

**AGENCY:** U.S. Environmental Protection Agency (EPA)

**TITLE:** Chesapeake Bay Program Office Fiscal Year 2016 Request for Proposals for Technical Analysis and Programmatic Evaluation Support to the Chesapeake Bay Program Partnership

**ANNOUNCEMENT TYPE:** Request for Proposals (RFP)

**RFP NUMBER:** EPA-R3-CBP-16-06

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NUMBER: 66.466**

### **IMPORTANT DATES**

10/03/2016	Issuance of RFP
11/26/2016	Proposal Submission Deadline (see Section IV for more information)
01/10/2017	Approximate date for EPA to notify applicants of results
02/09/2017	Approximate date for applicant to submit federal cooperative agreement application
04/10/2017	Approximate date of award

EPA will consider all proposals that are submitted via Grants.gov on or before 11:59 pm EST on **November 26, 2016**. Any proposals submitted after the due date and time will not be considered for funding. No proposals will be accepted by facsimile or e-mail. EPA will only accept proposals submitted via Grants.gov, except in limited circumstances where applicants have no or very limited Internet access (see section IV.).

### **SUMMARY**

The U.S. Environmental Protection Agency's (EPA) Chesapeake Bay Program Office (CBPO) is announcing a Request for Proposals (RFP) for applicants to provide the Chesapeake Bay Program (CBP) partners with a proposal(s) for providing technical analysis and programmatic evaluation support for the CBP partnership in support of the implementation of the most cost-effective, efficient, and targeted nutrient and sediment reduction actions for the protection and restoration of the Chesapeake Bay and its watershed. Proposals will also provide for technical support for the targeted implementation of actions in support of reaching the goals and outcomes of the *2014 Chesapeake Bay Watershed Agreement*. CBP partners include federal agencies, seven watershed jurisdictions, and many non-federal organizations; however, work funded under this RFP will support the seven watershed jurisdictions and other non-federal partners. The seven watershed jurisdictions are Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia.

**FUNDING/AWARDS:** This RFP will cover the project period up to and including six years from an expected start date of April 1, 2017. EPA CBPO plans to award one or more cooperative agreements under this RFP. For example, an applicant may be selected/funded for more than one

of the nine activities addressed in this RFP, or individual awards will be made for each activity. Regardless, a separate proposal must be submitted for each activity.

The total estimated funding for six years is approximately \$870,000 to \$1,200,000 per activity with an estimated \$130,000 to \$205,000 available for the first year and each additional year per activity. However, it should be noted that these ranges are a broad representation of all the activities combined and specific funding ranges may vary by activity as noted in this RFP. Therefore, applicants should refer to each specific activity for the actual funding amount when developing its proposal(s). There is no guarantee of funding throughout this period or beyond.

## **FULL TEXT OF ANNOUNCEMENT**

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## **I: FUNDING OPPORTUNITY DESCRIPTION**

### **A. Background**

#### ***1. About the Chesapeake Bay Program***

The Chesapeake Bay is North America's largest and most biologically diverse estuary. A resource of extraordinary productivity, it is worthy of the highest levels of protection and restoration. Authorized by Section 117 of the Clean Water Act, the Chesapeake Bay Program is responsible for supporting the Chesapeake Executive Council through a number of actions, including the coordination of federal, state, and local efforts to restore and protect living resources and water quality of the Chesapeake Bay and its watershed. Section 117 also authorizes EPA to provide assistance grants to support the goals of the program.

The Chesapeake Bay Program is a unique regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. The CBP partners include the states of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia; the District of Columbia; the Chesapeake Bay Commission, a tri-state legislative body; EPA, representing the federal government; and participating citizen, local government, and scientific and technical advisory groups.

The Chesapeake Bay Program partnership (the Partnership) is guided at the direction of the Chesapeake Executive Council (Executive Council), which, through its leadership, establishes the policy direction for the restoration and protection of the Chesapeake Bay and its watershed and exerts its leadership to rally public support for Chesapeake Bay and watershed restoration

and protection and signs directives, agreements, and amendments that set goals and guide policy for Chesapeake Bay and watershed restoration and protection.

The Principals' Staff Committee acts as the senior policy advisors to the Executive Council, accepting items for their consideration and approval and setting agendas for Executive Council meetings. The Principals' Staff Committee also provides policy and program direction to the Management Board.

The Management Board provides strategic planning, priority setting, and operational guidance through implementation of a comprehensive, coordinated, accountable implementation strategy for the Chesapeake Bay Program. It directs and coordinates all of the Goal Implementation Teams (GITs) and their respective workgroups.

The membership of the GITs and the Scientific, Technical Assessment and Reporting Team include federal and non-federal experts from throughout the watershed. Thus, academic experts, advocacy organizations, and others become active members of the broad Chesapeake Bay and watershed restoration and protection partnership.

Pursuant to Section 117(b)(2) of the Clean Water Act, 33 USC 1267 (b)(2), the Chesapeake Bay Program Office is the office within EPA charged with providing support to the Executive Council in the restoration and protection of the Chesapeake Bay. The Chesapeake Bay Program Office and Chesapeake Bay Program, both mentioned above, are two distinct entities.

## **2. 2014 Chesapeake Bay Watershed Agreement and Executive Order 13508**

On June 16, 2014, the Chesapeake Executive Council, the Chesapeake Bay Program's governing body signed a new voluntary Chesapeake Bay agreement (referred to as *Chesapeake Bay Watershed Agreement* throughout this RFP) that will guide the CBP partnership's work into the future. For the first time, Delaware, New York, and West Virginia signed the agreement as full CBP partners in the overall effort. This agreement is one of the most comprehensive restoration plans developed for the Chesapeake Bay region, providing greater transparency and accountability of all CBP partners. With 10 interrelated goals and 31 outcomes, this watershed-wide accord advances the restoration, conservation, and protection of all the lands and waters within the 64,000-square-mile watershed by promoting sound land use, environmental literacy, stewardship, and a diversity of engaged citizens. Additionally, the goals and outcomes aim to better protect and restore the Chesapeake Bay's living resources, water quality, and vital habitats. The *Chesapeake Bay Watershed Agreement* also recognizes the unique and vital role local governments play and how they are essential to the restoration and protection of the Chesapeake Bay and its watershed.

This cooperative agreement will help support all of the goals in the *Chesapeake Bay Watershed Agreement* and further the following principles as stated in the Agreement: Operate with transparency in program decisions, policies, actions and reporting to strengthen public confidence in our efforts, adaptively manage at all levels of the partnership to foster continuous improvement, and engage citizens to increase the number and diversity of people who support and carry out the conservation, protection and restoration activities necessary to achieve the goals and outcomes of the *Chesapeake Bay Watershed Agreement*.

### ***3. The Chesapeake Bay TMDL, WIPs, and the Midpoint Assessment***

The EPA has established the Chesapeake Bay Total Maximum Daily Load (TMDL), a historic and comprehensive “pollution diet” with rigorous accountability measures to initiate sweeping actions to restore clean water to the Chesapeake Bay and the watershed’s streams, creeks and rivers.

The Chesapeake Bay TMDL – the largest ever developed by EPA – identifies the necessary pollution reductions of nitrogen, phosphorus and sediment across Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia and sets pollution limits necessary to meet applicable state water quality standards in Chesapeake Bay, its tidal tributaries and embayments. These pollution limits were further divided by jurisdiction and major river basin based on state-of-the-art modeling tools, extensive monitoring data, peer-reviewed science and close interaction with jurisdictional partners.

Watershed Implementation Plans (WIPs) are plans for how each of the seven Chesapeake Bay watershed jurisdictions (jurisdictions), in partnership with federal and local governments, will achieve their respective Chesapeake Bay TMDL allocations and planning targets. The Phase I WIPs were developed in 2010 by the jurisdictions to inform the 2010 Chesapeake Bay TMDL waste load and load allocations. The Phase II WIPs were developed in 2012 by the jurisdictions to meet nitrogen, phosphorus, and sediment planning targets based on updated information generated through CBP Partnership’s Phase 5.3.2 Chesapeake Bay watershed model. The goal of the Chesapeake Bay TMDL and supporting jurisdictional WIP process is to implement by 2025 all nutrient and sediment pollutant load reduction and prevention measures needed to fully restore water quality in Chesapeake Bay and its tidal rivers.

EPA expects practices in place by 2017 to meet 60 percent of the necessary reductions, and the partnership is conducting a Chesapeake Bay TMDL Midpoint Assessment to review progress and adjust nutrient and sediment goals if necessary. The CBP Partnership is currently updating and reviewing the latest science, data, models, and decision support tools to be used in estimating progress in nutrient and sediment pollutant load reductions. Phase III WIPs will be developed by jurisdictions based on a midpoint assessment of progress and new information provided by the Phase 6 Chesapeake Bay Watershed Model and related updates of the Chesapeake Bay Airshed Models and the Chesapeake Water Quality and Sediment Transport Model. The Phase III WIPs will provide information on actions the seven watershed jurisdictions intend to implement between 2018 and 2025 to meet their respective Chesapeake Bay TMDL goals.

### ***4. Chesapeake Bay Program Partnership’s Environmental Models***

Models of the Chesapeake Bay’s airshed, watershed, estuary, and living resources have been developed by the partners and linked together over the past 30 years. The CBP partnership’s suite of models assists in understanding the important processes affecting the health of the watershed and the Chesapeake Bay ecosystem. These modeling tools provide the Chesapeake Bay watershed state and local jurisdictions with an understanding of the effect of various control strategies on pollutant levels and the level of nutrient and sediment load reductions needed to restore the Chesapeake Bay and achieve the states’ water quality standards for dissolved oxygen, chlorophyll *a*, underwater bay grasses and water clarity. By quantifying the management actions

necessary to restore Chesapeake Bay habitats and the living resources dependent on those habitats, these integrated CBP partnership models provide guidance to environmental managers and citizens on where the most cost-effective reductions can be made so that controls are equitable and broadly supported.

Development and application of the next generation of Chesapeake Bay models will require an unprecedented level of direct involvement of a wide array of non-federal CBP partners and stakeholders in each step of the planning, development, calibration, verification, management application, and continued refinement/enhancement. Given that Bay restoration decision-making occurs at a very local scale as a result of the Chesapeake Bay TMDL, the jurisdictions' WIPs, and the greatly expanded level of accountability, the next generation of the partnership's Chesapeake Bay models must reflect these shifts in scale and accountability. These models must be developed for direct application by state and local jurisdictional partners, academic partners, and stakeholders alike, feeding directly into their respective and unique decision-making processes and supporting adaptive management at all scales.

Through the application of airshed, watershed, estuarine, and living resource modeling activities, the CBP's state and local jurisdictional partners gain access to information that is used directly in decision-making for Chesapeake Bay environmental restoration efforts. Chesapeake Bay environmental models are developed, calibrated, verified, and applied through an expanding cooperative network of state, federal, regional and local agencies, non-governmental organizations, and academic institutional partners. These partnership models help set the pace and direction of Chesapeake Bay restoration by providing information on water quality and biological resource responses to different management actions.

### ***5. Chesapeake Bay Program Partnership's Monitoring Networks***

Undergoing adaptive changes over the past three decades as the partnership's management needs and requests have significantly evolved over time, the Chesapeake Bay tidal monitoring network now includes: tidal water quality monitoring for 26 parameters at over 150 stations distributed over the 92 Chesapeake Bay tidal segments across Delaware, the District of Columbia, Maryland, and Virginia; shallow-water monitoring addressing a select set of segments on a rotational basis; benthic infaunal community monitoring at fixed and random stations across the tidal waters; annual aerial and ground surveys of underwater Bay grasses; decadal records of phytoplankton and zooplankton monitoring; and fisheries independent population monitoring programs and surveys.

Each component of the tidal monitoring network has been designed to support the four Bay jurisdictions' tidal water Bay section 303(d) listing decision makings, addressing dissolved oxygen, water clarity, underwater bay grasses, and chlorophyll *a* criteria attainment assessments and benthic infaunal community-based impairment decisions. The Chesapeake Bay tidal monitoring network is funded, operated, and maintained through a longstanding state-federal-university partnership that produced the fundamental monitoring data supporting Chesapeake Bay TMDL development. This data is also utilized in public reporting on the health of Chesapeake Bay, its tidal tributaries and embayments, and supporting ecosystem; assessment of achieving the Chesapeake Bay jurisdictions' Chesapeake Bay water quality standards regulations; evaluation of the effectiveness of actions to reduce nitrogen, phosphorus, and

sediment pollution loadings from the surrounding watershed; developing, calibrating, verifying and applying models; and generating and reporting water quality and living resource indicators.

The Chesapeake Bay watershed monitoring network is a network of 115 streamflow gauges and water-quality sampling sites operated across the Chesapeake Bay watershed. The network is an essential component to reporting, tracking, and modeling stream flow as well as nitrogen, phosphorus, and sediment concentrations and loads across the Chesapeake Bay watershed as it provides the only consistent, coordinated monitoring effort across all seven Chesapeake Bay watershed jurisdictions.

The Chesapeake Bay watershed monitoring network is designed to measure the discharge of nitrogen, phosphorus, and sediment loads with routine samples collected monthly with additional storm-event samples to obtain a range of discharges and loadings. The seven jurisdictions, the Susquehanna River Basin Commission, and the U.S. Geological Survey (USGS) all use the same set of standardized CBP protocols that are based on USGS sampling methods and EPA-approved analytical methods.

## **B. Scope of Work**

This RFP is soliciting cost-effective proposals from eligible applicants to provide technical analysis and programmatic evaluation support of non-federal agencies and organizations that are members of the CBP partnership. While the CBP partnership is comprised of federal and non-federal agencies and organizations, the activities funded under this RFP shall only support the non-federal partners. The recipient(s) of cooperative agreement(s) awarded under this RFP may work directly with federal agencies, but the nature of that work will result only in benefits to the non-federal agencies, organizations, partners, and the general public. The non-federal partners of the CBP will provide programmatic direction to the cooperative agreement recipient through the CBP partnership's Water Quality GIT and its workgroups, the CBP partnership's Scientific, Technical, Assessment and Reporting Team and its workgroups, other CBP partnership GITs, and the CBP partnership's Management Board.

The U.S. EPA CBPO plans to award one or more cooperative agreements under this RFP to an organization or organizations oriented towards providing highly specialized scientific, technical, and programmatic support. The selected organization or organizations will support the CBP's mission of expanding and accelerating the implementation of nutrient and sediment load reduction practices and technologies throughout the Chesapeake Bay watershed through evaluation of programmatic gaps, institutional capacity, and implementation effectiveness leading to adaptive management. This mission also includes:

- Building the capacity for targeting implementation of the most cost-effective and efficient pollution reduction practices and technologies, working directly with federal, state, regional, and local governmental and non-governmental implementation efforts;
- Enhancing multiple-partner, consensus-based environmental decision-making throughout the Chesapeake Bay watershed via the application of a suite of the CBP

partnership's airshed, watershed and estuarine models and other decision support tools, integrated with monitoring data and research findings;

- Better understanding the past, present, and future responses of the Chesapeake Bay ecosystem and its watershed to management actions through management, analysis, and interpretation of long-term monitoring network data; and
- Expanding the acquisition, maintenance, analysis, interpretation, and dissemination of geospatial data and information important to the CBP partners.

The proposing organization should be oriented towards further promotion and enhancement of the capacity of environmental professionals working within the partnership-oriented, implementation-focused structure of the CBP. The above areas of emphasis need not be the sole missions of the proposing organization.

The total estimated funding for six years is approximately \$870,000 to \$1,200,000 per activity with an estimated \$130,000 to \$205,000 available for the first year and each additional year per activity.

If your organization has an interest in this project, has the skills to accomplish the activities, and is eligible to receive a federal assistance agreement as described in Section III of this announcement, we encourage you to submit a proposal(s). Each eligible proposal will be evaluated using the criteria described in Section V. The activities are multi-year projects, so the proposal should have a work plan, budget, and budget detail for the first and all subsequent years.

To support each activity, the selected applicant(s) will provide staff whom will be located at the U.S. EPA CBPO in Annapolis, Maryland. Office space will be provided by EPA as in-kind assistance under the cooperative agreement.

Applicants are encouraged to submit multiple proposals, but they must address only a single activity in each submitted proposal.

**Activity 1: CBP Nonpoint Source Data Analyst**  
**Estimated Funding: \$135,000- \$155,000**

To support this activity, the selected applicant will provide staff who have significant and broad academic and/or professional experience in supporting analyses and evaluations of nonpoint source program implementation in support of the CBP's Water Quality GIT and its technical workgroups and the CBP's other management and policy committees' efforts to support the CBP partners' accelerated implementation of the most cost-effective, efficient and targeted nutrient and sediment reduction actions.

Critical to the success of efforts to restore Chesapeake Bay water quality and the quality of local streams and rivers across the Chesapeake Bay watershed is support for state, regional and local partners in the conduct of technical and policy analyses. The cooperative agreement recipient will be responsible for supporting efforts by the state, regional, and local governmental partner

agencies, non-governmental organizations, and stakeholders to seek support for and develop the programmatic capacity necessary for the geographically- and pollutant-source-sector-targeted implementation of the most cost-effective and nutrient- and sediment-pollution-reduction-efficient practices and treatment technologies.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on the implementation of the jurisdictions' Phase I and Phase II WIPs. Applicants are encouraged to consider these examples but to also describe alternative approaches to providing support for developing the programmatic capacity necessary for the geographically-targeted implementation of the most effective and cost-efficient sets of nutrient- and sediment-pollution-reduction practices and technologies.

#### Chesapeake Bay Program Partnership's Scenario Builder Development and Application

- Supports the continued development, enhancement, and documentation of the CBP partners' Scenario Builder.
- Runs Scenario Builder in support of generation of input decks for running management scenarios requested by CBP partners through the suite of Chesapeake Bay models.

#### Watershed Jurisdictions' Nonpoint Source Data Management

- Manages, synthesizes, and analyzes agricultural and urban BMP implementation data and other nonpoint-source-related information necessary to support the partnership-based Chesapeake Bay watershed model design, development, calibration, verification, and management application.
- Works with the Chesapeake Bay watershed's state and local jurisdictions to acquire, compile, interpret, and assess the quality of the BMP implementation data and to resolve any discrepancies before loading the data into the Chesapeake Bay Watershed Model.
- Maintains jurisdictional-based agricultural, urban, forestry, and BMP databases through the Chesapeake Bay Program partnership's Chesapeake Information Management System (CIMS) network and helps coordinate the development of consistent approaches for BMP progress and verification reporting among the jurisdictions.
- Acquires and maintains national, regional, state, and local databases used in the Chesapeake Bay watershed model input deck development as requested by the CBP Water Quality GIT and its workgroups and the CBP Modeling Workgroup, including agricultural census, fertilizer sales, U.S. Census Bureau data, land-cover imagery and land uses, atmospheric deposition and state-submitted watershed BMP implementation data.
- Ensures CBP partner access to the primary and synthesized Chesapeake Bay nonpoint source related data.
- Undertakes data collection, computer entry, quality assurance, and metadata documentation.
- Develops data sharing agreements and partnerships required to support BMP data exchange across each of the seven watershed jurisdictions' respective National Environmental Information Exchange Network (NEIEN) nodes.

#### Model Scenario Output Applications



- Develops, adapts, and operates software systems to analyze, evaluate, present, and communicate the output from the Chesapeake Bay Program partnership's suite of models and other decision support tools.
- Supports efforts to ensure model scenario input decks and model scenario output results are made accessible to CBP partners and the general public.

#### Team and Workgroup Support

- Provides technical support in preparation for the meetings of the CBP's Water Quality GIT and its technical and source workgroups, and other GITs and workgroups as requested.
- Provides technical support in preparation for the meetings of the Science, Technical Analysis and Reporting Team and its workgroups, specifically the Modeling Workgroup, as requested.
- Provides support to the CBP partners through the synthesis of the published literature, reports, program materials, scenario documentation, and model documentation.
- Disseminates information through presentations at GIT and Workgroup meetings, technical/scientific conferences, and other appropriate venues.

#### **Activity 2: Chesapeake Bay Watershed Modeler**

##### **Estimated Funding: \$180,000- \$205,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in conceptualizing, designing, coding, calibrating, and applying an array of watershed models in support of the CBP partners' accelerated implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically-targeted nutrient and sediment reduction actions. Priorities for this activity are set primarily by the CBP's Scientific, Technical Assessment and Reporting Team and its Modeling Workgroup, with some direction coming from the Water Quality GIT and its technical workgroups.

Linked watershed-watershed-estuarine models are used extensively by the Partnership to plan and direct future nutrient and sediment abatement and control operations in an optimal manner thereby making the most effective use of limited federal, state, local and private resources. The cooperative agreement recipient will be responsible for supporting the continued partnership-based collaborative planning for design, development, calibration, validation, and management applications of the suite of Partnership models with a focus on the watershed models.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on the implementation of the jurisdictions' Phase I and Phase II WIPs and the development and early management application of the Partnership's Phase 6 Chesapeake Bay Watershed Model. Applicants are encouraged to consider these examples but to also describe alternative approaches to providing watershed modeling support for the CBP partnership to inform state, regional, and local decision-making on the implementation of the most cost-effective, pollutant-load-reduction-efficient, and geographically-targeted nutrient and sediment reduction actions.

#### Planning for the Next Generation of Chesapeake Bay Watershed Models

- Assists in the immediate- and long-term planning for continued refinement of the Partnership's existing watershed model and development of the next-generation models.
- Synthesizes requirements identified by partners and stakeholders for planning of the next generation Bay watershed models and tools directly supporting watershed-wide to local-scale decision-making.
- Actively seeks and involves a wide array of states', local agencies', non-governmental organizations', and academic partners' involvement in planning the next generation of local-scale and distributed Chesapeake Bay watershed models.

#### Bay Watershed Model Development, Calibration and Validation

- Leads the interagency and multiple-academic partner-based Chesapeake Bay watershed modeling team's cooperative and collaborative efforts to develop and verify the next generation of Chesapeake Bay watershed models and related simulation tools.
- Develops, adapts, and operates software systems to calibrate and validate the Chesapeake Bay watershed models.
- Initiates positive changes during model development, calibration, and validation in response to partnership and stakeholder information needs and requests.
- Investigates alternative and additional model formulations to better address partners' and stakeholders' requests to add additional utility for management applications of the Chesapeake Bay watershed models.
- Stays abreast of ongoing developments in the field of watershed modeling and applies them to the suite of Chesapeake Bay watershed models as appropriate.
- Develops the capability for assessment of model certainty/uncertainty based on the results of other watershed models and published papers.

#### Bay Watershed Model Management Application and Analysis

- Develops, adapts, and operates software systems for the full suite of Chesapeake Bay watershed models and continually improves their management applications.
- Develops model input data for application of the suite of Chesapeake Bay estuarine models and integrates exchange of data between the watershed and airshed models.
- Assists in the analysis of nutrient and sediment loads in the Chesapeake Bay watershed, the application of these loads into the Bay estuarine models, and interpretation of the model output.
- Assists in using the suite of Chesapeake Bay models to provide direction and focus for partner and stakeholder restoration and protection efforts and supports collaborative decision-making.

#### Team and Workgroup Support

- Provides technical support in preparation for and participates in the meetings of the CBP's Scientific, Technical Assessment and Reporting Team and its workgroups, specifically the Modeling Workgroup as requested.
- Provides technical support in preparation for and participates in the meetings of the CBP's Water Quality GIT and its technical workgroups as well as other GITs and workgroups as requested.

- Provides support to the CBP partners through the synthesis of the published literature, reports, program materials, scenario documentation, and model documentation.
- Collaborates with governmental and academic partners on research relevant to the CBP partnership.
- Disseminates information through presentations at GIT and Workgroup meetings, technical/scientific conferences, and other appropriate venues.

**Activity 3: Chesapeake Bay Nonpoint Source Modeler**  
**Estimated Funding: \$140,000- \$160,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in conceptualizing, designing, coding, calibrating and applying an array of watershed models in support of the CBP partners’ accelerated implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically targeted nutrient and sediment reduction actions. Priorities for this activity are set by the CBP’s Scientific, Technical Assessment and Reporting Team and its Modeling Workgroup.

Linked airshed-watershed-estuarine models are used extensively by the CBP partnership to plan and direct future nutrient and sediment abatement and control operations in an optimal manner thereby making the most effective use of limited federal, state, local and private resources. The cooperative agreement recipient will be responsible for supporting the continued partnership-based collaborative planning for the design, development, calibration, validation, and management applications of the suite of CBP partnership models.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on the implementation of the jurisdictions’ Phase I and Phase II WIPs and development and management application of the Partnership’s Phase 6 Chesapeake Bay Watershed Model. Applicants are encouraged to consider these examples, but to also describe alternative approaches to providing nonpoint source modeling support for the CBP partnership to inform state, regional, and local decision-making on the implementation of the most cost-effective, efficient, and targeted nutrient and sediment reduction actions.

Planning for the Next Generation of Chesapeake Bay Watershed Models

- Sets up detailed information-gathering processes with specific focus directed towards all aspects of agricultural operations and sources; stormwater; stream banks/floodplains; and all sources, transports, and sinks of sediments.
- Synthesizes requirements identified by partners and stakeholders for the next generation of Chesapeake Bay watershed models and tools supporting watershed-wide, state, regional, and local decision-making.
- Actively seeks out existing or planned models that simulate important components of the Chesapeake Bay watershed and works to integrate these models within the larger suite of linked CBP partnership models.
- Supports development of local-scale simulation systems to provide assistance to local-scale decision making.

Bay Watershed Model Development, Calibration and Validation

- Supports and actively participates in the interagency and multiple-academic partner watershed modeling team's cooperative and collaborative efforts to develop, verify, calibrate, and validate the next generation of Chesapeake Bay watershed models and related simulation tools.
- Seeks changes during model development, calibration and validation in response to state and local partners' information needs and requests specific to nonpoint sources of pollution and management of these sources.
- Ensures the full suite of conservation practices, best management practices, pollution control systems and technologies and their agreed-upon efficiencies are fully and accurately incorporated into the design, development, calibration and verification of the CBP partnership's watershed models.
- Ensures the Chesapeake Bay watershed models are structured to accept new, or modifications to existing, conservation practices, best management practices, pollution control systems and technologies into the future.
- Enables full integration of airshed and watershed models and supports the generation of watershed and airshed model outputs for the CBP estuarine and other models.

#### Bay Watershed Model Application and Analysis

- Assists in the development, adaptation, and operation of software systems to operate the suite of the partnership's Chesapeake Bay watershed models and continually improves their management applications.
- Assists in the analysis of nutrient and sediment loads in the Chesapeake Bay watershed, the application of these loads into the partnership's Chesapeake Bay estuarine models, and interpretation of the model scenario output.
- Assists in using the suite of CBP partnership models to provide direction and focus for partner and stakeholder restoration and protection efforts and support for collaborative decision making.

#### Bay Models Operation

- Develops and operates the CBP partnership's suite of watershed models using several operating systems, programming languages, analysis software, relational databases, graphical packages, and GIS software.
- Maintains and develops codes and systems that run across a variety of platforms in both single processor and parallel configurations.
- Enhances usability by providing tools using standard programming conventions with clear documentation.
- Demonstrates commitment to open-source code development.
- Keeps current of developments in the field of model operations and applies them to the full suite of the partnership's Chesapeake Bay airshed, watershed, and estuarine models as appropriate.

### Team and Workgroup Support

- Provides technical support in preparation for, and participates in, the meetings of the Scientific, Technical Assessment and Reporting Team and its workgroups, specifically the Modeling Workgroup, as requested.
- Provides technical support in preparation for, and participates in, the meetings of the CBP's Water Quality GIT and its technical and source workgroups as well as other GITs and workgroups as requested.
- Provides support to the CBP partners through the synthesis of the published literature, reports, program materials, scenario documentation, and model documentation.
- Collaborates with governmental and academic partners on research relevant to the CBP partnership
- Disseminates information through presentations at GIT and workgroup meetings, technical/scientific conferences, and other appropriate venues.

### **Activity 4: Chesapeake Bay Estuarine Modeler**

**Estimated Funding: \$155,000- \$180,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in conceptualizing, designing, coding, calibrating and applying an array of coupled estuarine hydrodynamic, water quality, sediment flux, sediment transport, phytoplankton, zooplankton, submerged aquatic vegetation, benthic infaunal, oyster filter feeding, and menhaden filter feeding models in support of the CBP partners' accelerated implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically targeted nutrient and sediment reduction actions. Priorities for this activity are set by the CBP's Scientific, Technical Assessment and Reporting Team and its Modeling Workgroup.

Linked airshed-watershed-estuarine models are used extensively by the Chesapeake Bay Program partnership to plan and direct future nutrient and sediment abatement and control operations in an optimal manner thereby making the most effective use of limited federal, state, local and private resources. The cooperative agreement recipient will be responsible for supporting the continued partnership-based collaborative planning for design, development, calibration, validation, and management applications of the suite of CBP partnership models.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on the implementation of the jurisdictions' Phase I and Phase II WIPs and development and management application of the Partnership's Phase 6 Chesapeake Bay Watershed Model and Chesapeake Bay Water Quality/Sediment Transport Model. Applicants are encouraged to consider these examples but to also describe alternative approaches to providing estuarine modeling support for the CBP partnership to inform state, regional, and local decision-making on the implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically targeted nutrient and sediment reduction actions.

### Planning for Enhancements to/Development of the Next Generation of Bay Estuarine Models

- Takes the lead in the immediate-term and long-term planning for continued refinement of the existing CBP partnership's estuarine models and development of specific

enhancements to/development of the next generation of the partnership's estuarine models.

- Synthesizes requirements identified by partners and stakeholders for planning the next generation of partnership estuarine models and tools supporting watershed-wide to local restoration decision-making.
- Sets up detailed gathering processes specifically directed towards shallow-water processes effecting dissolved oxygen, submerged aquatic vegetation and water clarity; filter feeders; fishery habitat restoration/fishery management connections; and all shoreline and tidal sources, transport mechanisms, and sinks of sediments.
- Actively seeks out and involves a wide array of agency, non-governmental organization, and academic partner involvement in planning the next generation of the partnership's estuarine models.

#### Bay Estuarine Model Development, Calibration and Verification

- Sets up, staffs and maintains an interagency and multiple-academic partner-based Chesapeake Bay estuarine modeling team.
- Leads the interagency and multiple-academic partner-based Chesapeake Bay estuarine modeling team's cooperative and collaborative efforts to develop, calibrate, and verify the next generation of the Partnership's estuarine models and related simulation tools.
- Is fully responsible for all day-to-day operations and applications of the Partnership's estuarine models.
- Develops, adapts, and operates software systems to calibrate and verify the Partnership's estuarine models.
- Initiates positive changes during model development, calibration, and verification in response to partnership information needs and requests.
- Investigates alternative and additional model formulations to better address partners' requests and add additional utility for management applications of the Partnership's estuarine models.
- Keeps current of ongoing developments in the field of estuarine modeling and applies them to the suite of the Partnership's estuarine models as appropriate.
- Develops the capability for assessment of model certainty/uncertainty based on the results of other estuarine models and published papers.

#### Bay Estuarine Model Application and Analysis

- Develops, adapts, and manages software systems to operate the Partnership's estuarine models and continually improves their management applications.
- Develops model input data for application of the Partnership's estuarine models.
- Assists in the analysis of nutrient and sediment loads in the Chesapeake Bay watershed, the application of these loads into the Bay estuarine models, and the interpretation of the model output.
- Assists in using the full suite of the Partnership's estuarine models to provide direction and focus for partner and stakeholder restoration efforts.

#### Bay Model Applications

- Develops, adapts, and operates software systems to analyze the output of the Partnership's estuarine models to address questions of water quality and living-resource response to estuarine inputs.
- Creates and enhances the linkages between the CBP partnership's models with other models of the Chesapeake Bay and watershed ecosystems, especially living resource models.

#### Team and Workgroup Support

- Provides technical support in preparation for, and participates in, the meetings of the Scientific, Technical Assessment and Reporting Team and its workgroups, specifically the Modeling Workgroup, as requested.
- Provides technical support in preparation for, and participates in, the meetings of the CBP's Water Quality GIT and its technical and source workgroups as well as other GITs and workgroups as requested.
- Provides support to the CBP partners through the syntheses of the published literature, reports, program materials, scenario documentation, and model documentation.
- Disseminates information through presentations at GIT and workgroup meetings, technical/scientific conferences, and other appropriate venues.
- Collaborates with governmental and academic partners on research relevant to the CBP partnership.

#### **Activity 5: CBP Stormwater Workgroup Coordinator**

**Estimated Funding: \$150,000- \$175,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in analysis and evaluation of stormwater data and technical program implementation in support of the CBP partners' accelerated implementation of the most cost-effective, efficient and targeted nutrient, sediment and chemical contaminant reduction actions. Priorities for this activity are set by the CBP's Water Quality GIT and its Urban Stormwater Workgroup.

The planning and performing stormwater-related cost-effective, pollutant load reduction efficiency, programmatic gap/capacity, and management effectiveness analyses and evaluations are critical to ensuring successful implementation of local and state stormwater management programs. The cooperative agreement recipient will be responsible for conducting these analyses and applying those results at small- to large-watersheds, local to state jurisdictions, and basinwide scales. The cooperative agreement recipient will be responsible for the preparation of documentation of these stormwater data analyses and programmatic evaluation activities. The interpreted results will be communicated, along with the environmental management implications, to policy, management, and stakeholder audiences through a variety of media and mechanisms.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on the implementation of the jurisdictions' Phase I and Phase II WIPs and development and management application of the Partnership's Phase 6 Chesapeake Bay Watershed Model. Applicants are encouraged to consider these examples but to also describe

alternative approaches to providing stormwater analysis and evaluation support for the CBP partnership to inform state, regional, and local decision-making on the implementation of the most cost-effective, pollutant-load–reduction-efficient and geographically targeted nutrient and sediment reduction actions.

#### Jurisdiction and Local Partner Implementation Support

- Provides technical assistance and training through workshops, conferences, webinars and development of resources to help state and local partners more effectively plan for, design, implement, maintain, inspect, verify and report stormwater management actions. Specific technical assistance and trainings on BMP verification should follow the *Chesapeake Bay Program Urban Stormwater Workgroup’s BMP Verification Guidance*.
- Works with EPA and state regulatory agencies to help the regulated community understand how to comply with regulatory and permit conditions.
- Supports the seven watershed jurisdictions’ development and implementation of the Phase III WIPs and two-year milestone commitments for stormwater-related pollutant load reductions and programmatic capacity building. Priority focus of this support should be directed towards the development and implementation of commitments that target the unregulated developed sectors.
- Assists the CBP partnership’s state, regional, and local jurisdictions with various activities involving modeling the nutrient and sediment loads resulting from alternative stormwater management scenarios in developing, tracking, and adjusting their WIPs and two-year milestones, including the development of contingencies.
- Provides technical assistance to the seven watershed jurisdictions for the development and implementation of local area planning targets in the urban stormwater sector for their respective Phase III WIPs. Technical assistance can include identifying and conducting outreach to targeted audiences for local area planning targets as well as the scale(s) at which the targets can be developed.

#### Stormwater Management Cost-effective and Efficiency Analyses

- Conducts cost-effective and pollutant-load–reduction-efficiency analyses of existing, proposed, and potential Partnership’s state, regional, and local agencies’ stormwater programs, regulations and policies directing implementation of nutrient and sediment load reduction practices and technologies with an emphasis on addressing nonpoint sources in the unregulated developed sector.
- Actively communicates the resultant findings and implications to the Partnership through the CBP management organization.
- Undertakes necessary technology transfer steps to incorporate future capacity for conducting similar analyses in the Partnership’s state, regional, and local agencies and stakeholder organizations to support the practice of continual adaptive management.

#### Stormwater Programmatic Gap and Capacity Analyses

- Works with Partnership’s state, regional, and local agencies and non-governmental organizations to carry out identification of regulatory, financial, and policy gaps and evaluation of capacity of existing state, regional, and local stormwater management program infrastructure necessary to support sustained implementation at the levels required within the respective jurisdictions’ WIPs and two-year milestones.



- Quantifies the implementation and pollutant reduction potential of existing and alternative regulations, policies, legislation, and program funding levels.
- Directly assists the CBP partnership's state and local jurisdictions with the development and assessment of their respective WIPs, watershed restoration strategies, Chesapeake Bay pollutant reduction plans, and Chesapeake Bay TMDL action plans, detailing the management practices and implementation levels necessary to meet their assigned stormwater cap-loading targets.

#### Expanded Stormwater Practice Tracking, Reporting and Verification

- Assists the Partnership's state, regional, and local agencies in expanding and enhancing their existing systems for tracking and reporting on stormwater pollutant reduction practices and technologies to more comprehensively and accurately track and report practices and technologies implemented both within and outside of the scope of regulatory or cost-shared programs.
- Assists the Partnership's state, regional, and local agencies in building systems and structures for ensuring the necessary level of verification of the tracked and reported stormwater practices and technologies across all source sectors and jurisdictions.
- Develops trainings for the use of these tracking, reporting and verification systems adopted by the Partnership's state, regional and local agencies.

#### Team and Workgroup Support

- Coordinates the agenda, activities, deliverables, and recommendations of the Urban Stormwater Workgroup within CBP's Water Quality GIT.
- Provides technical support in preparation for, and participates in, the meetings of the Scientific, Technical Assessment and Reporting Team and its workgroups, specifically the Modeling Workgroup, as requested.
- Provides technical support in preparation for, and participates in, the meetings of the CBP's Water Quality GIT and its technical and source workgroups, most notably the Land Use, Watershed Technical, Toxics and Federal Facilities Workgroups, and other Goal Implementation Teams and workgroups as requested.
- Provides support to the CBP partners through the synthesis of the published literature, reports, and program materials.
- Disseminates information through presentations at GIT and workgroup meetings, technical/scientific conferences, and other appropriate venues.

#### Best Management Practice Review, Approval and Crediting

- Works regularly with the full array of partners and stakeholders in identifying new practices, anticipates new technologies and approaches, and helps partners and stakeholders follow the partnership-approved BMP protocol to gain partnership approval for how these new practices and technologies will be applied and credited within the Chesapeake Bay watershed, airshed and estuarine models.
- Convenes panels of experts to draft new stormwater practices and development approaches as part of the BMP protocol for partnership approval.
- Ensures the full set of Partnership approved practices and efficiencies incorporate the latest scientific findings and on-the-ground data in how they are simulated and credited within the Partnership's Chesapeake Bay watershed models.

- Provides training and technical assistance to federal, state and local partners so that they understand the definitions and pollutant-reduction effectiveness associated with CBP-approved BMPs and also know how to select, design, maintain, inspect and report these BMPs.

#### Scenario Builder Development, Enhancement and Application

- Ensures full consideration of stormwater BMPs, technologies, and development approaches as they are directly factored into the continued development, documentation, and enhancement of Scenario Builder.
- Helps incorporate new and/or refined stormwater-related BMPs, technologies, and development approaches and their efficiencies upon approval by the CBP partnership.
- Assists in running the Chesapeake Bay Program partnership's Scenario Builder in support of generation of input decks for running management scenarios through the suite of the Partnership's models.
- Advises in the development of more user-friendly tools that replicate Scenario Builder and Watershed Model analyses, such as the Chesapeake Assessment and Scenario Tool (CAST) and Chesapeake Bay Facility Assessment and Scenario Tool (BayFAST) family of tools.

#### Watershed Model Application and Analysis

- Assists in the development, adaptation, and operation of the Partnership's watershed models and works to continually improve their simulation of stormwater and the full array of practices, technologies, and development approaches designed to reduce stormwater runoff.
- Assists in the analysis of nutrient and sediment loads in the Chesapeake Bay watershed, the application of these loads into the Partnership's estuarine models, and interpretation of the model scenario output from the stormwater perspective.

### **Activity 6: CBP Water Quality Data Manager**

**Estimated Funding: \$130,000- \$150,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in the acquisition, quality assurance review, management, maintenance, and dissemination of water quality and biological resource monitoring data in support of the CBP partners' accelerated implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically targeted nutrient, sediment and chemical contaminant reduction actions. Priorities for this activity are set by the CBP's Scientific, Technical Assessment and Reporting Team and its workgroups as part of their charge to provide information management, monitoring network design/coordination, and integrated analysis support to the CBP's GITs, management/policy-setting committees, partners and stakeholders.

The compilation, analysis, and evaluation of tidal and watershed water quality monitoring data are essential to determining progress towards effective implementation efforts in reaching the CBP's water quality and living resource restoration goals. These tidal and watershed water-quality and biological resource data are drawn from state, federal and local agencies, academic

institutions, regulated entities, and, increasingly, non-governmental organizations across the Chesapeake Bay watershed. Direct partnership and public access to water quality and biological resource data stored in an integrated format through a distributed network of servers is critical to supporting state, regional, and local jurisdictions' and non-governmental organizations' Chesapeake Bay restoration and protection efforts.

The cooperative agreement recipient will be responsible for managing the CBP partnership's jurisdiction-based tidal and watershed water quality and biological resource monitoring network databases, maintaining/updating repositories of monitoring programs and network information, and expanding access to and management of nontraditional monitoring program partners' water quality and biological resource data. The water quality data and programmatic information collected, documented, managed and maintained by the cooperative agreement recipient will serve as the authoritative data and information source for the CBP partnership.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on past and recent experiences in determining progress towards effective implementation efforts in reaching the CBP's water quality and living resource restoration and protection goals. Applicants are encouraged to consider these examples but to also describe alternative approaches to providing for the compilation, analysis, and evaluation of tidal and watershed water quality and biological resource monitoring data in support of and to inform state, regional, and local decision-making on the implementation of the most cost-effective, pollutant-reduction-load-efficient and geographically targeted nutrient and sediment reduction actions.

#### Water Quality and Biological Resource Data Management through Data Exchange

- Provides data management support for the CBP partners addressing water quality monitoring data collected through jurisdictions' monitoring programs and the Partnership's monitoring networks in operation across the entire Chesapeake Bay and its surrounding watershed.
- Maintains the authoritative sets of water quality monitoring data and programmatic information used by the CBP partnership.
- Undertakes data collection, computer entry, quality assurance, and metadata documentation.
- Coordinates the design and implementation of the Partnership's Chesapeake Information Management System (CIMS) distributed network of watershed, river input and tidal water quality and biological resource databases for Chesapeake Bay and its watershed.
- Provides support in advanced-level programming and processing of water quality and biological resource-related-monitoring databases generated by a multitude of state, regional, and local jurisdictional and academic institutional partners in the tidal and non-tidal regions of the Chesapeake Bay watershed.
- Assists in the design and development of relational databases for data storage, retrieval, and processing by state, regional, and local partners and stakeholders.
- Assembles data for analysis and for publication on CBP partnership's Web sites.
- Works closely with the CBP partners to obtain information required to properly program, process, and document the monitoring database information.

- Responsible for implementing new data flows to and from the states' National Environmental Information Exchange Network (NEIEN) nodes and the CBP partnership's NEIEN node.
- Develops data-sharing agreements and partnerships required to support tidal and watershed water quality and biological resource data exchanges across and between the seven watershed jurisdictions' respective NEIEN nodes.

#### Expanded Access and Management of Non-traditional Monitoring Program Partners Data

- Works as part of a team targeting hundreds of non-traditional monitoring program partners for integration into the Partnership's tidal and watershed monitoring networks.
- Identifies non-traditional monitoring program partners—including but not limited to riverkeepers, watershed organizations, citizen monitoring groups, regulated entities (e.g., wastewater treatment owners/operators)—generating water quality and biological resource data of known quality who are willing and ready to incorporate their monitoring efforts into the ever-expanding Partnership's tidal and/or watershed monitoring networks.
- Provides a full menu of data quality assurance protocols, data management system design and support to these non-federal organizations, tailored to their existing capabilities and monitoring infrastructure.
- Works to provide full access to the water quality data and biological resource data routinely generated through these organizations' monitoring programs utilizing their respective state jurisdiction's NEIEN node.

#### Team and Workgroup Support

- Provides technical support in preparation for, and participates in, the meetings of the CBP's Scientific, Technical Assessment and Reporting Team and its workgroups, CBP's Water Quality GIT and its workgroups as well as other GITs and workgroups as necessary.

#### Coordination and Communication with Partners, Stakeholders and Public

- Seeks review and input from the CBP partner jurisdictions on all data- and information-management-related work.
- Serves as the central point of contact for water quality and biological resource data inquiries and data acquisition requests.
- Responsible for resolving problems and improving procedures for submission, quality assurance, documentation, and distribution of water quality and biological resource data to CBP partner agencies and the public.
- Works to promote the development of distributed, generator-maintained databases linked via Internet web site interfaces.
- Supports development of new, and refinement of existing, partnership indicators to further enhance public communication regarding the status and effectiveness of reducing these sources of pollutants.
- Makes all water quality and biological resource monitoring networks' databases, information and documentation available on the Web and updates the Partnership's websites as necessary.

### **Activity 7: Chesapeake Bay Estuarine Response Data Analyst**

## **Estimated Funding: \$140,000- \$160,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in analysis and interpretation of observed current status and long-term trends in tidal Chesapeake Bay and surrounding six-state watershed water quality and biological resource conditions. Priorities for this activity are set by the CBP's Scientific, Technical Assessment and Reporting Team and its workgroups.

Integrated airshed, watershed, and estuarine environmental monitoring across the Chesapeake Bay and its surrounding watershed generates a wealth of data on ecosystem-wide responses to management actions. Analysis and understanding of the watershed and estuarine water quality and biological resource responses to implemented management actions is critical to defining the success of Chesapeake Bay and watershed restoration and protection efforts to date and to direct future policies.

The cooperative agreement recipient will lead analysis and interpretation support for the diagnosis of the natural and anthropogenic-based reasons behind the observed current status and long-term trends in tidal Chesapeake Bay and surrounding six-state watershed water quality and biological resource conditions. This work will directly support the evaluation effectiveness of past and present management actions, support scientific syntheses, and communicate the status and trends of the Chesapeake Bay ecosystem health.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need based on past and recent experiences in determining progress towards effective implementation efforts in reaching the CBP's water quality and living resource restoration goals. Applicants are encouraged to consider these examples but to also describe alternative approaches to providing for the analysis and interpretation of observed current status and long-term trends in tidal Chesapeake Bay and surrounding six-state watershed water quality and biological resource conditions in support of and to inform state, regional, and local decision-making on the implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically targeted nutrient and sediment reduction actions.

### Criteria Assessment Procedures

- Develops, adapts, and operates software systems to carry out all the criteria attainment assessments and continually improves applications for direct use by the state and District partners.
- Works through a team of state agency and academic partners and stakeholders to develop the next generation of the Chesapeake Bay interpolator for routine use in jurisdictions' future Bay criteria assessments and the partnership's estuarine water quality and biological resource analyses.

### Management Effectiveness Evaluations

- Evaluates past and present estuarine water quality and lower trophic level responses to changes in flow, pollutant inputs, population, land uses and other natural and anthropogenic factors.

- Assesses the effectiveness of management actions based on long-term observed responses within the Chesapeake Bay estuarine ecosystem and the surrounding watershed ecosystem.
- Coordinates efforts to simulate future responses within the Chesapeake Bay estuarine ecosystem based on past implementation actions and planned implementation rates in support of state, regional, and local jurisdictions' source sector and geographic targeting of future pollutant reduction and restoration actions.

#### Scientific Synthesis Support

- Organizes and coordinates teams drawn from the larger Bay region scientific community charged with responsibility for synthesizing data and information focused on resolving the scientific and technical aspects of a select set of issues significant to management on an annual basis.
- Works with the CBP's Management Board and the CBP's Scientific, Technical Assessment and Reporting Team to select the management issues for scientific synthesis.

#### Status and Trends Communications

- Provides statistical analysis support in the generation and interpretation of status and trends in the tidal water quality data and biological resource generated through the Partnership's tidal water quality and biological resource monitoring networks.
- Provides statistical analysis support for the diagnosis of the natural conditions and anthropogenic-based reasons behind the observed current and long-term trends in Chesapeake Bay water quality and biological resource conditions.
- Supports the development of new, and refinement of existing, CBP partnership environmental indicators for illustrating Chesapeake Bay ecosystem and watershed responses to management restoration and/or source reduction actions.
- Coordinates the partner-based presentation of current conditions, recent and long-term trends in Bay water quality and biological resource monitoring network data to the CBP partners and the public through the Internet, presentations, publications and written materials.

#### Team and Workgroup Support

- Provides technical support (e.g., statistical and geostatistical analyses, empirical modeling, programming) to the Scientific, Technical Assessment and Reporting Team and its workgroups, GIT's and their workgroups, including scheduling meetings and work sessions, setting agendas, developing annual work plans, organizing and conducting workshops, summarizing and tracking follow-up responses to workgroup actions and decisions, identifying key issues for resolution by the workgroup, and writing issue papers for the workgroups.

### **Activity 8: Chesapeake Bay Watershed Effectiveness Data Analyst**

**Estimated Funding: \$140,000- \$160,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in analysis and interpretation of observed current status and long-term trends in the water quality and biological resource conditions of the streams and

rivers of the six-state Chesapeake Bay watershed. Priorities for this activity are set by the CBP's Scientific, Technical Assessment and Reporting Team and its workgroups.

Integrated airshed, watershed, and estuarine environmental monitoring across the Chesapeake Bay and its surrounding watershed generates a wealth of data on ecosystem-wide responses to management actions. Analysis and understanding of the watershed and estuarine water quality and biological resource responses to implemented management actions is critical to defining the success of Chesapeake Bay and watershed restoration efforts to date and to direct future policies.

The cooperative agreement recipient will lead analysis and interpretation support for the diagnosis of the natural and anthropogenic-based reasons behind the observed current status and long-term trends in the water quality and biological resource conditions of the streams and rivers of the six-state Chesapeake Bay watershed. This work will directly support the evaluation effectiveness of past and present management actions, support scientific syntheses, and communicate the status and trends of the Chesapeake Bay watershed's ecosystem health.

The following are examples of the types of activities that the non-federal CBP partners anticipate needing based on past and recent experiences in determining progress towards effective implementation efforts in reaching the CBP's water quality and living resource restoration goals. Applicants are encouraged to consider these examples but to also describe alternative approaches for the analysis and interpretation of observed current status and long-term trends in water quality and biological resources in the streams and rivers of the six-state Chesapeake Bay watershed in support of and to inform state, regional, and local decision-making on the implementation of the most cost-effective, pollutant-load-reduction-efficient and geographically targeted nutrient and sediment reduction actions.

#### Bay Watershed Monitoring Network Implementation

- Leads efforts to continue the expanded implementation of the Partnership's watershed monitoring network through enhancement of existing stations, siting of new stations, and involvement of non-traditional monitoring agencies and organizations.
- Assists state, regional, and local partners and non-governmental organizations in designing small watershed monitoring projects and programs directed towards understanding the effectiveness of management actions and/or loading patterns from specific hydrogeomorphic regions and landscapes.
- Provides staff support to a team of state and regional partners and stakeholders charged with responsibility for maintaining and expanding the Partnership's watershed monitoring network.

#### Management Effectiveness Evaluations

- Evaluates past and present Bay watershed water quality and biological resource responses to changes in flow, pollutant inputs, population, land uses, and other natural and anthropogenic factors.
- Assesses the effectiveness of management actions based on long-term observed responses within the Chesapeake Bay watershed ecosystem.
- Coordinates efforts to simulate future responses within the Chesapeake Bay watershed ecosystem based on past implementation actions and planned implementation rates in

support of source sector and geographic targeting of future pollutant reduction and restoration actions.

#### Scientific Analysis Support

- Leads efforts to direct more academic and partner analyses and interpretation efforts towards effective evaluation of implementation actions across the Chesapeake Bay watershed.
- Works with the CBP's Management Board and the Scientific, Technical Assessment and Reporting Team to select the management issues and regions of the watershed for coordinated scientific analyses.

#### Status and Trends Communications

- Provides statistical analysis support in the generation and interpretation of status and trends in the Chesapeake Bay watershed water quality and biological resource data generated through the Bay watershed's water quality and biological resource monitoring networks.
- Provides statistical analysis support for the diagnosis of the natural conditions and anthropogenic-based reasons behind the observed current and long-term trends in Chesapeake Bay watershed water quality and biological resource conditions.
- Supports the development of new, and refinement of existing, CBP partnership environmental indicators for illustrating watershed responses to management restoration and/or pollutant source reduction actions.
- Coordinates the partner-based presentation of current conditions, recent and long-term trends in the Chesapeake Bay watershed's water quality and biological resource monitoring network data to the CBP partners and the public through the Internet, presentations, publications and written materials.

#### Team and Workgroup Support

- Provides technical support (e.g., statistical and geostatistical analyses, empirical modeling, programming) to the Scientific, Technical Assessment and Reporting Team and its workgroups, GITs and their workgroups, including scheduling meetings and work sessions, setting agendas, developing annual work plans, organizing and conducting workshops, summarizing and tracking follow-up responses to workgroup actions and decisions, identifying key issues for resolution by the workgroup, and writing issue papers for the workgroup.

#### **Activity 9: CBP Geographic Information Systems Analyst**

**Estimated Funding: \$150,000- \$170,000**

To support this activity, the selected applicant will provide staff who have significant, in-depth academic and/or professional experience in acquisition, maintenance, analysis, interpretation, and dissemination of geospatial data, including "Big Data". Such data include the analysis and processing of high-resolution data on water quality and land cover, use, and terrain characteristics; land change simulation modeling; and distributed watershed and estuarine modeling. The ability to work with large geospatial datasets requires a high level of geospatial programming experience.



Priorities for this activity are set by the CBP GITs and their workgroups as well as the CBP's Scientific, Technical, Analysis and Reporting Team and its workgroups.

The CBP partners collect a vast array of geographic-based data and information. Integrated, multi-media analysis of geographical information is used to plan and target nutrient, sediment, and chemical contaminant reduction and prevention programs implemented by states and local jurisdictions as well as multi-species resource management and habitat protection and restoration programs in an optimal manner, thereby making the most effective use of limited federal, state, local, and private resources.

CBP restoration goals and measures of success require sound data management and analysis. In addition, quality mapping provides state, regional, and local agency managers, stakeholders and citizens with a clear representation of critical issues, goals and successes. Dissemination and interactive mapping via the Internet is a critical communication tool for CBP geospatial activities. The cooperative agreement recipient will ensure the non-federal CBP partners have direct access to the geographic data needed for informed decision-making as well as the interpretative products generated from the data.

The following are examples of the types of activities that the non-federal CBP partners have indicated they need to support their Chesapeake Bay and watershed water quality and living resource restoration efforts. Applicants are encouraged to consider these examples but to also describe alternative approaches to ensuring direct access to the geographic data needed for informed decision-making as well as the interpretative products generated from the data, all supporting state, regional and local CBP partners' Chesapeake Bay and watershed restoration decisions and informing the general public on Bay and watershed health and restoration efforts.

#### Direct Access to Geographic Data

- Ensures the CBP state, regional and local partners and stakeholders have direct access to the geographic data needed to support Chesapeake Bay ecosystem restoration and protection decision-making as well as interpretative products generated from these data.
- Ensures the CBP restoration goals and measures of success are supported by sound geospatial data management and analysis.
- Supports the production of quality mapping that provides state, regional and local agency managers, stakeholders, and the public with a clear presentation of critical issues, goals and successes.
- Actively disseminates geospatial data and interactive mapping via the Internet.

#### Expert GIS Support to Partners

- Provides expert technical geographical information system (GIS) support to CBP state, regional and local jurisdictional partners as they expand the use of desktop and web GIS capabilities to address and analyze environmental management issues and concerns.
- Plans and performs geospatial mapping and analysis activities, interprets the results, and develops web-based solutions to highly complex technical problems involving the integration of geographical data with other environmental data and information.
- Develops, acquires, documents, and shares data in concert with the CBP partners.

- Develops advanced level programming to develop and analyze GIS data files and shares this data via the internet.

### Geospatial Analysis

- Expedites the processing of large geospatial datasets through the development of scripts written in Python, R, C, and FORTRAN; and utilizing a diverse set of proprietary and open-source Geographic Information Systems tools and raster processing software.
- Contributes to the development of input data for the next generation of Partnership Chesapeake Bay watershed models with knowledge and experience programming distributed and lumped watershed models.
- Processes available LiDAR elevation and point cloud data into datasets needed to support CBP partnership goals and objectives (e.g., mapping floodplains, streams, and surface water features).
- Processes tidal and nontidal water quality data into datasets needed to support CBP partnership goals and objectives (e.g., explain trends in water quality and attainment of water quality standards).
- Provides advanced visualization, graphic package operation, and GIS technical support for the development, analysis, calibration, visualization, and presentation of geospatial analyses.
- Plans, develops, and applies innovative, state-of-the-art, geographic information management and analysis techniques to address complex, multi-media environmental problems facing state, regional, and local jurisdictional partners.
- Undertakes detailed spatial data analysis and provides application and management-oriented products that support CBP commitments and initiatives.

### Geospatial Web Development

- Applies geospatial web development and programming using ArcGIS, JavaScript and open source technologies to deliver high quality GIS solutions in support of CBP partnership initiatives.
- Utilizes a wide variety of techniques and tools to develop and deliver efficient GIS interfaces for the CBP partnership as well as stakeholders and the general public.

### Multi-media Analysis

- Conducts integrated, multi-media analyses of geographical information used in planning and targeting nutrient, sediment, and chemical contaminant reduction and prevention programs in an optimal manner, thereby directly supporting decision-making regarding the most effective use of limited federal, state, local, and private resources.

### Access to Networked Spatial Data

- Develops the technical design and implementation of distributed networked spatial databases necessary to ensure the CBP state, regional, and local partners and stakeholders have efficient, direct Internet access to the Chesapeake Bay region environmental geospatial data required by the CBP partners and stakeholders to achieve the Chesapeake Bay and watershed restoration goals.

## **C. EPA Strategic Plan Linkage & Anticipated Outcomes and Outputs**

Pursuant to Section 6a of EPA Order 5700.7, “Environmental Results under EPA Assistance Agreements,” EPA must link proposed assistance agreements to the Agency’s Strategic Plan. EPA also requires that grant applicants and recipients adequately describe environmental outputs and outcomes to be achieved under assistance agreements (see EPA Order 5700.7, Environmental Results under Assistance Agreements, accessible at <http://www2.epa.gov/grants/epa-order-environmental-results-under-epa-assistance-agreements>).

### **1. Linkage to EPA’s Strategic Plan**

The overall objective of this grant is to protect and restore the Chesapeake Bay ecosystem through increased public awareness and public engagement in addressing water-quality restoration goals and Chesapeake Bay restoration efforts. Under EPA’s FY2014–2018 Strategic Plan (see: <http://www2.epa.gov/planandbudget/strategicplan>), this objective supports Strategic Goal #2: Protecting America’s Waters; Objective 2.2: Protect and Restore Watersheds and Aquatic Ecosystems; specifically, Improve the Health of the Chesapeake Bay Ecosystem. The project funded under this announcement must be linkable to these strategic goals.

### **2. Outputs**

The term “output” means an environmental activity, effort, and/or associated work product related to an environmental goal and objective that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period. Expected outputs from the activities to be funded under this announcement may include the following:

- Web-based access to a wide array of nonpoint-source-interpretative products at a multitude of scales relevant to the users.
- Effective and targeted dissemination of the model documentation, scenario input decks, scenario results and findings tailored to the Chesapeake Bay Program partners and stakeholders.
- Analysis of the relative cost-effectiveness of BMPs under varying conditions.
- Partnership and public access to tidal and watershed water quality data, programmatic information and interpretative products at a multitude of scales relevant to the users.
- Web-based access for partners and stakeholders to a wide array of geo-spatial map and interpretative products at a multitude of scales relevant to the users.

Progress reports and a final report will also be required outputs, as specified in Section VI.C., Reporting, of this announcement.

### **3. Outcomes**

The term “outcome” means the result, effect, or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be qualitative and environmental, behavioral, health-related, or programmatic in nature, but must also be quantitative. They may not necessarily be achievable within an assistance agreement funding period. Example outcomes under this proposal could include the following:

- Cost-effective, pollutant load reduction efficient Phase III WIPs.

- Enhanced multi-partner, consensus-based environmental decision-making in the Chesapeake Bay watershed through linked-model applications along interpretation of long term monitoring trends leading to more effective and cost-efficient decisions supporting restoration of the Chesapeake Bay and surrounding watershed ecosystems.

#### **D. Authorizing Statutes and Regulations**

The grant made as a result of this announcement is authorized under the Clean Water Act, Section 117(d). Under Section 117(d) (1) of the Act, EPA has the authority to issue grants and cooperative agreements for the purposes of protecting and restoring the Chesapeake Bay's ecosystem. This project is subject to the Office of Management and Budget' (OMB) Uniform Grants Guidance (2 CFR Part 200) and EPA-specific provisions of the Uniform Grants Guidance (2 CFR Part 1500).

## **II: AWARD INFORMATION**

### **A. Funding Amount and Expected Number of Awards**

The U.S. EPA Chesapeake Bay Program Office plans to award one or more cooperative agreements under this RFP. The total estimated funding for six years is approximately \$870,000 to \$1,200,000 per activity with an estimated \$130,000 to \$205,000 available for the first year and each additional year per activity. However, it should be noted that these ranges are a broad representation of all the activities combined and specific funding ranges vary by activity as noted in the RFP. Therefore, applicants should refer to each specific activity for the actual funding amount when developing its proposal(s).

EPA reserves the right to reject all proposals and make no award under this announcement.

EPA reserves the right to make additional awards under this announcement, consistent with Agency policy and guidance, if additional funding becomes available after the original selection is made. Any additional selection for awards will be made no later than six months after the original selection decision.

### **B. Award Type**

Successful applicants will be issued a cooperative agreement as appropriate. A cooperative agreement is an assistance agreement that is used when there is substantial federal involvement with the recipient during the performance of an activity or project. EPA awards cooperative agreements for those projects in which it expects to have substantial interaction with the recipient throughout the performance of the project. EPA will negotiate the precise terms and conditions of "substantial involvement" as part of the award process. Federal involvement may include close monitoring of the recipient's performance; collaboration during the performance of the scope of work; in accordance with 2 CFR 200.317 and 2 CFR 200.318, as appropriate, review of proposed procurements; reviewing qualifications of key personnel; and/or review and comment on the content of printed or electronic publications prepared. EPA does not have the

authority to select employees or contractors employed by the recipient. The final decision on the content of reports rests with the recipient.

For this project, federal involvement would typically be in the form of participation with other CBP partners and stakeholders in an advisory capacity to the grantee. This participation is expected to include involvement through the various CBP Goal Implementation Teams and related committees and workgroups (on which EPA also participates to ensure that all the recommendations for technical work support the CBP partners). All work conducted is to support the efforts to restore the Chesapeake Bay ecosystem and its surrounding watershed.

### **C. Partial Funding**

In appropriate circumstances, EPA reserves the right to partially fund proposals by funding discrete portions or phases of proposed projects. If EPA decides to partially fund a project, it will do so in a manner that does not prejudice the applicant or affect the basis upon which the proposal or portion thereof was evaluated and selected for award and therefore maintains the integrity of the competition and selection process.

### **D. Expected Project Period**

The expected project period for the cooperative agreement is six years, with funding provided on an annual basis. No commitment of funding can be made beyond the first year. The expected start date for the award resulting from this RFP is April 1, 2017.

### **E. Pre-Award Costs**

Recipients may incur otherwise eligible and allowable pre-award costs up to 90 days prior to award at their own risk without prior approval of EPA's award official. Pre-award costs must comply with 2 CFR 200.458 and 2 CFR 1500.8. If EPA determines that the requested pre-award costs comply with the relevant authorities, and that the costs are justified as allocable to the project, then these costs may be included as allowable expenditures at the time that the assistance award document is prepared.

However, if for any reason EPA does not fund the proposal or the amount of the award is less than the applicant anticipated, then EPA is under no obligation to reimburse the applicant for these costs incurred. Thus, applicants incur pre-award costs at their own risk. Costs incurred more than 90 days prior to award require the approval of EPA Region 3's grant official.

## **III: ELIGIBILITY INFORMATION**

### **A. Eligible Applicants**

Nonprofit organizations, state and local governments, colleges, universities, and interstate agencies are eligible to submit proposals in response to this RFP. For-profit organizations are not eligible to submit proposals in response to this RFP.

## **B. Cost-Share or Matching Requirements**

Pursuant to Clean Water Act 117(d)(2)(A), the agency shall determine the cost-share requirements for awards. The CFDA Number 66.466 states that assistance agreement applicants must commit to a cost-share ranging from five to 50 percent of eligible project costs as determined at the sole discretion of EPA. For this RFP, EPA has determined that an applicant must provide a minimum of five percent of the total cost of the project as the non-federal cost-share.

Cost-share may be in the form of cash or in-kind contributions. Involvement from foundations, watershed groups, private sector, eligible governmental, as well as non-conventional partners can help with the match. This match must be met by eligible and allowable costs and is subject to the match provisions in grant regulations. Proposals that do not demonstrate how the five percent match will be met will be rejected.

## **C. Threshold Eligibility Criteria**

Only proposals from eligible entities (see Section III.A above) that meet the following threshold eligibility criteria will be evaluated against the criteria in Section V.B. Applicants must meet the following threshold criteria to be considered for funding. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified in writing within 15 calendar days of the ineligibility determination.

1. Proposals must substantially comply with the proposal submission instructions and requirements set forth in Section IV of this announcement or else they will be rejected. Where a page limit is expressed in Section IV with respect to the narrative proposal, pages in excess of the page limitation will not be reviewed.
2. In addition, initial proposals must be submitted through [Grants.gov](https://www.grants.gov) as stated in Section IV of this announcement (except in the limited circumstances where another mode of submission is specifically allowed for as explained in Section IV) on or before the proposal submission deadline published in Section IV of this announcement. Applicants are responsible for following the submission instructions in Section IV of this announcement to ensure that their proposal/application is timely submitted.
3. Proposals submitted after the submission deadline will be considered late and deemed ineligible without further consideration unless the applicant can clearly demonstrate that it was late due to EPA mishandling or because of technical problems associated with [Grants.gov](https://www.grants.gov) or relevant [SAM.gov](https://www.sam.gov) system issues. An applicant's failure to timely submit their proposal/application through [Grants.gov](https://www.grants.gov) because they did not timely or properly register in [SAM.gov](https://www.sam.gov) or [Grants.gov](https://www.grants.gov) will not be considered an acceptable reason to consider a late submission. Applicants should confirm receipt of their proposal with James Hargett at [hargett.james@epa.gov](mailto:hargett.james@epa.gov) (see Section VII, Agency Contact) as soon as possible after the submission deadline—failure to do so may result in your proposal [or application] not being reviewed.

4. The project funded under this announcement must be linked to the strategic goal outlined in Section I.C.1.
5. For a proposal to be considered eligible for funding, substantive project-related work included in the proposal must take place within the Chesapeake Bay watershed, which includes portions of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia, and all of the District of Columbia.
6. Proposals must show how they will meet the five percent cost-share requirement of Section III.B.
7. Proposals requesting more than the maximum funding amount listed in the range for the applicable (or relevant) activity will be rejected.
8. Each proposal must address only one of the nine activities listed in Section I.B. in the RFP to be considered.
9. An organization can multiple separate proposals, with each submitted proposal addressing only one activity.
10. If a proposal is submitted that includes any ineligible tasks or activities, that portion of the proposal will be ineligible for funding and may, depending on the extent to which it affects the proposal, render the entire proposal ineligible for funding.

#### **IV: APPLICATION AND SUBMISSION INFORMATION**

##### **A. How to Obtain a Proposal Package**

Applicants can download individual grant application forms from [Grants.gov](https://www.Grants.gov).

##### **B. Content and Form of Proposal Submission**

Each proposal will be evaluated using the criteria referenced in Section V.B. of this announcement. You must submit a single-spaced proposal of up to 15 pages in length by the date and time specified in Section IV.C below. The format for this proposal is contained in Appendix A of this announcement. Review the directions for the preparation of the proposal. Proposals that are not prepared in substantial compliance with the requirements in Appendix A will not be considered for funding and will be returned to the applicant.

The proposal package **must** include all of the following materials:

1. **Standard Form (SF)-424, Application for Federal Assistance** – Complete the form. There are no attachments. Please be sure to include organization fax number and email address in Block 8 of SF-424. Please note that the organizational Dunn and Bradstreet (D&B) Data Universal Number System (DUNS) number must be included on the SF-424. Organizations may obtain a DUNS number at no cost by calling the toll-free DUNS

number request line at 1-866-705-5711 or visiting their website at <http://fedgov.dnb.com/webform>.

2. **SF-424A, Budget Information** – Complete the form. There are no attachments. The total amount of federal funding requested for the project period should be shown in Section A on Line 5(e) and on Line 6.k of Column (1) of Section B while recipient’s total cost-share should be shown in Section A on Line 5(f) and Line 6.k of Column (2) of Section B. The amount of indirect costs should be entered on line 6(j). The indirect cost rate (i.e., a percentage), the base (e.g., personnel costs and fringe benefits), and the amount should also be indicated on line 22.
3. **Narrative Proposal** – The format for this proposal is contained in Appendix A of this announcement. Review the directions for the preparation of the proposal.
4. **Budget detail** – The proposal package should include spreadsheet that shows each year’s cost for the salaries, fringe benefits, total salaries/wages, travel expenses, equipment, supplies, contractual expenses, other cost, and indirect cost.

#### **Requirements for Narrative Proposal — See Appendix A**

All proposal review criteria in Section V must be addressed in the proposal. The proposal shall not exceed 15 pages in length. Pages refer to one side of a single-spaced, typed page. Font size should be no smaller than 10 and the proposal must be submitted on 8 ½” x 11” paper. Note that the 15 pages include all supporting materials, including budget, resumes or curriculum vitae and letters of support. With the exception of documentation of non-profit status, cost-share letters of commitment, and the SF-424, if you submit more than 15 pages, the additional pages will be discarded and will not be reviewed. See Appendix A for additional instructions.

#### **C. Intergovernmental Review**

Applicants must comply with the Intergovernmental Review Process and/or consultation provisions of Section 204, Demonstration Cities and Metropolitan Development Act, if applicable, which are contained in 40 CFR Part 29. This program is eligible for coverage under Executive Order (EO) 12372, An Intergovernmental Review of Federal Programs. See this link for information and instructions: <https://wcms.epa.gov/grants/epa-region-3-grants-and-audit-management-branch-intergovernmental-review-process-and-single>. Further information regarding this requirement will be provided if your proposal is selected for funding.

#### **D. Funding Restrictions**

##### **Administrative Cost Cap Requirement under Statutory Authority**

Grantees applying for CBP assistance agreements must adhere to the requirements for “Administrative Costs” under the Clean Water Act, Section 117 (d)(4), which states that administrative costs shall not exceed 10 percent of the annual grant award (annual grant award = federal share plus cost-share). **Appendix B: Administrative Cost Cap Worksheet** is provided as an example of a method to calculate the 10-percent limitation. You are not required to submit Appendix B with your proposal.



### **Allowable Costs**

EPA assistance agreement funds may only be used for the purposes set forth in the grant and must be consistent with the statutory authority for the award. Federal funds may not be used for cost sharing for other federal grants (except where authorized by statute), lobbying, or intervention in federal regulatory or adjudicatory proceedings. In addition, federal funds may not be used to sue the federal government or any other government entity. All costs identified in the budget must conform to the provisions of 2 CFR Part 200, Subpart E, Cost Principles. During the grant negotiation, any ineligible costs outlined in the proposal (i.e. lobbying activities) will be excluded in the final grant award.

### **E. Requirement to Submit Through Grants.gov and Limited Exception Procedures**

Applicants, except as noted below, must apply electronically through [Grants.gov](https://www.grants.gov) under this funding opportunity based on the grants.gov instructions in this announcement. If an applicant does not have the technical capability to apply electronically through grants.gov because of limited or no internet access which prevents them from being able to upload the required application materials to [Grants.gov](https://www.grants.gov), the applicant must contact [OGDWaivers@epa.gov](mailto:OGDWaivers@epa.gov) or the address listed below in writing (e.g., by hard copy, email) *at least 15 calendar days prior to the submission deadline under this announcement* to request approval to submit their application materials through an alternate method.

Mailing Address:  
OGD Waivers  
c/o Barbara Perkins  
USEPA Headquarters  
William Jefferson Clinton Building  
1200 Pennsylvania Ave., N. W.  
Mail Code: 3903R  
Washington, DC 20460

Courier Address:  
OGD Waivers  
c/o Barbara Perkins  
Ronald Reagan Building  
1300 Pennsylvania Ave., N.W.  
Rm # 51267  
Washington, DC 20004

In the request, the applicant must include the following information:

- Funding Opportunity Number (FON)
- Organization Name and DUNS
- Organization's Contact Information (email address and phone number)
- Explanation of how they lack the technical capability to apply electronically through Grants.gov because of 1) limited internet access or 2) no internet access

which prevents them from being able to upload the required application materials through [www.Grants.gov](http://www.Grants.gov).

EPA will only consider alternate submission exception requests based on the two reasons stated above and will timely respond to the request -- all other requests will be denied. If an alternate submission method is approved, the applicant will receive documentation of this approval and further instructions on how to apply under this announcement. Applicants will be required to submit the documentation of approval with any initial application submitted under the alternative method. In addition, any submittal through an alternative method must comply with all applicable requirements and deadlines in the announcement including the submission deadline and requirements regarding proposal content and page limits (although the documentation of approval of an alternate submission method will not count against any page limits).

If an exception is granted, it is valid for submissions to EPA for the remainder of the entire calendar year in which the exception was approved and can be used to justify alternative submission methods for application submissions made through December 31 of the calendar year in which the exception was approved (e.g., if the exception was approved on March 1, 2015, it is valid for any competitive or non-competitive application submission to EPA through December 31, 2015). Applicants need only request an exception once in a calendar year and all exceptions will expire on December 31 of that calendar year. Applicants must request a new exception from required electronic submission through Grants.gov for submissions for any succeeding calendar year. For example, if there is a competitive opportunity issued on December 1, 2015 with a submission deadline of January 15, 2016, the applicant would need a new exception to submit through alternative methods beginning January 1, 2016.

Please note that the process described in this section is only for requesting alternate submission methods. All other inquiries about this announcement must be directed to the Agency Contact listed in Section VII of the announcement. Queries or requests submitted to the email address identified above for any reason other than to request an alternate submission method will not be acknowledged or answered.

## **F. Submission Instructions**

The electronic submission of your application must be made by an official representative of your institution who is registered with Grants.gov and is authorized to sign applications for Federal assistance. For more information on the registration requirements that must be completed in order to submit an application through grants.gov, go to <http://www.grants.gov> and click on "Applicants" on the top of the page and then go to the "Get Registered" link on the page. If your organization is not currently registered with Grants.gov, please encourage your office to designate an Authorized Organization Representative (AOR) and ask that individual to begin the registration process as soon as possible. Please note that the registration process also requires that your organization have a DUNS number and a current registration with the System for Award Management (SAM) and the process of obtaining both could take a month or more. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through grants.gov and should ensure that all such requirements have been met well in advance of the submission deadline. Registration on grants.gov, SAM.gov, and DUNS number assignment is FREE.

Applicants need to ensure that the AOR who submits the application through Grants.gov and whose DUNS number is listed on the application is an AOR for the applicant listed on the application. Additionally, the DUNS number listed on the application must be registered to the applicant organization's SAM account. If not, the application may be deemed ineligible.

To begin the application process under this grant announcement, go to <http://www.grants.gov> and click on "Applicants" on the top of the page and then "Apply for Grants" from the dropdown menu and then follow the instructions accordingly. Please note: To apply through Grants.gov, you must use Adobe Reader software and download the compatible Adobe Reader version. For more information about Adobe Reader, to verify compatibility, or to download the free software, please visit <http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html>.

You may also be able to access the application package for this announcement by searching for the opportunity on <http://www.grants.gov>. Go to <http://www.grants.gov> and then click on "Search Grants" at the top of the page and enter the Funding Opportunity Number, EPA-R3-CBP-16-06, or the CFDA number that applies to the announcement (CFDA 66.466), in the appropriate field and click the Search button. Alternatively, you may be able to access the application package by clicking on the Application Package button at the top right of the synopsis page for the announcement on <http://www.grants.gov>. To find the synopsis page, go to <http://www.grants.gov> and click "Browse Agencies" in the middle of the page and then go to "Environmental Protection Agency" to find the EPA funding opportunities.

### **Proposal Submission Deadline**

Your organization's AOR must submit your complete proposal electronically to EPA through Grants.gov (<http://www.grants.gov>) no later than 5 p.m. EST on November 26, 2016. Please allow for enough time to successfully submit your application process and allow for unexpected errors that may require you to resubmit.

Please submit *all* of the application materials described below using the grants.gov application package that you downloaded using the instructions above. For additional instructions on completing and submitting the electronic application package, click on the "Show Instructions" tab that is accessible within the application package itself.

If you have not received a confirmation of receipt from EPA (*not from Grants.gov*) within 30 days of the proposal/application deadline, please contact the person listed in Section VII of this announcement. Failure to do so may result in your proposal/application not being reviewed.

### **Application Materials**

The following forms and documents are required under this announcement:

1. Application for Federal Assistance (SF-424)
2. Budget Information for Non-Construction Programs (SF-424A)

3. Narrative Proposal (Project Narrative Attachment Form)-prepared as described in Section IV.B. of the announcement
4. Budget Detail

## G. Technical Issues With Submission

1. Once the application package has been completed, the “Submit” button should be enabled. If the “Submit” button is not active, please call Grants.gov for assistance at 1-800-518-4726. Applicants who are outside the U.S. at the time of submittal and are not able to access the toll-free number may reach a Grants.gov representative by calling 606-545-5035. Applicants should save the completed application package with two different file names before providing it to the AOR to avoid having to re-create the package should submission problems be experienced or a revised application needs to be submitted.
2. Submitting the application. The application package must be transferred to Grants.gov by an AOR. The AOR should close all other software before attempting to submit the application package. Click the “submit” button of the application package. Your Internet browser will launch and a sign-in page will appear. ***Note: Minor problems are not uncommon with transfers to Grants.gov. It is essential to allow sufficient time to ensure that your application is submitted to Grants.gov BEFORE the due date identified in Section IV of the solicitation.*** The Grants.gov support desk operates 24 hours a day, seven days a week, except Federal Holidays. A successful transfer will end with an on-screen acknowledgement. For documentation purposes, print or screen capture this acknowledgement. If a submission problem occurs, reboot the computer – turning the power off may be necessary – and re-attempt the submission. Note: Grants.gov issues a “case number” upon a request for assistance.
3. Transmission Difficulties. If transmission difficulties that result in a late transmission, no transmission, or rejection of the transmitted application are experienced, and following the above instructions do not resolve the problem so that the application is submitted to [www.Grants.Gov](http://www.Grants.Gov) by the deadline date and time, follow the guidance below. The Agency will make a decision concerning acceptance of each late submission on a case-by-case basis. All emails, as described below, are to be sent to James Hargett ([hargett.james@epa.gov](mailto:hargett.james@epa.gov)) with the FON in the subject line. If you are unable to email, contact James Hargett at 410-267-5743. Be aware that EPA will only consider accepting applications that were unable to transmit due to [www.Grants.gov](http://www.Grants.gov) or relevant [www.Sam.gov](http://www.Sam.gov) system issues or for unforeseen exigent circumstances, such as extreme weather interfering with internet access. Failure of an applicant to submit timely because they did not properly or timely register in SAM.gov or Grants.gov is not an acceptable reason to justify acceptance of a late submittal.
  - a. If you are experiencing problems resulting in an inability to upload the application to Grants.gov, it is essential to call [www.Grants.gov](http://www.Grants.gov) for assistance at 1-800-518-4726 before the application deadline. Applicants who are outside the U.S. at the time of submittal and are not able to access the toll-free number may reach a Grants.gov representative by calling 606-545-5035. Be *sure* to obtain a case number from Grants.gov. If the problems stem from unforeseen exigent circumstances unrelated to Grants.gov, such as extreme weather

interfering with internet access, contact James Hargett.

b. Unsuccessful transfer of the application package: If a successful transfer of the application cannot be accomplished even with assistance from Grants.gov due to electronic submission system issues or unforeseen exigent circumstances, send an email message to Tim Roberts prior to the application deadline. The email message must document the problem and include the Grants.gov case number as well as the entire application in PDF format as an attachment.

c. Grants.gov rejection of the application package: If a notification is received from Grants.gov stating that the application has been rejected for reasons other than late submittal promptly send an email to James Hargett with the FON in the subject line within one business day of the closing date of this solicitation. The email should include any materials provided by Grants.gov and attach the entire application in PDF format.

## **H. Additional Provisions for Applicants Incorporated into the Solicitation**

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to confidential business information, contracts and sub-awards under grants, and proposal assistance and communications, can be found at <http://www2.epa.gov/grants/epa-solicitation-clauses>. These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

## **V: APPLICATION REVIEW INFORMATION**

### **A. Evaluation Process**

After EPA reviews proposals for threshold eligibility purposes as described in Section III, CBPO will conduct a merit evaluation of each eligible proposal. Reviews will be performed by a team of professionals from EPA and other CBP partner organizations with a working knowledge of the technical analysis and programmatic evaluation needs of CBP partnership. All reviewers will sign a conflict of interest statement indicating they have no conflict of interest.

### **B. Evaluation Criteria: Maximum score: 100 points**

<b>Criteria</b>	<b>Points</b>
<b>1. Organizational Capability, Scope and Approach:</b> Under this criterion, reviewers will evaluate the proposal based on:  a. The quality of their proposal and how it demonstrates the ability to timely and successfully achieve the relevant activity to support the CBP partners described in Section I.C regardless if the proposal encompasses one of the examples provided or puts forth an alternative approach that achieves the goal of the respective activity. <b>(15 points)</b>	45

b. How well the proposal demonstrates that the applicant has the skill and experience in working with and supporting multiple management agencies, research institutions, non-governmental organizations, and stakeholder collaborative efforts to provide technical and scientific expertise to enhance environmental protection decision-making. **(10 points)**

c. How well the proposal demonstrates that the applicant has the skill and experience in **(20 points)** (Note: Proposals will be only be evaluated using the criterion that corresponds with the activity addressed in the proposal):

**Activity 1:** managing, synthesizing, and analyzing agricultural and urban BMP implementation data and other nonpoint-source-related information necessary to support watershed model design, development, calibration, validation, and management application of those models; managing large complex environmental and source sector data sets and databases; developing and managing models, scenario input and output decks, and communicating the environmental management implications to policy, management, and stakeholder audiences through a variety of media and mechanisms.

**Activity 2:** planning, development, calibration, and verification of complex watershed models covering multi-state watersheds and interstate waterbodies and their subsequent intensive management application supporting a multitude of programmatic objectives and outcomes; preparing documentation of complex environmental models, scenario input and output decks, evaluating scenario results, and communicating the environmental management implications to policy, management, and stakeholder audiences through a variety of media and mechanisms.

**Activity 3:** developing and operating watershed models using several operating systems, programming languages, analysis software, relational databases, graphical packages, and GIS software; maintaining and developing codes and systems that run across a variety of platforms in both single processor and parallel configurations; and preparing documentation of complex environmental models, scenario input and output decks, evaluating scenario results, and communicating the environmental management implications to policy, management, and stakeholder audiences through a variety of media and mechanisms.

**Activity 4:** planning, development, calibration, and verification of complex estuarine models—including hydrodynamic, water quality, sediment flux, phytoplankton, zooplankton, submerged aquatic vegetation, benthic infaunal, oyster filter feeding, and menhaden filter feeding models—linked with airshed, watershed, and land change models covering multi-state watersheds and interstate waterbodies and

their subsequent intensive management application supporting a multitude of programmatic objectives and outcomes; preparing documentation of complex environmental models, scenario input decks and output, evaluating scenario results, and communicating the environmental management implications to policy, management, and stakeholder audiences through a variety of media and mechanisms.

**Activity 5:** planning and performing stormwater-related cost-effective, reduction efficiency, programmatic gap/capacity, and management effectiveness analyses and evaluations and applying those results at small- to large-watersheds, local to state jurisdictions, and basinwide scales; preparing documentation of stormwater data analysis and programmatic evaluation activities and interpreting results and communicating the environmental management implications to policy, management, and stakeholder audiences through a variety of media and mechanisms.

**Activity 6:** managing large, complex sets of water-quality data collected by a multitude of local, state, regional, federal, academic and nonprofit agencies and organizations; supporting full and open access to the data for supporting data analysis and interpretation and the development of solutions to highly complex technical problems involving the integration of water quality and biological resource with other environmental data acquired from an array of data generators.

**Activity 7:** planning and performing water quality and biological resource, habitat, and living resource data/statistical analyses followed by synthesis and interpretation of the results, focused on large scale watersheds and estuarine ecosystems; preparing documentation for water quality and biological resources, terrestrial and aquatic habitats and living resource data analysis activities, interpreting results, and communicating the environmental management implications to the wider Bay audience.

**Activity 8:** planning and performing water quality and biological resource, habitat, and living resource data/statistical analyses followed by synthesis and interpretation of the results, focused on large scale watersheds and estuarine ecosystems; preparing documentation for water quality and biological resources, terrestrial and aquatic habitats and living resource data analysis activities, interpreting results, and communicating the environmental management implications to the wider Bay audience.

**Activity 9:** planning and performing geo-spatial mapping and analysis activities, interpreting results, and developing desktop and web-based solutions to highly complex technical problems involving the integration

<p>of geographical data with other environmental data and information all focused on large-scale watersheds and estuarine ecosystems; preparing documentation of geo-spatial mapping and analysis activities, interpreting results and communicating the environmental management implications to the wider Bay audience.</p>	
<p><b>2. Demonstration of Environmental Results Through Past Performance:</b> Under this criterion, reviewers will evaluate the proposal based on the applicant’s programmatic capability to successfully perform the proposed activity taking into account the applicant’s past performance in successfully completing federally- and non-federally-funded assistance agreements (assistance agreements include federal grants and cooperative agreements but not federal contracts) similar in size, scope, and relevance to the proposed project within the last three years (no more than five, and preferably EPA agreements). Successful completion of federally-funded assistance agreements also includes your organization’s history of meeting reporting requirements and submission of acceptable final technical reports under those agreements. <b>(20 points)</b></p> <p>Note: In evaluating applicants under this criteria, the reviewers will consider the information provided by the applicant and may also consider relevant information from other sources, including Agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). If you do not have any relevant or available past performance, please indicate this in the proposal and you will receive a neutral score for these sub-factors; a neutral score is half of the total possible points. If you do not provide any response for these items, you may receive a score of zero for these criteria.</p>	20
<p><b>3. Cost-effectiveness:</b> Under this criterion, reviewers will evaluate each proposal based on the degree of cost-effectiveness, considering the following factors: organizational overhead, budget breakdown, and ability to control cost for the relevant activity listed in Section I. <b>(10 points)</b></p>	10
<p><b>4. Transferability of Results to Similar Projects and/or Dissemination to the Public:</b> Under this criterion, reviewers will evaluate the proposal based on the degree to which the proposal includes an adequate plan to gather information and lessons learned from the project <u>and</u> transfer the documentation/information/ data/results/recommendations to CBP partners and stakeholders across the Chesapeake Bay watershed in a timely manner. <b>(10 points)</b></p>	10
<p><b>5. Seamless Transition:</b> How well the applicant can become fully functional in the roles described here once a cooperative agreement is awarded and how the applicant will bring about a “seamless” transition in the provision of the described support to the CBP partnership and its management structure. <b>(10 points)</b></p>	10
<p><b>6. Timely Expenditure of Grant Funds:</b> Under this criterion, reviewers will evaluate the proposal based on the approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner. <b>(5 points)</b></p>	5

### C. Review and Selection Process



Eligible proposals will be evaluated and ranked using the criteria stated in Section V.B. above by a panel of reviewers from EPA and possibly other CBP partner organizations with a working knowledge of the technical analysis and programmatic evaluation needs of the CBP partnership. The review team will then forward the highest-ranked proposals to the director or deputy director of CBPO for final selection. In making the final funding decisions, the selection official may also consider programmatic goals and priorities, as described in the Chesapeake Bay Watershed Agreement at [www.chesapeakebay.net/chesapeakebaywatershedagreement/page](http://www.chesapeakebay.net/chesapeakebaywatershedagreement/page).

#### **D. Additional Provisions**

Additional provisions that apply to this solicitation and/or awards made under this solicitation including the clause on Reporting and Use of Information Concerning Recipient Integrity and Performance can be found at EPA Solicitation Clauses. These points and the other provisions that can be found at the website link, [www2.epa.gov/grants/epa-solicitation-clauses](http://www2.epa.gov/grants/epa-solicitation-clauses), are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

## **VI: AWARD ADMINISTRATION INFORMATION**

### **A. Award Notices and Instructions for Submission of Final Application**

It is expected that applicants will be notified in writing of funding decisions on or around January 10, 2017 either via email or U.S. Postal Service. This notification, which informs the applicant that its proposal has been selected and is being recommended for award, is not an authorization to begin work. The official notification of an award will be made by the EPA Region 3 grants office. Applicants are cautioned that only a grant award official is authorized to bind the government to the expenditure of funds; selection does not guarantee an award will be made. For example, statutory authorization, funding, or other issues discovered during the award process may affect the ability of EPA to make an award to an applicant. The award notice, signed by an EPA grant award official, is the authorizing document and will be provided through electronic or postal mail.

Notification of selection does not indicate that the applicant can start work on the project. The selected applicant will be asked to submit a full federal assistance agreement application package. A federal project officer provides assistance in the application process and negotiates a work plan, budget, and starting date. Processing for this particular cooperative agreement award is expected to take 60 days.

### **B. Administrative and National Policy Requirements**

If your proposal is selected, the following information will be helpful in preparing your cooperative agreement application. Any information about general EPA regulations applicable to the award of assistance agreements may be found at:  
<https://www.epa.gov/grants/>

## **Federal Requirements**

An applicant whose proposal is selected for federal funding must complete additional forms prior to award. EPA reserves the right to negotiate and/or adjust the final cooperative agreement amount and work plan content prior to award consistent with agency policies.

## **Indirect Costs**

If indirect costs are budgeted in the assistance application and the non-profit organization or educational institute does not have a previously established indirect cost rate, it will need to prepare and submit an indirect cost rate proposal and/or cost allocation plan in accordance with the federal cost principles in 2 CFR Part 200, Subpart E (Section 200.414), and Appendix III and IV to Part 200, within 90 days from the effective date of the award. Per 2 CFR Section 200.414(f), if your organization has never received a negotiated indirect rate, it may opt to charge a *de minimis* rate of 10 percent of modified total direct costs (MTDC), which may be used indefinitely. Applicants are strongly encouraged to carefully review the aforementioned regulations regarding indirect costs.

If a state or local government does not have a previously established indirect cost rate, it will need to prepare its indirect cost rate proposal and/or cost allocation plan in accordance with 2 CFR Part 200, Subpart E (Section 200.414), and Appendix VII to Part 200. The state or local government recipient whose cognizant federal agency has been designated by OMB must develop and submit its indirect cost rate proposal to its cognizant agency within six months after the close of the governmental unit's fiscal year. If the cognizant federal agency has not been identified by OMB, the state or local government recipient must still develop (and when required, submit) its proposal within that period. Per 2 CFR Section 200.414(f) and Appendix VII to Part 200, Section D.1.b, if the state or local government has never received a negotiated indirect rate and if it receives \$35,000,000 or less in direct Federal funding, it may opt to charge a *de minimis* rate of 10 percent of modified total direct costs (MTDC), which may be used indefinitely. Applicants are strongly encouraged to carefully review the aforementioned regulations regarding indirect costs.

## **Incurred Costs**

Funding eligibility ends on the date specified in the award. The time expended and costs incurred in either the development of the proposal or the final assistance application, or in any subsequent discussions or negotiations prior to the award, are neither reimbursable nor recognizable as part of the recipient's cost share.

## **EPA Requirements for Quality Management Plans and Quality Assurance Plans**

In accordance with 2 CFR Section 1500.11, projects that include the generation or use of environmental data are required to submit a Quality Management Plan (QMP) and Quality Assurance Project Plan (QAPP).

The QMP must document quality assurance policies and practices that are sufficient to produce data of adequate quality to meet program objectives. The QMP should be prepared in accordance with EPA QA/R-2: EPA Requirements for Quality Management Plans (refer to <http://www2.epa.gov/sites/production/files/2015-07/documents/r2-final.pdf>, Chapter 2). The recipient's QMP should be reviewed and updated annually as needed. The QMP must be

submitted to the EPA project officer at least 45 days prior to the initiation of data collection or data compilation.

The recipient must develop and implement quality assurance and quality control procedures, specifications and documentation that are sufficient to produce data of adequate quality to meet project objectives. The Quality Assurance Project Plan (QAPP) is the document that provides comprehensive details about the quality assurance/quality control requirements and technical activities that must be implemented to ensure that project objectives are met. The QAPP should be prepared in accordance with EPA QA/R-5: EPA Requirements for Quality Assurance Project Plans. The QAPP must be submitted to the EPA project officer at least 30 days prior to the initiation of data collection or data compilation. Requirements for QAPPs can be found at <http://www2.epa.gov/quality/template-developing-generic-quality-assurance-project-plan-or-plan-elements-model>.

### **Deliverables**

Awarded applicant will be required to provide a chart or list of deliverables, providing items and due dates.

### **C. Reporting**

Quarterly or semiannual progress reports, as determined by the federal project officer, will be required as a condition of this award.

### **D. Disputes**

Assistance agreement competition-related disputes will be resolved in accordance with the dispute resolution procedures published in 70 FR (Federal Register) 3629, 3630 (January 26, 2005) which can be found at <https://www.epa.gov/grants/grant-competition-dispute-resolution-procedures>. Copies of these procedures may also be requested by contacting the person listed in Section VII of the announcement.

### **E. Debriefings**

Unsuccessful applicants interested in requesting a debriefing should refer to the procedures for debriefings in the Dispute Resolution Procedures, which can also be found at 70 FR (Federal Register) 3629, 3630 (January 26, 2005). Copies of these procedures may also be requested by contacting a person listed in Section VII of the announcement.

### **F. Additional Provisions for Applicants Incorporated into the Solicitation**

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to DUNS, SAM, copyrights, disputes, and administrative capability, can be found at <http://www2.epa.gov/grants/epa-solicitation-clauses>. These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to

access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

## **VII: AGENCY CONTACT**

For administrative and technical issues regarding this RFP, please contact James Hargett via email at [hargett.james@epa.gov](mailto:hargett.james@epa.gov). All questions must be received in writing via email or fax at 410-267-5777 with the reference line referring to this RFP (Re: RFP EPA-R3-CBP-16-05). All questions and answers will be posted on <http://www2.epa.gov/grants/grants-your-region-information-specific-epa-region-3>.

## **VIII: OTHER INFORMATION**

In developing your proposal, you may find the following documents helpful. Websites for guidance documents are listed here. If you prefer a paper copy, please call 1-800-YOUR BAY.

*Chesapeake Bay Watershed Agreement and Management Strategies*  
<http://www.chesapeakebay.net/chesapeakebaywatershedagreement/page>

Electronic copy of the *CBP Guidance for Data Management*  
<http://archive.chesapeakebay.net/cims/Guidance%20for%20Data%20Management%20Nov%202006.pdf>

Electronic copy of the *Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance*  
<http://www2.epa.gov/restoration-chesapeake-bay/chesapeake-bay-program-grant-guidance>

EPA Requirements for Quality Management Plans and Quality Assurance Plans  
<http://www2.epa.gov/grants/implementation-quality-assurance-requirements-organizations-receiving-epa-financial>

Please visit the EPA Grants website (<http://www2.epa.gov/grants>), the EPA Region 3 Grants website (<http://www2.epa.gov/grants/grants-your-region-information-specific-epa-region-3>) or the Chesapeake Bay Program website (<http://www2.epa.gov/restoration-chesapeake-bay/chesapeake-bay-program-grant-guidance>) if you have questions about grant issues such as costs or eligibility.

Further information on CBP committees is located at:  
<http://www.chesapeakebay.net/about/organized>.

**Appendix A**  
**Proposal Format**  
**U. S. ENVIRONMENTAL PROTECTION AGENCY, Region III**  
**Chesapeake Bay Program Office Fiscal Year 2016 Request for Proposals (RFP) for**  
*Chesapeake Bay Optimization Tool Development*  
EPA-R3-CBP-16-05

The following information must be provided or the proposal may not be considered complete and may not be evaluated.

**Format:** Narrative proposals as described below shall not exceed 15 single-spaced pages. The proposal must be submitted on 8 ½" x 11" paper, and font size should be no smaller than 10. Note that the 15 pages must include all supporting materials, including resumes or curriculum vitae and letters of support. With the exception of documentation of non-profit status, cost share letters of commitment, and the SF-424, if the proposal includes more than 15 pages, the additional pages will be discarded and not considered in the review. Applicants must submit one proposal for each Activity they wish to compete and should ensure it clearly identifies the Activity number. Applicant's responses should be numbered and submitted according to the format listed below.

**1. Name, address (street and email), and contact information of the applicant**

**2. Background** - Include the following in this section:

- i) Project title.
- ii) Brief description of your organization.
- iii) Documentation of non-profit status, if applicable.
- iv) Brief biographies of applicant lead(s) including resumes and/or curriculum vitae.
- v) Funding requested. Specify total cost of the project. Identify funding from other sources, including cost-share or in-kind resources.
- vi) DUNS number — See Section VI of RFP.

**3. Work plan** - Include the following in this section:

- i) A clear and concise discussion of how your organization will meet the objectives and requirements of the Program as described in Section I of the announcement;
- ii) Budget: For the first year and each of the subsequent years, provide a budget detail breakdown by the major budget categories (i.e. personnel, fringe benefits, travel, equipment, supplies, contractual, construction, other, and indirect). In each of the budgets, include the cost share amount (a minimum of five percent of the total project costs) and demonstrate how the cost share will be met, including, if applicable, letters of commitment from any third-party contributors. Please note that subaward costs must be included in the "Other" budget costs category. For an example budget detail, please go to:  
<http://www2.epa.gov/grants/application-kit-federal-assistance>, page 27. In addition, grantees applying for CBP assistance agreements must adhere to the requirement for "Administrative

Costs” under the Clean Water Act, Section 117 (d)(4), which states that administrative costs shall not exceed 10 percent of the annual grant award. Information on how to calculate the 10 percent administration cost cap is located in Appendix B: Administrative Cost Cap Worksheet. To calculate the specific cost-share amount, follow these two-steps:

- 1) EPA amount (including any in-kind) ÷ 95% = 100% of Total Grant Amount
- 2) 100% of Total Grant Amount × 5% = Applicant’s Cost-Share Amount

Based upon the annual funding estimate of \$90,000 to \$160,000 per year, the minimum annual cost share is calculated to be \$4,737 to \$8,421 annually.

iii) Environmental Results – Outputs and Outcomes: Address how the proposal will meet the expected outputs and outcomes of this project.

1. Output: An output is an environmental activity, effort, or work product related to an environmental goal or objective that will be produced within the assistance agreement period. Examples of potential outputs include:
  - Web-based access to a wide array of nonpoint-source-interpretative products at a multitude of scales relevant to the users.
  - Effective and targeted dissemination of the model documentation, scenario input decks, scenario results and findings tailored to the Chesapeake Bay Program partners and stakeholders.
  - Analysis of the relative cost-effectiveness of BMPs under varying conditions.
  - Partnership and public access to tidal and watershed water quality data, programmatic information and interpretative products at a multitude of scales relevant to the users.
  - Web-based access for partners and stakeholders to a wide array of geo-spatial map and interpretative products at a multitude of scales relevant to the users.
2. Outcome: An outcome is a result, effect, or consequence that will result from carrying out an environmental program or activity that is related to an environmental programmatic goal or objective. Outcomes are quantitative measures that may not necessarily be achievable within the assistance agreement period. An example of an outcome under this proposal is cost-effective, pollutant load reduction efficient Phase III WIPs. Another example is enhanced multi-partner, consensus-based environmental decision-making in the Chesapeake Bay watershed through linked-model applications along interpretation of long term monitoring trends leading to more effective and cost-efficient decisions supporting restoration of the Chesapeake Bay and surrounding watershed ecosystems.

iv) Review Criteria: Address in narrative form each of the review criteria identified in Section V.B of the RFP. Identify by the review criteria number and title followed by your narrative. With specific respect to the Programmatic Capability and Environmental Results Past Performance factor in V.B:

Submit a list of federally and/or non-federally funded assistance agreements (assistance agreements include federal grants and cooperative agreements but not federal contracts) similar in size, scope and relevance to the proposed project that your organization performed within the last three years (no more than five agreements and preferably EPA agreements) and describe (i) whether, and how, you were able to successfully complete and manage those agreements and (ii) your history of meeting the reporting requirements under those agreements, including whether you adequately and timely reported on your progress towards achieving the expected outputs and outcomes of those agreements (and if not, explain why not) and whether you submitted acceptable final technical reports under the agreements.

In evaluating applicants under these factors in Section V, EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current/prior grantors (e.g., to verify and/or supplement the information provided by the applicant). If you do not have any relevant or available past performance or past reporting information, please indicate this in the proposal and you will receive a neutral score for these factors (a neutral score is half of the total points available in a subset of possible points). If you do not provide any response for these items, you may receive a score of 0 for these factors.

In addition, provide information on your organizational experience and plan for timely and successfully achieving the objectives of the proposed project as well as your staff's expertise/qualifications, staff knowledge, and resources, or the ability to obtain them, to successfully achieve the goals of the proposed project.

**Appendix B  
EPA-R3-CBP-16-05**

**SAMPLE  
(DO NOT SUBMIT WORKSHEET WITH APPLICATION)**

**CHESAPEAKE BAY PROGRAM ADMINISTRATIVE COST  
CAP WORKSHEET**

**INSTRUCTIONS:** In accordance with Section 117(d)(4) and 117(e)(6) of the Clean Water Act (CWA), the costs of salaries and fringe benefits incurred in administering a grant under Section 117(d) or 117(e) of the CWA shall not exceed 10 percent of the annual grant award. The annual grant award is the total costs including Federal and cost share amounts. The worksheet below is provided to assist you in calculating allowable administrative costs. The Budget Detail of your Application for Federal Assistance (SF-424) should reflect how your administrative costs will comply with the cap. For specific guidance refer to page 2 of this sample "Compliance with CWA Section 117 Requirements Restricting Administrative Costs."

Total Costs	\$ _____
Cap %	X .10
<b>Limit on Administrative Costs</b>	<b>\$ (a) _____</b>
List Administrative Costs: (Budgeted costs for application)	
_____	\$ _____
_____	_____
_____	_____
_____	_____
<b>Total</b>	<b>\$ (b) _____</b>

**Line (b) cannot exceed Line (a).**



## **COMPLIANCE WITH CWA SECTION 117 RESTRICTING ADMINISTRATIVE COSTS**

### **Statutory Authority**

**Under statutory authority, grantees applying for Chesapeake Bay Program grants/cooperative agreements under Section 117 (d) or (e) must adhere to the requirement on administrative costs as follows:**

Under Section 117(a)(1) Administrative Cost - The term “administrative cost” means the cost of salaries and fringe benefits incurred in administering a grant under this section.

Under Section 117(d)(4) - Administrative Costs. - Administrative costs shall not exceed 10 percent of the annual grant award.

Under Section 117(e)(6) - Administrative Costs. -Administrative costs shall not exceed 10 percent of the annual grant award.

### Guidance for Determining Administrative Costs

**As determined by EPA/CBPO, the following provides guidance in determining administrative costs for grants/cooperative agreements under Section 117 (d) and (e) of the Clean Water Act.**

#### 1. Administrative Costs

Salaries and fringe benefits charged against the project or program element for the sole purpose of administering the grant/cooperative agreements shall not exceed 10% of the annual grant **award (Federal and cost share)**. One hundred percent of the salaries and fringe benefits related to these functions are considered administrative costs. Examples of administrative costs include, but are not limited to:

- preparation and submission of grant applications
- fiscal tracking of grants funds
- maintaining project files
- collection and submission of deliverables

#### 2. Non-administrative Costs

Salaries and fringe benefits related to the implementation of the project or program element of the grant/cooperative agreement are not considered administrative costs. None of the salaries and fringe benefit costs related to these functions shall be considered administrative costs. Example:

- the salaries and fringe benefits for technical staff to conduct work to accomplish specific Bay Program goals as outlined in the program or project elements are not administrative costs.

#### 3. Calculation of Administrative Costs

In order to ensure compliance with this requirement, use the format above or a similar format to calculate the costs and include in the Budget Detail of your Application for Federal Assistance (SF-424).

#### 4. Questions Regarding Administrative Costs

The grantees shall direct questions to the EPA Project Officer who will determine what costs should be included as administrative costs on a case-by-case basis.