delaware's MS4 Stormwater Consortium; federally funded programs dedicated to TA such as the Sea Grant program and the Environmental Finance Centers; the Bay Program's Local Leadership Workgroup; and regional quasi-governmental TAPs such as Virginia's PDCs. Most TAPs in the inventory, however, work on other projects in addition to TA. Further, some TAPs are not sustainably funded, meaning that longer-term work with local governments - where it takes time to build trust and see projects through to completion - is difficult.

Recommendations to Close Gaps in Technical Assistance

To close these gaps in TA and empower local governments to increase the pace and scale of projects that can support Chesapeake Bay Agreement goals, the report makes the following short- and medium-term recommendations to the Chesapeake Bay Program. Implementation of these recommended actions could strengthen the Chesapeake Bay Program's relationship with TAPs across the Bay, and its important role as a bridge between TAPs and local governments.

Short-term actions

- **Disseminate data and information.** Support development of a living, online TAP inventory tool for the Chesapeake Bay. The tool could assist both TAPs in understanding the TA work ongoing in their geography of interest and across the Bay watershed, and local governments in locating appropriate TA resources and building relationships with TAPs across the watershed.
- **Encourage collaboration.** Provide convening opportunities for TAPs across the Bay watershed to share information, best practices, and lessons learned through establishing a network or Community of Practice (CoP) for TAPs. The CoP could foster information sharing to identify duplicative work across TAPs and where TAPs could collaborate for larger project wins and more effective TA delivery.
- **Target available TA resources.** Target currently available TA to the local governments that need it most, to priority geographic regions, and to Bay Agreement goals that currently lack TAPs. Jurisdictions should utilize this inventory as a strategic starting point to analyze and overlay technical assistance coverage against priority restoration areas. The Bay Program can explore ways to facilitate more TAPs focused on helping local governments with toxic contaminants, public access, and fish passage projects.

Medium-Term Recommendations

- **Evaluate the effectiveness of TA models.** To inform resource allocation, support research to determine the relative effectiveness of existing TA models identified in the TAP inventory (e.g., grant-funded circuit rider program or county-level coordinators).
- **Evaluate demand.** More information on demand for TA from local governments is necessary to better match resource allocation to TAPs with demand for TA and to refine the understanding of TA gaps. Additional information is required on the TAPs local governments currently use, their knowledge of existing TA programs, and local government needs for TA.
- **Expand the inventory to private sources of TA.** The scope of the current inventory was limited to TAPs that provide free TA to local governments. Private

sources of TA are a potential resource for local governments, and expanding the inventory to include fee-based, private firms would provide a more complete inventory of TAPs and an assessment of gaps.

- **Align TA and project implementation funding.** Funding for TA will be effective where funding for projects the TA is facilitating is also available. The Bay Program can help states to be aware of this and to coordinate TA and project funding.

Introduction

Local governments play a critical role in implementing actions that advance the goals and outcomes of the Chesapeake Bay Watershed Agreement. The Chesapeake Bay watershed includes portions of six (6) states and the District of Columbia (DC).[3] An estimated total of 1,800 local governments are completely or partially within the Bay watershed boundaries. Each Bay state has a different structure for local governments that impacts the way in which local governments participate in conservation and restoration projects.[4]

The ability of local governments to work on conservation and restoration projects that benefit the Bay Agreement goals is often constrained by uneven access to technical assistance (TA), limited staffing capacity, and insufficient funding support. The Chesapeake Bay Program's Local Government Advisory Committee (LGAC) is well aware of the important role of local governments in achieving Bay Agreement goals and the challenges. In their 2023 Annual Recommendations to the Executive Council, LGAC called for an expansion of the technical assistance "circuit rider" model to better support local governments across the watershed.

In response to this recommendation, the Management Board tasked the Local Government Leadership Workgroup (LGLW), *formerly the Local Leadership Workgroup*, with identifying existing technical assistance resources throughout the watershed and developing recommendations to more effectively focus limited resources to meet local government needs. Through Chesapeake Bay Program Goal Implementation Team funding, the Local Government Technical Assistance Inventory and Gap Analysis Project seeks to identify, assess, and inventory existing technical assistance providers/programs (TAPs)[5] available to local governments across the Chesapeake Bay watershed; analyze gaps in geographic coverage, service types, and populations served; and provide recommendations to more strategically target resources where they are most needed. Results support the Chesapeake Bay Watershed Agreement's Local Government Leadership Outcome to "Increase knowledge and support the capacity of local government leaders in decision-making, such

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[4] A detailed summary of local governments across Bay states is available from: https://www.chesapeakebay.net/files/documents/2026-Local-Government-Structures-One-Pager-FINAL.pdf.

[5] The report uses the term TAP to refer to both TA providers and programs. Some TA providers do not have specific program names through which they deliver their TA, while others do. For simplicity, the report refers to both providers and programs as TAPs as they both represent provision of TA.

as land-use planning, to implement local actions that advance the Chesapeake Bay Watershed Agreement"[6] as well as other Watershed Agreement goals that are highly dependent on local government outcomes, such as those for water quality, habitats, and land conservation.

The scope of this effort is intentionally focused on the Chesapeake Bay watershed, which includes the jurisdictions of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia.[7] The project inventoried free technical assistance that is accessible to local governments and supports the goals and outcomes of the Chesapeake Bay Watershed Agreement. By centering the analysis on programs that directly contribute to Agreement outcomes, this project offers a watershed-wide perspective on how technical assistance is currently structured and delivered, as well as where persistent gaps may hinder progress.

It is important to note that Chesapeake Bay states vary significantly in governmental structure, priority needs, and existing support systems for local governments. While this project made every effort to recognize and respect these differences, the scope of a watershed-wide analysis limits the ability to capture every nuance or programmatic detail within each jurisdiction. As such, this inventory and gap analysis should be viewed as a high-level assessment and a starting point. Jurisdictions are encouraged to use this work to further evaluate their own technical assistance landscapes and to allocate resources in ways that best support local governments in addressing their most critical challenges while advancing the collective goals of the Chesapeake Bay Watershed Agreement.

Goals & Objectives

The Local Government Technical Assistance Inventory and Gap Analysis Project supports a need to expand local government TA programs (e.g. The Delaware Grant Assistance Program, and West Virginia's Region 8 and 9 Planning and Development Councils) that was identified by the Local Government Advisory Committee's (LGAC) 2023 Annual Recommendations to the Chesapeake Bay Program Executive Council. The overarching goal of this project is to provide detailed information on existing TAPs, as well as the current gaps in the system, to empower decision makers at state and federal levels to more effectively focus limited resources to fill the gaps.

[6] https://www.chesapeakebay.net/what/goals/engaged-communities#local-government-leadership

[7] The scope of the current study did not include the District of Colombia (DC). DC is unique within the Chesapeake Bay watershed because it has consolidated municipal, county and state authorities. Within the Chesapeake Bay Program, DC functions as a state-equivalent partner but itself functions more like a local government. Because the scope of this project is limited to available TA to municipal and county-level governments within the watershed states, D.C. was not included in this inventory. However, many of the Bay Wide TA programs inventoried are available to DC.

To support the Chesapeake Bay Program in achieving this goal, this project has completed the following:

1. An inventory of existing local government TAPs that align with Chesapeake Bay Watershed Agreement outcomes, including standardized information about each TAP.
2. A gap analysis of existing TAPs.
3. A set of short- and medium-term recommendations on actions the Chesapeake Bay Program can take to expand TA for local governments that supports the achievement of the Chesapeake Bay Agreement goals.

Scope & Methods

This project builds on research, findings and recommendations that have been released previously by the Goal Implementation Team 6 (GIT-6), the LGAC, the LGLW, and other project stakeholders and audiences working in this space. The project builds on work to date (Box 1) by providing a supply-side inventory and gap assessment of TAPs that were identified as a gap in the body of knowledge to date. Demand-side aspects of TA in the Chesapeake Bay, such as identifying local government needs for TA and the TAPs they use, was outside the scope of the project.

Box 1: Findings from Existing Resources[8]

Through scoping interviews with Steering Committee members and background desk research of existing reports and resources, the following findings were identified and informed development of the research methodology.

- **Environmental work is not always the highest priority for local governments.** Local governments have multiple competing priorities across economic, social, and environmental sectors and limited resources to address everything. This means that scarce resources may be allocated to work falling outside the Chesapeake Bay Agreement outcomes.

[8] Resources consulted include: 2013 EFC Case Studies of 10 Local Government Capacity Building Initiatives; 2015-2025 Local Leadership Outcome Management Strategy; 2015 ELS Chesapeake Watershed Local Leadership Development Programs; 2017 EcoLogix Strategic Outreach Education Program for Local Elected Officials in the Chesapeake Bay Watershed; 2018 Alliance for the Chesapeake Bay Local Government Program Filling Gaps to Advance WIP Implementation, Local Government Forum Report; 2022 Alliance for the Chesapeake Bay Implementation Support for Local Official Watershed Education and Capacity Building; 2022 Chesapeake Bay Program Planning for Clean Water: Local Government Workshops Report; Chesapeake Bay Program Local Leadership Surveys and Results (2022 and 2024); past Chesapeake Bay Local Government Leadership Workgroup meeting notes and resources.

- **Smaller local governments have limited capacity to take advantage of TA resources.** Resources vary across geographies; funding is being captured by wealthier and/or better-resourced local governments. Smaller local governments also report less understanding and action around water resources management.

- **TAPs may have limited technical and environmental capacity.** Capacity and staffing at some entities that provide TA to local governments is limited, and entities may not have any or sufficient staff with technical expertise in environmental issues. Further, free technical TA - such as for engineering assistance - is limited.

- **TA is currently concentrated in specific areas.** TA to date may be heavily focused on meeting the Bay Total Maximum Daily Load (TMDL), Watershed Implementation Plans (WIPs), and nitrogen/phosphorus/sediment reductions and less on outcome areas that impact water quality such as land use and land use planning. Local governments report that their understanding of watershed basics is greater than their understanding of federal environmental regulations.

- **Dissemination of TA relies on trusted parties.** Many interviewees and resources underscore the importance of trusted parties in determining the reach and effectiveness of TA. TAPs operating at a higher scale (e.g., regionally) often leverage local trusted parties to reach local governments and communities.

- **Linking water quality-related activities to co-benefits can incentivize TA for a larger audience.** Incentivizing communities to allocate staff time and resources to engaging in TA can be strengthened by identifying co-benefits. This is particularly important for local governments - such as many smaller local governments - that are not Municipal Separate Storm Sewer Systems (MS4s) and for whom this work is voluntary. This is also important for local governments that are not adjacent to the Bay and for whom local water quality and co-benefits such as access to nature, recreation, and cooling may be more persuasive drivers.

- **Building a culture of watershed-scale management can address staff turnover.** Local governments have material turnover of officials and key staff members that can lead to a loss of institutional knowledge from previous TA efforts. Putting systems in place that institutionalize watershed-scale management and the use of TA can help mitigate this.

The project defines TA as activities that provide services to and build the capacity of local governments to deliver on Chesapeake Bay Agreement outcomes (irrespective of whether the TAP has the Bay Agreement outcomes as the driver). TA can include providing information and training to local governments, helping local governments plan and prioritize projects, helping local governments identify and apply for funding or financing of

projects, and assisting with project implementation, management, monitoring, and reporting. This definition of TA follows closely from the definition adopted in the 2019 Local Government Forum Report prepared by the Alliance for the Chesapeake Bay: "In the context of these discussions, technical assistance is defined as a service provided to local government by an outside organization or agency, which may otherwise be performed by staff or secured through normal procurement processes, e.g. municipal engineering services."[9]

This project collated information on TAPs across the Bay states of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and applied inclusion criteria to determine which TAPs to include in the inventory. The following inclusion criteria were applied:

- **The TAP offers free services.** The scope of the inventory focuses primarily on TA that is available to local governments for free. The project tracked fee-based TA across public and nonprofit organizations but did not include private companies that offer TA in the inventory. The types of providers included in the inventory are summarized in Table 1.

Table 1: Types of TAPs Included in the Inventory

Categories of TAPs	**Example TAPs/Programs**	**Typical TA Service Area**
State Government	Departments of Planning, Natural Resources and Conservation, Environmental Quality, Forestry	Statewide
Local Government	Counties (in some states)	County
Federal Government Agencies	United States Forest Service (USFS), United States Army Corps of Engineers (USACE)	Chesapeake Bay-wide
Quasi-Governmental	Soil and Water Conservation Districts (SWCDs), National Fish and WIldlife Foundation (NFWF)	State/regional/Chesapeake Bay-wide
State and Regional	Municipal Leagues, County Associations, Stormwater Consortiums	State/regional

[9] https://d18lev1ok5leia.cloudfront.net/chesapeakebay/2018_local_government_forum_report_final.pdf

Networks of LGs		
Universities	University of Delaware, University of Maryland	State/regional
Nonprofit Organizations	Alliance for the Chesapeake Bay, Watershed Alliances, Friends groups (Friends of the Rappahannock)	State/regional/Chesapeake Bay-wide

- **The TAP is relevant to Chesapeake Bay Agreement goals.** The project included TAPs that are relevant to helping local governments contribute to Chesapeake Bay Agreement goals. To be included, TAPs did not have to be specifically targeted to the Agreement goals, but rather either directly or indirectly support a local government's ability to reach the goal(s). The study considered all Bay Agreement outcome goals as included in the inventory.[10]

- **The TAP is relevant to local governments in the Bay watershed.** The project included TAPs that offer services to local governments in the Bay watershed and that can impact decision-making authorities and abilities that local governments have. Importantly, the definition of what a "local government" is varies across the Bay states. The study uses the state-specific definition of local government for each state as summarized in Table 2. TAPs that are offered to these entities in each state are included in the inventory.

Table 2: Local Government Entities

State	**Local Government Entities**
Maryland	Counties, cities, towns
Pennsylvania	Counties, boroughs, townships of the first and second classes, cities
Delaware	Counties, towns
Virginia	Counties, cities, towns
West Virginia	Counties, cities, towns

[10] The current project was initiated and underway during the revision of the Chesapeake Bay Agreement in 2025. Therefore, the Bay Agreement goals included in the data collection tool reflect the Draft Bay Agreement that was in circulation in 2025: https://www.chesapeakebay.net/files/Revised-CBW-Agreement-For-Public-Feedback-2025.06.30.pdf.

New York	Counties, towns, villages

A Steering Committee of individuals with extensive knowledge of TA across the Bay states was convened to help identify TAPs and connect the project team with trusted voices in each state. The Steering Committee provided expert guidance to the project team throughout and served as an important data source in identifying relevant TAPs through state-level deep dives into TAPs.

The project used a mixed-methods approach to develop the TAP Inventory. TAPs were identified through 1) desk review; 2) scoping interviews with Steering Committee members; 3) interviews with TAPs and organizations familiar with TA in the Bay watershed; and 4) a data collection tool (Appendix A) that was developed to collect standardized information on TAPs across the Bay Watershed and circulated to potential respondents through trusted voices in each state. Additional interviews with TAPs across the Bay Watershed were conducted to gain additional insight into TA activity.

While effort was expended to capture detailed data on as many TAPs as possible within the timeframe of the project, the project team recognizes that some may have been missed and some TAPs may not have had capacity to fill out the form. To be included in future versions of this inventory, please request the data collection tool from Local Government Advisory Committee Staff at lgac@allianceforthebay.org.

TAP Inventory Results

The TAP Inventory includes organizations that provide free TA to local governments in one or more Chesapeake Bay states to support efforts that advance Chesapeake Bay Agreement Goals. The Inventory identified **122 TAPs** serving local governments across the Chesapeake Bay watershed states. Some TAPs focus efforts within a single Bay state and are grouped by state, while others operate either nationally or regionally and provide TA to more than one Bay state; these entities are grouped into a "Chesapeake Bay-wide" category. TAPs were identified from academic institutions, the public sector (federal and state agencies), nonprofit organizations, quasi-governmental organizations, and network organizations and collaborations that operate without formal legal designation (e.g., a nonprofit). Quasi-governmental organizations are created by state law but administered and governed by local individuals and lack governmental authorities such as regulatory and taxing authority; these include entities such as Planning District Commissions (PDCs) in Virginia and County Conservation Districts (CCDs) in Delaware.

Figure 1 summarizes TAPs included in the inventory by state and in the Chesapeake Bay watershed. As shown, the largest number of TAPs operate in more than one Bay state or Bay watershed-wide. Across individual states, Maryland and Virginia have the most TAPs in the inventory. All federal TA reflected in the inventory is provided to more than one Bay state and in many cases to all Bay states. Nonprofits are significantly active Bay-wide as well as in Delaware, Maryland, Pennsylvania, and Virginia.

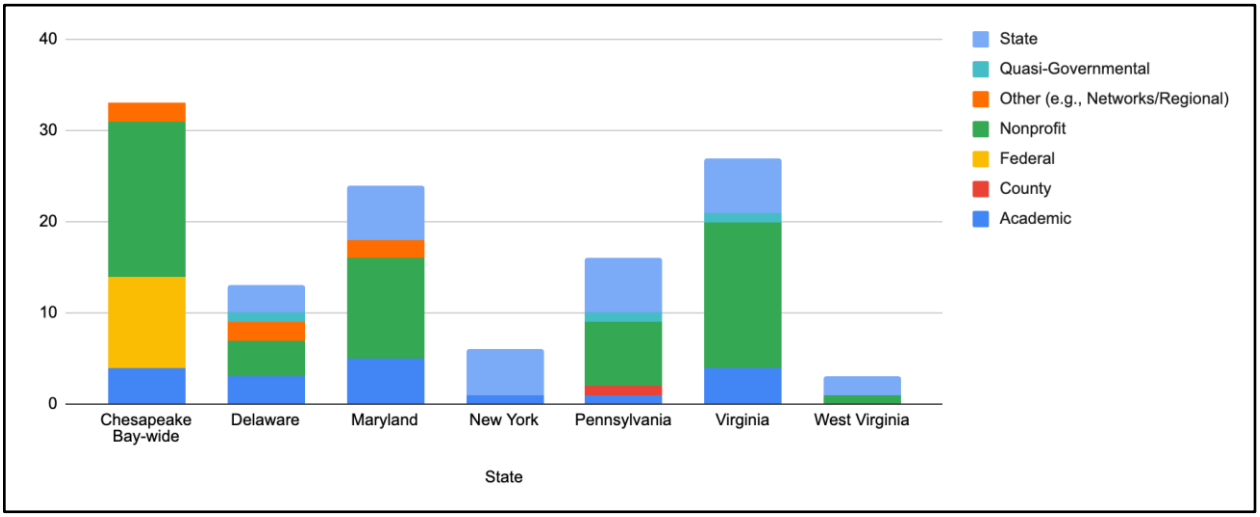


Figure 1: Number of TAPs by State and in the Chesapeake Bay Watershed

Figure 2 summarizes the type of entities providing TA in the Chesapeake Bay watershed that were captured in the inventory. As shown, the highest number of entities identified are from the nonprofit sector, followed by state government providers and academic institutions. However, this result does not imply the level of effort or overall resources dedicated to TA coming from these sectors; for example, while a fewer number of federal agencies delivering TA to Bay states were identified, the level of resources provided may be higher overall. The study did not collect information on total resources in dollar terms expended on TA from providers.

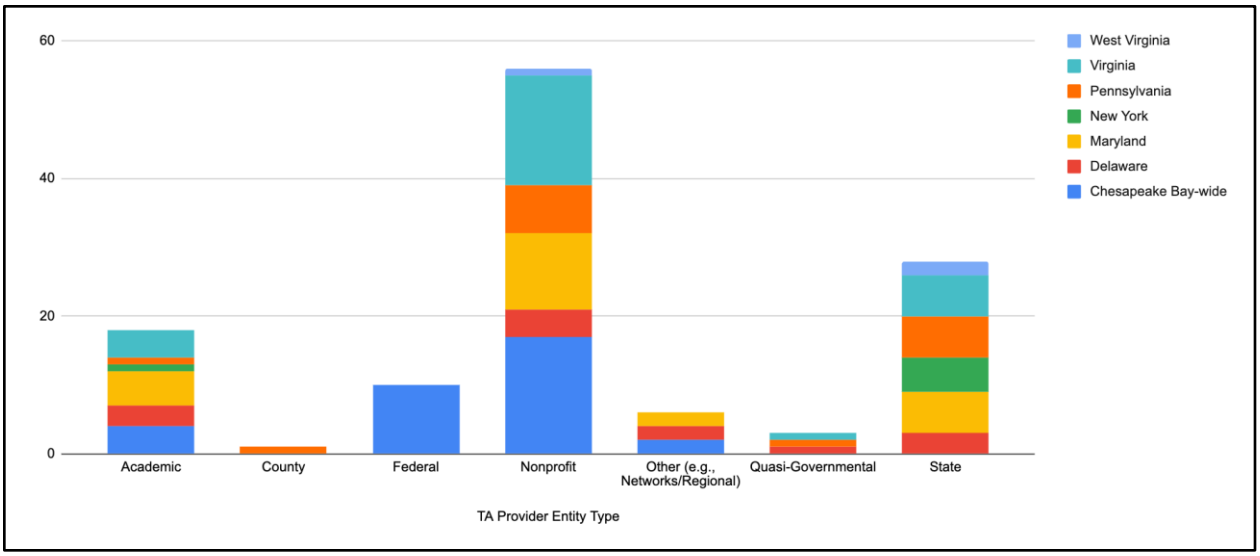


Figure 2: Number of TAPs by Entity Type

Findings and Gap Assessment

The findings and gap assessment are informed by results received from the data collection tool circulated to TAPs (Appendix A) and from interviews conducted with a subset of TAPs. A total of 68 responses to the data collection tool were received and analyzed, and 50 interviews were conducted across all TAP types. Appendix B provides detailed information on specific TAPs by state; Appendix C provides a list of interviewees.

A total of **68 unique responses** to the data collection tool were received, corresponding to a 56% response rate from the 122 entities identified in the TA Inventory.[11] This section provides summary information from the data collection results, and indicates gaps in existing TA identified from the data. The summary information reflects a summation of responses received across the Bay states.

Several caveats to the results presented in this section derive from the methodology used to collect responses for the data collection tool and the methodology used to collate and assess the data received:

[11] A larger number of individuals/entities than the 122 identified in the TA Inventory may have received the tool, because trusted voices in the Bay states circulated the tool to entities in their networks. The total number of individuals/entities that received the tool is therefore unknown. In addition, more than 70 respondents filled out the data collection tool, but for statewide entities that operate at the county level (e.g., Planning District Commissions in Virginia, County Conservation Districts in Delaware, and Soil and Water Conservation Districts in all states, the research team selected one entry to reflect the kinds of TA provided by the entity.

- The data collection tool was distributed to a broad range of entities conducting TA in the Bay watershed, including individual nonprofit entities and decentralized entities with a similar charter/mission enacted through state law but many locally governed locations such as Planning District Commissions (PDCs) in Virginia, County Conservation Districts (CCDs) in Delaware, and Soil and Water Conservation Districts (SWCDs) in all Bay states. Collecting data from every location for these kinds of decentralized entities with similar missions was beyond the scope of the study; for these entities, one data collection response was collected to reflect the entity's TA activities across the state.

- Each response to the data collection tool was treated as one data point in the inventory. This leads to a difference between a singular nonprofit entity that responded and a decentralized entity that responded: while both responses are treated in the assessment as one instance of TA delivery for fish habitat, for example, the singular nonprofit entity is one entity while the decentralized entity represents one of many similar entities with the same mission operating across a larger service area, usually the entire state. The data assessment, however, counts the decentralized entity only once. This may lead to an underrepresentation of the TA available as reflected in the data collection tool findings. However, the assessment does count TA from decentralized entities across the entire service area of all component entities when assigning geographic cover of TA.

Findings from Data Collection Tool

Not all TAPs are able to provide exclusively free TA. While all TAPs in the inventory provide free TA, a limited number of TAPs in the inventory indicated that they provide fee or cost share-based services as well. Almost 100% of respondents indicated that they provide free TA; 22% of providers indicated that they also provide fee-based services and 20% indicated that they also provide cost share-based services.

TA to local governments in the Bay benefits from the larger geographic scales at which some TAPs operate. TAPs working with local governments in the Bay states also provide TA at larger geographic/jurisdictional scales. Respondents who work with local governments in the Bay were asked for the highest jurisdictional scales at which they

provide TA.[12] Respondents selected multiple levels of government (Figure 3). For example, 21 respondents indicated that they work across the Chesapeake Bay watershed; some of these TAPs also work at the state and county level (in addition to the local government level, which all respondents should be engaged in). These results suggest that TAPs that work at the local government level have potential to synthesize information, lessons learned, and best practices across larger scales that could benefit their localized TA activities. They also suggest that TAPs may be spread across larger geographic areas with numerous component local governments, potentially limiting TAP capacity to reach all local governments that need assistance.

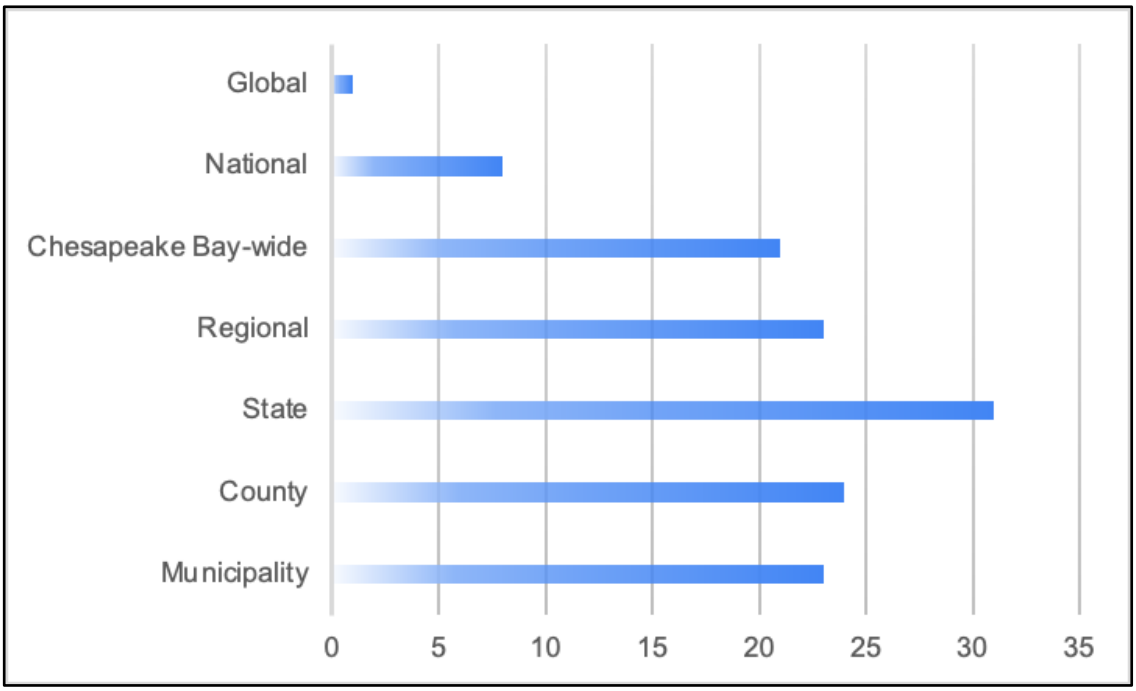


Figure 3: Jurisdictional Scale of TA Provision

TAPs use a broad range of methods to deliver TA, with most providers using more than one method (Figure 4). Most TAPs offer both in-person and virtual TA. In-person TA can take the form of meetings, training, and workshops. Virtual TA can involve webinars, online communications and knowledge materials (e.g., factsheets and storymaps), and online discussion forums. Online discussion forums and newsletters were less evident in the inventory than other methods. These relatively low-cost methods of communication could be leveraged by more TAPs to disseminate information and convene local

[12] Some respondents selected one level of jurisdictional scale while others selected more than one. In the cases where only one level was selected, and that level was higher than the local government/municipality scale (e.g., where state was selected), it is difficult to know all the levels at which the TAP operates. However, because the data collection tool asked for respondents that provide TA to local governments, all TAPs listing one higher jurisdictional scale are assumed to also provide TA at the local government level.

governments; however, it is unclear whether TAPs use online discussion forums and newsletters less because they are seen as less effective.

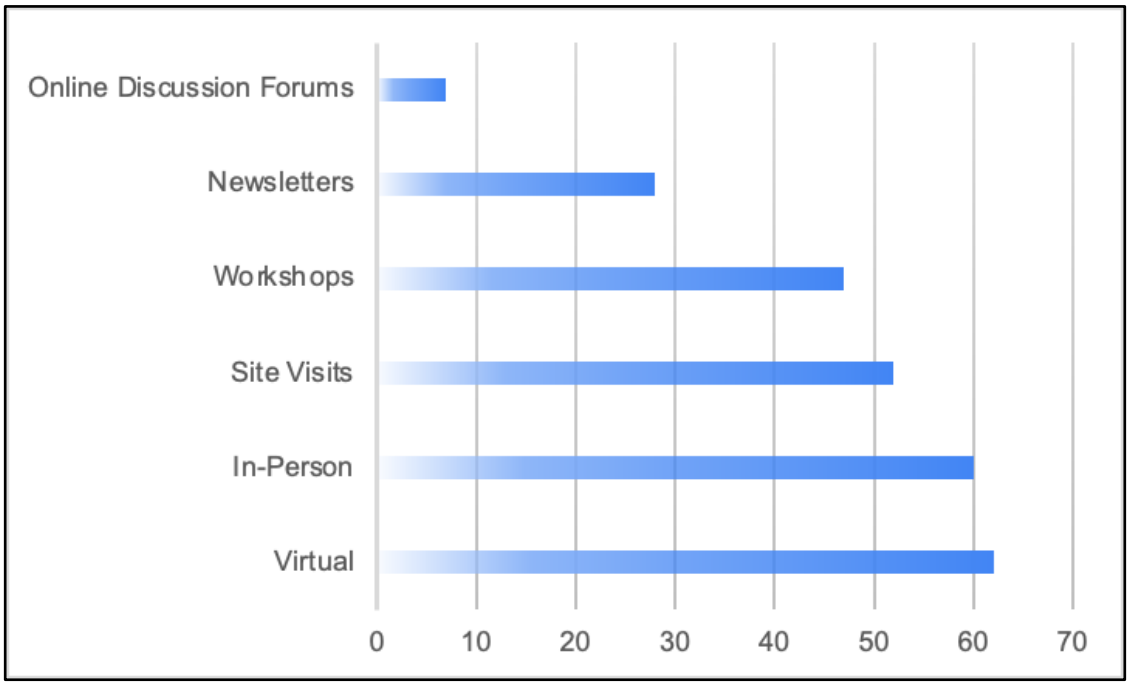


Figure 4: TA Delivery Methods

The TA services available from TAPs in the inventory are more heavily concentrated within education and planning activities, with gaps for TA in late project cycle activities. The services most commonly provided in the TA inventory (Figure 5) include education for local government officials (56 providers or 82% of providers) and identifying and planning for projects (51 providers or 75% of providers). Many TAPs also provide TA for earlier phases of the project cycle, including securing funding and financing for projects and implementing projects (42 providers for each or 62% of providers). However, TA available for the project cycle decreases in later stages of the project cycle - for maintenance and management of projects (35 providers or 51% of providers) and for monitoring projects (28 providers, or 41% of providers). One possible explanation for this discrepancy is where TA for late project cycle activities tends to be more fee-based and therefore would not be captured in the current assessment. Overall, the results suggest that more TA capacity is available for local governments to understand and plan for projects, but TA capacity is more limited to assist local governments in moving through the project cycle for identified projects.

The results also show that about half of TAPs in the inventory (36 providers) offer policy assistance to local governments, and a smaller number (15 providers, or 22% of providers) offer information technology services to local governments.

While not specifically included in the data collection tool, interviewees noted that free engineering TA services were limited. Engineering is expensive and is typically required intermittently, making free provision difficult to establish in a sustainable manner.

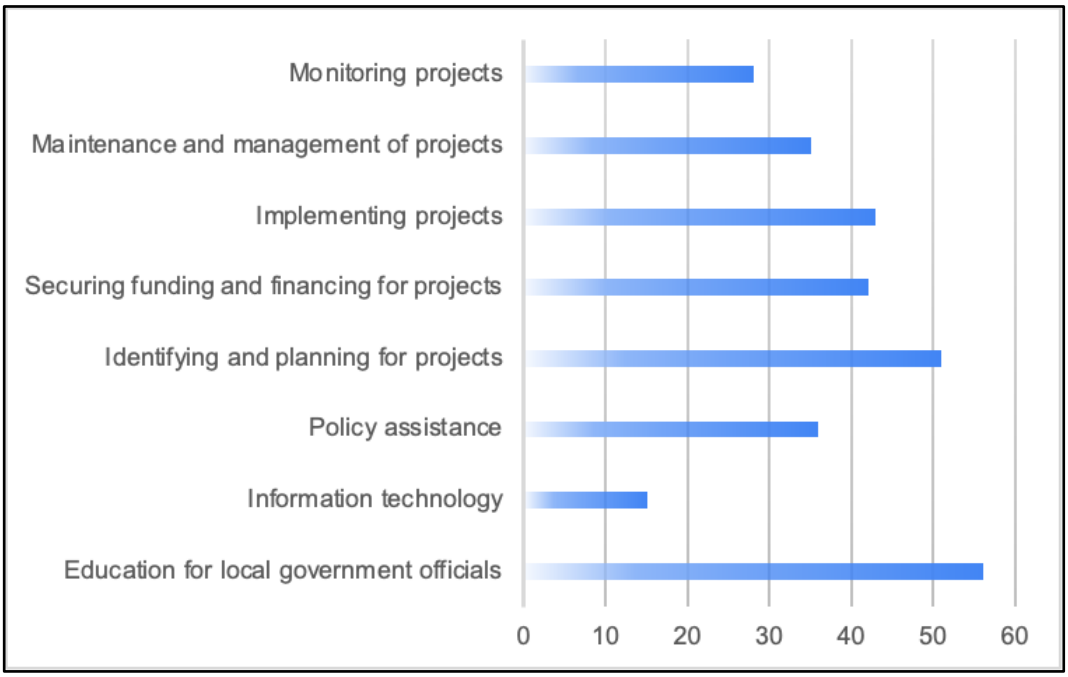


Figure 5: TA Services Delivered by TAPs

Most TAPs allocate staff time and resources to other activities in addition to TA. Results suggest that a limited number of TAPs focus most of their resources on TA (Figure 6). Only 11 providers (17% of the providers that responded to this question) spend 75-100% of time and are mostly dedicated to TA. These types of providers include informal networks organized specifically to create venues for knowledge sharing and learning for local governments, such as Delaware's MS4 Stormwater Consortium; federally funded programs dedicated to TA such as the Sea Grant program across coastal states and the Environmental Finance Centers; the Bay Program's Local Leadership Workgroup; and regional quasi-governmental TAPs such as Virginia's PDCs. The largest number of TAPs (23) spends up to 25% of time on TA. Whether these results are problematic is unknown, because the total quantity and quality of TA resources allocated across budgets of varying sizes and TA focal areas may vary for multiple reasons. The result does suggest, however, that most providers of free TA are engaged in and implement other work as well.

Importantly, several TA-focused programs exist across Bay states that provide useful models for future development and implementation of additional TA-focused programs.

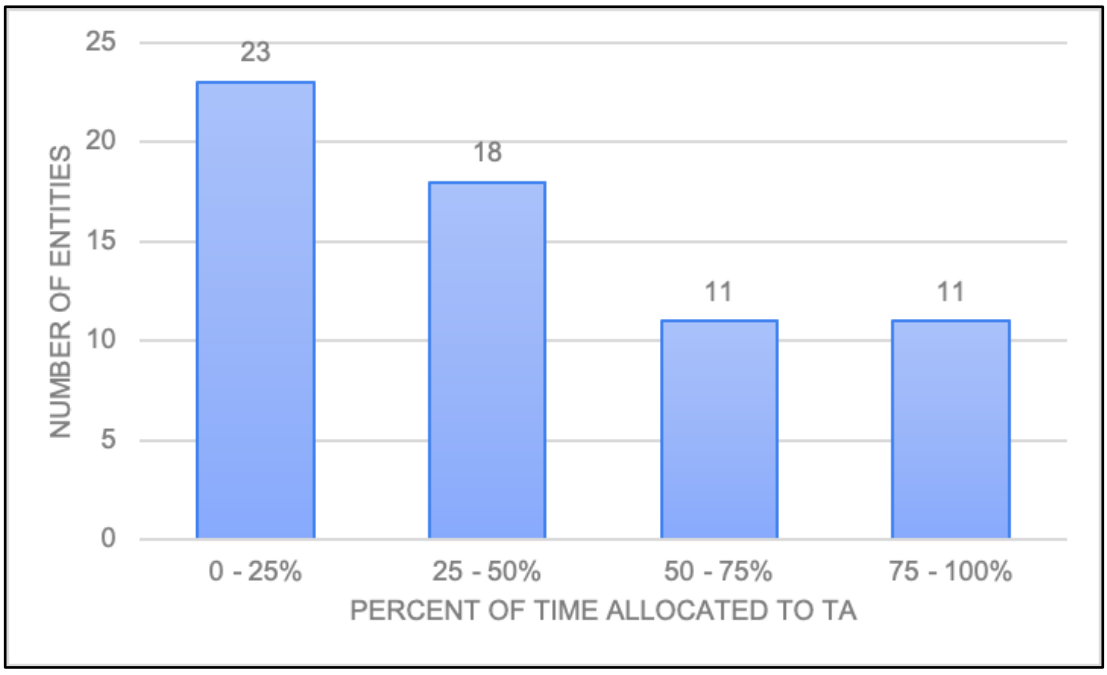


Figure 6: Percent of Time Allocated to TA by TAPs

More information is required to understand the degree to which TAPs are meeting demand for TA from local governments. The reach of TAPs to local governments varies (Figure 7), with most providers (51 providers or 75% of total providers in the inventory) reaching more than 20 local governments over the past 5 years. A small number (3) of providers reached fewer than 5 local governments over the past 5 years. However, several factors complicate what this finding explains about the reach of TAPs to local governments. First, the total number of entities classified as local governments by the Bay Program varies across states: Delaware has 3 counties and 57 municipalities (a total of 60 local government entities); Maryland has 24 counties and 157 municipalities (a total of 181 local government entities); and Pennsylvania has 67 counties and 2,559 municipalities (a total of 2,626 local government entities).[13] Therefore reaching 50 local governments in one state may reflect a higher proportion of local governments in some states rather than others. Further, it is not possible to estimate the total number of local governments reached within and across the Bay states because the data also do not show how many local governments reported represent unique local governments. Finally, the data do not provide insight into

[13] These figures reflect the total number of local governments in the Chesapeake Bay states; not all of these local governments are within the Chesapeake Bay watershed. Data from Chesapeake Bay Program, 2026 Local Government Structures One-Pager: https://www.chesapeakebay.net/files/documents/2026-Local-Government-Structures-One-Pager-FINAL.pdf.

how much of the demand from local governments for TA is being met by the TA services provided.[14]

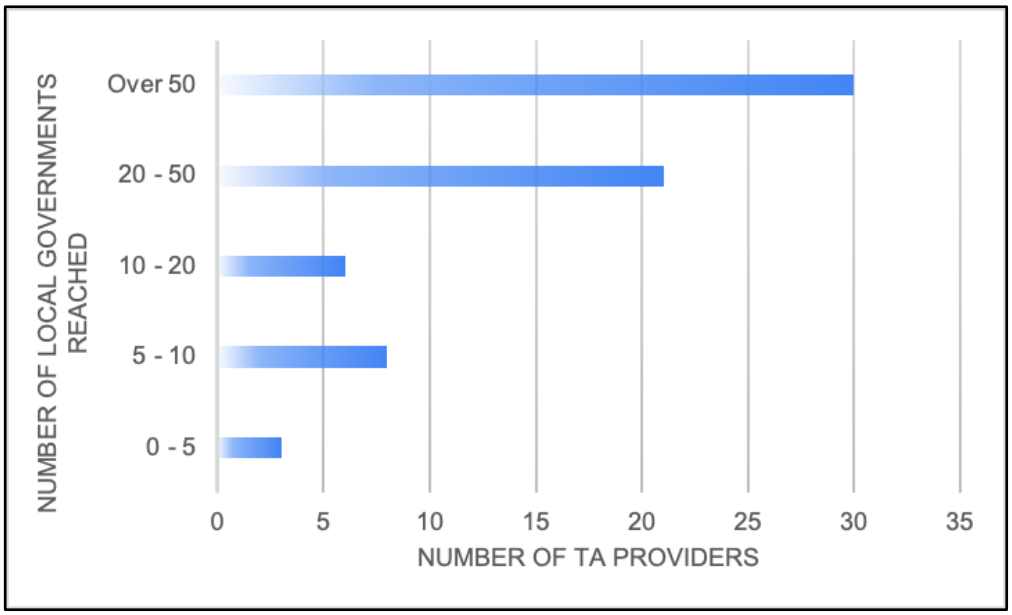


Figure 7: Number of Local Governments Reached Over 5 Years

Results suggest that toxic contaminants, fish passage, and public access are Bay Agreement goals that need additional TA resource allocation for local governments. Respondents were asked about the Chesapeake Bay Agreement goals that their TA work addresses. The revised 2025 Chesapeake Bay Agreement was not finalized at the time of development and distribution of the data collection tool; therefore the data collected reflects the draft version of the 2025 Agreement available at the time (Table 3).[15]

Table 3: Goals and Outcomes Included in the Data Collection Tool

Goal	Outcomes
Thriving Habitat and Wildlife	Fisheries, wildlife, fish habitat, blue crabs, oysters and oyster reefs, tidal wetlands, non-tidal wetlands, healthy streams, brook trout, fish passage, submerged aquatic vegetation

[14] The Chesapeake Bay Program collected information regarding local government needs and priorites through the Local Government Leadership Survey in 2024: https://www.chesapeakebay.net/files/Findings-and-Figures-2024-Local-Leadership-Survey-LLWG.pdf. Results from the 2022 Survey are available here: https://www.chesapeakebay.net/files/Baseline-Local-Leadership-Survey-2022.pdf. Findings from the Survey that are relevant to findings from the current study are discussed in this section.

[15] Chesapeake Bay Watershed Agreement, Beyond 2025 Revision Draft, Released for Public Feedback, July 1 - September 1, 2025. Available at: https://www.chesapeakebay.net/files/Revised-CBW-Agreement-For-Public-Feedback-2025.06.30.pdf.

	(bay grasses)
Clean Water	water quality standards, water quality monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reductions, toxic contaminants
Healthy Landscapes	land protection, land use support, tree planting, nature-based solutions
Engaged Communities	community stewardship, local leadership, workforce development/jobs, public access, student education, school district environmental programs

Most TAPs selected multiple outcomes across the Draft Bay Agreement goal areas (Figure 8). Outcomes that have the highest number of TAPs in the inventory working towards them include BMPs for nutrient reduction (48 providers), tree planting (48 providers), nature-based solutions (48 providers), community stewardship (47 providers), and healthy streams (45 providers). Within the inventory, TAPs are also working on local leadership (44 providers), student education and environmental programs (35 providers), and water quality standards and/or monitoring (41 providers). Outcomes with the fewest number of TAPs working towards them are fisheries (13 providers), blue crabs (6 providers), oysters and oyster reefs (12 providers), brook trout (10 providers), fish passage (16 providers), seagrasses (14 providers), toxic contaminants (23 providers), and public access (23 providers).

In the absence of data on demand for TA by local governments across outcomes, parsing results requires consideration of which outcomes are most relevant to local governments. Local governments have more jurisdiction and decision-making ability over some outcome areas than others; for example, local governments are limited in their ability to address submerged aquatic vegetation (SAV), which is largely under state jurisdiction, or some of the habitat and species-specific work, which crosses jurisdictional boundaries and is often under state or federal jurisdiction. Further, even where jurisdiction exists, some outcomes are not relevant to all local governments: local governments in inland communities may not need TA around coastal outcomes such as blue crabs, oysters and oyster reefs, tidal wetlands, and submerged aquatic seagrasses (though these outcomes can be impacted by land use practices upstream). However, in 2019, the Bay Program identified nearly all outcomes from the 2014 Agreement (29 of 31 outcomes) as needing some level of local government engagement and noted that relating outcomes to the priorities of local

governments is a challenge.[16] A more detailed and accurate understanding of the relevance of the revised goals and outcomes in the 2025 Agreement will therefore require engagement with local governments on a state by state basis.

Outcomes for which local governments have jurisdiction and limited TA is available include **fish passage**, **toxic contaminants**, and **public access**. The need for more TA around toxic contaminants is supported by results from the 2024 Local Leadership Survey, which found that over 50% of local governments responding to the survey listed preventing toxic contaminants and healthy streams/fish populations as local priorities related to the Bay.[17] Public access is relevant to most local governments and an area where they have jurisdiction. Similarly, fish passage can be obstructed by road-stream crossings (bridges and culverts), for which local governments have jurisdiction through ownership and responsibility for the maintenance of transportation infrastructure.

[16] Chesapeake Bay Program, Chesapeake Bay Program Local Engagement Strategy, May 2019: https://www.chesapeakebay.net/files/cbp_local_engagement_strategy_05.01.19.pdf.
[17] Chesapeake Bay Program, Local Leadership Survey Findings and Figures, November 12, 2024: https://www.chesapeakebay.net/files/documents/Local-Leadership-Survey-Findings-and-Figures-Final.pdf.

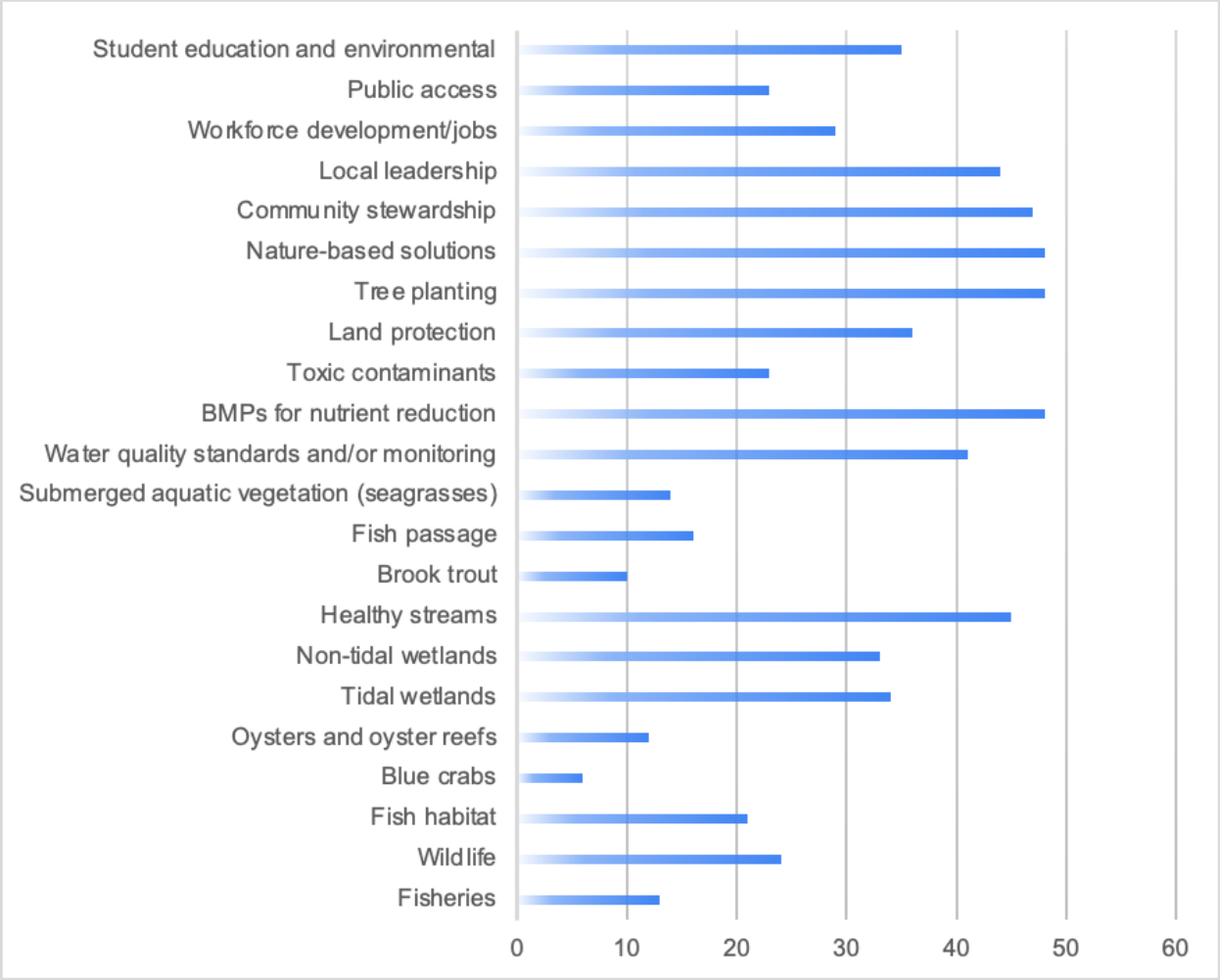


Figure 8: Chesapeake Bay Agreement Goals Addressed

TAPs are assisting a broad range of government and community types across the Bay watershed. Most individual TAPs are assisting multiple government and community types. Data collection results for TA provision by government and community type (Figure 9) show that urban and rural communities have similar numbers of TAPs (63 and 64 providers, respectively) and that 57 providers indicated that they work with communities with limited local government capacity or resources. However, in the absence of demand data for TA, it is unclear whether results translate into equitable TA provision across government and community types.

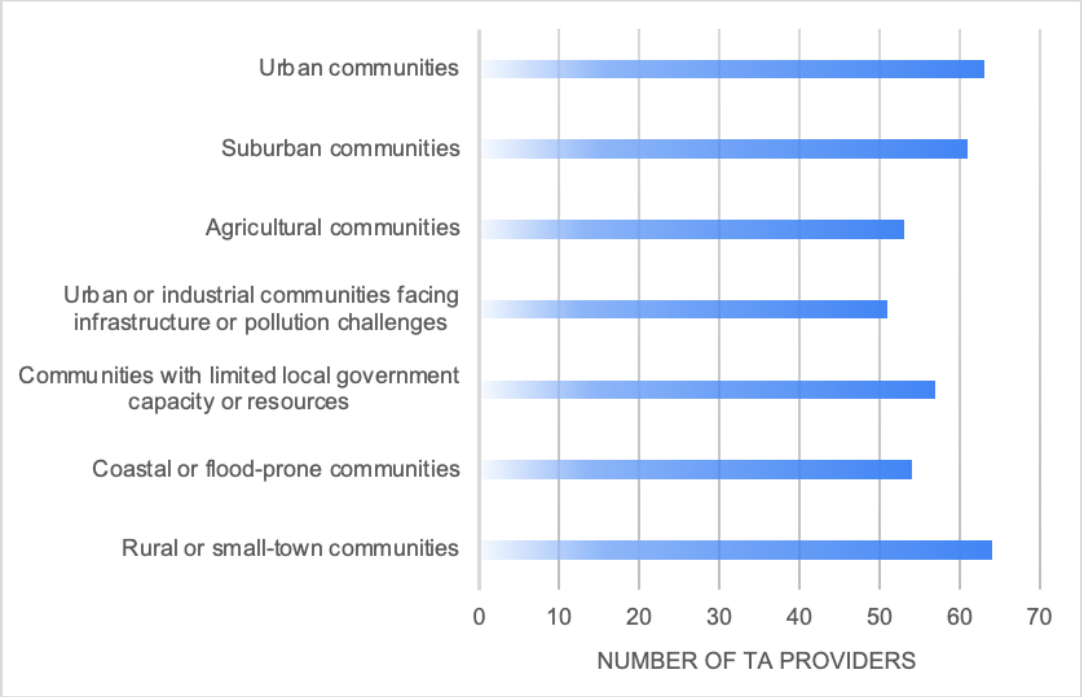


Figure 9: Number of TAPs Assisting Government and Community Types

Geographic coverage of TAPs shows differing intensities of potential TA across the Bay watershed, with more coverage closer to the Bay itself. The data collection tool asked TAPs for the specific geographic range of their TA program(s). The ranges provided were translated and visualized into a "heatmap" at the county level (Figure 10) with the intensity of the map depicting the number of TAPs in the inventory that have a particular county within their TA service area.[18] The heatmap suggests the following of TA provision in the Chesapeake Bay watershed:

- TA intensity - as defined as the number of TAPs operating within a service area - is generally higher in states closer to the Chesapeake Bay itself. New York and West Virginia have relatively lower numbers of TAPs in the inventory but are farther from and do not adjoin the Bay.[19]

[18] The heatmap was generated using the workbench function of Claude Sonnet 4.6 to translate data collection responses on service area geographies for each TAP into counties and to generate python code to produce the map. For example, if a respondent said they work in Delaware, all counties in Delaware were selected. The watershed boundary of the Chesapeake Bay watershed was then applied to the map to display the areas of counties located within the watershed.

[19] Some portion of this result could be attributed to the design of the data collection tool: the tool specifically asked about work relevant to the Chesapeake Bay. TAPs geographically farther away from the Bay may not have filled out the tool, thinking that their work does not impact the Bay when in fact it does. Another factor could be that fewer of the Bay Agreement outcomes are relevant to local governments in that region (e.g., blue crabs and oysters).

- The Delmarva Peninsula, encompassing portions of both Delaware and Maryland, appears as a hotspot of TA for Bay-related goals and has an extensive coastline along the Bay. This fact could be attributable in part to the higher number of Chesapeake Bay Agreement goals that are relevant to this coastal area, such as the blue crab and oysters outcomes.
- More TAPs cover Delaware than other states. This could be driven by greater response to the data collection tool among TAPs who work exclusively in Delaware, which in turn could result from a small and coordinated network of TAPs in the state that ensured a high rate of response to the tool.
- Pennsylvania has several counties that appear to have fewer TAPs in the inventory than most counties in the Bay watershed; in the northeast of the state, these counties are in the Susquehanna watershed. This is an area of additional future research because the Susquehanna watershed is a key contributor of freshwater and nutrients to the Bay.[20]
- The difference in the number of TAPs in the inventory across the eastern and western shores of the Chesapeake Bay in Maryland is notable and an area for additional research. For example, understanding whether this result indicates that Maryland's counties on the western shore have more capacity, technical expertise and/or the ability to pay for TA than the Eastern Shore counties and do not require as much free TA or whether their need for TA is also significant and TAPs on the Eastern Shore could be better resourced to assist western shore counties as well could be instructive.

It is important to note that the map reflects the intensity of TA by county in terms of the number of TAPs that have the county within their geographic service area for TA. Results don't translate into actual availability or active implementation of TA in all counties, but rather show where the TA program could potentially operate. In addition, the findings are based on the TAPs that responded to the data collection tool and may underrepresent potential TA in certain geographies depending on how many TAPs did not respond to the tool and where they operate.

[20] For example, the Maryland Department of Environment states that "With a watershed covering nearly 27,500 square miles across three states, the Susquehanna River is Chesapeake Bay's largest tributary and contributes more than half of the Bay's fresh water. Agricultural runoff and streambank erosion in the watershed contribute nutrients and sediments to the river and Bay. This process can deliver significant pollution to the Bay, particularly during flood events, which decreases the oxygen available for aquatic life." Maryland Department of Environment at https://mde.maryland.gov/programs/water/TMDL/TMDLImplementation/Pages/Conowingo-Dam-Impacts.aspx?

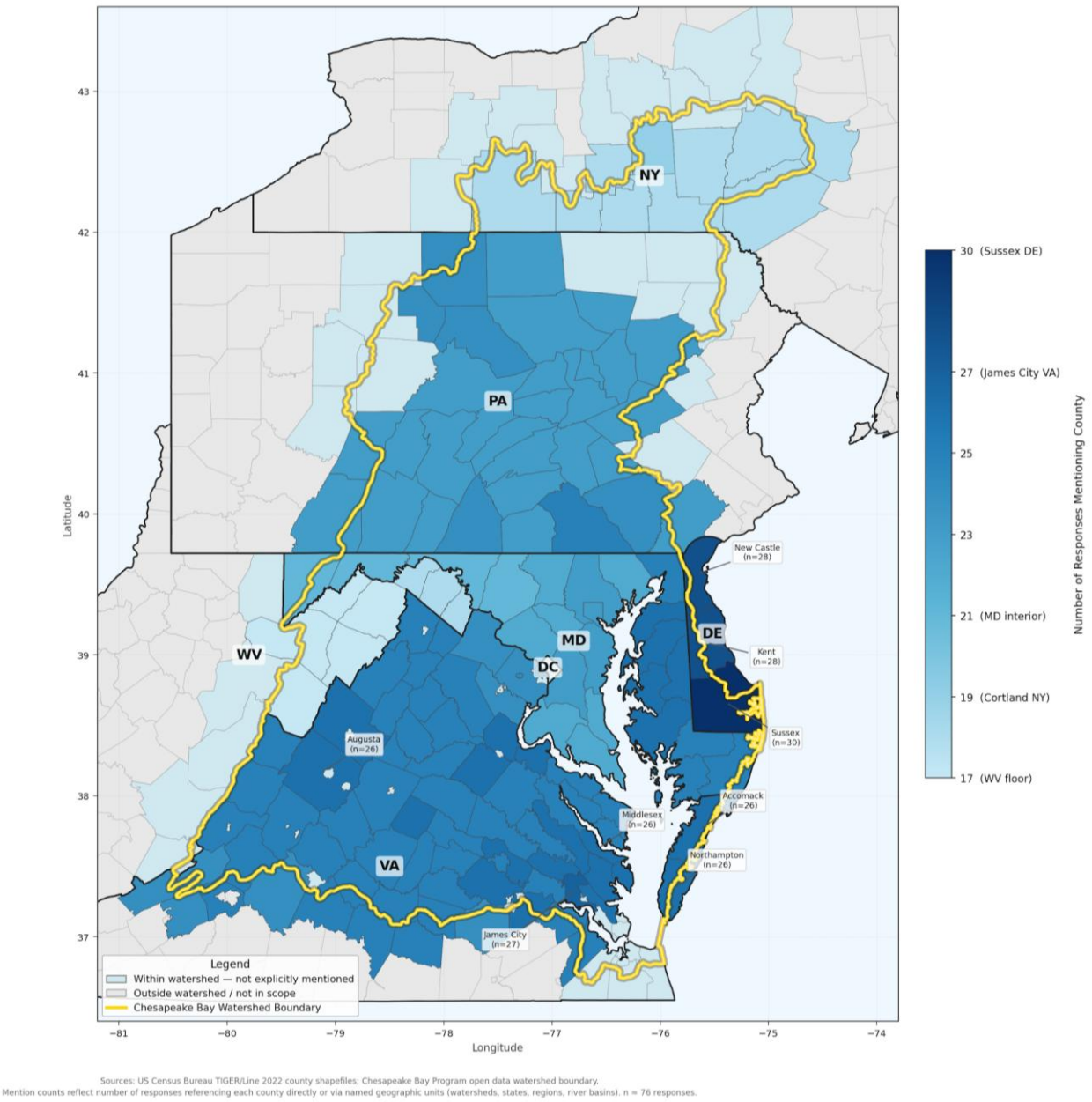


Figure 10: Intensity of TA by County in the Chesapeake Bay Watershed

Note: As stated above, intensity of TA by county reflects the number of TAPs in the inventory that have a particular county within their TA service area. Results don't translate into actual availability or active implementation of TA in all counties, but rather show where the TA program could potentially operate. In addition, the findings are based on the TAPs that responded to the data collection tool and may underrepresent potential TA in certain geographies depending on how many TAPs did not respond to the tool and where they operate.

Findings from Interviews

To deepen understanding of TAPs operating within the Bay watershed, a series of interviews were conducted with TAPs across the Bay watershed states. These interviews yielded additional insights into current TA provision in the Bay and identified additional gaps that were not captured in results generated from the data collection tool.

Multiple interviewees noted the need for more sustainable, long-term funding for TA. Grant-based TAPs such as some circuit rider programs are funded for limited time periods (e.g., 5 years), and don't align with the typically longer-term project cycles of local governments. This makes effective TA provision difficult given the time required to build trust with communities and see projects through to completion. Interviewees noted that making the funding more robust and secure for these positions should be a priority. It is also important to note that project cycles could be shortened through permitting and procurement reform, which could work in conjunction with sustainable funding to enhance TA outcomes.

Free engineering TA is limited. A lack of free engineering TA was noted by interviewees as a gap in TA to local governments, who often need engineering TA, especially at the design phase, at no to low-cost. While some well-resourced local governments may be able to support in-house engineering expertise (e.g., Fairfax County in Virginia), many local governments cannot - engineering is expensive and may be needed only sporadically. Models to support additional engineering TA to local governments were surfaced in the TAP inventory:

- Pennsylvania has sought to address the engineering TA gap by allowing counties up to ¼ of CAP Coordinator funding to pay for engineering and design.
- Pennsylvania's Department of Environmental Protection also has a Chesapeake Bay Engineer Program that funds regional and conservation district-based engineering positions to assist with BMP design.
- Virginia established the DCR Shoreline Erosion Advisory Service to provide engineering support for living shorelines to landowners and local governments. Further, some well-resourced PDCs in Virginia have in-house engineers that can assist local governments in their service area.
- New York's Tioga County Soil and Water Conservation District (SWCD) has engineering capacity on staff that supports design work across the SWCD's service area; the state's Non-Agricultural Nonpoint Source Planning and MS4 Mapping Grant (NPG) is a competitive grant program that provides engineering support for stream restoration and other projects.
- Federally, the US EPA provides engineering TA through its RealWaterTA platform.

- The Center for Watershed Protection is a nonprofit organization composed of technical staff including engineers that provide fee-based TA but can also implement TA that is free to local governments through grants, as they are currently doing through an EPA MD 319 Nonpoint Source grant administered by Envision the Choptank - the Envision the Choptank Circuit Rider Program.

Local government capacity across the Bay states varies. Many TAPs, when asked about gaps in TA in Bay states, noted the variation in technical and resource (staff and financial) capacity across local governments. Capacity ranges from well-staffed and resourced local governments with in-house engineering capacity to small, under-resourced local governments with only one staff member. Smaller, under-resourced local governments may spend the majority of their time on zoning, development, and roads, with limited capacity to engage in other types of projects. One TAP first conducts a baseline assessment of local government capacity when engaging in TA to understand existing vs. required additional capacity.

TA models implemented in the Bay states vary in scope and scale of engagement with local governments. Some TA models are relatively light-touch and focused on specific services while other TAPs provide a comprehensive TA that serves as a "one-stop shop" across the project cycle from planning to implementation and beyond. The TAP inventory describes the TAPs; case studies provide additional detail on TAP models. A few examples of TAP scope and scale of engagement from the TAP inventory are summarized below.

- SERCAP's Delaware office assists small communities (populations less than 10,000) through comprehensive water and wastewater-related TA in Delaware and the Eastern Shore of Maryland. TA for local governments includes education and training, planning, identifying funding sources and assisting with grant applications including grant writing and grant administration. SERCAP's Delaware office also helps local governments with services like rate studies and financial administration.
- The Watershed Alliance of York (WAY) works to improve water quality in York County, Pennsylvania. WAY partners with York County on implementation of the Countywide Action Plan for Clean Water (CAP), Local governments are the landowners that WAY works with, and the organization can provide services across the project cycle. Currently, WAY is working with Fairview township, an MS4 municipality that lacks capacity and expertise to implement stream projects. For Fairview, WAY is providing grant application and management services, project oversight, identifying and assembling design and permitting stakeholders, and developing construction bid requirements.
- Virginia's 21 Planning District Commissions offer comprehensive planning TA to local governments within their jurisdictions. TA services vary across the PDCs, but

tend to include policy and planning, grant writing services, project management and implementation, GIS, data collection and assessment, and liaising between local governments and the state.

- EPA's Office of the Municipal Ombudsman has dedicated staff for local governments to talk to about water infrastructure-related challenges and potential solutions. The Municipal Ombudsman compiles and disseminates relevant information for local governments, and is often a first touch-point for local governments seeking TA. The Ombudsman can direct local governments to additional in-depth resources depending on needs.

Land use could be better connected to the Chesapeake Bay Agreement goals and outcomes to recognize land use-related activities local governments undertake. The watershed model is heavily BMP focused, and while land use changes can be credited, the existence of policies and ordinances cannot be. It would be useful to consider ways of crediting land use ordinances and zoning changes, such as through planning BMPs, that are based on the future benefit these land use policy changes could create. This would be particularly beneficial for local governments, through which most land use decisions are made. Inclusion of conservation as a key principle alongside science, restoration and partnership in the 2025 Chesapeake Bay Agreement supports integration of land use into achieving Bay Agreement goals.[21] TAPs such as the Virginia's United Land Trust (VaULT) support local governments in conservation-related work where local governments have active development rights or open space programs. VaULT has a standing local government workgroup - Localities in Conservation - that meets six times annually. Through the Localities in Conservation group, VaULT convenes local governments and delivers knowledge and training on conservation programs and policies.

Better local government representation in the Bay Program would help TAPs reach local governments who need support. The Bay Program's work is implemented through many working groups and goal teams, but local governments are not sufficiently present. Local governments attend Advisory Committees (e.g., the LGAC), the Management Board, and the Principals' Staff Committee, but, under the previous Bay Agreement, much of the technical work occurred within the working groups and the Goal Implementation Teams (GITs) by state and federal partners, but local governments, through which much of the implementation work occurs, were not present in these meetings. One interviewee noted that there is no established connection between the GITs and LGAC through local governments that sit on both.[22] Another interviewee noted the challenge of engaging with

[21] https://www.chesapeakebay.net/files/documents/CBWA-2025-IV-Final-Facing.pdf

[22] The revised Bay Program structure addresses this concern by adding a non-voting seat for LGAC on each Goal Team.

the sheer number of local governments that exist in the Bay watershed and the need for more trusted networks to push data, science, and information out to local governments.

A common language across the Bay Program and local governments could enable the Bay Program to be more relevant to local governments. Local governments frequently discuss challenges in terms of infrastructure or flooding problems, while the Bay Program speaks in terms of habitat, water quality, and other activity types that appear disparate from local government concerns. Bay Program goals and outcomes, and the language TAPs use when conducting outreach to local governments, could be aligned with local government concerns. For example, wetlands can mitigate flood risk but are discussed as a habitat type by some organizations. If the conversation were reframed as one of hydrology and the movement of water through different land use types with differing impacts to flooding, local governments may better see the value in considering certain nature-based solutions.

Turnover in local governments is a challenge to TA delivery for TAP organizations. Interviewees noted that staff turnover in local governments is a barrier to efficient TA delivery over time, requiring TAPs to expend more resources to bring new local government officials up to speed.

TAPs in the Bay watershed have some knowledge of other efforts, but greater coordination and communication is necessary. Interviewees tended to know of several other TAPs in addition to their own work, and collaborations across TAPs were evident. However, TAPs also noted that there are many organizations working in the Bay and some local governments are approached by multiple organizations for the same type of TA, creating confusion and weariness on the part of local governments. Greater coordination could help TAPs capitalize on shared resources and work programs, and avoid duplication and redundancy of work.

Recommendations

The inventory and gap analysis provide information on the current supply of TA to local governments in the Chesapeake Bay watershed, and the gaps and challenges facing TA provision. Detailed information on TAPs by state and across the Chesapeake Bay equips state governments to downscale results to their state and determine specific state-level priorities and needs for TA to advance the goals and outcomes of the Chesapeake Bay Agreement. At a Chesapeake Bay watershed-wide scale, the Chesapeake Bay Program can support states in identifying TA priorities and addressing gaps through the following

recommendations, which reflect actions the Bay Program can take in the short- to medium-term.

Short-Term Recommendations

In the short-term, to support more effective and efficient TA provision to local governments across the Chesapeake Bay watershed, the Chesapeake Bay Program could:

1. **Disseminate the results of the TA inventory with local governments across the Chesapeake Bay watershed through various channels.** A new channel the Bay Program could support is a living, online TA inventory tool for the Chesapeake Bay. A repository/database of TAPs in the Chesapeake Bay would be an effective resource for both TAPs and local governments. The current inventory could be used to establish the tool and additional TAPs added through a tool function allowing TAPs to submit their information for inclusion. This tool could assist both TAPs in understanding the TA work ongoing in their geography of interest and across the Bay watershed, and local governments in locating appropriate TA resources and building relationships with TAPs across the watershed. For example, the Eastern Shore of Maryland is often considered an area in which local governments have high TA needs and the inventory suggests a fair number of TAPs are operating there. Linking local governments with these resources is an important function of the inventory tool.

2. **Provide convening opportunities for TAPs across the Bay watershed to share information, best practices, and lessons learned.** The inventory identified at least 122 entities across the Bay watershed that are working with local governments on projects that contribute to the Bay Agreement goals and outcomes. Interviews and desk research suggests that TAPs working with local governments on Chesapeake Bay Agreement goals lack venues through which they can share knowledge, best practices, and lessons learned. While some existing entities and events may bring TAPs together, such as activities of the Bay Program's LGLW (e.g., Peer to Peer bus tours) and LGAC (e.g., Local Government Roundtables), the inventory did not surface a dedicated effort to network TAPs working with local governments. Establishing a network or Community of Practice (CoP) for TAPs focused on their work with local governments and Bay Agreement goals could allow for information sharing that could allow TAPs to identify duplicative work, areas of potential collaboration, and work towards providing more efficient and effective TA that closes gaps. The CoP could function through an online platform, with periodic webinars and in-person meetings.

3. **Target currently available TA to the local governments that need it most.** Inventory results and the heat map provide information on where TAPs are currently operating. The Chesapeake Bay Program could encourage and support states in overlaying information about under-resourced local governments and priority areas for intervention with the inventory results.

4. **Target currently available TA to priority geographic regions.** Jurisdictions should utilize this inventory as a strategic starting point to analyze and overlay TA coverage against priority restoration areas. This integrated analysis will further identify service gaps and ensure that technical resources are deployed to the geographic regions where restoration investments result in the greatest improvements in water quality and living resources.

5. **Explore ways to facilitate more resources for TA that supports local governments in improving toxic contaminant reduction, public access, and fish passage projects.** The inventory identified these Bay outcomes as receiving limited TA for local governments while at the same time being areas of high relevance and interest to local governments. Additional engagement with TAPs in the inventory who are working on these outcomes could drill down on why TA in these areas is limited, how to increase TA provision, and where this TA provision should be prioritized across the Bay.

Medium-Term Recommendations

6. **Support research on the effectiveness of existing TA models.** The inventory identified a variety of TA models, from grant-funded circuit rider programs housed in nonprofit organizations and focused on specific geographies, to federal TA initiatives that local governments could access directly, to state-sponsored TA implemented at the county level. Determining the effectiveness of these models was beyond the scope of the inventory project, but could yield important information to inform allocation of resources to specific forms of TA in the future.

7. **Explore methods to solicit demand-side information from local governments on TA priorities and needs.** As noted, the inventory is currently a supply-side inventory of TAPs with information on the TA that is available to local governments. Assessing the kinds of TA that local governments need, the TAPs they currently use and barriers to obtaining additional TA, gaps they see in the TA available, and their knowledge of the TA that is available was beyond the scope of this project. A demand-side assessment querying local governments on these questions could provide important information to pair with the supply-side inventory. Channels to

local governments established through the Local Leadership Survey could potentially be leveraged to conduct this type of analysis.

8. **Support identification of private sources of TA for local governments.** The current inventory was limited to TAPs that provide free TA to local governments and therefore did not seek information on private firms that might work with local governments through a fee-based model. Private sources of TA are a potential resource for local governments, and therefore the inventory results are not complete in terms of the TA local governments can leverage. Expanding the inventory to include these fee-based, private firms would provide a more complete picture of available resources, though it is important to note that many local governments in the Bay watershed are under-resourced and likely unable to allocate resources to fee-based TA.

9. **Support states in the alignment of additional resource allocation for TA to resource allocation for project implementation.** The Chesapeake Bay Program can support states in further understanding and addressing their TA needs through the recommendations above. It is also important to support states in ensuring that resource allocation for TA is aligned with resources available for project implementation. For example, TA provision for BMP planning will only be effective for outcomes if funding is available to implement the BMPs that are prioritized and planned for.

Case Studies

Case Study #1: PA County Action Plan Coordinator

Pennsylvania's Department of Environmental Protection's (PA DEP) Bureau of Watershed Restoration and Nonpoint Source Management (BWRNSM) supports Pennsylvania counties within the Chesapeake Bay watershed through Community Clean Water Action Plans (CAPs). Through the CAP process, Community Clean Water Action Plan Coordinators (CAP Coordinators) are funded in each county to support implementation of the CAPs. The CAP process and CAP Coordinators have been detailed in a recent publication of PA DEP, and is available here: PA Phase 3 Watershed Implementation Plan and Countywide Action Plans: A Case Study in Collaborative Watershed Restoration.

Case Study #2: Hampton Roads, VA Planning District Commission

One of the challenging aspects of coalescing local governments in the Chesapeake Bay is the sheer number of them; in Virginia, there are over 300 units of local government: 190 towns, 38 cities, and 95 counties.[23] These local governments vary in size from larger, well-resourced units such as Richmond, VA to smaller local governments that may only have a staff of one person. To bring local government units together for information sharing, planning, and other activities, the Regional Cooperation Act in Virginia created 21 Planning District Commissions (PDCs, also called Regional Councils). PDCs are political units of the Commonwealth of Virginia and voluntary associations of local governments that "foster intergovernmental cooperation by bringing together local elected and appointed officials and involved citizens to discuss common needs and determine solutions to regional issues".[24] PDCs also help local governments join together with a larger voice and presence around issues they hold in common that are important to the health and well-being of their constituents. For example, PDCs are required to develop regional strategic plans for the local governments in their area through the Regional Cooperation Act.

The Hampton Roads PDC (HRPDC) is one of 21 PDCs in the state and covers 17 local governments, 15 of which are within the Chesapeake Bay watershed. HRPDC has many Committees and Workgroups focused on areas of interest to the constituent local

[23] Virginia Department of Housing and Community Development, https://www.dhcd.virginia.gov/clg#:~:text=Learn%20more%20about%20the%20population,38%20cities%20and%20190%20towns.
[24] https://www.dhcd.virginia.gov/pdcs

governments such as coastal resiliency, utilities, construction standards, environmental and planning issues, stormwater management, and Chesapeake Bay Preservation Act issues.[25] Water quality-related topics are a focal area: in addition to funding HRPDC receives from the state, the local governments within the HPRDC area have approved a Special Assessment to specifically fund a Water Resources staff focused on water quality and TMDL-related TA. The Regional Stormwater Management Workgroup supports local implementation of state stormwater and erosion control regulations and Virginia Pollutant Discharge Elimination System Permits, including MS4 permits.[26]

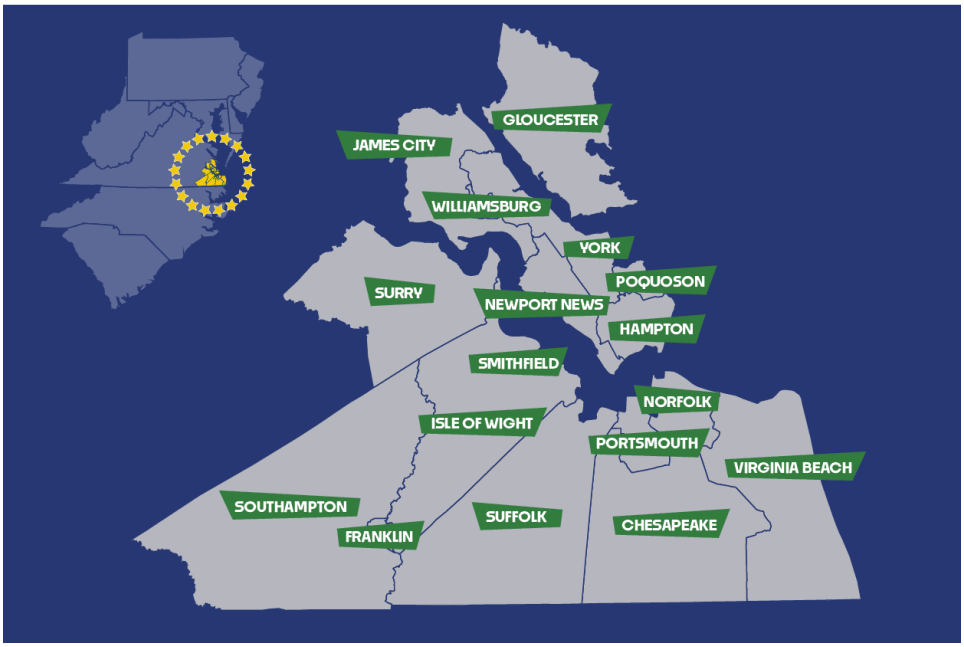


Image: Localities within the HRPDC Service Area
Source: https://www.hrpdcva.gov/270/Our-Localities

While the HRPDC doesn't directly use the Chesapeake Bay Agreement as a road map for TA, many of the focal areas for HRPDC's Water Resources department impact the Agreement's Goals and Outcomes. HRPDC staff work with local government staff on issues related to local water quality, wastewater, stormwater, coastal resilience, and drinking water. TA at HRPDC takes the form of convening local governments to share information, provide best practices, identify tools for outreach and education, and highlight funding opportunities. Topics can range from changes to state and federal regulations, Bay Program Agreement and Partnership updates, to best management practices (BMPs) specifications, inspection

[25] The Chesapeake Preservation Act, adopted in 1989 in Virginia and amended over time, stipulates land-use related requirements that local governments must adhere to in their Bay Act Programs within Chesapeake Bay Preservation Areas (CBPAs). See https://www.deq.virginia.gov/water/chesapeake-bay/chesapeake-bay-preservation-act.
[26] https://www.hrpdcva.gov/298/Water-Resources-Planning-Committees

and maintenance of stormwater systems, living shorelines, and Bay and local TMDL data. HRPDC also has a group dedicated to the environmental education of local governments - AskHRGreen.org - to help achieve the outreach and education goals some local governments have as a regulatory requirement. HRPDC Water Resources Department has also gone beyond just water-related topics, through funding from the EPA, HRPDC staff, local governments, and other stakeholders recently developed a Comprehensive Climate Action Plan for the region.

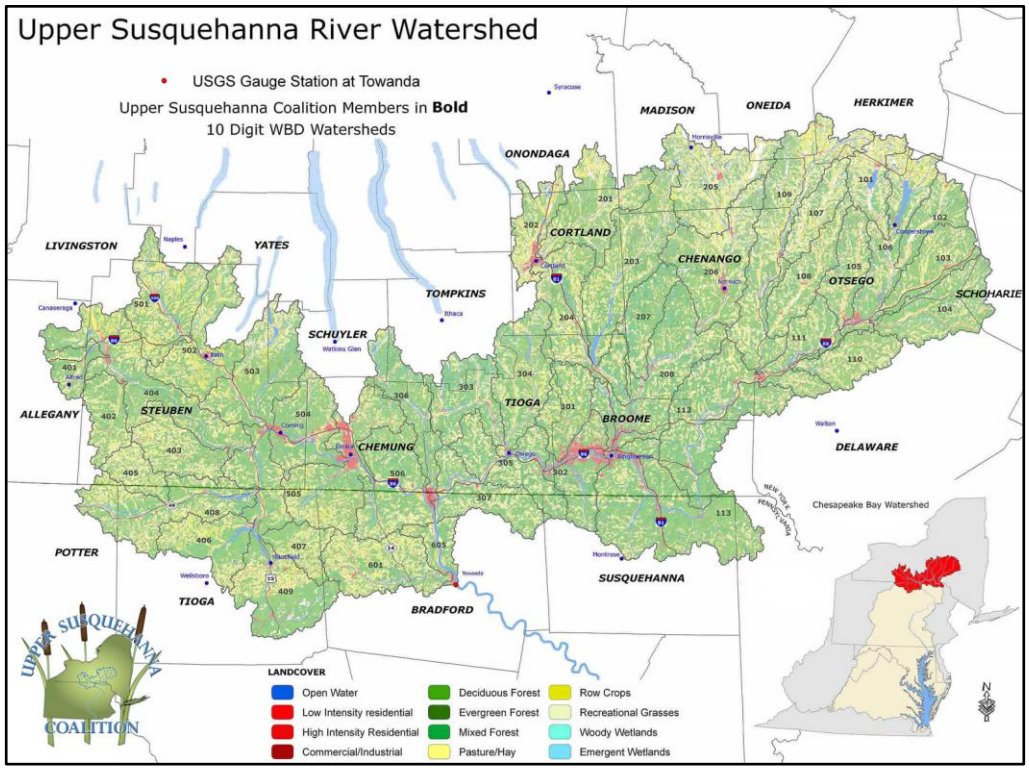
The primary role HRPDC plays is as a convener of local governments and an interlocutor between the local governments and state and federal agencies. The primary method of delivering TA to local governments is through standing meetings. For example, the HRPDC water resources team holds a standing meeting monthly with stormwater managers from their constituent local governments in which information is shared and problems are solved collectively together, and the Regional Environmental Committee at HRPDC holds monthly meetings for which external speakers are arranged for local governments. HRPDC staff also attend state-level regulatory and technical panels, communicate information on the changing regulatory environment and updates to technical specifications or guidance, and work with local governments to develop collaborative regional comment letters that reflect the views of the local governments as a region on proposed changes.

The HRPDC model of convening and collaborating with local governments produces tangible on the ground results and benefits. There are several examples of tools, projects, reports, and programs that localities have access to as a result of this collaboration. These resources are available from the Resources & Data section of the HRPDC website. One notable resource is the Stormwater Handbook, which is a part of HRPDC's overall stormwater management work.

Case Study #3: NY Upper Susquehanna Coalition

Soil and Water Conservation Districts (SWCDs) share goals but are jurisdictionally organized at the county level. Water quality impacts and benefits, however, don't follow county lines but rather operate at watershed scales. To solve this problem, the Upper Susquehanna Coalition (the "Coalition") was formed with the mission "To protect and improve water quality and natural resources in the Upper Susquehanna River Basin with the involvement of citizens and agencies through planning, education, coordination, funding, project implementation and advocating for our water resources."[27] The Coalition, based in Tioga SWCD, is a collaborative of SWCDs and 22 counties in New York (18) and Pennsylvania (4).

[27] https://www.uppersusquehanna.org/usc/



Source: https://www.uppersusquehanna.org/usc/who-we-are/

The Coalition and the member SWCDs provide TA to county governments around natural resources and water quality. The Coalition allows for expertise and technical capacity to work watershed-wide if there are areas where SWCDs need assistance. In this way, the Coalition is an important source of additional capacity for SWCDs within the watershed that work with local governments. Areas of work include wetlands, agricultural BMPs, forestry, and streams. The Coalition team has a wetland team that assists SWCDs lacking staff to plan, permit and implement wetland work - the wetland team is composed of individuals that can conduct wetland design work, identify sites, help with permitting processes, and implement projects. Wetland projects range from small-scale vernal pools to larger wetland construction projects. SWCDs are better resourced with staff working on agriculture; the Coalition helps in this area with identifying and securing funding and writing BMP applications to submit to the Bay Program. For stream-related work, the Coalition has a variety of roles depending on the relative capacity of different SCWDs working on streams. The Coalition has a team that can assist districts with stream corridor restoration or culvert sizing; if counties cannot implement buffers on their own there is TA available.

The TA across these water resource areas covers virtually every aspect of the project cycle, including writing grants, planning, engineering design, and implementation. Engineering is a particular gap in the Coalition's region - the Coalition has addressed this gap by

developing and implementing a regional approach to engineering support that allows engineers in the service area to provide TA to other areas in the watershed. The Coalition works with a broad range of partners that can add additional technical expertise and best practices, including the NRCS, local land trusts, and conservation nonprofit organizations. SWCDs, while the beneficiaries of TA, are also partners with good relationships with local landowners and governments in their counties. These connections are critical to delivering TA - having the trust of local landowners is necessary to work collaboratively on nutrient management planning and other practices rooted on private land.

One example of the success of the Coalition's TA capacity in supporting work with local governments is reflected through engineering support to the Tompkins County SWCD. As stated by staff at Tompkins County SWCD, "The USC TA has been a tremendous help to Tomkins County SWCD, enabling our non-ag team to provide engineering to local municipalities for stream stabilization, roadside ditch stabilization, and culvert replacement. Tompkins county SWCD non-ag staff were very limited in the engineering services they could provide to municipalities prior to USC TA due to high cost of consultant engineers and lack of finding an engineer as permanent staff. In addition to project design, USC TA allows us to help municipalities also in emergency and urgent issues." A specific collaboration was the Cayutaville Road project in the Town of Newfield, for which the Coalition's staff worked with the Tompkins County SWCD to design a stream stabilization at a culvert location that did not have grant funding available. In this case, engineering support was instrumental to getting the project done.

Case Study #4: Nanticoke Watershed Alliance

The Nanticoke Watershed Alliance (the Alliance) works within the 725,000-acre Nanticoke and Fishing Bays Watershed in Delaware and Maryland to implement a mission of "Fostering partnerships and progress in conserving the natural, cultural, and recreational resources of the Nanticoke River watershed through dialogue, collaborative

outreach, and education".[28] The watershed contains the most biodiversity on the Delmarva Peninsula and the Nanticoke is one of the healthiest rivers flowing in the Chesapeake Bay.[29] The economic value of the watershed's ecosystem services is significant - water quality and supply is estimated to be worth $156 million, fish and wildlife $127 million, and public parks $776 million.[30] The watershed region is highly rural and agricultural, with primarily small, under-resourced and capacity limited local governments and low socioeconomic conditions.

To address limited local government capacity in the watershed to work towards water quality and habitat, the Alliance, a partnership of stakeholders from the public and private sectors in Delaware and Maryland, provides comprehensive free TA to local governments to identify and manage funding for green infrastructure and restoration projects. Programmatic Goal 4 of the organization's 2018 Strategic Plan is titled Community Collaboration to "[b]uild relationships with elected officials and government decision-makers (mayors, town managers, county administrators, etc."[31]
Given the comprehensive TA across the project cycle that the Alliance seeks to provide, building trust with local governments is central to the Alliance's TA work. Alliance staff attend town council meetings annually and follow-up on potential projects - identified as priorities by the local governments themselves - with site-specific visits. Alliance staff specialize according to landowners - local governments, agricultural landowners, and residential property owners. For local governments, the Alliance provides project management services, supporting as much of the project cycle as necessary for the local government to implement the project. This TA includes planning projects; identifying, applying for, and managing grants; and putting implementation work out to bid and helping towns in selecting contractors.

Recent projects include the Conwell Street "Greening" Project with the City of Seaford, Delaware. Seaford is a small town (5 square miles) within the Nanticoke Watershed, with a population of around 9,000 and a median household income of $54,000. Seaford both sits directly on the Nanticoke River and has been experiencing significant population growth. To support water quality in the Nanticoke River and address issues of sea level rise and flooding the town faces, Seaford has engaged in a number of green infrastructure projects.

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[28] https://nanticokewatershedal8085.live-website.com/wp-content/uploads/2023/01/Strategic-Plan-Booklet.pdf
[29] https://nanticokewatershedal8085.live-website.com/wp-content/uploads/2023/01/Strategic-Plan-Booklet.pdf
[30] Delaware Water Resources Center, Economic Value of the Nanticoke Watershed, https://wrc.udel.edu/wp-content/Nanticoke/Economic%20Value%20of%20The%20Nanticoke%20Watershed%20Report%20%28Mar%202020%29.pdf.
[31] https://nanticokewatershedal8085.live-website.com/wp-content/uploads/2023/01/Strategic-Plan-Booklet.pdf

The Conwell Street Greening Project sought to reduce flooding along Conwell Street while simultaneously absorbing pollutants from the roadway that would otherwise flow to the Nanticoke River. The project included bioretention bumpouts and areas and a pervious brick sidewalk.[32]

The Conwell Street Project was made possible through collaboration between the City of Seaford and the Alliance throughout the project cycle and demonstrates the comprehensive TA services the Alliance provides. Throughout, the Alliance has provided additional capacity to Seaford's municipal staff. In the pre-design phase, DNREC and EPA hosted a public design charette with the Seaford community in which the Alliance participated to deliver training on green infrastructure and solicit ideas and priorities about green infrastructure projects the community was interested in. It was through this meeting that Conwell Street and the adjacent main street (High Street) were identified as locations needing a flood mitigation solution. The Alliance identified the Chesapeake Bay Trust's (CBT) Green Streets, Green Jobs, and Green Towns (G3) Program as a potential grant source for the implementation work, and applied as the applicant on behalf of the City of Seaford. The City, as the landowner, submitted a Letter of Support to the application. As the grantee, the Alliance administered the grant and solicited bids for contractors to conduct the design, but the City was the ultimate decision-maker in selecting contractors. The Alliance also supported project implementation through coordinating a Community Planting day in 2022 to install the green street improvements.

"I think one of the keys to success was the design development meetings that we had with the community to scope the project in the very beginning. This provided an opportunity for input from the community, and it established common goals that everyone could get behind. The BMP's that were used were integrated into the established neighborhood very well, and it has proven to be very easy to maintain. The project removed a large area of street pavement, and a stormwater treatment facility was built to reduce runoff and erosion at the south end of Conwell Street. This solved a larger problem that we were having. It also demonstrated that you can work these types of retrofit projects into existing areas and it can improve nitrogen, phosphorus and sediment runoff to the Nanticoke river very successfully. Lastly, I want to mention the Nanticoke Watershed Alliance. They were very instrumental in designing, managing and funding this project. Their expertise was invaluable in the success of this project." - Charles Anderson, City Manager, City of Seaford

[32] https://www.gmbnet.com/projects/conwell-street-greening

Case Study #5: CWP, Envision the Choptank Circuit Rider

At 68-miles long, the Choptank River is a main tributary to the Chesapeake Bay located mostly on Maryland's Eastern Shore, with a small portion on the Delmarva Peninsula in Delaware. The Choptank watershed is roughly 700 square miles and is primarily rural and agricultural. The watershed is also ecologically important, hosting critical habitat for striped bass and river herring and oyster reefs.[33] Local governments in the watershed are generally small and have limited staff and capacity.

Image: Choptank River Watershed
Source: New England Interstate Water Pollution Control Commission (NEIWPCC), Envision the Choptank MD Success Story, available at: https://neiwpcc.org/wp-content/uploads/2024/05/Envision-the-Choptank-MD-Success-Story-FINAL.pdf

The Center for Watershed Protection (CWP) "...works to advance clean water resources and healthy ecosystems through responsible land and water management. Our experienced staff of scientists, planners and environmental professionals are the technical experts who help municipalities, advocates, policymakers and individuals get clean water projects in the ground."[34] The organization works nationally on stormwater management and watershed planning. CWP staff are technical - engineers, planners, and scientists - and offer training workforce development, conduct research on stormwater and water quality and consult for external clients, primarily on MS4 permits, stormwater manuals, and watershed assessments. TA includes project management, grant writing and grant administration

[33] https://www.habitatblueprint.noaa.gov/habitat-focus-areas/choptank-river-complex-maryland/
[34] https://www.cwp.org/mission.php

services, technical review of projects, bidding and contracting services, and overall progress and grant reporting services. TA services can either be grant funded or provided on a contracted fee basis.

In the Chesapeake Bay region, CWP currently has TA projects in the Choptank watershed (through the Envision the Choptank Circuit Rider Program) as well as in various jurisdictions such as Wicomico County, Somerset County, and the City of Crisfield. Envision the Choptank was established in 2015 as a collaboration of public and private entities working collaboratively to improve water quality in the Choptank River. Members of the collaborative include state and federal agencies, academic institutions, and nonprofit organizations.[35] Envision the Choptank's Local Government workgroup identified capacity constraints at local governments within the watershed that limited their ability to plan and implement projects. To provide additional capacity and technical expertise to address the capacity constraints of local governments, Envision the Choptank contracted with CWP through a Maryland 319 Nonpoint Source Program grant from EPA to provide TA services to the four counties and nine cities in the watershed.[36] Local governments in the service area are typically small and under-resourced, some with just a Town Manager and others that have planners but not engineers. As a result, CWP works with a range of local government officials, including Town Managers, Planners, Grant Administrators, and Public Works employees.

Through the Envision the Choptank Circuit Rider Program, CWP provides project management and grant administration TA services to local governments. These TA services include writing grant applications and RFPs for engineers, reviewing bids and selecting contractors in the RFP process, running kick-off and progress meetings, and oversight of hired contractors. As an organization of primarily technical staff, CWP does not provide design services under the Circuit Rider Program in order to avoid real or perceived conflicts of interest. Through the Circuit Rider Program, in 2024 CWP engaged 12 jurisdictions, provided TA for eight grant proposals and managed two bid processes, supported design and implementation of five green infrastructure projects, provided TA to

[35] Envision the Choptank's Steering Committee includes the following: Chesapeake Bay Foundation, County Planning and Zoning, DE Dept of Natural Resources & Environmental Control, Eastern Shore Land Conservancy, MD Dept. of Natural Resources, MD Dept. of the Environment, Mt. Pleasant Heritage Preservation Inc., NOAA, Oyster Recovery Partnership, Pickering Creek Audubon Center, ShoreRivers, Soil Conservation District, The Nature Conservancy, University of MD Agriculture Extension, and the University of Maryland Sea Grant Extension. Available from: https://www.chesapeakebay.net/files/documents/2._envision_the_choptank_-_joanna_ogburn.pdf.

[36] The contract is funded through a Maryland 319 Nonpoint Source Program grant from EPA; the Chesapeake Bay Foundation contracts with CWP as the fiscal sponsor to Envision the Choptank, enabling Envision to Hire CWP for a five-year grant period (2023-2027).

ten workgroup projects, and helped secure 36x the funding provided to the Circuit Rider program for restoration projects in the watershed.[37]

"We are there 100% to be the representatives of the local governments so that they have the capacity to implement projects." - Amanda Pollack, Center for Watershed Protection

The comprehensive TA that CWP provides through the Envision the Choptank Circuit Rider Program is illustrated by the Jonestown Community Stormwater Project in Caroline County, Maryland. Jonestown, an unincorporated community within the County founded by free African Americans in the late 1800s, had suffered from flooding on both public and private properties caused by lack of sufficient drainage and poorly draining soils. Flooding and standing water had caused a host of problems, including health problems, among residents of Jonestown. The Circuit Rider Program addressed Caroline County's capacity gap to implement solutions - the County was aware of the problems but lacked necessary engineering capacity. CWP's comprehensive suite of TA services included both grant and project management. Grant management services included writing the grant application to the Maryland §319(h) Nonpoint Source Program and assisting with progress reporting. Project management services included attending listening sessions with the community, developing RFPs for engineering design and construction contractors, reviewing and helping to select contractor bids, communicating project progress and soliciting feedback during community meetings, managing contractors, and community outreach to individual landowners regarding project satisfaction and any required changes. To build the capacity of the Jonestown community to engage in these types of projects, CWP worked together with Caroline County Planning staff and the Jonestown Community Development Corporation (JCDC) to write the 319 grant application and to develop RFPs for engineering design and construction contractors, which involved training the JCDC on Caroline County procurement rules.

The Jonestown Community Stormwater Project implemented practices such as yard regrading, bioswales, and plantings that addressed both flood mitigation and water quality locally and flowing to the Chesapeake Bay. Local government capacity constraints were addressed through capacity-building for green infrastructure project development. Additionally, the Caroline County Recreation and Parks Department assisted with grants to improve the community park by renovating the playground and basketball courts. Employment benefits were also realized: a full-time Community Liaison position at Envision the Choptank was established and the person hired was a previous Community Ambassador volunteer from Jonestown.

[37] https://www.envisionthechoptank.org/blog/2024bythenumbers

Images: Jonestown Community Stormwater and Resilience Project
Source: Amanda H. Pollack, P.E., Center for Watershed Protection

"Green landscapes and unspoiled waterways are integral parts of the history and identity of rural communities, yet achieving goals for their protection is challenging for small local government staff who also are already stretched addressing critical community infrastructure, affordable housing and economic needs. Having access to the Technical Assistance Circuit Rider has provided the County with on-call grant writing, engineering and project management services. This level of assistance is a game changer for Caroline County." - Leslie Grunden, Caroline County Dept. of Planning & Codes[38]

[38] https://www.envisionthechoptank.org/blog/2023/12/22/2023-by-the-numbers-beyond

Appendix A: Data Collection Tool

Question #	TA Program Data	Data Description	Data Choices
Q1	TA Entity Information	Please provide the name of your organization.	Open text response.
Q2	TA Entity Information	Please select the type of entity you are.	Federal government, state government, county government, regional entity (planning district, quasi-governmental), nonprofit, university, other.
Q3	TA Entity Information	Please provide a brief description of the mission of your organization.	Open text response.
Q4	TA Entity Information	Please provide a brief description of the technical assistance to local governments your organization provides.	Open text response.
Q5	Geographic Scale	Please check the broadest jurisdictional scale(s) at which your program implements TA. You may list more than one choice.	Municipality, county, state, regional, Chesapeake Bay-wide, national, other (e.g., MS4)
Q6	Geography	Please name/describe the specific geography within which your TA program operates (e.g., Montgomery County, MD).	Open text response for specific municipality, county, state etc.
Q7	Cost	Please describe the cost to the local government associated with obtaining the TA from your organization.	Free, fee, cost-share, other
Q8	TA Implementation Method	Please indicate the method or methods through which your organization delivers TA.	Virtual, in-person, site visits, workshops, newsletters, online discussion forums, other

Q9	TA Content (Themes)	Please select all areas in which your organization provides TA to local governments.	**Thriving Habitat and Wildlife:** Fisheries, wildlife, fish habitat, blue crabs, oysters and oyster reefs, tidal wetlands, non-tidal wetlands, healthy streams, brook trout, fish passage, submerged aquatic vegetation (bay grasses) **Clean Water:** water quality standards, water quality monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reductions, toxic contaminants **Healthy Landscapes:** land protection, land use support, tree planting, nature-based solutions **Engaged Communities:** community stewardship, local leadership, workforce development/jobs, public access, student education, school district environmental programs
Q10	TA Services Offered	Please select the kinds of services the TA program provides.	Education for local government officials; information technology; policy assistance; identifying and planning for projects; securing funding and financing for projects; implementing projects; maintenance and management of projects; monitoring projects; other.
Q11	Types of Communities Served	Please select the types of communities the TA program serves.	Rural or small-town communities; Coastal or flood-prone communities; Communities with limited local government capacity or resources; Urban or industrial communities facing infrastructure or pollution challenges; Agricultural Communities; Suburban; Urban; other
Q12	Intensity of TA	Please select the approximate percentage of time that your organization spends on TA to local governments.	0-25%, 25-50%, 50-75%, 75-100%

Q13	Number of local governments reached	Please select the approximate amount of local governments you reached annually over the last 5 years?	0-5, 5-10, 10-20, 20-50, over 50
Q14	Additional comments	Please include anything else you'd like to explain about the TA work you do or additional details on any of your responses above.	Open text response.

Appendix B: Inventory of TAPs

Appendix B provides detailed information on the TAPs identified in this project. TAPs have been organized by:

- **Geography of operation:** TAPs that provide TA services to more than one Chesapeake Bay state have been grouped into a Chesapeake Bay Regional TA category. TAPs that provide TA to one state within the Bay are grouped by Bay state: Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia.

- **Entity type:** TAPs are further organized into types of entities: academic, public (federal/state), nonprofit, quasi-governmental and other. The "other" category reflects partnerships and collaboratives that do not have a legal designation.

For each geographic region of operation, the full list of TAPs identified are summarized in a table. Detailed information for the subset of TAPs that completed the data collection tool is then presented. Finally, additional information is provided in a summary table for TAPs identified that did not complete the data collection tool.

While effort was expended to capture detailed data on as many TAPs as possible within the timeframe of the project, the project team recognizes that some may have been missed and some TAPs may not have had capacity to fill out the form. To be included in future versions of this inventory, please request the data collection tool from Local Government Advisory Committee Staff at lgac@allianceforthebay.org.

Chesapeake Bay Regional TA

This section of the inventory includes TAPs working in more than one Bay state, including regional, national, and Federal agencies that provide assistance to the Bay region. The research identified 33 TAPs that provide TA to local governments in more than one Chesapeake Bay state.

Geography	Entity	Entity Type	Program	Data Collection Form Completed?
Bay Regional	Mid-Atlantic Technical Assistance to Brownfields (TAB) Communities	Academic	West Virginia Brownfields Assistance Centers	Yes
Bay Regional	University of Maryland	Academic	Environmental Finance Center	Yes
Bay Regional	University of Pennsylvania	Academic	Water Center at PENN	Yes
Bay Regional	Chesapeake Bay Program	Federal	Local Government Advisory Committee	Yes
Bay Regional	Chesapeake Bay Program	Federal	Local Government Leadership Workgroup	Yes
Bay Regional	Chesapeake Bay Program	Federal	Protect Local Waterways	Yes
Bay Regional	US Army Corps of Engineers	Federal	Baltimore District Planning Division and Norfolk Division	Yes
Bay Regional	US Environmental Protection Agency	Federal	EPA Water Technical Assistance (RealWaterTA)	Yes
Bay Regional	US Forest Service	Federal	Liaison to the Chesapeake Bay Program	Yes
Bay Regional	US Forest Service	Federal	Baltimore Field Station	Yes
Bay Regional	US Geological Survey	Federal	Chesapeake Bay Coordinator	Yes
Bay Regional	Alliance for the Chesapeake Bay	Nonprofit	Circuit Rider for Delmarva	Yes
Bay Regional	Center for Watershed Protection	Nonprofit	Coastal Stormwater Center of the Southeast	Yes
Bay Regional	Center for Watershed Protection	Nonprofit	Envision the Choptank Circuit Rider Program	Yes
Bay Regional	Chesapeake Research Consortium Roundtable	Nonprofit		Yes
Bay Regional	Ducks Unlimited	Nonprofit	Tidal Marsh TA	Yes
Bay Regional	Nanticoke Watershed Alliance	Nonprofit		Yes
Bay Regional	National Fish and Wildlife Foundation	Nonprofit	Field Liaisons	Yes
Bay Regional	National Rural Water Association (NRWA)	Nonprofit		Yes
Bay Regional	National Wildlife Federation/MidAtlantic Coastal Program	Nonprofit		Yes
Bay Regional	Rural Community Assistance	Nonprofit	SERCAP	Yes

	Partnership (RCAP)			
Bay Regional	WaterKeepers Chesapeake	Nonprofit		Yes
Bay Regional	University of New Hampshire	Academic	Cold Climate Center	Sent
Bay Regional	NOAA	Federal	Chesapeake Bay Office	Sent
Bay Regional	US Environmental Protection Agency	Federal	Office of the Municipal Ombudsman	Sent
Bay Regional	Center for Watershed Protection	Nonprofit	Stormwater Centers for Excellence	Sent
Bay Regional	Metropolitan Washington Council of Governments	Nonprofit		Sent
Bay Regional	Oyster Recovery Partnership	Nonprofit		Sent
Bay Regional	Stroud Water Research Center	Nonprofit		Sent
Bay Regional	The Nature Conservancy	Nonprofit		Sent
Bay Regional	Chesapeake Monitoring Cooperative	Other		Sent
Bay Regional	Mid-Atlantic Planning Collaborative	Other		Sent
Bay Regional	National Municipal Stormwater Alliance (NMSA)	Nonprofit		No

Academic Providers

Mid-Atlantic Technical Assistance to Brownfields (TAB) Communities

The Mid-Atlantic Technical Assistance to Brownfields (TAB) Communities Program is a multi-state program run through West Virginia University and one of six regional TAB providers funded through EPA's TAB Program. The TAB Program provides support to communities and stakeholders in understanding brownfields and options for brownfields cleanup, revitalization, and reuse. The Program provides a range of services related to brownfield redevelopment, from general education through events and webinars or local presentations targeted to a community; support for brownfield inventories and area-wide planning; site-specific support including planning, design, resource identification; grant application support, primarily for EPA Brownfields grants; EPA Brownfield grantee support; explanation of federal processes and regulations; and explanation of technical documents like environmental site assessment.

Data Category	**Response**

Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	EPA Region 3: WV, VA, PA, DE, DC, MD
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Toxic contaminants, Land protection, Local leadership, Workforce development/jobs, Student education and environmental
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

University of Maryland Environmental Finance Center

The University of Maryland Environmental Finance Center (EFC) is one of 29 EFCs across the country funded by EPA through the Agency's Environmental Finance Center Grant Program. The EFC grant program was established with funding from the Infrastructure Investment and Jobs Act (IIJA) to address technical and capacity challenges communities have in accessing federal sources of funding and finance for addressing pollution and infrastructure requirements. Through EPA's EFC grant program, "...technical assistance providers will help communities develop and submit project proposals, including State Revolving Fund (SRF) applications for Infrastructure Investment and Jobs Act funding. EFCs will support communities with technical assistance to identify infrastructure

solutions. These entities will provide states, Tribes, and local governments with technical assistance services to advance health and environmental protections."[39]

Maryland's EFC serves EPA Region 3 and seeks to build the capacity of communities to access funding programs and develop sustainable financing strategies for their environmental priorities. UMD's EFC provides technical assistance to communities through direct, one-on-one consulting, workshops, and tool development to build local capacity for environmental projects. EFC does this by offering training, workshops, and online resources to help local leaders, particularly in small or underserved communities, to understand environmental finance; identifying funding sources, reviewing grant proposals, and developing financial strategies for projects; providing tailored assistance for designing community outreach; facilitating stakeholder meetings; developing policies for infrastructure; and assisting with technical studies, such as rate assessments, fee system feasibility studies, and financing alternatives analysis.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Mid-Atlantic Region (within and outside the Chesapeake)
Cost to Local Government	Depends on the community's circumstances and EFC's existing funding streams
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Fish habitat, Tidal wetlands, Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Public access, funding and finance

[39] National Environmental Centers identified in the research that may provide some TA to Bay states include the Rural Community Assistance Program (RCAP), the U.S. Water Alliance, and Moonshot Missions. The inventory provides information on RCAP due to the specific activities of SERCAP in Bay states; information on other national centers not covered in the inventory is available from: https://www.epa.gov/waterfinancecenter/efcn.

TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

University of Pennsylvania, Water Center at Penn

The mission of the Water Center at the University of Pennsylvania (the Water Center at Penn) is to "...support the resiliency, sustainability, and equity of urban water systems by directing applied collaborative research."[40] The Water Center was founded on the principle that clean, accessible, affordable water is a human right. The Water Center at Penn supports communities in meeting their critical water challenges by identifying resilient and sustainable solutions, combining natural and built systems, and based on equitable principles that reflect community voices. The Water Center supports the development of future water leaders in communities and the larger water sector so that water decision-makers reflect the communities they serve, continue working in the water-sector field, and have a network to support them to advance their leadership skills.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide, National. We have projects that speak to policy around water systems at all levels that can relate to technical assistance.
Specific Geography of Operation	Mostly in the mid-Atlantic and Great Lakes
Cost to Local Government	Free

[40] https://watercenter.sas.upenn.edu/

Methods of TA Delivery	Virtual, In-Person, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects, Development of peer-to-peer learning networks
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Federal Providers

Chesapeake Bay Program

Local Government Leadership Workgroup

The purpose of the Local Government Leadership Workgroup (LGLW) is to 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.

The LGLW provides education and resources to local government officials across the watershed through trusted sources, state agencies, and local government associations

(municipal leagues and county associations). The Workgroup utilizes direct engagement (bus tours, roundtable discussions, webinars, and workshops) and indirect engagement (articles, blogs, social media, and newsletters) to increase the knowledge and capacity of local government leaders to help ensure they have the resources and tools necessary to make informed decisions for their communities around water resources.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Chesapeake Bay watershed
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Local leadership, Workforce development/jobs, Public access. As a CBP workgroup, it focuses on key areas relevant to the partnership, so could potentially cover all outcomes.
TA Services Offered	Education for local government officials
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Protect Local Waterways

Protect Local Waterways is a collaborative project between the LGLW and the Local Government Advisory Committee (LGAC, described below) to increase knowledge and capacity of local officials around water resources. The online resource comprises educational learning modules that seek to be a "...guide on how local government leaders can help protect the health and vitality of local waterways."[41] The modules were designed by local officials for local officials to help provide a basic understanding of key watershed concepts and to connect content back to local government priorities.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Chesapeake Bay watershed
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Tidal wetlands, Non-tidal wetlands, Healthy streams, Fish passage, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials
Types of Communities Served	Resources are designed for all
Percentage of Time Organization Spends on TA to Local Governments	This is a website resource
Number of Local Governments Reached in Previous Five (5) Years	Over 50

[41] https://www.protectlocalwaterways.org/

Local Government Advisory Committee (LGAC)

The Local Government Advisory Committee (LGAC) advises the Chesapeake Executive Council on how to engage local governments in achieving the goals and outcomes of the 2014 Chesapeake Bay Watershed Agreement. LGAC consists of local government officials appointed by the governors or mayors (in the case of DC). In addition to their advisory role to the CBP's Executive Council, these local officials help lead peer-to-peer bus tours in collaboration with the Local Government Leadership Workgroup (LGLW) to provide direct technical assistance to other local officials. They also collaborate with the LGLW on roundtable discussions throughout the watershed and were instrumental in building the resources of Protect Local Waterways. LGAC uses its network of local government officials to share information about the Chesapeake Bay Program and water resources.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Chesapeake Bay watershed
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	All
TA Services Offered	Education for local government officials
Types of Communities Served	All
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

EPA RealWater TA

EPA Water Technical Assistance (RealWater TA) connects communities to experts who help assess and implement solutions for their drinking water, sewage, and stormwater needs. RealWater TA initiatives are available for utilities, municipalities, and Tribes to receive direct assistance to maintain regulatory compliance and build technical,

managerial, and financial capacity. The RealWater TA team works with about 100 communities annually.

EPA's RealWater TA comprises several initiatives, including the Environmental Finance Centers (EFCs) such as UMD's EFC described above; Engineering Support; and Closing America's Wastewater Access Gap. Engineering support involves contracts for drinking water, wastewater, and stormwater through which EPA contracts with third parties to perform services for municipalities that request assistance meeting engineering-related application requirements for EPA funding. Services include conducting preliminary engineering documents such as Preliminary Engineering Reports; developing project needs assessments and environmental documentation; and developing preliminary cost estimates for SRF pre-applications and applications.[42] Closing America's Wastewater Access Gap provides free TA to communities that lack wastewater infrastructure or have failing septic systems. Among other assistance, EPA helps these communities apply for funding from the Clean Water State Revolving Fund (CWSRF) program.

Local governments can submit basic information about their government and project requiring assistance through the RealWaterTA Request Form. Requests are routed by EPA to the most appropriate initiative. Through contractor support, EPA conducts preliminary research on the local government and schedules an introductory conversation. EPA uses this information to determine whether the project is a good fit for RealWaterTA support. The EPA team assist the local governments with finding the appropriate resources If the team concludes another program is a better fit.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	Nationwide and at the local level
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Tidal wetlands, Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree

[42] https://www.epa.gov/water-infrastructure/water-engineering-support

	planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Student education and environmental
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

NOAA National Sea Grant College Program (Sea Grant)

The National Sea Grant College Program, established in 1966 through the Sea Grant Act, is a federal partnership with universities administered by the National Oceanic and Atmospheric Administration (NOAA) in the U.S. Department of Commerce. Sea Grant "...promotes research, education, and training to increase the understanding, development, management, utilization, and conservation of the Nation's coastal, marine, and Great Lakes resources."[43] The Sea Grant network includes 34 university programs in Federal-University Partnerships with NOAA. Each Sea Grant program has its own mix of specialists such as coastal ecologists, aquaculture specialists, and coastal hazards and adaptation specialists, and varies in funding based on needs and performance. In the Chesapeake Bay, Sea Grant Programs have been established at the University of Delaware, the University of Maryland, and at seven universities in Virginia through the Virginia Sea Grant Program.[44]

[43] https://www.congress.gov/committee-report/116th-congress/senate-report/216

[44] The Virginia Sea Grant Partner Universities are George Mason University, Norfolk State University, Old Dominion University, University of Virginia, Virginia Commonwealth University, Virginia Institute of Marine Science, Virginia Tech, and William & Mary.

The specific programs within the Sea Grant partnerships in the Bay states that focus on engagement with local governments are detailed for each state in the sections that follow (Delaware, Maryland, and Virginia).

US Army Corps of Engineers

The US Army Corp of Engineers (USACE) was established in 1802 as a separate branch of the US Army with a mission to "[d]eliver vital engineering solutions, in collaboration with our partners, to secure our nation, energize our economy, and reduce disaster risk."[45] USACE has multiple missions, including civil works, military missions, environmental missions, and emergency operations.[46] USACE is organized into nine Divisions, each containing Districts determined in part by watershed boundaries. The Chesapeake Bay falls within the USACE North Atlantic Division; the Baltimore and Norfolk Districts serve the Chesapeake Bay watershed.

Under the Civil Works Mission, TA programs are provided by all USACE offices to local communities. These programs focus on planning to address water resource challenges, including modeling, analysis, planning and design, but do not include detailed design or construction of projects. The Districts provide TA in a variety of areas including flooding, stormwater, and watershed planning. Within Civil Works, Floodplain Management Services (FPMS) can address flooding issues and the Planning Assistance to States Program (PAS) can address water resources issues, including flooding. FPMS "...funds USACE staff to conduct technical analysis and provide support to local, regional, state, Tribal, and other non-federal governmental partners at 100% of federal cost."[47] PAS provides funding for USACE to "...provide technical assistance or comprehensive water resource planning expertise for the development, utilization, and conservation of water and related land resources."[48] PAS funding is provided through cost-sharing between USACE and state governments, local governments, and other non-federal entities. TA work typically begins in about 3 months from the initial contact with the municipality, pending availability of funding.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Chesapeake Bay watershed

[45] https://www.usace.army.mil/
[46] https://www.usace.army.mil/Missions/
[47] https://www.usace.army.mil/Missions/Civil-Works/Technical-Assistance/
[48] https://www.usace.army.mil/Missions/Civil-Works/Technical-Assistance/

Cost to Local Government	FPMS = 100% federal; PAS = 50/50 cost share
Methods of TA Delivery	Delivery is tailored to the needs of the partner and project.
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	All
TA Services Offered	Planning, outreach, implementation
Types of Communities Served	All
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

United States Forest Service (USFS)

The mission of the US Forest Service (USFS) is to achieve quality land management under a sustainable multiple-use management concept to meet the diverse needs of people, including that the national forests "...are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes."[49] Two specific offices of the USFS relevant to Bay Program goals were identified: the USDA Forest Service Liaison to the Bay Program and the USFS Baltimore Field Station.

Forest Service Liaison, Chesapeake Bay Program Office

In 1990, the USFS joined as a partner to the Chesapeake Bay Program and established a USDA Forest Service Liaison position to the Bay Program. Through this position, the USFS supports the Bay Program with communications products that disseminate information on trees and forests across the watershed. Bay Program partners can use these communication products to assist local governments in considering how to restore, conserve and manage forests and trees when conducting land use decision-making and planning. Examples of products include county and municipal fact sheets for all Chesapeake watershed counties that detail tree cover, tree and forest benefits, and tree cover change

[49] 16 U.S. Code § 528 - Development and administration of renewable surface resources for multiple use and sustained yield of products and services; Congressional declaration of policy and purpose. Accessed from: https://www.law.cornell.edu/uscode/text/16/528.

over time, a repository of information available on the Chesapeake Tree Canopy Network, and the Chesapeake Forest Restoration story map summarizing the Chesapeake Forest Restoration Strategy and illustrating forest restoration activities across the watershed. The Liaison also chairs the Bay Program's Forestry Workgroup.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Nationwide with Chesapeake Bay watershed-focused work
Cost to Local Government	Free
Methods of TA Delivery	Virtual, Online communications products (Storymaps, fact sheets, infographics, etc.)
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship
TA Services Offered	Information technology. Additional technical assistance is provided to local governments through grants to state forestry agencies and other partners.
Types of Communities Served	Rural or small-town communities, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	20-50

USFS Baltimore Urban Field Station

The USFS Baltimore Urban Field Station is a scientific research office of the USFS network of Urban Field Stations that assists local natural resource managers (including local governments) in accessing and interpreting scientific information. Staff within the Field Station consult on data collection and monitoring efforts and/or collect data and provide

analyses that can inform local natural resource management. Baltimore Field Station staff also coordinate the Baltimore Urban Waters network of partners (e.g., federal, state, local, academic, nonprofit) under the Urban Waters Federal Partnership that "....reconnects urban communities with their waterways by improving coordination among federal agencies."[50]

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Baltimore City, Maryland, and Chesapeake Bay-wide
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Tree planting, Nature-based solutions, Community stewardship, Workforce development/jobs
TA Services Offered	Identifying and planning for projects, Implementing projects, Monitoring projects, Applied research, interpreting scientific findings
Types of Communities Served	Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	0 - 5

United States Geological Survey (USGS)

The US Geological Survey (USGS) studies "...the nation's lands and resources. Today, we monitor, analyze, and predict Earth's changing systems. Our science provides clear, reliable

[50] https://www.epa.gov/urbanwaterspartners

data that protects lives and property, supports energy and mineral decisions, strengthens water infrastructure, and promotes economic growth."[51] USGS provides science and scientific understanding to inform management decisions by federal, state, and local entities.

In the Chesapeake Bay, the USGS works with local governments to inform decision-making through providing science to inform restoration, conservation, and management activities. A recent example is the high-resolution 2024 Chesapeake Bay Land Use/Land Cover (LULC) Database that USGS led the development of in partnership with the Chesapeake Conservancy, the University of Vermont's Spatial Analysis Laboratory, and EPA to aid land use planning in the watershed. To disseminate information to the large number of local governments in the watershed, USGS prepares science and tools (websites, geonarratives, map tools) that can be used by local governments. These materials are available on the USGS Chesapeake Bay Activities website. USGS also engages with the LGAC through the Management Board and other CBP committees and workgroups.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Chesapeake Bay watershed
Cost to Local Government	Free, Cost-share
Methods of TA Delivery	Virtual, In-Person, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Tidal wetlands, Non-tidal wetlands, Healthy streams, Brook Trout, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Local leadership
TA Services Offered	Education for local government officials, Monitoring projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural

[51] https://www.usgs.gov/

	communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Nonprofit Providers

Alliance for the Chesapeake Bay

The Alliance for the Chesapeake Bay "...strive[s] for clean streams and rivers flowing through resilient landscapes, cared for by the people who live, work, and play in the Chesapeake Bay watershed."[52] The Alliance works with farmers to implement agricultural BMPs on their land, including working with communities to engage farmers; with public and private organizations to increase forest cover and tree canopy in the watershed, with private woodland owners to implement sustainable forest management practices, and with local governments to increase their capacity to reach forest and tree cover targets; with public and private partners on green infrastructure, including conducting restoration projects and green workforce development; and conducts outreach and engagement through conferences, events, and volunteer programs that increase knowledge and participation in clean water and ecological resilience across the watershed.

Under its Stewardship and Engagement pillar of work, the Alliance has a Local Government Initiative Team that "...engages and facilitates conversations with local decision makers on watershed priorities with the goal of enabling local governments to implement local conservation actions that protect and/or restore their local watershed and have downstream benefits to the Chesapeake watershed…In addition the Team works closely with Chesapeake Bay Program partners to guide restoration efforts in a manner that addresses the needs of local governments."[53] The team provides staff support for the Bay Program's Local Government Advisory Committee (LGAC) and coordinates the Bay Program's Local Government Leadership Workgroup (LGLW). Through this work, the team conducts peer-to-peer knowledge sharing events with local government staff. Work associated with LGAC and LGLW is described in those entries in the inventory.

Through a capacity building grant from the Chesapeake Bay Trust (Green Infrastructure Technical Assistance for Towns (GI TAFT), a Local Government Specialist on the Local

[52] https://www.allianceforthebay.org/
[53] https://www.allianceforthebay.org/stewardship-engagement/

Government Initiative Team is currently engaged in TA to resource-limited small jurisdictions (fewer than 5,000 people with no designated funding source such as an MS4) in a circuit rider model for the Delmarva Peninsula region (Maryland, Delaware, and Virginia). Through this position (detailed in the table below), the Specialist is assessing public properties to identify where BMP implementation such as green space, tree planting, and stream restoration may mitigate environmental resource concerns. Subsequent to the assessment, the Specialist develops a Green Infrastructure Action Plan that can be used as a guide to identify funding, partners, and additional resources to advance the mitigation projects. The Green Infrastructure Plan contains elements such as recommended BMPs, potential funding sources and partners, and permit and design requirements.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Municipality
Specific Geography of Operation	Provide free TA to small jurisdictions on Delmarva (DE, MD, VA) within the Chesapeake drainage to assist them with local resource concerns (primarily flooding, stormwater and erosion).
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, grant writing support and project management
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Tidal wetlands, Non-tidal wetlands, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Tree planting, Nature-based solutions, Community stewardship, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Suburban communities, Urban

	communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Center for Watershed Protection

The Center for Watershed Protection (CWP) "...works to advance clean water resources and healthy ecosystems through responsible land and water management. Our experienced staff of scientists, planners and environmental professionals are the technical experts who help municipalities, advocates, policymakers and individuals get clean water projects in the ground."[54] The organization works nationally on stormwater management and watershed planning. CWP staff are technical - engineers, planners, and scientists - and offer training workforce development, conduct research on stormwater and water quality and consult for external clients, primarily on MS4 permits, stormwater manuals, and watershed assessments. TA includes project management, grant writing and grant administration services, technical review of projects, bidding and contracting services, and overall progress and grant reporting services. TA is provided both for free and for a fee.

In the Chesapeake Bay region, CWP currently has TA projects in the Choptank watershed (through the Envision the Choptank Circuit Rider Program) as well as in various jurisdictions such as Wicomico County, Somerset County, and the City of Crisfield. Envision the Choptank is a collaboration of public and private entities working collaboratively to improve water quality in the Choptank River. Envision the Choptank's Local Government workgroup identified capacity constraints at local governments within the watershed that limited their ability to plan and implement projects. To provide additional capacity, Envision the Choptank contracted with CWP through a Maryland 319 Nonpoint Source Program grant from EPA to provide TA services to the four counties and nine cities in the watershed.[55] CWP provides TA services such as writing grant applications and RFPs for engineers, project management, and grant administration, but does not handle design.

The data below reflects CWP's work through the Envision the Choptank Circuit Rider Program and similar TA assistance provided to local governments in the Bay watershed.

[54] https://www.cwp.org/mission.php

[55] The contract is funded through a Maryland 319 Nonpoint Source Program grant from EPA; the Chesapeake Bay Foundation contracts with CWP as the fiscal sponsor to Envision the Choptank, enabling Envision to Hire CWP for a five-year grant period (2023-2027).

TA including Envision the Choptank Circuit Rider Program

Data Category	Response
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	Primarily in MD and PA; current projects in Choptank watershed, Wicomico County, Somerset County, and City of Crisfield.
Cost to Local Government	Fee, Grant funded
Methods of TA Delivery	Virtual, In-Person, Site Visits
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Coastal Stormwater Center of the Southeast

CWP also hosts the Coastal Stormwater Center of the Southeast, an EPA Stormwater Center of Excellence. The Stormwater Centers of Excellence were established through the Stormwater Centers of Excellence Grant Program, through which EPA has made $5 million available to fund regional centers that implement research and TA to help communities with stormwater infrastructure.[56] Through the Coastal Stormwater Center of the Southeast, CWP and partners (seven university extension and nonprofit partners)[57] provides free technical assistance to communities in the coastal plains of the Southeast (Virginia to Alabama). CWP states that "The Coastal Stormwater Center of the Southeast plays an important role in improving stormwater infrastructure by conducting research; providing technical assistance to state, tribal and local governments in coastal Virginia, North Carolina, South Carolina, Georgia, Florida, and Alabama; and collaborating with partners through the coastal southeast region to deliver research and assistance to communities."[58]

TA focuses on supporting coastal communities in funding and implementing stormwater projects, including connecting coastal communities to funding, partners, and resources; design, construction, and maintenance of stormwater projects; stormwater-related research and monitoring; regulations, design standards and technical aspects of stormwater projects; watershed planning and analysis; and workshops and trainings.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Southeast- VA to AL in the coastal plain
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Tidal wetlands, Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions,

[56] The Centers of Excellence that were awarded are hosted by the University of New Hampshire, the University of Oklahoma, the Board of Regents Nevada System of Higher Education, and the Center for Watershed Protection: https://www.epa.gov/npdes/stormwater-centers-excellence-grant.
[57] CWP's partners in the Coastal Stormwater Center of the Southeast include Auburn University Marine Extension, Clemson University, East Carolina University, North Carolina Coastal Federation, University of Florida Institute of Food and Agricultural Sciences, University of Georgia Marine Extension and Sea Grant, and Virginia Polytechnic Institute and State University.
[58] https://www.cwp.org/coastal_stormwater_center.php

	Community stewardship
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	~75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Chesapeake Research Consortium (CRC) Roundtable

The Chesapeake Research Consortium (CRC) is a partnership of universities and institutions that supports science in service of Chesapeake Bay restoration. The CRC "...fully enables its member institutions and the broader scientific community in the region to inspire and implement solutions to the understanding and management of the Chesapeake Bay and its watershed, by defining, coordinating, and disseminating the research and education needed for its science-based management."[59] CRC connects researchers, managers, and decision-makers so the best available science is easier to share, apply, and act on. CRC's work is centered on convening diverse stakeholders to turn ideas and scientific evidence into usable information for the Partnership.

TA to local governments is mostly "connector" support, through which CRC helps local practitioners translate Chesapeake Bay Program goals and science into practical actions, and connects them with the appropriate expertise, case studies, and networks to move projects forward. The CRC Roundtable series convenes local government staff with state/federal partners, NGOs, and researchers to share approaches, troubleshoot barriers, and highlight funding and implementation pathways. CRC also helps to produce and

[59] https://chesapeake.org/mission/

disseminate synthesis products that are designed for practitioners, for example the Chesapeake Bay's Scientific and Technical Advisory Committee (STAC's) Comprehensive Evaluation of System Response (CESR) report, which collates evidence and lessons learned and frames them as actionable takeaways that local decision-makers and their technical partners can apply when planning and implementing restoration and resilience efforts.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	TA operates across the full Chesapeake Bay watershed, covering all Bay jurisdictions. Most convening and synthesis work is partnership-wide (not county- or municipality-specific), but regularly supports local governments and practitioners across the watershed in Maryland, Virginia, Pennsylvania, the District of Columbia, Delaware, West Virginia, and New York.
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Blue crabs, Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Brook Trout, Fish passage, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Convening and coordination

	(CRC Roundtables, STAC workshops), synthesis and decision-support products (e.g., STAC reports/briefs), peer learning and matchmaking between local governments, agencies, NGOs, and technical experts
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities While support is largely watershed-wide (convening and synthesis), STAC is also working to expand membership to include one or two standing Indigenous representative seats, with the goal of improving sustained engagement with and better integrating those perspectives into CBP-related discussions and decision-support.
Percentage of Time Organization Spends on TA to Local Governments	Primarily indirect TA via convening (CRC Roundtables), synthesis products and workshop recommendations, and input from gubernatorial/mayoral representatives—focused on connecting local governments to expertise and reducing duplication rather than delivering projects directly.
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Ducks Unlimited

Ducks Unlimited (DU) is a national, non-profit organization that "...conserves, restores, and manages wetlands and associated habitats for North America's waterfowl."[60] DU provides TA to local governments for tidal wetlands, freshwater/non-tidal systems, and farm bill programs. For tidal marsh projects (e.g., protection, restoration, and enhancement), DU

[60] https://www.ducks.org/

provides biological, engineering, fundraising and policy assistance, tailored to meet the needs of their partners. DU offers TA across the project cycle, from supporting individual project needs for specific parts of the project cycle to turnkey delivery of tidal wetland projects. Depending on partner interests and DU's funding, TA is offered for free, or for fee or cost-share.

The data below reflects TA provided to local governments through DU's tidal wetlands program.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	Nationally, but has a focus on both Chesapeake Bay-wide as well as individual bay states.
Cost to Local Government	Free, Fee, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Fish habitat, Tidal wetlands, Non-tidal wetlands, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Nature-based solutions
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities

Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Nanticoke Watershed Alliance

The Nanticoke Watershed Alliance is a multi-sectoral partnership of public and private sector actors in DE and MD, including local, state and federal government, and representatives from agriculture, industry, environmental organizations, and other private businesses. The Alliance's mission is "Fostering partnerships and progress in conserving the natural, cultural, and recreational resources of the Nanticoke River watershed through dialogue, collaborative outreach, and education".[61] The Alliance's 2018 Strategic Plan details goals and associated activities to achieve this mission. Under Programmatic Goal 4, Community Collaboration, the Strategic Plan includes a strategy to "Build relationships with elected officials and government decision-makers (mayors, town managers, county administrators, etc."[62] DNREC provides annual funds for TA conducted within DE but projects in MD require the Alliance to identify and secure alternate funding. Sustainable long-term funding for TA work across the watershed is therefore a challenge, especially in light of the time required to build trust within communities and with local governments and then support projects through implementation.

The Alliance assists local governments within the Nanticoke and Fishing Bays Watershed with free TA to identify, prioritize, manage and identify funding for restoration and green infrastructure projects. The Alliance also conducts outreach around stormwater and provides Tier 3 EPA-approved water quality data through its volunteer Creekwatchers monitoring program.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Nanticoke Watershed and Fishing Bays Watershed

[61] https://nanticokewatershedal8085.live-website.com/wp-content/uploads/2023/01/Strategic-Plan-Booklet.pdf
[62] https://nanticokewatershedal8085.live-website.com/wp-content/uploads/2023/01/Strategic-Plan-Booklet.pdf

Cost to Local Government	Free
Methods of TA Delivery	In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Tidal wetlands, Non-tidal wetlands, Healthy streams, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Information technology, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	10 - 20

National Fish and Wildlife Foundation

The National Fish and Wildlife Foundation (NFWF) is a national non-profit organization established by Congress in 1984 to "...work with both the public and private sectors to protect and restore our nation's fish, wildlife, plants and habitats for current and future

generations."[63] NFWF partners with private entities and federal agencies to direct funding to conservation and restoration outcomes across the country. NFWF's Chesapeake Bay Stewardship Fund "...is dedicated to protecting the bay by working to advance local on-the-ground watershed restoration, helping local communities clean up and restore their polluted rivers and streams, and restoring and protecting key Chesapeake Bay species."[64] The Chesapeake Bay Stewardship Fund "...awards $40 million to $60 million per year through four competitive grant programs—the Innovative Nutrient and Sediment Reduction Grants Program, the Small Watershed Grants Program, the Chesapeake Watershed Investments for Landscape Defense (WILD) Grants Program, and the Pennsylvania Most Effective Basins Grants Program. These programs benefit the communities, farms, habitats and wildlife of the Chesapeake Bay region. The Chesapeake Bay Stewardship Fund also makes targeted investments that support networking and information-sharing among restoration partners on emerging technologies, successful restoration approaches, and new partnership opportunities."[65]

NFWF also provides TA support through its Field Liaisons Support program. Field Liaisons provide "...complimentary technical assistance through field liaisons that support local governments and organizations interested in pursuing watershed restoration and protection projects through NFWF Stewardship Fund grants. Field liaisons work external to NFWF and provide project consultation and watershed management expertise to assist and support grant applicants and current grantees."[66] Field liaisons can help communities identify potential connections with NFWF programs and align project activities to funding requirements, identify technical and financial resources that could help obtain grant funding, and provide technical guidance through site visits. These liaisons can work on design and construction, training, and program development.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Chesapeake Bay states
Cost to Local Government	Free
Methods of TA Delivery	Virtual, Site Visits, Workshops
Chesapeake Bay Agreement Goals	Non-tidal wetlands, Healthy streams, BMPs

[63] https://www.nfwf.org/what-we-do
[64] https://www.nfwf.org/programs/chesapeake-bay-stewardship-fund
[65] https://www.nfwf.org/programs/chesapeake-bay-stewardship-fund
[66] https://www.nfwf.org/sites/default/files/2025-11/nfwf-field-liaison-flyer-2025.pdf

Addressed *Blue text reflects areas of work added by respondent	for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Workforce development/jobs
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	10 - 20

National Rural Water Association (NRWA)

The National Rural Water Association (NRWA) is "...is a non-profit organization dedicated to training, supporting, and promoting the water and wastewater professionals that serve small and rural communities across the country."[67] NRWA provides training and TA to small and rural communities (serving less than 10,000 people) through State Rural Water Associations in all 50 states and Puerto Rico; training and TA includes all aspects of operation, management, and finance for water and wastewater utilities. NRWA states that "[w]e believe this assistance is most effective when it comes from a trusted individual who is willing to travel directly to the community, has the technical expertise to remedy the specific issue with existing treatment and infrastructure, and can be available on-site at any time."[68] NRWA provides a Technical Assistance Request Form directly on its website and links to State Association Affiliates. Circuit Riders are field-based experts who provide on-site TA to water and wastewater utilities through their state; the number and expertise of

[67] https://nrwa.org/about/
[68] https://nrwa.org/our-technical-assistance/

Circuit Rider staff vary by state. Some TA provided by State Association Affiliates is free while some requires membership within the state water association.

In the Chesapeake Bay, the State Association Affiliates of NRWA are detailed in the table below. Data was received from Pennsylvania Rural Water Association (PRWA); that information is contained in the Pennsylvania state section of the inventory.

State Association Affiliates of NRWA

State	**NRWA State Association Affiliate**	**Website Description**
DE	Delaware Rural Water Association (DRWA)	"We meet system needs through timely help in developing new rate schedules, setting up proper testing methods, understanding those ever-changing and complex government regulations, preparing a Consumer Confidence Report (CCR), or updating operator certification requirements."[69]
MD	Maryland Rural Water Association (MRWA)	"MRWA achieves our mission by employing experienced full-time technicians, specialists, and trainers who visit water and wastewater systems in all parts of the State on both a scheduled and as-needed basis. The professional staff at MRWA is skilled in all areas of water and wastewater operations and management. We provide training and on-site assistance in the areas of: wellhead and groundwater protection; proper operations, maintenance, management, health and environmental compliance for drinking water and wastewater systems; acquiring financing to build, expand and/or upgrade systems for compliance with federal/state drinking water and wastewater rules and regulations; and provide regularly scheduled professional, certified classroom training online and at various local centers to enable system operators to sharpen their skill sets, maintain their certifications and improve

[69] https://www.drwa.org/about-us

		their professional knowledge."[70]
NY	New York Rural Water Association (NYRWA)	"We assist communities and systems through on-site technical assistance, specialized training, and as a liaison to the government. We provide hands-on practical technical assistance at no cost on a wide variety of topics such as state and federal regulations, reporting, fiscal management, initial and continuing training needs, source water protection, system operation and maintenance, and solid waste management. Our staff work one-on-one with system personnel throughout the state and make thousands of on-site visits to communities and systems annually."[71]
PA	Pennsylvania Rural Water Association (PRWA)	PRWA works cooperatively within the water and wastewater industries to deliver professional technical support, certified training, legislative representation, and other services. PWRA staff provide TA on technical aspects of water/wastewater utility activities, regulations, administrative and financial tasks. Some TA is free; some TA requires membership in PRWA which carries a cost for local governments.
VA	Virginia Rural Water Association (VRWA)	"As one part of our mission, we sponsor frequent training programs designed with the needs of small water and wastewater systems in mind. In addition to these programs, the association offers on-site technical and managerial assistance in a wide range of areas."[72]
WVA	West Virginia Rural Water Association (WVRWA)	Similar to other states, WVRWA provides training and certification classes, an annual

[70] https://www.md-rwa.org/about/
[71] https://www.nyruralwater.org/about/about-nyrwa
[72] https://www.vrwa.org/AboutUs/OurMission.aspx

		conference, water circuit riders, wastewater and source water specialists, an apprenticeship program for water and water operations staff, and a variety of online resources.

National Wildlife Federation

The National Wildlife Federation (NWF) envisions "...improved ecological balance and safe, equitable access to clean water, air and land to ensure that all wildlife, people, and ecosystems thrive."[73] NWF works on wildlife recovery and habitat restoration; climate solutions and clean energy; and environmental justice and resilient communities.

NWF's Mid-Atlantic Regional Center "...is grounded in programs that expand outdoor opportunities and help ensure clean water, healthy habitats, and resilient communities from the Appalachian Mountains to the Atlantic Coast."[74] Work within coastal resilience includes the following TA to local governments and other stakeholders: grants writing and management, project management, community engagement, flood analysis, bidding, living shoreline projects, and coastal resilience planning.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	Coastal resilience program operates in PA, DE, MD, VA, NC
Cost to Local Government	We offer capacity building assistance but are typically written into grants
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by	Wildlife, Oysters and oyster reefs, Tidal wetlands, Tree planting, Nature-based solutions, Community stewardship, Local

[73] https://www.nwf.org/About-Us/Our-Mission
[74] https://www.nwf.org/Mid-Atlantic/Our-Work

respondent	leadership, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, , Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Rural Community Assistance Partnership (RCAP)

The Rural Community Assistance Partnership (RCAP) is dedicated to providing TA and funding for the water and wastewater needs of small rural communities. RCAP is "...a national network of nonprofit partners working to provide technical assistance, training, resources, and support to rural communities across every state, the U.S. territories, and tribal lands. Through RCAP's regional partners, more than 350 technical assistance providers (TAPs) build long-term, trusted relationships with thousands of communities across the country."[75] RCAP "...builds local capacity to ensure these small, rural and tribal communities have safe, affordable and reliable access to drinking water, wastewater and solid waste disposal to protect public and environmental health. This key infrastructure is the foundation on which these communities can then build to more broadly innovate and thrive."[76]

RCAP is primarily federally funded through several federal agencies such as through EPA's RealWaterTA portfolio and USDA's Rural Utilities Service. RCAP is implemented through

[75] https://www.rcap.org/about-us/
[76] https://www.rcap.org/regional-partners/

seven geographic regions; two RCAP networks cover the Chesapeake Bay states - SERCAP, Inc for Delaware, Maryland and Virginia and RCAP Solutions for Pennsylvania and New York. These regional networks deliver free TA to small communities (typically 10,000 people or fewer) to assist with water and wastewater funding needs, such as connecting them with State Revolving Fund (SRF) loans, USDA loans or grants, and local grants such as Maryland's Bay Restoration Fund grant. RCAP networks provide training and education for small local governments, assist with identification and implementation of grant/funding applications, conduct water testing, rate studies and mapping, and provide managerial and technical assistance to communities to manage government budgets and navigate financial and other requirements of federal grants and loans. As a certified Community Development Financial Institution (CDFI), SERCAP also has an Individual Household Well and Septic Loan Program for homeowners, and a Community Development Loans Product for community and economic development projects for local governments and other eligible entities.

In 2023, EPA designated RCAP as a national Environmental Finance Center (EFC).

SERCAP provides TA virtually and in-person, and through site visits and workshops to assist small communities with water and wastewater needs. The network addresses BMPs for nutrient reduction and toxic contaminants from Chesapeake Bay Agreement goals. Wastewater is a primary focus for SERCAP relative to the Bay Agreement goals - SERCAP has a priority list of local governments in the Bay for wastewater funding. TA consists of helping with grant/funding applications (for example, SERCAP has applied to EPA WaterTA on behalf of small communities), water testing, mapping, and managerial and technical support. The data below reflects information for TA provided by SERCAP.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Delaware office covers DE and MD Eastern Shore, SERCAP serves from DE to Florida
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops,
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by	BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants

respondent	
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Suburban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

WaterKeepers Chesapeake

Waterkeepers Chesapeake, a coalition of 16 Waterkeeper programs and a nonprofit organization, fights for clean water and a healthy environment by supporting Waterkeepers throughout the Chesapeake and coastal regions as they protect their communities, rivers, and streams from pollution.[77] Waterkeepers primarily work on the state level on policy, legislation and regulations. As a regional entity, Waterkeepers does not work on the county or city level.

Waterkeepers Chesapeake is a member of the global Waterkeeper Alliance, a partnership of more than 300 Waterkeeper organizations globally that focus on grassroots action to improve waterways.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Primarily with Maryland and Virginia state legislation and regulatory agencies.

[77] https://waterkeeperschesapeake.org/mission-history/. Waterkeepers Chesapeake members are: Lower Susquehanna Riverkeeper, Miles-Wye Riverkeeper, Choptank Riverkeeper, Chester Riverkeeper, Sassafras Riverkeeper, Assateague Coastkeeper, Gunpowder Riverkeeper, South West & Rhode Riverkeeper, Severn Riverkeeper, Anacostia Riverkeeper, Baltimore Harbor Waterkeeper, James Riverkeeper, Upper Potomac Riverkeeper, Shenandoah Riverkeeper, Potomac Riverkeeper, and Middle Susquehanna Riverkeeper.

Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, Toxic contaminants, Public access
TA Services Offered	Education for local government officials, Policy assistance, Monitoring implementation of laws and regulations and funding for agencies.
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	0 - 5

Other Chesapeake Bay Watershed Regional Entities Identified

Other entities within the Chesapeake Bay watershed that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other Chesapeake Bay Regional Entities Identified

Entity	**Type**	**Description (from linked entity website and interviews in some cases)**
University of New Hampshire (UNH) Extension	Academic	UNH's Cold Climate Center of Excellence for Stormwater Infrastructure Technology (CCCESIT) is the Center of Excellence covering the Bay state of New York. CCCESIT will conduct research,

		provide TA, and collaborate with other Centers of Excellence. The Center will provide workforce development for implementation of stormwater infrastructure technology and develop sustainable stormwater funding instruments.
National Oceanic and Atmospheric Administration (NOAA) Fisheries	Federal	NOAA's Chesapeake Bay Office provides science and community engagement to improve the health of the Bay watershed. Specifically, the Office works on habitat science, oyster restoration, sustainable fisheries, climate resiliency; and environmental literacy. NOAA's work with local governments in the Bay watershed takes place within the Choptank Region in MD and the Middle Peninsula in Virginia, where the Agency works with the local conservation and restoration community including local governments.
US Environmental Protection Agency (EPA) Congressional and Intergovernmental Relations	Federal	EPA's Office of the Municipal Ombudsman is a resource for communities to comply with the Clean Water Act. The Municipal Ombudsman assists communities in leveraging EPA resources, including identifying federal funding opportunities, understanding technical and regulatory aspects of the Clean Water Act and projects, and planning support. The Office releases a weekly newsletter entitled Water Resources Weekly, to which local governments and other entities can subscribe.
Metropolitan Washington Council of Governments (COG)	Nonprofit	COG convenes leaders from across metropolitan Washington to address the region's challenges. COG provides the following services: planning to assist the region in leveraging federal funding, providing data and research to member governments, providing programs including information technology, technical assistance and grants. COG priorities include regional transportation and infrastructure, electric vehicle deployment, and racial equity.
Oyster Recovery	Nonprofit	The mission of ORP is to restore the Chesapeake

Partnership (ORP)		Bay by revitalizing oysters through collaboration, innovation, and action. ORP works on oyster restoration and sustainable fisheries. Coordinating work across stakeholders and with local governments is an important part of ORP's work.
Stroud Water Research Center	Nonprofit	The Stroud Water Research Center advances knowledge and stewardship of freshwater systems through global research, education, and watershed restoration. The Center has worked on collaborative initiatives to engage local governments in MS4-related opportunities in Maryland, Delaware and Pennsylvania and on efforts to advance Countywide Action Plans (CAPs) for Clean Water in the Bay watershed within Pennsylvania. Local government elected officials and staff can participate in Stroud's educational programs, some of which require a registration fee.
The Nature Conservancy (TNC)	Nonprofit	The Chesapeake Bay is a priority landscape at TNC. Within the watershed, TNC works on clean water through agricultural BMPs and stormwater solutions and protecting and restoring habitats. TNC also collaborates with counties and/or municipalities on projects. The Bay was also recently named one of TNC's Global Foodscapes.
National Municipal Stormwater Alliance	Nonprofit	The NMSA is a nonprofit alliance of MS4 permittees and is dedicated to supporting MS4 communities. NMSA provides resources and training opportunities for member MS4s.
Chesapeake Monitoring Cooperative (CMC)	Other	The CMC provides data services - connecting volunteer-generated water quality data to a centralized data hub for the benefit of decision-makers in the Chesapeake Bay.
Mid-Atlantic Planning Collaborative (MAPC)	Other	The MAPC seeks to convene planners from across Bay watershed jurisdictions and includes American Planning Association (APA) chapters, state agencies, the Bay Program, and other entities. MAPC runs a series of webinars on topics of interest to Bay states; recent topics have included

		energy, zoning, and land use.

State-Specific Models & Findings

This section provides a summary description of TAPs and programs identified in the study that focus efforts within a single Bay state.

Information used to develop these summaries includes information gathered through desk research, interviews, and/or responses to the data collection tool distributed to potential providers of TA to local governments. TAPs are categorized as academic, public sector, nonprofit and "other" providers. The "other" category includes entities such as collaborative networks without formal nonprofit or other legal designation.

Delaware

The research identified 13 TAPs that provide TA to local governments in the state of Delaware.

Geography	**Entity**	**Entity Type**	**Program or Department**	**Data Collection Form Completed?**
Delaware	University of Delaware	Academic	Delaware Sea Grant	Yes
Delaware	University of Delaware, Institute of Public Administration	Academic	Water Resources Center	Yes
Delaware	DE Chapter of American Water Resources Association	Nonprofit		Yes
Delaware	DE Nature Society	Nonprofit		Yes
Delaware	University of Delaware, Institute of Public Administration	Nonprofit	Grant Assistance Program (GAP)	Yes
Delaware	DE MS4 Stormwater Consortium	Other		Yes
Delaware	Resilient and Sustainable Communities League (RASCL)	Other		Yes
Delaware	Conservation Districts - Sussex Conservation District	Quasi-governmental		Yes

Delaware	DE Department of Natural Resources and Environmental Control (DNREC)	State	Surface Water Matching Planning Grant & Community Water Quality Improvement Grant Program	Yes
Delaware	DNREC	State	Source Water Assessment and Protection Program	Yes
Delaware	Office of State Planning Coordination (OSPC)	State	Circuit Rider Planners / Preliminary Land Use Service	Yes
Delaware	University of Delaware, Institute of Public Administration	Academic	Local Government Training	Sent
Delaware	League of Local Governments	Nonprofit		Sent

Academic Providers

University of Delaware, Institute for Public Administration (IPA)

The Institute for Public Administration (IPA) is housed in the Biden School of Public Policy and Administration at the University of Delaware. The IPA, established in 1973, is focused on public service and provides multiple resources for local governments. Several of the IPA's activities provide TA assistance to local governments.

- University of Delaware Water Resources Center (DWRC): The DWRC is one of 54 National Institutes of Water Resources at land grant universities within the U.S. Funding is provided through Section 104 of the Water Resources Research Act of 1984, administered by the USGS, and through other grant sources. The USGS oversees the Water Resources Centers through the National Institute of Water Resources (NIWR).

  The mission of the DWRC is to "...support research, education, and public outreach programs that focus on water supply, water management, and water quality" and to "...foster and support training and education programs for the future water scientists, engineers, managers, and policy-makers."[78] For over 40 years, the Water Resources Agency, within the DWRC, has provided water assistance to governments in Delaware through the land-grant public engagement (service), learning (education), and scholarship (research) role of the University of Delaware.

  DWRC provides TA to the state government and to municipalities and counties across Delaware around water resource issues, and specifically water quality and

[78] https://wrc.udel.edu/wrc-mission/

supply. While Delaware is DWRC's main focal area, the Center also works regionally where watersheds cross into adjacent states.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	Delaware is the main focus but due to the watersheds spanning other states the WRC works regionally as well.
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Tidal wetlands, Non-tidal wetlands, Healthy streams, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Tribal Nations and Indigenous Peoples, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

- University of Delaware Grant Assistance Program (GAP): The GAP provides free TA to local governments to fill identified technical and capacity gaps that local governments in the state face for grant writing, research, and administration. The GAP team works with local governments to secure funding and financing for projects through identifying grants and writing grant applications. The GAP is funded through the state legislature at $1.7 million for five years. TA is provided virtually and through site visits and workshops. Key resources include a Funding Navigator Portal for Delaware communities. Because GAP can work on all grants for which local governments have eligibility, a large number of Chesapeake Bay Agreement goals are addressed. This funding program is one of a small number in the inventory that dedicates nearly all (75-100%) of its time to TA to local governments.

  IPA's connection to local governments and existing work such as assisting with the Comprehensive Planning process facilitates access for local governments to GAP funding assistance. For example, local governments can be made aware of the GAP program through working with the IPA and seek GAP assistance for projects identified in their Comprehensive Plan.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	Delaware
Cost to Local Government	Free
Methods of TA Delivery	Virtual, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	All
TA Services Offered	Securing funding and financing for projects
Types of Communities Served	All
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in	20 - 50

Previous Five (5) Years	

- Delaware Sea Grant: Delaware Sea Grant "helps Delaware communities wisely use, manage, and conserve our state's valuable coastal resources by fostering sustainable coastal economies, developing resilience to coastal hazards, and preparing the next generation of coastal leaders".[79] In addition to research and education, Delaware Sea Grant's extension programs provide free outreach and education, policy assistance, and assistance through all phases of a project cycle, from planning and providing data to identifying funding, and sometimes design, implementation, and maintenance, management, and monitoring of projects. Delaware Seagrant's Resilient Communities and Economies Initiative is specifically targeted at coastal communities. The Initiative includes the Coastal Resilience Design Studio (CRDS), a partnership between Delaware Sea Grant and the University of Delaware Sustainable Coastal Communities Initiative and Landscape Architecture Program through which students and faculty assist coastal communities with resilience planning using landscape-level design treatments - engineering companies are able to conduct feasibility studies on the designs developed. The mission of CRDS is to "...connect communities, students, not-for-profits, governmental entities, and professionals with the common goal of increasing the sustainability and resilience of Delaware's coastal communities. The Resilient Communities and Economies Initiative also includes the Working Waterfronts Initiative focused on identifying and implementing new recreation and tourism opportunities in coastal communities facing declining fisheries and municipal planning assistance for development planning. For example, Delaware Sea Grant assisted the towns of Bridgeville and Greenwood in developing a Bridgeville-Greenwood Master Plan that included identifying new development areas that would not negatively impact water quality.[80]

  Word-of-mouth has been important in local governments learning about the work of Delaware Sea Grant through venues such as the Sussex County Association of Towns meeting and through Sea Grant staff conducting direct outreach to local governments.

[79] https://www.udel.edu/academics/colleges/ceoe/delaware-sea-grant/

[80] https://www.udel.edu/academics/colleges/ceoe/delaware-sea-grant/extension/resilient-communities-and-economies/

Data Category	Response
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Delaware
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Tribal Nations and Indigenous Peoples, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Agricultural communities, Suburban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	10 - 20

Public Sector Providers

Delaware Department of Natural Resources and Environmental Control (DNREC)

DNREC's Nonpoint Source Program (NSP) within the Division of Watershed Stewardship (DWS) administers the state's Surface Water Matching Planning Grants (a set-aside in the state's Water Pollution Control Revolving Loan Fund (WPCRF) Non-Federal Administrative Account that funds planning and implementation of surface water improvement projects for counties and municipalities) and Community Water Quality Improvement Grants (a set-aside in the DE Clean Water State Revolving Fund (CWSRF) that funds water quality improvement projects for nonprofits, local conservation districts, community organizations, and/or HOAs) Programs. The DWS administers the grant application process and provides TA to potential applicants for both grant programs; a DWS staff member works with all 57 municipalities (12 of which are in the Chesapeake Bay watershed) and three counties in the state to assist with pre-application planning and review of grant applications. The NSP also conducts plan and ordinance review, and workshops and charrettes for municipalities.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Delaware
Cost to Local Government	Free, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects

Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Delaware Office of State Planning Coordination (OSPC)

Through its Circuit Rider Planners, Delaware's Office of State Planning Coordination (OSPC) provides free planning assistance to all municipalities and counties - the governing level at which land use decisions are made in the state. OSPC states that "State government provides all-over guidance and coordination and serves as a planning resource for local governments".[81] Through OSPC, the state designates a specific individual to serve as a Circuit Rider Planner - legally these are Principal Planners - for each of Delaware's three counties. The Circuit Rider Planners work with all towns and the county on land use-related work such as comprehensive plans, plan amendments, zoning, annexation, Plans of Services, and downtown development districts. The Circuit Rider Planners are liaisons between the towns, counties and state agencies on state policy and legislation that impacts the planning process, and can connect local governments to other state agencies (DNREC, DelDOT) relevant to a particular issue. TA is provided virtually and in-person, and through site visits, workshops and newsletters. Chesapeake Bay Agreement goals addressed include local leadership, and because land use planning impacts water quality and other environmental, social, and economic outcomes, the work can also support a number of other goals. TA educates local government officials, provides policy assistance, and assists in identifying and planning for projects.

An essential element of the Circuit Rider Planner's work is establishing and maintaining relationships with the local governments in their jurisdiction. The Planners are available to meet with local governments virtually or in-person. Given the dedication of the Planner to planning assistance within a specific geographic area, the area local governments can have

[81] https://stateplanning.delaware.gov/lup/planning-assistance.shtml

more awareness of the TA available - local governments tend to reach out to their assigned Circuit Rider Planner, and Planners also proactively contact the local governments around deadlines. Further, the Planners leverage their membership in the RASCL network to disseminate information collected on the needs of local governments, especially smaller municipalities with limited staff and resources.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	Delaware
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Any land use related issues
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Delaware Source Water Assessment and Protection Program

Established by the federal Safe Drinking Water Act Amendments of 1996, Delaware's Source Water Assessment and Protection Program is located within the Division of Water's Commercial and Government Services Sector in Delaware's Department of Natural Resources and Environmental Control (DNREC). The Program "provides for the assessment

and protection of sources of public drinking water from both surface water and groundwater sources in Delaware".[82] Source water assessment includes mapping source water areas, identifying sources of contamination, estimating the susceptibility of source water areas to identified current and future sources of contamination, and public reporting of results. The Program also protects wellheads around public water supply wells.

The Source Water Assessment and Protection Program works with counties and municipalities, private water companies, businesses, nonprofits, and farmers and private landowners on protection of public drinking water sources. Activities include proper siting of new wells, review of well permit applications, identifying potential contamination sources and treatments, and mitigation of contaminants. The Program offers free TA to local governments and others virtually and in-person, and through site visits and workshops. A large number of Chesapeake Bay Agreement goals are addressed through the work, including fisheries and fish habitat, wildlife, streams and wetlands, submerged aquatic vegetation, water quality standards and/or monitoring, BMPs for nutrient reduction, land protection, community stewardship, and public access. The Program provides education for local government officials, policy assistance, and assistance through the project cycle, including identifying and planning for projects, securing funding and financing for project, and implementing and monitoring projects.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Delaware
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Tidal wetlands, Non-tidal wetlands, Healthy streams, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions,

[82] https://dnrec.delaware.gov/water/commercial-government/water-allocation/assessment-and-protection/

	Community stewardship, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Tribal Nations and Indigenous Peoples, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Nonprofit Providers

Delaware Section of the American Water Resources Association (DEAWRA)

The mission of the Delaware Section of the American Water Resources Association (DEAWRA) is "...to provide a common forum in which any person interested in the purpose of the American Water Resources Association, as well as anyone living, working, studying, or interested in the water resources discipline and related areas in Delaware can meet, discuss, and exchange ideas pertaining to all aspects of water resources research and management."[83] Local governments can become members of DEAWRA and attend meetings and events that share knowledge about water resource projects, tools, and emerging issues. Through DEAWRA, local governments can be connected with water resource professionals in Delaware.

Local governments can become members as well as attend events or meetings. These events and meetings are typically showcasing or discussing water resource projects and

[83] https://deawra.wildapricot.org/

information related to water resources projects, tools and emerging issues throughout the state. Local governments can be connected with Delaware's network of water resource professionals, technical resources and assistance and other stakeholders through involvement with this organization.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Delaware
Cost to Local Government	Small fee for membership or event attendance
Methods of TA Delivery	Virtual, In-Person, Site Visits, Annual meeting
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Material varies based on the current issues in the water resources field.
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Implementing projects
Types of Communities Served	All
Percentage of Time Organization Spends on TA to Local Governments	Volunteer organization
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Delaware Nature Society

The Delaware Nature Society (DelNature) has a mission of "Connecting people and nature to create a healthy environment for all through education, conservation, and advocacy".[84] DelNature works across three programmatic focal areas: healthy waters, habitat and wildlife protection, and working and natural lands. DelNature primarily provides free educational and advisory assistance on public policy, and also manages conservation

[84] https://delawarenaturesociety.org/about/who-we-are/

efforts for specific counties and municipalities. DelNature has advised on the drafting of some environmental ordinances for New Castle and Sussex counties.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	From Delaware municipalities to Chesapeake and Delaware River watershed states to federal policy
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Blue crabs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Other Providers

Delaware Resilient and Sustainable Communities League (RASCL)

The Delaware Resilient and Sustainable Communities League (RASCL) was founded roughly a decade ago and is "...a collaborative network of state agencies, nonprofits, and academic institutions that convenes partners, leverages limited resources, and coordinates efforts to build a more resilient and sustainable Delaware".[85] RASCL seeks to support all communities in Delaware to address challenges of a rapidly changing climate through collaboration, TA, and information exchange. The network was established to increase information exchange and collaboration in order to increase the efficiency of work and use of available grant funding. Currently, RASCL comprises about 28 member organizations.[86] RASCL is coordinated and convened by the Partnership for the DE Estuary; funding is provided by DNREC and National Estuary Program funding. RASCL disseminates its services through a monthly newsletter and in-person outreach at events; hosts an annual statewide summit on topics of interest to state resilience practitioners and government officials and agencies; develops guidance documents that can help local governments with activities such as developing a Community Sustainability Plan; hosts hybrid Coffee Hours (webinar recordings are made available) quarterly that feature speakers and present information of relevance to resilience projects in the state; and has recently (2024) established a Project Guidance workgroup providing one-on-one TA to local governments and communities seeking assistance on resilience projects (discussed in the paragraph that follows).

RASCL's Project Guidance Group is one of four workgroups and provides free TA for local governments in DE that require assistance on resilience-related projects and activities. The Guidance Group is staffed by RASCL-affiliated experts who provide pro bono TA/advising on resilience initiatives. Local governments submit information about needs related to resilience projects at any stage of the project cycle through an online form - for example, a local government may require feasibility assessment for a project, or be in the implementation stage and need assistance identifying a contractor. Project Guidance Group members field requests in committees that collaboratively identify the people and/or entities that can best deliver a solution for the request, and, critically, directly connects the local government or community to the appropriate resource.

[85] https://www.derascl.org/

[86] https://wmap.blogs.delaware.gov/2024/12/11/resources-for-communities-rascl-and-your-sustainable-future/. A list of member organizations is available on the RASCL website at: https://www.derascl.org/who-we-are.

TA is only provided virtually by the Project Guidance Group and projects are relevant to a broad range of Chesapeake Bay Agreement goals, including wildlife, fish habitat, oysters and oyster reefs, wetlands, submerged aquatic vegetation, water quality standards and/or monitoring, BMPs for nutrient reduction, land protection, tree planting, nature-based solutions, community stewardship and local leadership, and public access. The Project Guidance Group provides assistance for identifying and planning for projects and helps connect local governments to services they may need to implement the project cycle. Since it was established in 2024, the Project Guidance Group has assisted eight communities, including two local governments and six homeowners associations (HOAs). While RASCL operates statewide, coastal communities have tended to request services more than other areas; agricultural communities have been particularly difficult to engage.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	Delaware
Cost to Local Government	Free
Methods of TA Delivery	Virtual
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Fish habitat, Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Public access
TA Services Offered	Identifying and planning for projects, Connector to services
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities

Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Delaware MS4 Stormwater Consortium

The Delaware MS4 Stormwater Consortium seeks to provide a forum for MS4 permit information sharing among MS4 permit holders (Phase I, II, and future permittees) in Delaware, many but not all of which are local government entities.[87] The Consortium's mission is "...to discuss stormwater permit implementation issues impacting the jurisdictions, learn from each other regarding permit requirements and regulations, and exchange information for the benefit of the group".[88] The Consortium, established as an informal network that meets quarterly fifteen years ago, resulted from existing but disparate conversations among individuals working on stormwater issues that underscored the utility of such a network. The Consortium supports information sharing between MS4 permittees and other entities and permittees through virtual and in-person events (quarterly meetings), online resources (fact sheets, collation of relevant websites), and an email listserv. Chesapeake Bay Agreement goals covered by the Consortium are understandably clean water focused, and include healthy streams, water quality standards and/or monitoring, BMPs for nutrient reduction, nature-based solutions, stormwater, and NPDES information.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Delaware
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Email Listserv
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction,

[87] Non-local government MS4 permit holders include the University of Delaware and the Delaware Department of Transportation (DelDOT) for example.
[88] https://wrc.udel.edu/public-service/delaware-ms4-stormwater-consortium/

respondent	Nature-based solutions, Stormwater, NPDES (MS4/Industrial Stormwater) Information
TA Services Offered	Information
Types of Communities Served	MS4 permittees (Phase I, II, and future permittees)
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	10 - 20

Quasi-Governmental Providers

Conservation Districts (CDs)

Delaware's Conservation Districts (CDs) - New Castle, Kent, and Sussex - have jurisdictional boundaries that correspond exactly with the state's county boundaries. The CDs were established in state law 7 Del.C. Ch. 39 to "further conservation, protection, development and utilization of land and water resources in the state". The DE General Assembly allocates cost-share to the CDs to implement cost-share programs within each district. CDs primarily provide free TA to local governments and other landowners/organizations within their county, but some services may be fee-based depending on complexity. Information from the data collection tool included in the table below reflects one of Delaware's CDs (Sussex County).

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	Delaware, results below are Sussex County
Cost to Local Government	Free, Fee, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by	Wildlife, Tidal wetlands, Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient

respondent	(nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Tribal Nations and Indigenous Peoples, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Other Delaware Entities Identified

Other entities within Delaware that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other Delaware Entities Identified

Entity	**Type**	**Description (from linked entity website and interviews)**
University of Delaware Local Government Training (LGT)	Academic	The LGT program offers training programs for public officials and local government staff "...primarily focused on targeted issues of importance for town councils and planning

		commissions, such as municipal planning and zoning, legal issues, economic development, and sustainability."[89] Specific programs offered include the Certificate in Local Government, the Certificate in Planning Education, the Delaware Institute for Local Government Leaders training (leading to a Certificate in Local Government Leadership), and the Municipal Clerks Institute (leading to the designation of Certified Municipal Clerk (CMC)). While trainings cover a broad spectrum of topics, some topics are directly related to the Chesapeake Bay Agreement Goals. For example, Sustainable Water Management and Municipalities has been a course topic for the CMC program.
Delaware League of Local Governments (DLLG)	Nonprofit	This mission of the Delaware League of Local Governments (DLLG) is "...to strengthen and support Delaware's local governments (towns, cities, and counties) through advocacy and development of effective leadership. The League strives to be a dynamic resource for local government advocacy, education, engagement, and best practices. DLLG serves as a unified voice and proactively represents local governments to help sustain highly livable, desirable, and vibrant communities."[90] DLLG is a membership-based network with required annual dues based on population size for municipalities and a flat rate for counties. Membership benefits include networking opportunities, resources and training for leadership, technical assistance through partners at the University of Delaware, and access to advocacy for local government needs.[91]

[89] https://www.udel.edu/academics/colleges/biden-school/research-public-service/ipa/public-service/govt-training/
[90] https://www.dllg.us/about-us.htm
[91] https://www.dllg.us/benefits-of-membership.htm

Maryland

The research identified 24 TAPs that provide TA to local governments in the state of Maryland.

Geography	Entity	Entity Type	Program or Department	Data Collection Form Completed?
Maryland	University of Maryland	Academic	Sea Grant / Water Restoration Specialists	Yes
Maryland	University of Maryland	Academic	National Center for Smart Growth	Yes
Maryland	University of Salisbury	Academic	Eastern Shore GIS Collective	Yes
Maryland	Baltimore Urban Water Partnership	Nonprofit		Yes
Maryland	Eastern Shore Land Conservancy	Nonprofit		Yes
Maryland	MD Department of Environment	State		Yes
Maryland	MD Department of Housing and Community Development	State		Yes
Maryland	MD Department of Natural Resources (DNR)	State	Critical Area Resources Commission	Yes
Maryland	MD DNR	State	Watershed & Climate Services	Yes
Maryland	Howard Community College	Academic	Legacy Leadership Environmental Institute (LLEI)	Sent
Maryland	University of Maryland	Academic	UMD Harry Hughes Center for Agro-ecology	Sent
Maryland	Arundel Rivers Federation	Nonprofit		Sent
Maryland	Baltimore Metropolitan Council	Nonprofit		Sent
Maryland	Chesapeake Bay NERR	Nonprofit	Coastal Training Program	Sent
Maryland	Leadership Maryland	Nonprofit	Executive Program / Emerging Leader Program	Sent
Maryland	Maryland Association of Counties (MACO)	Nonprofit		Sent
Maryland	MD Association of Soil Conservation Districts	Nonprofit		Sent
Maryland	MD Municipal League	Nonprofit		Sent

Maryland	Shore Rivers (Eastern Shore)	Nonprofit		Sent
Maryland	TNC	Nonprofit		Sent
Maryland	National Capital Park & Planning Commission	Other		Sent
Maryland	Sustainable Maryland	Other		Sent
Maryland	Department of Planning	State	Maryland Town Manager Circuit Rider Program	Sent
Maryland	Rural MD Council	State		Sent

Academic Providers

University of Maryland Sea Grant

As with other Sea Grant programs nationwide, Maryland Sea Grant at the University of Maryland College Park (administered under the University of Maryland Center for Environmental Studies (UMCES)) conducts research and education focused on protection and restoration of the Chesapeake Bay and Maryland's coastal areas. Sea Grant Maryland works both within the university setting and with communities through its Extension and Outreach program, a partnership through a Memorandum of Understanding between Maryland Sea Grant and the University of Maryland Extension. Through Maryland Sea Grant Extension, five Extension specialists provide free TA to local governments and communities in Maryland across six thematic areas: coastal climate resilience, economics, fisheries and aquaculture, the seafood industry, and water issues such as watershed protection and stormwater management. Extension specialists work with local governments to identify and plan projects and review grant applications, and provide education to local government officials. Roughly 50% of the program's funding is provided through Congressional appropriations administered through NOAA; the other half comes from the state of Maryland through the University System of Maryland.[92] One way that local governments discover Maryland Sea Grant Extension is through being listed in Chesapeake Bay Trust RFPs as a point of contact for grant applications.

Maryland Sea Grant also works on the Watershed Stewards Academy together with local governments. Through the Academy, Maryland Sea Grant's Extension watershed restoration specialists partner with watershed restoration groups to organize training for volunteers who become certified as Master Watershed Stewards.

[92] https://www.mdsg.umd.edu/partners

Data Category	Response
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Chesapeake Bay watershed in Maryland
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, BMP maintenance, BMP plant recommendations, Social marketing
TA Services Offered	Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50-75%
Number of Local Governments Reached in Previous Five (5) Years	20-50

University of Maryland National Center for Smart Growth (NCSG)

The work of UMD's National Center for Smart Growth (NCSG) "...has worked to advance the notion that research, collaboration, engagement and thoughtful policy development hold the key to a smarter and more sustainable approach to urban and regional development…As a research center, NCSG is committed to working collaboratively on campus and with our external partners at community-based organizations, government agencies (federal, state and local), advocacy groups, small and local businesses and those that are part of coalitions".[93] The work of NCSG is expansive, covering sustainable

[93] https://www.umdsmartgrowth.org/who-we-are/about/

environmental planning to service and career opportunities for environmental sustainability.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Global
Specific Geography of Operation	Maryland
Cost to Local Government	Free, Fee, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Non-tidal wetlands, Healthy streams, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Local leadership, Workforce development/jobs
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0-25%
Number of Local Governments Reached in Previous Five (5) Years	20-50

Salisbury University Eastern Shore Regional GIS Collective (ESRGC)

Salisbury University's Eastern Shore Regional GIS Collective (ESRGC) is "a group of GIS and Programming professionals dedicated to creating partnerships with municipal, county, regional, state and federal governments as well as private and non-profit organizations in

an effort to develop data-driven decision making tools."[94] The ESRCG provides TA to local governments on Maryland's Eastern Shore using Rural Maryland Priority Investment Funds (RMPIF) through its Rural Maryland Prosperity Investment Fund GIS Circuit Rider Program. This funding allows the team to provide GIS TA (e.g., GIS analysis, data development, web map production, map development and printing, dashboard development, and drone support) to local governments. Local governments can utilize the service for things like mapping trail systems and conducting parking studies. The ESRGC is an outreach entity of the University and a collaboration between the University and the Mid-Shore Regional Council, the Tri-County Council of the Lower Eastern Shore of Maryland, and the Upper Shore Regional Council. A Funding Impact Dashboard illustrates GIS Circuit Rider projects completed by ESRGC.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Counties on Maryland's Eastern Shore
Cost to Local Government	Free, Cost-share options are available if a project is too large to be supported by RMPIF
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Potentially all
TA Services Offered	Education for local government officials, Identifying and planning for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Agricultural communities, Suburban communities
Percentage of Time Organization Spends on TA to Local Governments	0-25%

[94] https://esrgc.org/

Number of Local Governments Reached in Previous Five (5) Years	20-50

Nonprofit Providers

Eastern Shore Land Conservancy (ESLC)

The Eastern Shore Land Conservancy (ESLC) "...conserves, stewards, and advocates for the unique rural landscape of Maryland's Eastern Shore, forever a special place of diverse and abundant natural resources and thriving rural communities."[95] As part of its main function as a land trust, ESLC has conserved almost 70,000 acres of land and protected almost 30,000 acres of farmland within its geographic service area on the Eastern Shore of Maryland.[96] In addition to its land conservation work, ESLC recognizes the importance of local land use policy and staff and resource capacities of small or rural governments within its geographic area of operation for sustainable land use. ESLC works to fill this gap by providing TA on land use policy through intentional engagement with local governments and other stakeholders.

ESLC's TA ranges from informal consultations to comprehensive project assistance, including planning analysis, ordinance drafting and review, community engagement design, small area planning, grant strategy, data visualization, and education on sustainable growth principles. ESLC also assists with transportation and trail planning, value per acre analysis, and the integration of climate resilience into municipal planning documents.

ESLC's relationships with local governments allow most requests for TA to come informally from town managers, planners, elected officials, and community leaders as part of extensive outreach and regular communications. The extent of TA that ESLC provides for a particular request depends on the alignment of the local government's needs as well as the priorities, funding and resources and technical capacity ESLC has. For example, ESLC does not design capital projects, staff long-term projects for local governments, or provide legal assistance. But in these cases, ESLC tries to assist local governments in finding appropriate resources that can fulfill these needs.

Data Category	**Response**

[95] https://www.eslc.org/

[96] Specifically, ESLC works within 6 counties on the Eastern Shore: Cecil, Kent, Queen Anne's, Talbot, Caroline, and Dorchester.

Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Six (6) counties on the Eastern Shore, including Cecil, Kent, Queen Anne's, Talbot, Caroline, and Dorchester
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Land protection, Nature-based solutions, Community stewardship, Local leadership, Public access
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Agricultural communities
Percentage of Time Organization Spends on TA to Local Governments	0-25%
Number of Local Governments Reached in Previous Five (5) Years	20-50

Public Sector Providers

Maryland Department of the Environment (MDE)

Maryland's Department of the Environment (MDE) seeks to "...To protect and restore the environment for the health and well-being of all Marylanders."[97] MDE is responsible for regulating and permitting activities with impacts to the environment. MDE's TA is primarily related to permits the Department issues and funding it provides.

Data Category	**Response**

[97] https://mde.maryland.gov/Pages/AboutMDE.aspx

Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	State of Maryland
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants
TA Services Offered	Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0-25%
Number of Local Governments Reached in Previous Five (5) Years	20-50

Maryland Department of Housing and Community Development

The Maryland Department of Housing and Community Development (DHCD) "transforms communities into places people want to call home. Through investments in community-led placemaking, housing and small business development, infrastructure and broadband deployment, [they] partner with local government, nonprofits, and private sector stakeholders to make great places".[98] The Community Development Programs division of DHCD provides TA to non-entitlement communities in the state that receive federal funding through the U.S. Department of Housing and Urban Development (HUD) for housing, infrastructure and facilities benefitting low and moderate income households.[99] TA

[98] https://dhcd.maryland.gov/About/Pages/default.aspx

[99] "Non-entitlement counties with less than 200,000 people and non-entitlement cities and towns with less than 50,000 people are eligible to apply for funds from the Community Development Block Grant (CDBG) Program administered by the Maryland Department of Housing and Community Development because these non-entitlement communities do not receive direct annual CDBG formula funding from the U.S. Department of Housing and Urban Development (HUD). For more information, see: https://dhcd.maryland.gov/Communities/Pages/programs/CDBG.aspx.

provided primarily focuses on helping grantee communities achieve and maintain compliance with federal regulatory requirements.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	Non-entitlement jurisdictions in Maryland, primarily rural
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Water and sewer systems
TA Services Offered	Education for local government officials, Policy assistance, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Agricultural communities
Percentage of Time Organization Spends on TA to Local Governments	50-75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Maryland Department of Natural Resources (DNR)

Critical Area Resources Commission

Maryland's Department of Natural Resources Critical Area Resources Commission is responsible for developing criteria to minimize impacts of human activities and development on the "critical area", defined in the 1984 Chesapeake Bay Critical Area

Protection Program as all land within 1,000 feet of the shoreline.[100] The Critical Area law seeks to minimize adverse impacts to water quality, protect plant and wildlife habitat, mitigate and prepare for climate change and facilitate climate resilience, and ensure equitable sharing of development benefits and consequences. The Critical Area Program represents a cooperative implementation effort of the Critical Area law between the State of Maryland and local governments.

The Commission provides free TA to the 61 local governments that overlap with the Critical Area and administer local critical area management programs. TA is provided virtually and in-person, and both one-on-one through site visits and workshops. For example, the Commission offers online education and training resources specifically for town and county local governments. The Chesapeake Bay Agreement goals addressed by the TA include wildlife, fish habitat, wetlands, land protection, tree planting, nature-based solutions, and public access. One example of TA provided is assistance using tools such as the Critical Area Mapping Tool. The Commission provides education for local government officials, information technology support, policy assistance, and assistance monitoring projects.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	61 local governments that overlap with the Critical Area
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Fish habitat, Tidal wetlands, Non-tidal wetlands, Land protection, Tree planting, Nature-based solutions, Public access
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with

[100] Specifically, the Critical Area "...includes all land within 1,000 feet of Maryland's tidal waters and tidal wetlands. It also includes the waters of the Chesapeake Bay, the Atlantic Coastal Bays, their tidal tributaries, and the lands underneath these tidal areas." Information from: https://dnr.maryland.gov/criticalarea/pages/faqs.aspx.

	limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50-75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Watershed and Climate Services (WCS)

The Maryland Department of Natural Resources Watershed and Climate Services (WCS) "...operates as a connector and leader within Maryland, leveraging science, funding and policy, partnerships and adaptive management to restore ecosystems, build resilience, foster equitable well-being and promote sustainable communities and economies."[101] WCS works with local governments and with partner organizations that implement TA. Through WCS, an effort was made to identify gaps in TA across the Watershed Assistance Collaborative and the Coastal Zone Management program in the state, resulting in a mapping exercise indicating (green dots) where partners were providing TA to local communities at the county or sub-county level. The exercise suggested a gap in funding projects in Southern Maryland and the upper Western Shore of Maryland.

WCS provides free and cost-share TA on ecosystem restoration and community resilience planning and projects. WCS also funds other TAPs, such as Extension specialists at Maryland SeaGrant.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	State of Maryland
Cost to Local Government	Free, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals	Fish habitat, Tidal wetlands, Non-tidal

[101] https://dnr.maryland.gov/ccs/Pages/aboutus.aspx

Addressed *Blue text reflects areas of work added by respondent	wetlands, Healthy streams, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	No response
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Quasi-Governmental Providers

Baltimore Urban Waters Partnership (BUWP)

The Baltimore Urban Waters Partnership (BUWP) is one of 21 designated Urban Waters locations that is part of EPA's Urban Waters Federal Partnership. The Urban Waters Federal Partnership seeks to help "...American communities connect with their waterways and work to improve them. Working with a diverse set of partners, we seek to help communities restore and protect water quality and revitalize adjacent rural, suburban, and urban neighborhoods throughout the watershed. Through this partnership program, communities gain economic, environmental, and social benefits, and collaborate with federal, state, and local agencies, as well as community-led efforts, to achieve common

goals."[102] The mission of BUWP is to: "Improve coordination among federal, state, and local agencies; collaborate with community-led efforts to improve the greater Baltimore/Patapsco watershed; and promote economic, environmental, and social benefits of healthy waterways that can be accessed by all."[103]

To achieve its mission, BUWP provides multiple TA services. BUWP convenes local, state, and federal partners at quarterly meetings, supports knowledge-sharing and networking throughout the Partnership, discusses data sources for new research and common goals, and identifies funding sources. BUWP also hosts two Actionable Science Working Groups (Climate and Flood) whose membership includes members of local governments.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Baltimore City and Baltimore County; Patapsco River Watershed
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Student education and environmental, stormwater management
TA Services Offered	Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects
Types of Communities Served	Coastal or flood-prone communities, Urban or industrial communities facing infrastructure or pollution challenges, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

[102] https://www.epa.gov/system/files/documents/2024-09/urban_waters_fact_sheet_2024_qrcode-draft.pdf
[103] https://www.baltimoreurbanwaters.org/

Other Maryland Entities Identified

Other entities within Maryland that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other Maryland Entities Identified

Entity	**Type**	**Description (from linked entity website and interviews)**
Howard Community College, Legacy Leadership Environmental Institute (LLEI)	Academic	LLEI is an eight-week envi-ron-men-tal edu-ca-tion and vol-un-teer lead-er-ship insti-tute offered as a non-credit course through Howard Com-mu-nity Col-lege. LLEI attendees learn from NASA, NOAA, UMD and other experts about global climate change, environmental and earth science, the Bay ecosystem, sustainability. The course also includes information on local nonprofit and public environmental organizations.
University of Maryland Harry Hughes Center for Agro-Ecology	Academic	The Harry Hughes Center for Agro-Ecology convenes stakeholder groups and funds research to promote environmentally sound and economically stable agriculture and forestry in Maryland. The Center has served as a connector between local governments and state agencies for the WIP process through hosting regional workshops.
Arundel Rivers Federation (ARF)	Nonprofit	Arundel Rivers Federation works in the South, West and Rhode River watersheds. ARF has programs for restoration, a Riverkeeper program, and a program education and outreach.
Baltimore Metropolitan Council (BMC)	Nonprofit	BMC is the region's council of governments and works with elected officials from local governments in the following jurisdictions: Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Harford County, Howard County, and Queen Anne's County. BMC coordinates policy for transportation, community,

		and environmental planning and for cooperative purchasing. Areas within the environmental planning area include air quality, reservoir protection, environmental coordination, long-range transportation planning, climate change resilience, and climate pollution reduction.
Chesapeake Bay National Estuarine Research Reserve System (NERR) Maryland Coastal Training Program	Nonprofit	The Maryland Coastal Training Program provides skills, tools and resources to Maryland's coastal communities for healthy ecosystems, resilient communities, and vibrant economies. The program offers capacity building through training, workshops, and technical conferences; TA services including communication, grant writing, and program review; and community engagement through providing opportunities for community members to engage with governments, organizations, and other service providers.
Leadership Maryland	Nonprofit	Leadership Maryland convenes local leaders from all sectors through the Executive Program and Emerging Leaders Program. The Executive Program brings senior-level leaders with extensive experience and contributions to their areas of work together in an eight-month education program for a series of two-day in-person sessions around topics such as environmental quality, healthcare, housing, education and economic development. The Emerging Leaders Program brings early career leaders together for a six-month program on leadership and collaborative learning.
MD Association of Counties (MACO)	Nonprofit	The Maryland Association of Counties (MACo) is the non-profit, non-partisan voice of all 24 Maryland counties promoting effective, efficient government through advocacy, education, and collaboration. The Association's membership consists of county elected officials and representatives from Maryland's 23 counties and Baltimore City.
MD Association of	Nonprofit	MASCD seeks to support soil, water, and natural

Soil Conservation Districts (MASCD)		resources programs for all citizens within Maryland's 23 soil conservation districts through leadership, education, cooperation, and local direction. Among other offerings, MASCD provides resources for Conservation District Supervisors.
MD Municipal League (MML)	Nonprofit	The MML represents Maryland's incorporated towns and cities (157) as well as four special taxing districts. The organization serves as the voice of and provides convening opportunities for local governments, including an annual conference, and networking and information sharing opportunities.
ShoreRivers	Nonprofit	ShoreRivers protects Maryland's eastern shore waterways through science-based advocacy, restoration, education and engagement. Focal areas are the Chester, Choptank, Sassafras, Miles, and Wye rivers, the Eastern Bay, and Bayside Creeks. ShoreRivers conducts clean water advocacy and provides assistance to local governments and other stakeholders to fund and develop pollution-reducing projects. ShoreRivers is certified by the National Fish and Wildlife Foundation (NFWF) as a Technical Service Provider, and as in-house engineering and GIS capacity.
The Nature Conservancy (TNC)	Nonprofit	The Chesapeake Bay is a priority landscape of TNC. Work focuses on clean water and thriving habitats. Within the watershed, TNC works on oyster restoration, sustainable farming, stormwater, wetland restoration, and climate resilience.
Sustainable Maryland	Nonprofit	Sustainable Maryland - a collaborative program between UMD's Environmental Finance Center and the Maryland Municipal League - is a voluntary program offering a Certification Program, Events and Trainings, and Grants and Resources to Maryland communities. Local governments can be certified through a broad menu of actions such as establishing a Green Team and Action Plan (mandatory), developing a Water Conservation Plan and/or Outreach

		Program, providing incentives for watershed stewardship on private lands, and hiring a Stormwater Manager.
Maryland - National Capital Park & Planning Commission (M-NCPPC)	Nonprofit	The M-NCPPC works in Montgomery and Prince George's counties in Maryland on land use planning, parks and recreation. The Commission comprises seven departments across the two counties.
Department of Planning, Maryland Town Manager Circuit Rider Program	State	The Maryland Town Manager Circuit Rider Program provides administrative capacity to small town and city governments (less than 5,000 people) in the state.
Rural MD Council (RMC)	State	RMC convenes entities from rural Maryland communities across sectors, including all levels of government, to work on economic development, environmental stewardship, and connected communities. Rural counties in Maryland are: Allegany, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Garrett, Harford, Kent, Queen Anne's, Somerset, St. Mary's, Talbot, Washington, Wicomico and Worcester counties.

New York

The research identified 6 TAPs that provide TA to local governments in the state of New York.

Geography	Entity	Entity Type	Program or Department	Data Collection Form Completed?
New York	Syracuse University Environmental Finance Center	Academic		Yes
New York	Soil and Water Conservation Districts (Cortland County SWCD)	State		Yes
New York	NY State Department of Environmental Conservation	State	Division of Lands and Forests	Yes

New York	Upper Susquehanna Coalition	State		Yes
New York	NYS Department of Agriculture and Markets	State		Sent
New York	Regional Planning Development Boards	State	New York's Southern Tier Central and Southern Tier 8	Sent

Academic Providers

Syracuse University Environmental Finance Center

The Syracuse University Environmental Finance Center (SU-EFC) was founded in 1993 to facilitate development of sustainable and resilient communities across US EPA Region 2 (New Jersey, New York, Puerto Rico, the US Virgin Islands, and eight Native Nations) and nationally. SU-EFC is housed within the Institute for Sustainability Engagement (ISE). The ISE connects local knowledge with academic expertise, fosters strong collaborations between researchers, policymakers, and community members, and supports locally-driven efforts that build long-term resilience.[104]

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	National. Services are most robust for states and Native Nations sharing a geography with EPA Region 2 (NY, NJ, PR, USVI).
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Water quality standards and/or monitoring, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning

[104] https://sustainabilityengagement.syracuse.edu/

	for projects, Securing funding and financing for projects
Types of Communities Served	Rural or small-town communities, Tribal Nations and Indigenous Peoples, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Public Sector Providers

New York State Department of Environmental Conservation (NY DEC)

The mission of the New York State Department of Environmental Conservation (NY DEC) is "To conserve, improve and protect New York's natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being."[105] Within the NY DEC, the Division of Lands and Forests provides TA and funding through grant opportunities to restore urban and community and rural forests and other ecosystems for forest health, acquisition, community and ecosystem resilience, and ecosystem services

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	New York State
Cost to Local Government	Free, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops

[105] https://dec.ny.gov/about

Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions
TA Services Offered	Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Upper Susquehanna Coalition (USC)

Recognizing that SWCDs don't follow watershed boundaries, the Upper Susquehanna Coalition (USC) was formed to implement watershed scale work and has full participation from the 22 SWCDs within the headwaters of the Chesapeake Bay in NY (18 SWCDs) and PA (4 SWCDs). The mission of the USC is to "...protect and improve water quality and natural resources in the Upper Susquehanna River Basin with the involvement of citizens and agencies through planning, education, coordination, funding, project implementation and advocating for our water resources."[106] The Tioga County SWCD administers the USC. The USC provides TA to local governments on implementation of the WIP and individual BMPs and delivers capacity to member SWCDs, who in turn deliver TA to local governments.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Upper Susquehanna Watershed

[106] https://www.uppersusquehanna.org/

Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Non-tidal wetlands, Healthy streams, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions
TA Services Offered	Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Agricultural communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	20-50

Quasi-Governmental

Soil and Water Conservation Districts (SWCDs)

Soil and Water Conservation Districts (SWCDs) in New York are special purpose districts authorized by state law and focused on soil, water and natural resource conservation through TA delivery to landowners including local governments.[107] TA provided to landowners includes erosion control, water and stormwater management, stream management, roads and culverts, and grant management. Sixteen (16) SWCDs are located within the Chesapeake Bay watershed portion of NY state. The data collection tool below reflects information submitted by Cortland County SWCD.

Data Category	**Response**

[107] https://www.nyacd.org/local-soil-water-districts

Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	State, form information is from Cortland County, which can assist other counties in the state at the request of another SWCD
Cost to Local Government	Free, funding is sometimes needed depending on the assistance
Methods of TA Delivery	In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Non-tidal wetlands, Healthy streams, Brook Trout, Fish passage, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities, We assist anyone.
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	10 - 20

Other New York Entities Identified

Other entities within New York that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other New York Entities Identified

Entity	**Type**	**Description (from linked entity website and interviews)**
NY Department of Agriculture and Markets	State	The New York State Soil and Water Conservation Committee (SWCC) works to advance comprehensive natural resources management through the support of local Soil and Water Conservation Districts (SWCDs).
Regional Planning and Development Boards	State	New York's Southern Tier Central and Southern Tier 8 are two Regional Planning and Development Boards in the Bay watershed portion of New York. These Boards provide TA to local governments through their education and outreach workplan of the Phase III WIP for the Bay Program. They also provide TA to local governments to develop climate change plans through the statewide Climate Smart Communities (CSC) Program. Each Board will have a liaison responsible for the CSC program in their jurisdiction.

Pennsylvania

The research identified 14 TAPs that provide TA to local governments in the state of Pennsylvania.

Geography	**Entity**	**Entity Type**	**Program or Department**	**Data Collection Form Completed?**
Pennsylvania	Penn State University - Cooperative Extension	Academic	Master Watershed Stewards Group	Yes
Pennsylvania	County Planning Commissions	County		Yes

	or Departments			
Pennsylvania	PA Municipal League	Nonprofit	Sustainable PA Communities	Yes
Pennsylvania	Watershed Alliance of York (WAY)	Nonprofit		Yes
Pennsylvania	County Conservation Districts (Lancaster County)	Quasi-governmental	Watershed Specialists	Yes
Pennsylvania	PA DCNR	State	Bureau of Forestry Rural and Community Forestry Program	Yes
Pennsylvania	PA Department of Environmental Protection	State	Bureau of Clean Water PA Clean Water Academy	Yes
Pennsylvania	PA Department of Environmental Protection (DEP)	State	Bureau of Watershed Restoration and Nonpoint Source Management (BWRNSM) - Pennsylvania's Community Clean Water Action Plan (CAP) Coordinators, Watershed Specialists, Technical Assistance Program	Yes
Pennsylvania	PA Dept of Community & Economic Development	State	Governor's Center for Local Government Services (GCLGS)	Yes
Pennsylvania	State Association of Boroughs	Nonprofit		Sent
Pennsylvania	State Association of Township Supervisors	Nonprofit		Sent
Pennsylvania	PA Association of Conservation Districts (PACD)	Nonprofit	Conservation Planner Program	Sent
Pennsylvania	PA Association of Conservation Districts (PACD)	Nonprofit	Engineering Assistance Program	Sent
Pennsylvania	PennVest	State	Regional Assistance Program	Sent

Academic Providers

Penn State Cooperative Extension

Penn State's Master Watershed Stewards Program aims to strengthen local capacity for management and protection of watersheds, streams and rivers by educating and empowering volunteers across Pennsylvania. Master Watershed Steward volunteers assist local governments, County Conservation Districts (CCDs) and other entities with activities associated with the Countywide Action Plans for Clean Water (CAPs), stormwater education and outreach, outfall monitoring, water quality monitoring, best management

practice installation and maintenance, and litter clean ups. The Program can train volunteers to address specific needs in communities as well. Currently, the Master Watershed Stewards Program has roughly 1,200 volunteers across 55 counties in the state and paid local coordinators that coordinate volunteer activities. The Program provides volunteers with forty hours of training in environmental science and subsequently requires volunteers to complete at least 10 hours of continuing education annually.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Volunteers within 55 out of the 57 counties.
Cost to Local Government	Free or fee: program relies on annual county funding and sometimes support from municipalities, partners and other funding sources
Methods of TA Delivery	In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Fish habitat, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Identifying and planning for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%

Number of Local Governments Reached in Previous Five (5) Years	Over 50

Public Sector Providers

Pennsylvania Department of Environmental Protection (DEP)

Bureau of Watershed Restoration and Nonpoint Source Management (BWRNSM)

PA DEP's BWRNSM provides support to counties within PA's portion of the Chesapeake Bay watershed through Community Clean Water Action Plans (CAPs), resources and tools, grants and grant support, and funding for engineering TA through the CAP Implementation Block Grant.[108] Using the Block Grant, BWRNSM supports Community Clean Water Action Plan Coordinators (CAP Coordinators) in each county to facilitate implementation of the CAPs, as well as water quality project implementation. Through community and stakeholder engagement, BWRNSM learned that Coordinators are crucial to implementation of the CAPs. CAP Coordinators are housed within County Conservation Districts or County Planning Commissions and conduct a wide variety of TA with local governments, including outreach, communication about the CAP, grant writing, and permit assistance.

A key gap in TA identified by Clean Water Action Groups, coordinated by BWRNSM, is engineering and design support across multiple water quality project types in the agriculture, restoration, and stormwater sectors. In response, DEP has initiated a workgroup on workforce development for engineers and conservation focused employees. In addition to allowing 25% of project costs to go towards design and engineering through the implementation funds, DEP also allows counties to use up to 25% of CAP Coordinator funding for design and engineering.

Through BWRNSM, PA DEP also funds Watershed Specialists in each CCD through its Conservation District Watershed Specialist (CDWS) Program. PA DEP states that "The Watershed Specialist is tasked with a wide variety of responsibilities, but the essence of the position remains true to its original focus of enabling communities to affect positive change on water quality. This purpose is most commonly accomplished through collaboration with watershed associations and other non-governmental organizations, as well as through the

[108] The CAP Implementation Block Grant process streamlines funding to counties through multiple state and federal funds. Implementation funding is awarded annually and tied to specific projects and performance criteria. Coordinator funding is almost entirely derived from state funds.

impactful use of state, federal, and private grants to implement water quality restoration projects; by performing monitoring or enabling citizens to engage in water quality monitoring; and by providing education to students of all ages."[109]

PA DEP also funds the Technical Assistance Program (TAP) through CCDs. "The DEP Chesapeake Bay Technical Assistance Program provides funding toward Technicians at conservation districts within the Pennsylvania portion of the Chesapeake Bay watershed. The focus of the program is to ensure that conservation district staff are available to provide technical assistance to agricultural landowners and operators to implement best management practices, develop and verify Agricultural Erosion and Sediment Control Plans and Manure Management Plans, verify and report best management practice implementation, and provide compliance assistance and compliance assurance through the Chesapeake Bay Agriculture Inspection Program (CBAIP). Funding for this program comes from the EPA Chesapeake Bay Regulatory Accountability Program (CBRAP) grant and the DEP Chesapeake Bay Abatement Fund."[110] The TAP includes the Chesapeake Bay Engineer Program: "The DEP Chesapeake Bay Engineer Program provides funding toward Engineer Specialists and Engineer Assistants at conservation districts within the Pennsylvania portion of the Chesapeake Bay watershed. The focus of the program is to provide direct technical assistance to agricultural landowners and operators as well as to assist the Chesapeake Bay Technicians with the planning, design, procurement, installation, and maintenance of agricultural best management practices. These staff also provide design, survey, computation, material testing and implementation of agricultural waste management systems and other structural best management practices and provide construction quality assurance checks and documentation of implemented practices. Funding for this program comes from the EPA Chesapeake Bay Implementation Grant (CBIG)."[111]

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional

[109] https://www.pa.gov/agencies/dep/programs-and-services/water/bwrnsm/nonpoint-source/watershed-support/watershed-specialists
[110] https://www.pa.gov/agencies/dep/programs-and-services/water/bwrnsm/nonpoint-source/conservation-district-support/chesapeake-bay-program-technician-and-engineer-cost-share-program
[111] https://www.pa.gov/agencies/dep/programs-and-services/water/bwrnsm/nonpoint-source/conservation-district-support/chesapeake-bay-program-technician-and-engineer-cost-share-program

Specific Geography of Operation	Pennsylvania's portion of the Chesapeake Bay watershed (43 counties)
Cost to Local Government	Free
Methods of TA Delivery	Virtual, Site Visits, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	20-50

Bureau of Clean Water (BCW)

Pennsylvania Clean Water Academy

Through the Bureau of Clean Water (BCW), PA DEP implements the Pennsylvania Clean Water Academy, an online repository and platform of technical training from BCW. The Academy offers courses on watershed restoration, agriculture, erosion and sediment control, municipal separate storm sewer systems (MS4), and wastewater operations.[112]

112 https://files.dep.state.pa.us/Water/BWEW/Watershed%20Management/WatershedPortalFiles/NonpointSo

Data Category	Response
Broadest Jurisdictional Scale of Operation	National
Specific Geography of Operation	Statewide and regional in PA
Cost to Local Government	Free
Methods of TA Delivery	Virtual
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Fish habitat, Healthy streams, Brook Trout, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25-50%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

urceManagement/3000-RE-DEP5298%20%202019%20Nonpoint%20Source%20Management%20Annual%20Report.pdf

The mission of the Bureau of Forestry in Pennsylvania's Department of Conservation and Natural Resources is to "...conserve, steward, and enhance Pennsylvania's trees, forests, and native wild plants and connect with all the people and communities we serve."[113] Technical assistance to local governments includes woodlot management (e.g., invasive species management, managing for habitat and forest health), urban forestry, watershed forestry (riparian forest buffers and lawn to habitat), and responding to general forestry questions for private landowners, NGOs, and communities in the state.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Pennsylvania
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Community stewardship
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

[113] https://www.pa.gov/agencies/dcnr/programs-and-services/about/bureaus-and-offices/forestry

Pennsylvania Department of Community & Economic Development

Governor's Center for Local Government Services (GCLGS)

The Governor's Center for Local Government Services (GCLGS) is "...a one-stop shop for local government officials and provides a wealth of knowledge and expertise on all matters affecting local government operations throughout Pennsylvania."[114] The GCLGS provides technical and financial assistance (community planning and land use, strategic management, fire and police services) and training and reference resources (handbooks, online training resources) to aid local governments in economic revitalization, recovery, planning, and other activities.[115] Within the GCLGS, the Office of Community Planning (OCP) is a two-year old office that provides planning agencies, zoning officers, zoning hearing boards, and other local government officials with technical assistance on a variety of community planning, land use, and development needs, including the Pennsylvania Municipalities Planning Code (MPC), land use and development, zoning ordinances, and Subdivision and Land Development Ordinances (SALDO). The OCP has implemented a new and dedicated Community Planning TA Program (C-TAP) for local governments. The program offers 400 hours of planning TA to communities per project at no cost to the local governments. Work typically focuses on Comprehensive Plans, land use ordinances, neighborhood and downtown planning. OCP is currently in a pilot phase, working with communities the office has funded through its grant programs. While focused outreach was implemented with these communities, in the future the office plans on creating pathways for communities to request assistance.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Municipal
Specific Geography of Operation	Pennsylvania
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Written reports, mapping
Chesapeake Bay Agreement Goals Addressed	Community stewardship, Local leadership, Land Use, Community Development,

[114] https://dced.pa.gov/local-government/
[115] https://dced.pa.gov/download/gclgs-booklet/?wpdmdl=63983

*Blue text reflects areas of work added by respondent	Planning
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

County Planning Commissions or Departments

County Planning Commissions or Departments in Pennsylvania are authorized by Section 201, Article II of the Pennsylvania Municipalities Planning Code (Act of 1968, P.L.805, No.247), which enables municipalities to establish Planning Commissions or Departments to prepare the required Comprehensive Plan for the municipality and conduct a variety of planning-related actions.[116] County Planning Commissions/Departments assist with preparing the required county comprehensive plan; conduct municipal comprehensive plan, subdivision, and zoning reviews; conduct transportation reviews; and provide TA around a variety of planning activities.

TA offered by County Planning Commissions or Departments will vary. The information below reflects the York County Planning Commission (YCPC); other Planning Commissions/Departments may have different focal areas but collecting information from every Planning Commision/Department was beyond the scope of this project. The YCPC guides sustainable development and preservation through planning, programs, and partnerships to improve the quality of life in York County communities. YCPC conducts

[116] https://dced.pa.gov/download/pennsylvania-municipalities-planning-code-act-247-of-1968/?wpdmdl=56205&refresh=69cbe06fefec01774968943

activities such review of local plans/ordinances/studies, provision of model ordinances and sample ordinance provisions, assistance with grant applications and mapping applications, trainings, and participation on local planning/project steering committees.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Municipality
Specific Geography of Operation	York County
Cost to Local Government	Free, Special/Unique requests may require a fee
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Student education and environmental, land use, open space, & environmental planning, complete streets
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, development of regulations, land use planning, statistics, mapping
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25-50%

Number of Local Governments Reached in Previous Five (5) Years	20-50

Nonprofit Providers

Pennsylvania Municipal League, Sustainable PA Community Certification

The Pennsylvania Municipal League (PML) is a nonprofit, nonpartisan organization that represents participating Pennsylvania cities, boroughs, townships, and home rule communities that share the PML's municipal policy interests. Our Board of Directors oversees the administration of a wide array of municipal services including legislative advocacy (on both the state and federal levels), publications designed to educate and inform, education and training certification programs, membership research and inquiries, consulting-based programs, and group insurance trusts.

PML "...strengthens and empowers effective local government through advocacy, education, and support for our members".[117] PML implements a variety of programs, trainings, and events to support cities in the state, including working with Sustainable Pittsburgh to run the Sustainable Pennsylvania Community Certification Program. Sustainable Pennsylvania is "...a free and voluntary municipal certification program created to assess a local government's measure of sustainability and provide a curated list of resources and opportunities to help the community improve."[118] Program topics include parks and land conservation, water, and waste and materials management. Through this program, PML works with municipalities in the state to complete the Sustainable Pennsylvania Community Certification process, including assisting municipalities in locating documentation, finding resources, and developing strategies. Certified communities receive recognition for adopting sustainable policies and practices that improve the quality of life for residents and expand opportunities for everyone.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Municipality
Specific Geography of Operation	Pennsylvania
Cost to Local Government	Free

[117] https://www.pml.org/about/about-us/
[118] https://sustainablepa.org/certification-program/

Methods of TA Delivery	Virtual
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Land protection, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Information technology
Types of Communities Served	Rural or small-town communities, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Pennsylvania Rural Water Association (PRWA)

The mission of the Pennsylvania Rural Water Association is to work cooperatively within the industry to support not only its members but all the water and wastewater utilities throughout the Commonwealth with professional technical support, certified training, legislative representation, and other valuable services and benefits. Operating a water, wastewater, or stormwater system is a complicated process; PRWA staff assist systems with the technical aspects, regulations, administrative tasks, and financial tasks of a system. Water and Wastewater Systems can request assistance for operations, regulations, or other aspects of running a utility. Additionally, systems can request an energy audit and receive information about how to increase sustainably. PRWA also provides TA on stormwater and source water protection, and is implementing an Apprenticeship Program for Water and Wastewater Operation Specialists - a national program through NRWA that states can approve - through which PRWA delivered an almost 250-hour training program over two years that includes hands-on work experience as well. PRWA assists in over 1,000 systems every year through technical assistance and operator training.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Municipality, County
Specific Geography of Operation	Pennsylvania

Cost to Local Government	Free, Some services are offered to PRWA members only.
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Training classes
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Community stewardship, Workforce development/jobs, Student education and environmental, In addition to water and wastewater treatment, PRWA assists with stormwater, source water protection, and an approved apprentice program.
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Maintenance and management of projects, Water and wastewater process troubleshooting, sampling procedures and testing, leak detection, wastewater collection system testing, GIS mapping.
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Watershed Alliance of York (WAY)

The mission of the Watershed Alliance of York (WAY) is to improve York County's water, making it cleaner and healthier for all. It partners with York County on implementation of the Countywide Action Plan for Clean Water (CAP) and provides TA to municipalities and

landowners around clean water initiatives, most commonly for water quality project implementation through grants. Project types include stream clean ups, tree plantings, stream restoration, wetland restoration, and floodplain restoration. WAY assists municipalities with all phases of the project cycle, including grant application and management, project oversight, identifying contractors for design and permitting, and formulating construction bid requirements. Project sizes can range from $50,000 to $3 million. WAY focuses on non-agricultural lands, while Pennsylvania's County Conservation Districts offer TA to agricultural landowners.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	York County, Pennsylvania
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Newsletters, Presentations
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Non-tidal wetlands, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%

Number of Local Governments Reached in Previous Five (5) Years	Over 50

Quasi-Governmental Providers

County Conservation Districts

County Conservation Districts (CCDs) are legal subdivisions of the Commonwealth of Pennsylvania established through Conservation District Law (Act 217 of 1945) that support local conservation initiatives. Every county in PA, with the exception of Philadelphia, has a CCD, for a total of 65 CCDs in the state. CCDs are governed by Boards of Directors composed of County residents who work on issues of importance to their County, including many areas relevant to the Chesapeake Bay Agreement goals. CCDs have a strong focus on working on agricultural lands but work on other land uses as well. The PA Association of Conservation Districts (PACD) lists issues CCDs work on, which include agricultural land preservation; the Chesapeake Bay Program; environmental education; erosion & sedimentation pollution control; floodplain, stormwater, forest, wildlife and nutrient management; and water protection.[119]

TA offered by CCDs varies by District. The information below reflects one CCD in the Bay watershed of the state (Lancaster County Conservation District); other CCDs may have different focal areas but collecting information from every CCD was beyond the scope of this project. Lancaster CCD works on providing funding through the Dirt & Gravel Road Program to restore roads along streams, assisting local governments (municipalities) with administering a stormwater fee program, and providing education and outreach to municipal staff and county residents.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	County
Specific Geography of Operation	Lancaster County, Pennsylvania
Cost to Local Government	Free, fee
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters

[119] https://pacd.org/?page_id=57

Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Non-tidal wetlands, Healthy streams, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Community stewardship, Local leadership, Workforce development/jobs, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Other Pennsylvania Entities Identified

Other entities within Pennsylvania that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other Pennsylvania Entities Identified

Entity	**Type**	**Description (from linked entity website)**
Pennsylvania Association of Conservation Districts (PACD)	Nonprofit	PACD supports the 66 County Conservation Districts (CCDs) in Pennsylvania through providing advocacy, education and training, and program coordination and facilitation. PACD is funded through dues, state and federal grants and

		private donors. The Association works with state and federal partners to support the work of CCDs, and runs two specific programs: the Conservation Planner Program through which six conservation planners work with landowners on conservation and other plans; and the Engineering Assistance Program funded by the PA Growing Greener Program and USDA NRCS through which engineering and soils TA are provided by professional engineers and conservation technicians for watershed assessments, watershed restoration plans, or watershed protection plans.
Pennsylvania State Association of Township Supervisors (PSATS)	Nonprofit	The Pennsylvania State Association of Township Supervisors (PSATS) is a nonprofit, non-partisan statewide member service organization for 1,453 participating townships of the 2nd Class. PSATS represents local officials in townships such as township supervisors, managers, secretaries, and treasurers. The townships that PSATS works with range from less than 100 people to over 60,000 people. Services provided by PSATS include advocacy, legislative research and analysis and policy development; education and learning; communications; insurance programs; and management of professional associations for specific township officials.
Pennsylvania State Association of Boroughs (PSAB)	Nonprofit	The Pennsylvania State Association of Boroughs (PSAB) is a statewide, non-partisan, non-profit membership organization that serves 954 participating borough governments (boroughs are roughly 38% of all municipal governments in PA). PSAB provides advocacy, advisory, and capacity-building services to boroughs through legislative/regulatory representation at the state and federal levels; promoting constructive and cooperative relationships among boroughs and between PSAB and other levels of government (through conferences for example); delivering training and technical assistance to borough officials; and providing cost-effective programs and services.

Pennsylvania Infrastructure Investment Authority (PENNVEST)	State	The Pennsylvania Infrastructure Investment Authority (PENNVEST) is a financing authority of the state that provides low-cost loans and financial assistance to communities statewide for water quality projects, including drinking water, wastewater, stormwater, and nonpoint source pollution prevention projects. Through regional project specialists of its Regional Assistance Program, PENNVEST provides TA to loan applicants through the application process. Regional project specialists work collaboratively with Department of Environmental Protection (DEP) representatives who provide information on permits and technical aspects of projects.

Virginia

The research identified 27 TAPs that provide TA to local governments in the state of Pennsylvania.

Geography	Entity	Entity Type	Program or Department	Data Collection Form Completed?
Virginia	Clean Virginia Waterways	Nonprofit		Yes
Virginia	Friends of the Rappahannock	Nonprofit		Yes
Virginia	James River Association	Nonprofit		Yes
Virginia	Resilient Virginia	Nonprofit		Yes
Virginia	VA Association of SWCDs	Nonprofit		Yes
Virginia	York River Steward	Nonprofit		Yes
Virginia	Planning District Commissions (PDCs)	Quasi-governmental		Yes
Virginia	Department of Forestry	State	Trees for Clean Water Program; Urban and Community Forestry	Yes
Virginia	VA Department of Environmental Quality	State	Chesapeake Bay Program Office	Yes
Virginia	VA Department of Environmental Quality	State	Office of Watersheds and Local Government Assistance, DEQ Program Liaisons (TA) for 84	Yes

			localities under the CB Preservation Act	
Virginia	VA Department of Environmental Quality	State	Watershed Roundtables	Yes
Virginia	VA Department of Conservation & Recreation	State	Shoreline Erosion Advisory Service (SEAS)	Sent
Virginia	University of Virginia	Academic	Virginia Natural Resources Leadership Institute (VNRLI)	Sent
Virginia	Virginia Institute of Marine Science (VIMS)	Academic	Center for Coastal Resources Management (CCRM)	Sent
Virginia	Virginia Sea Grant	Academic	Virginia Institute of Marine Science (VIMS) Marine Advisory Program	Sent
Virginia	Virginia Tech Coastal Collaborator	Academic		Sent
Virginia	Elizabeth River Project	Nonprofit	Unsure so emailed a variety of different people at ERP	Sent
Virginia	Indigenous Conservation Council of the Chesapeake Bay	Nonprofit		Sent
Virginia	Lynnhaven RiverNow	Nonprofit		Sent
Virginia	Piedmont Environmental Council	Nonprofit		Sent
Virginia	VA Association of Counties (VACO)	Nonprofit	Supervisor Certification and also a Chairpersons training	Sent
Virginia	VA Association of Planning District Commissions	Nonprofit		Sent
Virginia	VA Municipal League	Nonprofit		Sent
Virginia	VA Outdoors Foundation	Nonprofit		Sent
Virginia	VAULT	Nonprofit		Sent
Virginia	Wetlands Watch	Nonprofit		Sent
Virginia	Rappahannock River Basin Commission	State		Sent

Nonprofit Providers

Clean Virginia Waterways

The mission of Clean Virginia Waterways (CVW) is "...to enhance the health of Virginia's water resources through pollution prevention, education, and stewardship activities

involving Virginians from the classroom to the boardroom."[120] CVW's work focuses on reducing plastic pollution and marine debris, including consumer debris, microplastics, derelict fishing gear, and abandoned and derelict vessels. The organization was a co-founder of the Virginia Plastic Pollution Prevention Network and a co-author (with the Virginia Coastal Zone Management Program) of the Virginia Marine Debris Reduction Plan. CVW produces research and reports on various policies to combat plastic pollution; organizes outreach campaigns to help business phase out plastic waste and community science opportunities and litter cleanups; hosts monthly meetings to share insight and gather data on plastic pollution-initiatives across the state; and conducts presentations to learn more about desired marine debris topics. TA includes researching, recommending, or understanding policies, coordinating work groups, garnering support and community-led action, and integrating localities into a wider network to find appropriate answers or resources.

CVW is funded in part by the Virginia Coastal Zone Management Program through a grant from NOAA's federal Coastal Zone Management Act.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Virginia
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Tidal wetlands, Non-tidal wetlands, Healthy streams, Toxic contaminants, Community stewardship, Local leadership, Student education and environmental
TA Services Offered	Education for local government officials, Policy assistance, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with

[120] https://www.cleanvirginiawaterways.org/

	limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	25 - 50%
Number of Local Governments Reached in Previous Five (5) Years	10 - 20

Friends of the Rappahannock

Friends of the Rappahannock (FOR) "...works to be the voice and active force for a healthy and scenic Rappahannock River".[121] To accomplish this goal, FOR activities center on advocacy, restoration, and education. While FOR's activities exist outside of the Bay Agreement, the river's watershed has been allocated nutrient reduction targets to meet Virginia's overall requirements under the Bay's TMDL. FOR founded and convenes the Rappahannock River Roundtable (RRR, established in 2016), a regional conservation partnership of stakeholders "...dedicated to land and water conservation, community outreach and education, and capacity building throughout the entire Rappahannock River Watershed."[122] The partnership works in eighteen (18) counties in the watershed "...to accelerate the pace of implementation for priority best management practices (bmps) and associated conservation programs outlined in the Virginia Phase III Watershed Implementation Plan (WIP) through innovation, resource sharing, capacity building, and technical assistance. The Roundtable can provide assistance with grant writing, project development, outreach and education programs and campaigns, social media and digital content development/management, GIS and mapping support, and a variety of other support services to members and partners serving the Rappahannock River Region."[123]

FOR provides direct TA to local governments and its partners as needs and resources allow. Local governments reach out to the RRR for assistance with planning, restoration projects, and other needs; the RRR centralizes the information and pairs the local government's request with a partner or resources that can assist them. TA services that are most frequently provided are direct project services, grant writing support, and GIS support.

[121] https://riverfriends.org/who-we-are/
[122] https://www.rappahannockroundtable.org/
[123] https://www.rappahannockroundtable.org/

RRR noted that Planning District Commissions (PDCs) in the state primarily serve local governments.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	18 counties in the Rappahannock River Watershed
Cost to Local Government	Free, Fee, Cost-share, variety of fee structures including free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Brook Trout, Fish passage, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

James River Association

The mission of the James River Association is to "...protect the James River and connect people to it…JRA monitors the river, responds to problems, seeks policy changes, and implements on-the-ground projects to restore the river's health. We protect through our Watershed Restoration, James Riverkeeper, and River Advocacy programs."[124] Through its advocacy, community conservation, education, and restoration programs, the James River Association provides technical assistance to local governments and facilitates regional collaboratives across the James River Watershed.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	James River Watershed
Cost to Local Government	Free, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, In-person summits
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Fish passage, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects

[124] https://thejamesriver.org/

Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	20 - 50

Resilient Virginia

Resilient Virginia "connects people, resources, and ideas to create more resilient communities, environments, and economies across Virginia."[125] Resilient Virginia works across 4 Pillars of Resilience: ecosystem services, built environment, economic activities, and community empowerment. The organization works directly with local governments to connect them with resources, provides free training through Spotlight On Webinars; hosts the Resiliency Academy (fee-based program) through which participants are trained on resilience knowledge and gain skills and leadership capacity to identify and implement resiliency solutions; sends out a quarterly newsletter that lists current funding opportunities, tools for resilience building, and news; and organizes working groups comprised of leaders across sectors through the Resilient Virginia Collaborative Alliance on Agriculture and Food Systems, Water Infrastructure, and Clean Transportation. Resilient Virginia is currently reorganizing its website into two separate sites: resilientvirginia.org will house information on the organization, programs, and ways external groups can partner with them, while beresilientvirginia.org will be an interactive hub of resources that provides direct connections to individuals working in the resilience field.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	We primarily work at the municipality, county, and state level but there are a few

[125] https://resilientvirginia.org/

	projects where we have worked at a regional level - NC, VA, WV.
Cost to Local Government	Free, Fee
Methods of TA Delivery	Virtual, In-Person, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Student education and environmental, Systems-level resilience building; finding funding; connections for partnerships
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

York River Steward

The mission of York River Steward it to "...promote and protect the York River basin through community engagement and boots on the ground efforts".[126] York River Steward conducts restoration, education and advocacy activities across the York River watershed, Piankatank River and Mobjack Bay basins. The organization provides guidance on BMPs to communities - a key goal is to increase the amount of BMPs in the watershed to reach the Chesapeake Bay Watershed Implementation Plan goals.

[126] https://riverfriends.org/yorkriversteward/

Data Category	Response
Broadest Jurisdictional Scale of Operation	Chesapeake Bay-wide
Specific Geography of Operation	York watershed, Piankatank River and Mobjack Bay basins
Cost to Local Government	Free, Fee, Cost-share
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Fish passage, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Workforce development/jobs, Student education and environmental
TA Services Offered	Education for local government officials
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Agricultural communities, Suburban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Public Sector Providers

Department of Forestry

The Virginia Department of Forestry (DOF) mission is to "...protect and develop healthy sustainable forest resources for Virginians."[127] Providing TA and management plans for landowners were mandated by legislation for the state forester. TA is provided through tree planting and other forest management recommendations and assisting landowners with cost-share programs that contain a forest management component. DOF also administers urban tree planting programs (Virginia Trees for Clean Water and Urban and Community Forestry Grant Program assistance) through which localities apply for funding to plant and maintain trees in community spaces.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Virginia
Cost to Local Government	Free
Methods of TA Delivery	In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Healthy streams, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting
TA Services Offered	Identifying and planning for projects, Implementing projects, Maintenance and management of projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

[127] https://dof.virginia.gov/about/

Virginia Department of Environmental Quality

The Virginia Department of Environmental Quality (DEQ's) mission is to protect and enhance the environment of Virginia in order to promote the health and well-being of the Commonwealth's citizens, residents, and visitors in accordance with applicable laws and regulations. DEQ is "Responsible for administering laws and regulations related to air quality, water quality, water supply, renewable energy and land protection, DEQ is the primary environmental permitting agency in the Commonwealth of Virginia…DEQ issues permits, conducts monitoring and inspections, and enforces the law."[128] Several offices within DEQ responded to the data collection request for this project and are profiled below.

Chesapeake Bay Program Office

The Chesapeake Bay Program Office within DEQ contracts for Planning District Commissions (PDCs). The Office provides funding to PDCs to continue Phase III WIP outreach and implementation work with the localities and local stakeholders (e.g., citizen conservation groups, local home builder organizations). The PDCs lead efforts to support and encourage implementation of non-agricultural BMPs and strategies to meet local area planning goals based on local conditions, knowledge, and needs. DEQ leads quarterly training meetings with PDC staff to share relevant presentations to support local engagement.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	PDC-level
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Local leadership
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects

[128] https://www.deq.virginia.gov/news-info/about-us

Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Office of Watersheds and Local Government Assistance

DEQ's Local Government Assistance Program (LGAP) staff liaisons provide oversight of local government implementation of the Chesapeake Bay Preservation Act (CBPA) to 84 local governments in Tidewater, VA (including towns, cities, counties) and provide technical assistance to local government staff including interpretation of regulations, site plan review, policy and comprehensive plan review, and education/outreach support.[129] There are 5 staff liaisons that work in the Office of Watersheds and Local Government Assistance. Some financial support is provided annually to local governments needing assistance for program compliance.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	84 localities in the Tidewater region of Virginia
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Land protection, Tree planting, Nature-based solutions, Local leadership

[129] The Chesapeake Bay Preservation Act (CBPA) was enacted in 1988 in order to manage nonpoint source pollution from land use management. Regulations under the CBPA establish elements and criteria for local governments to adopt and implement for their CBPA programs.

TA Services Offered	Education for local government officials, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Quasi-Governmental Providers

Planning District Commissions (PDCs)

Virginia's Planning District Commissions (PDCs) are political subdivisions of the state created by local governments under the state's Regional Cooperation Act. These regional, quasi-governmental entities were established in the Code of Virginia to "...encourage and facilitate local government cooperation and state-local cooperation in addressing on a regional basis problems of greater than local significance. The cooperation resulting from this chapter is intended to facilitate the recognition and analysis of regional opportunities and take account of regional influences in planning and implementing public policies and services. The planning district commission shall also promote the orderly and efficient development of the physical, social and economic elements of the district by planning, and encouraging and assisting localities to plan, for the future."[130]

Virginia has 21 PDCs across the state that serve local governments along a spectrum of size, technical expertise, and staff and resources. TA services vary by PDC but generally include policy and planning; grant writing; project management and implementation; GIS assistance; data collection and analysis; coordination and facilitation; and serving as a liaison between local and state government bodies. PDCs are funded by a combination of

[130] https://law.lis.virginia.gov/vacode/title15.2/chapter42/section15.2-4207/

state funding, grants, and per-capita dues from local governments. PDCs within the Bay Watershed have a contract with the VA DEQ (profiled separately under VA DEQ) to provide TA to local governments. For example, one PDC in Virginia is utilizing their DEQ contract to work with a nonprofit and a Soil and Water Conservation District (SWCD) to conduct best management practice (BMP) assessments for municipalities.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Each PDC serves multiple counties/cities
Cost to Local Government	Free: while member localities pay per capita annual dues, technical assistance is typically grant funded
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Fisheries, Wildlife, Fish habitat, Blue crabs, Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, Brook Trout, Fish passage, Submerged aquatic vegetation (seagrasses), Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Public access, Student education and environmental, Varies considerably by PDC
TA Services Offered	Education for local government officials, Information technology, Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges,

	Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Soil and Water Conservation Districts (SWCDs)

Soil and Water Conservation Districts (SWCDs) are a type of conservation district with the mission to "coordinate assistance from all available sources—public and private, local, state and federal—to develop locally-driven solutions to natural resources concerns."[131] SWCDs work with landowners on natural resource issues such as soil and water conservation, forests, and wildlife. Virginia's SWCDs are political subdivisions of the state established to "...develop comprehensive programs and plans to conserve soil resources, control and prevent soil erosion, prevent floods, and conserve, develop, utilize and dispose of water."[132] Currently, 47 SWCDs cover almost the whole state and work with the state's Department of Conservation and Recreation to deliver nonpoint source (NPS) pollution programs. SWCDs are governed by elected Boards of Directors and staff can vary from two to twenty people. Staff in SWCDs are "boots on the ground" support for conservation practice implementation.

SWCDs in Virginia implement the Virginia Agricultural Cost-share Program (VACS) and the Virginia Conservation Assistance Program (VCAP). While VACS is only available to farmers and other private agricultural landowners, the VCAP program, an urban cost-share program that provides financial incentives and TA to landowners for BMP installation, is available to local governments as well. Eligible entities submit applications for these programs to the SWCD, which also holds the contract and provides TA for implementation of the BMP.

SWCDs in Virginia share a similar mission; however, details on the types and forms of TA individual SWCDs offer may vary. The information below reflects data submitted by the Virginia Association of Soil and Water Conservation Districts (VASWCD). The mission of the

[131] Conservation districts can be termed soil and water conservation districts, resource conservation districts, natural resource districts, and land conservation committees depending on how they are established under state law. Information and quote from National Association of Conservation Districts, https://www.nacdnet.org/about-nacd/about-districts/.
[132] https://www.dcr.virginia.gov/soil-and-water/swcds

VASWCD and its Foundation is to provide and promote leadership in the conservation of natural resources through stewardship and education programs. The VASWCD and its Foundation coordinate conservation efforts statewide to focus effectively on issues identified by local member districts and support SWCDs in providing TA to their local governments.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	State
Specific Geography of Operation	Virginia
Cost to Local Government	Varies by district
Methods of TA Delivery	Virtual, In-Person, Site Visits, Workshops, Newsletters, Online Discussion Forums
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Oysters and oyster reefs, Tidal wetlands, Non-tidal wetlands, Healthy streams, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Public access, Student education and environmental
TA Services Offered	Policy assistance, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Coastal or flood-prone communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges, Agricultural communities, Suburban communities, Urban communities
Percentage of Time Organization Spends on TA to Local Governments	50 - 75%
Number of Local Governments Reached in Previous Five (5) Years	Over 50

Other Virginia Entities Identified

Other entities within Virginia that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other Virginia Entities Identified

Entity	Type	Description (from linked entity website)
VA Department of Conservation and Recreation (DCR)	State	The Shoreline Erosion Advisory Service (SEAS) assists private landowners and local governments with erosion challenges. SEAS provides free TA, site investigations, written reports, plan reviews, construction investigations and other information. For example, SEAS sends staff into the field to determine if landowners, including local governments, are eligible for shoreline protection efforts.
University of Virginia (UVA) Weldon Cooper Center for Public Service	Academic	UVA hosts the Virginia Natural Resources Leadership Institute (VNRLI) through which professional development opportunities are provided for natural resource professionals, including local government staff and officials. The curriculum includes training on natural resource issues in Virginia, personal and professional leadership styles, conflict management, collaborative problem-solving, and community engagement.
Virginia Institute of Marine Science (VIMS)	Academic	VIM's Center for Coastal Resources Management (CCRM) aims to foster decision-making among citizens and elected officials for greater sustainability and resilience in coastal Virginia. CCRM conducts and disseminates research, has an advisory service, and implements outreach and educational activities and programs. The advisory service focuses on Virginia's tidal and non-tidal wetlands and shorelines. CCRM also assists with flooding, climate change adaptation, and marine debris. CCRM provides Coastal Zone

		Locality Portals for each coastal locality - portals include shoreline data, guidance and tools.
Virginia Tech (VT)	Academic	VT's Coastal Collaborator is a land grant extension program that brings coastal resilience challenges and solutions together. The Coastal Collaborator brings Virginia Tech human capital, innovation and research to the state's coastal areas by collaborating with coastal stakeholders around best practices, disseminating research to coastal areas, and conducting adaptation and resilience assessments. The Coastal Collaborator works with state and local governments, nonprofits, and industry in coastal areas.
Elizabeth River Project	Nonprofit	The mission of the Elizabeth River Project is to restore the health of the Elizabeth River through working in partnership with communities, businesses, and governments. The Elizabeth River Project conducts restoration projects, provides guidance on restoration techniques, implements educational programs, and runs the River Stars program to recognize homes, businesses, and schools that are contributing to the health of the Elizabeth River. The nonprofit works with cities such as Portsmouth, Norfolk, Chesapeake, and Virginia Beach on water quality.
Indigenous Conservation Council of the Chesapeake Bay (ICC)	Nonprofit	The ICC is composed of seven federally-recognized tribes of Virginia that work to reinforce the sovereignty of the tribal nations through building the capacity of all to create an Indigenous, interconnected landscape. The ICC has called for Tribal Sovereignty in the Chesapeake Bay Program, stronger Sovereign-to-Sovereign Co-Management Agreements, and Land Return.
Lynnhaven River NOW (LRNow)	Nonprofit	LRNow was established in 2002 to improve water quality for shellfish harvest within the Lynnhaven River watershed area of Virginia Beach. LRNow has six primary programs: Pearl Homes and Neighborhoods, Pearl Schools, Pearl Faith Communities, Restoration Programs and Advocacy.

		The organization now works on restoration and protection of eight watersheds that comprise Virginia Beach: Little Creek, Lynnhaven River, Atlantic Ocean, Ruddee and Owl Creek, Back Bay, North Landing River, Eastern Branch of the Elizabeth River, and the Northwest River.
Piedmont Environmental Council (PEC)	Nonprofit	PEC is an accredited land trust that works to protect and restore the lands and waters of the Virginia Piedmont across nine counties. The organization is actively involved in land conservation and easements. PEC provides advice and TA to local governments on policy, permitting, comprehensive planning, and other areas.
Virginia Association of Counties (VACO)	Nonprofit	VACO works across the Commonwealth of Virginia to provide advocacy, education, and information to counties. VACO represents counties in the General Assembly and with state agencies, convenes local leaders through an Annual Conference and regional meetings, and disseminates information to counties through the County Connections newsletter.
VA Association of Planning District Commissions (VAPDC)	Nonprofit	The VAPDC does not provide TA directly to local governments but rather is a resource for the 21 PDCs in Virginia with a mission to coordinate and facilitate cooperation across PDCs. VAPDC holds two annual conferences, an annual meeting with State Agency leadership, and other formal and information knowledge sharing events.
VA Municipal League (VML)	Nonprofit	The VML is a membership-based nonprofit, nonpartisan association of local governments (cities, towns, and counties) that provides advocacy, research, and education services to local governments across the state. VML's membership comprises 38 cities, 170 towns, and eight counties governed by an Executive Board of local government leaders. VML provides convening

		services to local governments through conferences (e.g., Virginia Local Elected Officials Conferences), information sharing (e.g., a bi-weekly electronic newsletter), and resources (e.g., a number of handbooks, guides, and reports).
VA Outdoors Foundation (VOF)	Nonprofit	The VA Legislature established the VOF in 1966 as an organization that could receive private donations of land, easements, or money for open-space protection in the state. VOF provides funding (e.g., the Preservation Trust Fund and Terra) for open-space protection to landowners and local governments. VOF's easement services are generally fee-based but the Preservation Trust Fund can be leveraged to defray some costs. VOF also provides legal and other technical expertise around issues related to land protection and stewardship. An online Help Desk provides a searchable database of resources.
Virginia's United Land Trusts (VAULT)	Nonprofit	VAULT is a network of land trusts and easement-holding agencies, including local governments that support land protection across the Commonwealth of Virginia. VAULT convenes a standing workgroup of local governments (Localities in Conservation) that have active development rights, open space programs, or other types of conservation programs. The workgroup meets six times per year and provides a peer network. Local governments also attend VAULT's annual conference. VAULT provides knowledge sharing through the monthly virtual Stewardship workgroup to which local governments are invited and provides online training resources on topics such as federal grants and heirs property.
Wetlands Watch	Nonprofit	Wetlands Watch seeks to increase natural resilience, adaptation, protection and restoration of wetlands across the Commonwealth of Virginia. In addition to working on wetlands policy and advocacy, the Communities Initiative offers

		guidance and TA to local government staff around floodplain management, flood risk reduction, and adaptive planning. Through Chairing the Virginia Community Rating System (CRS) Workgroup, Wetlands Watch provides peer-to-peer exchanges across Virginia to facilitate knowledge sharing of flood-related topics.
VA Department of Conservation and Recreation (DCR)	State	DCR's Soil and Water Conservation staff in the central and regional offices provide services related to nonpoint source pollution control to local governments and other stakeholders across the state. The staff work on nutrient management, agricultural BMPs, resource management planning, advise on shoreline erosion, and provide support to Virginia's SWCDs.
Rappahannock River Basin Commission (RRBC)	State	The RRBC is a legislative commission of the Commonwealth of VA created by the VA General Assembly through legislation in 2020. The RRBC is a form through which citizens and local governments discuss water and natural resource issues in the Rappahannock River Basin. The RRBC conducts and publishes research and other communications and convenes advisory committees from across sectors (e.g., agriculture, environment, private landowners).
Virginia Sea Grant	Other	Virginia Sea Grant is a seven-university partnership that works on coastal ecosystems and communities and working waterfronts. Virginia Sea Grant supports researchers, graduate fellows, extension staff, and interns. The Marine Advisory Program within Virginia Sea Grant is dedicated to extension staff (scientists) who deliver education and TA for aquaculture, fishing, marine business, and seafood technology and safety.

West Virginia

The research identified 3 TAPs that provide TA to local governments in the state of West Virginia.

Geography	Entity	Entity Type	Program or Department	Data Collection Form Completed?
West Virginia	West Virginia Rivers Coalition	Nonprofit		Yes
West Virginia	WVA Regional Planning & Development Councils	State	West Virginia's Region 8 and 9 Planning and Development Councils	Yes
West Virginia	Department of Environmental Protection	State	Watershed Improvement Branch	Sent

Nonprofit Providers

West Virginia Rivers Coalition (WV Rivers)

The mission of the West Virginia Rivers Coalition is "...to conserve and restore West Virginia's exceptional rivers and streams."[133] WV Rivers provides TA on water policy and other aspects of providing clean drinking water. The organization works on policy development and advocacy, provides oversight to industrial development through citizen science and volunteer water quality monitoring programs, works on source water and public lands protection, and conducts watershed-scale advocacy.[134]

Data Category	Response
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	West Virginia
Cost to Local Government	Free
Methods of TA Delivery	Virtual, In-Person
Chesapeake Bay Agreement Goals Addressed	Fish habitat, Healthy streams, Brook Trout, Water quality standards and/or monitoring,

[133] https://wvrivers.org/about/about-us/
[134] https://wvrivers.org/about/about-us/

*Blue text reflects areas of work added by respondent	Toxic contaminants, Nature-based solutions, Community stewardship, Local leadership
TA Services Offered	Education for local government officials, Policy assistance, Implementing projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Urban or industrial communities facing infrastructure or pollution challenges
Percentage of Time Organization Spends on TA to Local Governments	0 - 25%
Number of Local Governments Reached in Previous Five (5) Years	0 - 5

Public Sector Providers

West Virginia Region 8 and 9 Planning & Development Councils

West Virginia's Planning and Development Councils (PDCs) were established through the 1971 Regional Planning & Development Act that divided the state into 11 regional development districts "...to more effectively utilize funding resources and maximize small communities' chances of attracting funds from federal, state, and local organizations to foster community and cooperation throughout the state."[135] The regional PDCs are quasi-governmental entities governed by local representatives and help coordinate development across multiple local governments and counties. The PDCs "...focus on expansion and improvement of water and sewer facilities, infrastructure, transportation, employment, industry, small business development, housing, health care, education, and recreation. By coordinating closely with our affiliates in the region, we promote stability, growth, and progress in West Virginia, especially assisting local jurisdictions too small to maintain staff for grant writing and planning."[136] The Region 8 and 9 PDCs fall within the Bay Watershed portion of West Virginia.

PDCs conduct outreach to the local governments within their service area through mechanisms such as biannual formal meetings and periodic attendance at town council

[135] https://www.wvregionalcouncils.com/
[136] https://www.wvregionalcouncils.com/

meetings. Outside of established venues, the local governments can seek assistance at any time from the PDCs. The work of the PDCs is not free; the counties and municipalities within a region pay an annual fee to support the work of the PDC based on population. Services provided are focused on helping local governments obtain funding, including identifying, applying for and administering grants.

Data Category	**Response**
Broadest Jurisdictional Scale of Operation	Regional
Specific Geography of Operation	Eastern Panhandle of West Virginia: Berkeley, Morgan, and Jefferson Counties. Along with the municipalities within them.
Cost to Local Government	Yearly assessment fee based on population.
Methods of TA Delivery	Virtual, In-Person, Site Visits, Grant writing and administration, project management
Chesapeake Bay Agreement Goals Addressed *Blue text reflects areas of work added by respondent	Wildlife, Healthy streams, Water quality standards and/or monitoring, BMPs for nutrient (nitrogen, phosphorus, sediment) reduction, Toxic contaminants, Land protection, Tree planting, Nature-based solutions, Community stewardship, Local leadership, Workforce development/jobs, Student education and environmental Region 9 PDC also works on broadband, sewer and water lines expansion, parks and recreation projects, trail projects, and historic preservation projects.
TA Services Offered	Education for local government officials, Identifying and planning for projects, Securing funding and financing for projects, Implementing projects, Maintenance and management of projects, Monitoring projects
Types of Communities Served	Rural or small-town communities, Communities with limited local government capacity or resources, Agricultural communities, Suburban communities

Percentage of Time Organization Spends on TA to Local Governments	75 - 100%
Number of Local Governments Reached in Previous Five (5) Years	5 - 10

Other West Virginia Entities Identified

Other entities within West Virginia that may provide relevant TA to local governments were identified through the research, but outreach attempts for detailed data were unsuccessful within the timeframe of the project. The table below summarizes general information about each entity available online.

Other West Virginia Entities Identified

Entity	**Type**	**Description (from linked entity website)**
West Virginia Department of Environmental Protection (WVDEP) Watershed Improvement Branch	State	The mission of WVDEP's Watershed Improvement Branch (WIB) is to inspire and empower people to value and work for clean water. WIB administers programs that educate, provide assistance, and plan and implement water quality protection, improvement and restoration projects.

Appendix C: List of Interviewees

Name	Position	Organization
Amanda Pollack	Director of Training & Senior Water Resources Engineer	Center for Watershed Protection/Envision the Choptank
Amy Guise	Chief, Planning Division, Baltimore District	U.S. Army Corps of Engineers
Andrew Fellows	Senior Faculty Specialist; Director, Data Justice Program in College Park Scholars	University of Maryland
Bryan Hoffman	Deputy Director	Friends of the Rappahannock
Carrie Decker	Natural Resource Planner and Project Manager	MD Department of Natural Resources
Cassandra Davis	Research Scientist	New York State Department of Environmental Conservation
Catherine McCall	Maryland Coastal Management Program Director	MD Department of Natural Resources
Chase Barnes	Associate Policy Scientist	University of Delaware Grant Assistance Program
David Hirschman	Field Liaison	National Fish and Wildlife Foundation
Dorothy Morris	AICP Circuit-Rider Planner for Sussex County	DE Office of Planning
Ed Lewandowski	Coastal Communities Development	Sea Grant Delaware
Ellen Shepard	Executive Director	Virginia Association of United Land Trusts
Emily Neideigh	Executive Director	Watershed Alliance of York
Eric Buehl	Watershed Restoration Specialist	MD SeaGrant Extension
Erin Frederick	Statewide Master Watershed Steward Program Coordinator	Penn State University
Holly Walker	Chesapeake Bay Watershed Program Manager	DE Department of Natural Resources and Environmental Control
James Hutzler	Government Relations Associate	VA Association of Counties
Jamie Piziali	Municipal Ombudsman	U.S. Environmental Protection Agency
Jana Savini	Coastal Collaboration Manager	Partnership for the DE Estuary
Jim Woodworth	Branch Chief, Maintenance & Pollution Prevention	DC Department of Energy & Environment
Josephine Saikali	Environmental Program Coordinator	West Virginia Region 9
Josh Milner	Technical Assistance Provider, DE	DE Southeast Rural Community Assistance

		Project (SERCAP)
Julia Wakeling	Environmental Protection Specialist	DC Department of Energy & Environment
Kate Beats	Watershed Accountability and Administration Environmental Group Manager	PA Department of Environmental Protection
Kate Bresaw	Nonpoint Source Management Division Environmental Group Manager	PA Department of Environmental Protection
Katherine Brownson	USFS Liaison to the Chesapeake Bay Program	U.S. Forest Service
KC Fillipino	Senior Water Resources Planner	Hampton Roads, VA PDC
Keith Bollt	Environmental Protection Specialist, Chesapeake Bay Program Office's Partnerships and Accountability Branch	U.S. Environmental Protection Agency
Kelley Dinsmore	Environmental Coordinator	DE NPDES Stormwater Consortium
Ken Hyer	Chesapeake Bay Coordinator	United States Geological Survey
Kendall Tyree	Executive Director	VA Association of SWCDs
Kevin McLean	Chesapeake Bay Program Manager	VA Department of Environmental Quality
Kevin Schabow	Director, Chesapeake Bay Office	National Oceanic and Atmospheric Administration
Leah Sheppard	Climate Resilience Program, Section Chief	MD Department of Natural Resources
Lisa Mroszczyk-Murphy	Eastern Planning Manager	PA Department of Community & Economic Development
Lisa Wool	Executive Director	Nanticoke Watershed Alliance
Lori Spagnolo	Program Manager	University of Delaware Grant Assistance Program
Matt Ehrhart	Director of Watershed Restoration	Stroud Water Research Center
Matthew Harris	Associate Policy Scientist and Urban Planner	University of Delaware Grant Assistance Program
Meg Cole	Coordinator and Interim Executive Secretary	Chesapeake Research Consortium STAC
Nancy Nunn	Education, Outreach and Advancement Coordinator	Harry R. Hughes Center for Agro-Ecology
Natahnee Miller	Program Coordinator	PA Department of Environmental Protection
Nicole Carlozo	Natural Resource Resiliency Planner	MD Department of Natural Resources
Owen Bailey	Director of Land Use and Policy	Eastern Shore Land Conservancy
Rachel Stahlman	York Countywide Action Plan Coordinator	York County Planning Commission, PA

Sara Ramotnik	Policy Specialist	Choose Clean Water Coalition
Tom Goehring	Director of Operations / Wastewater Trainer	PA Rural Water Association
Tom Leigh	Local Government Specialist	Alliance for the Bay
Travis Ostrom	Lead Water Resources Engineer	U.S. Environmental Protection Agency
Wendy Walsh	District Manager	Tioga County, NY SWCD