

**2020 Scope of Work  
Department of Defense  
Regional Environmental Coordination (REC) and Chesapeake Bay Program (CBP) Support**

A/E Contract N62470-14-D-9022

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**BACKGROUND AND OBJECTIVE**

Federal agencies own almost 2.3 million acres in the Chesapeake Bay watershed, including 112,000 acres of developed land. Cumulatively, federal agencies control 5.6 percent of the watershed, which makes the federal community an important stakeholder to the Chesapeake Bay total maximum daily load (TMDL). The Chesapeake Assessment Scenario Tool (CAST) allow users to assess the progress of eight federal agencies: the Agricultural Research Service, Department of Defense, General Services Administration, National Aeronautics and Space Administration, National Park Service, Smithsonian Institution, US Fish and Wildlife Service, and the US Forest Service. These federal agencies own and operate facilities in six Chesapeake Bay jurisdictions (Maryland, New York, Pennsylvania, Virginia, Washington, D.C., and West Virginia.) BMP implementation at these facilities are reported through each jurisdiction, but their progress is assessed separately against agency-specific planning goals defined either as federal facilities planning goals (FFPGs) in the Phase III Watershed Implementation Plans (WIPs) or through the 2015 Protocol for Setting Targets, Planning BMPs, and Reporting Progress for Federal Facilities and Land (Protocol). The Environmental Protection Agency (EPA) has requested that an A/E firm evaluate the pollutant loads for each agency through the 2019 progress year (the 2019 Progress scenario) and compare those loads to the planning goals set for those federal agencies in each jurisdiction. The purpose of this exercise is to define the baseline (2019) and endpoint (2025) for federal agencies and develop a methodology and trend line to assess federal agency progress annually through the duration of the Chesapeake Bay TMDL. Other federal agencies (such as the Army Corps of Engineers, United States Department of Agriculture, etc.) are designated "Other Federal Land" and will not be included in this analysis.

Attachment (a)

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13 February 2020**

**Task A – Project Management**

A/E will provide routine project management activities (e.g., project coordination, monthly progress reports (MPRs), and invoicing) to EPA to ensure project tasks remain on schedule and within budget. A/E will prepare and submit a sample MPR for review and approval.

A/E will coordinate a kickoff meeting, via conference call, to discuss the scope, schedule, and work approach. A/E will provide a kickoff meeting agenda for approval within 1 week prior to the meeting. Following the kickoff meeting, A/E will provide an electronic copy of the meeting summary within 1 week of the meeting.

Assumptions:

- Project duration of 6 months

Deliverables: A/E will deliver the meeting agenda electronically in PDF format in advance of the meeting. The summary will be delivered electronically in PDF format within one week of the kickoff meeting.

**Task B – 2019 Progress Scenario Evaluation**

Upon verifying that the federal BMP record is complete when evaluated against criteria to be determined in coordination with EPA, A/E will utilize CAST and the Chesapeake Bay Program 2019 Progress scenario to assess the current progress of federal agencies by jurisdiction. A/E will evaluate the Loads report to determine the total nitrogen, total phosphorus, and total suspended solids loads assigned to each of the eight (8) federal landholders with a defined agency code by Chesapeake Bay jurisdiction. A/E will calculate and document loads at both edge of stream and edge of tide and reported separately for the Developed and Natural sectors (other sectors do not apply to federal agencies).

A/E will utilize the BMP Input report to determine the number of BMPs assigned to each agency code by jurisdiction. In addition, The CAST BMPs Submitted versus Credited report will be utilized to determine the credited implementation of BMPs by BMP type.

The results of this task are intended to be a baseline for comparison with the results of subsequent tasks.

Assumptions:

- A/E will perform this evaluation for only one (1) version of the 2019 Progress scenario. EPA will notify A/E what version of the scenario to utilize for this task.
- The 2019 federal agency loads can be determined in one spreadsheet (from the Loads report) using a Pivot Table and the Loads Report (with all CBWS-only jurisdictions, Source-Agency aggregation).
- The BMP Input report will be evaluated to determine the total number of BMPs (determined based on the count of Unique IDs with the federal agency code) for different BMP types (determined as the count of BMPs by BMP Name, will not consider the selected Measurement Name).

- The Submitted versus Credited report will determine the amount credited for different BMP types summed across load source groups.

Deliverables: A Microsoft Excel file containing the raw scenario results and summary analysis will be provided for review. A/E will incorporate the results of this task into Task E Technical Memorandum (TM).

### **Task C – Calculation of Federal Agency Planning Goals**

A/E will calculate the planning goals for each of the eight (8) federal landholders at the jurisdiction-scale. The planning goals are assumed to be documented in either the jurisdictions' Phase III WIPs or the 2015 Protocol.

Assumptions:

- EPA will indicate the source of each jurisdictions' planning goals. At this time, it is believed that federal planning goals from the Phase III WIPs are available for Virginia, and Washington, D.C. Planning goals for facilities in Maryland, West Virginia, and New York are based on the 2015 Protocol.
- For those jurisdictions with planning goals from the Phase III WIPs, the following methodology is assumed:
  - Pennsylvania: County and agency define planning goals. Planning goals are the sum of the county-agency loads for the developed and natural load source sectors.
  - Virginia: Planning goals provided to federal facilities include only unregulated land. A/E will use the VA WIP III Final scenario to determine the planning goals, utilizing the developed and natural load source groups, summed by agency.
  - Washington, DC: Planning goals are provided by federal agency.
- Where planning goals are calculated per acre in the Protocol, A/E will use the methodology described within the document and associated Microsoft Excel file to establish the planning goals.
  - West Virginia and New York: Developed acres associated with the 2019 Progress scenario to determine the cumulative reduction required. The reduction will be applied to the federal agency's loads from the 2010 Progress scenario to calculate the Protocol target load at 2025.
  - Maryland: The individual facilities listed for each federal agency will be summed to establish the total required reductions. The reduction will be applied to the federal agency's loads from the 2010 Progress scenario to calculate the Protocol target load at 2025. A/E will assume that the list of facilities is complete and accurate, unless agencies provide a verified list of facilities within the jurisdiction.

Deliverables: A Microsoft Excel file containing the raw scenario results and summary analysis will be provided for review. Results of this task will be incorporated in the Task E TM.

### **Task D – Comparison of Federal Agency Planning Goals and WIP III Scenarios**

In addition to the planning goals documented by the Protocol and the Phase III WIPs, planning goals for federal agencies can also be found in CAST through the Phase III WIP scenarios developed by the jurisdictions and CBP. To confirm consistency between these sources, A/E will compare the cumulative jurisdiction-level targets for the federal agencies calculated in Task B with the final federal agency loads from the Final WIP III scenario in CAST.

As a part of the Final WIP III scenario evaluation, A/E will generate the BMP Submitted versus Credited report to assess the level of implementation the jurisdictions have included for the eight federal agencies with agency codes. This information will be summarized by BMP type, federal agency code, and jurisdiction.

Deliverables: A Microsoft Excel file containing the raw scenario results and summary analysis will be provided for review. Results of this task will be incorporated in the Task E TM.

#### **Task E – Draft Assessment of Progress Technical Memorandum (TM)**

A/E will summarize the process, assumptions, and results of Tasks B-D in a technical memorandum, which will also determine the remaining reductions needed by each federal agency to meet its target in each Chesapeake Bay jurisdiction. The TM memorandum will include:

- Loads associated with the eight federal agency codes in the 2019 Progress scenario
- Current credited implementation by BMP type
- 2025 target loads
- Remaining reductions from 2019 loads to reach 2025 target loads
- Implementation by BMP type incorporated in Final WIP III scenario to achieve 2025 loads

EPA will provide one set of consolidated comments, which A/E will address to finalize the technical memorandum in Task G.

Deliverables: Draft technical memorandum (electronic Microsoft Word document, PDF)

#### **Task F – Informational Webinar**

A/E will develop and present a one-hour informational webinar for the eight federal agencies to share the results of the federal agency progress assessment and provide an opportunity for federal agencies to ask questions about the process, tools, and results.

Assumptions:

- Webinar will be held remotely with no travel required for A/E staff.
- Comments noted will be documented and addressed in Task G.
- One-hour presentation would require approximately 30-40 slides.

Deliverables: PowerPoint presentation (submitted electronically), 1-hour webinar attendance

#### **Task G – Final Assessment of Progress TM**

A/E will utilize the consolidated EPA comments and notes from the informational webinar to finalize the draft technical memorandum developed under Task E.

Deliverables: Final technical memorandum (electronic Microsoft Word document, PDF)

#### **Budget**

Budget Category	Dollar Amount
Personnel	\$ -
Travel	\$ -
Equipment	\$ -
Supplies	\$ -

Procurement/Assistance (subawards)	\$ 51,308.05
Construction	\$ -
Other	\$ -
Total Direct Charges	\$ -
Indirect Costs (7% profit)	\$ 3,591.56
Total	\$ 54,899.61