

# Chesapeake Bay: 2025 and Beyond

April 19, 2023

## Purpose

This document provides a statement of need as understood by ERG on how to address current challenges that the Chesapeake Bay Program (Bay Program) faces in meeting its goals under the 2014 Chesapeake Bay Watershed Agreement.

## Statement of Need

### Challenges and Constraints

- The 2014 Watershed Agreement outlines ambitious targets for the Bay, its tributaries, and the surrounding lands. Key goals relate to the Bay's Total Maximum Daily Load (TMDL) for nitrogen, phosphorus, and sediment. The TMDL has a target date of 2025 for having all the necessary pollution control measures in place to restore water quality in the Bay.
- The 2025 goals are challenging to meet, for a variety of reasons. Among other fundamental challenges, these goals require action across many jurisdictions (hence the Watershed Agreement), and they cannot be achieved without reductions in nutrient and sediment inputs from nonpoint sources, which are in many ways harder to control than point sources. It appears that the Bay Program will not meet some of its goals by 2025.
- Regardless of whether the timeframe for meeting water quality goals is adjusted, the Bay Program will continue to face the challenges inherent in improving water quality across many jurisdictions, with a focus on nonpoint sources, in a region with population growth, development, and the added strain of climate change.
- The Bay Program has a multitude of stakeholders across multiple jurisdictions, agencies, and other partners. Collaboration is a fundamental operational need for the Bay Program, as it is vital to meeting large cross-jurisdictional goals that require "many hands" to achieve. Like any organization dedicated to continual improvement, the Bay Program could have opportunities to further optimize the way it works with its stakeholders to ensure inclusion, efficient allocation of resources, and effective decision-making.

### Addressing the Challenges

**Process/Implementation Evaluation.** ERG suggests that the Bay Program perform a process/implementation evaluation to assess program implementation and to develop recommendations to ensure the Bay Program's activities are aligned with reaching its goals. Process evaluations focus on whether programs are being implemented as intended and the extent to which current activities and processes will allow the program to attain its goals. We suggest including the following activities in this evaluation:

- *Review the Bay Program's theory of change (TOC) and logic model in relation to its current goals.* A TOC and the associated logic model relate program activities to intended outcomes and goals. A TOC tends to be higher level and a logic model will include more details, but both are intended to convey the reasoning as to how a program can attain its outcomes. ERG suggests reviewing the CBP's TOC and logic model to assess their completeness and to assess whether adjustments ought to be made. ERG can do this by (1) reviewing available documents and (2) conducting interviews with Bay Program staff, partners, and other stakeholders.
- *Compare the logic model with current operations.* Logic models link resources and activities performed by programs to outputs and ultimately outcomes. In some sense, the logic model operationalizes the TOC to show how the program will achieve outcomes. ERG recommends comparing how the Bay Program was designed to meet its outcome goals (TOC/logic model) with how the Bay Program is currently operating. We can gather data to inform this assessment through interviews and surveys of staff and Bay Program partners. A key aspect of this part of the evaluation would be to determine what is and is not working to help the Bay Program meet its goals in light of the inherent challenges the Program faces.
- *Develop a revised logic model and/or TOC based on current challenges, focusing on aspects that are helping the Bay Program meet its goals.* ERG's recommendation is that the Bay Program rethink and realign its logic model as needed to ensure it can realistically meet its intended goals.
  - *Organizational assessment.* ERG recommends performing an organizational assessment that looks at how the different entities in the Bay Program interact and work with one another. The purpose of the assessment would be to identify areas where the Bay Program functions is acting as an impediment to attaining goals. This would be accomplished through interviews and surveys of Bay Program participants.
  - *Functional review.* ERG recommends conducting a functional review of the Bay Program, including the [Governance document](#), to assess what worked effectively and efficiently and where there are challenges and barriers, and recommend opportunities for improvement when it comes to decision-making for the Bay Program.

## ERG Capabilities to Assist the Chesapeake Bay Program

### Core Skills and Benefits

- ERG is highly experienced in **designing, developing, and executing implementation evaluations** to build organizational cultures of continual improvement and evaluate programmatic impact. Our work includes assessments of organizations' current capacity, partnerships, access to resources, and relationships—all of which are critical to the successful implementation of programs. The next section provides selected examples of our evaluation experience. Our [organizational effectiveness](#) web area provides additional examples.

- ERG comes to this project with a **comprehensive understanding of the Chesapeake Bay watershed, its water quality issues and goals, and how the Bay Program currently operates.** Through our previous work for public and private clients in the Chesapeake Bay, we are familiar with the structure of the Bay Program, the various partners that are working throughout the Bay on various aspects of these goals, and challenges faced by the Bay Program and its partners. We have gained this experience through five recent GIT-funded projects (collaborative development of climate resiliency indicators, a data repository, PCB reductions, local land-use planning, and water finance meetings) and various technical and facilitation projects under the CPRS contract, for example. This understanding will allow us to ask the right questions and design an effective evaluation that gets to the heart of the Bay Program's challenges and needs.
- At the same time, ERG is **not so embedded in current Bay Program operations that we would feel conflicted in conducting an independent external evaluation.** Our Bay Program engagements have been finite and bounded.
- ERG has **technical expertise in additional areas** that give our staff conversancy and credibility in water quality and watershed management issues. For example, EPA is the lead contractor for EPA's Water Permits Division, where we provide engineering, program design, and communications support for efforts to manage the quantity and quality of wastewater and stormwater nationwide (see our [water quality](#) service area). ERG's [Blue Earth Team](#) specializes in coastal resource protection, resilience, and governance. ERG also supports EPA and other clients with [environmental economics](#), [pollution prevention](#), [climate change impacts and resilience](#), and [engagement with environmental justice communities](#), among other areas.

#### Examples from ERG's Program/Implementation Evaluation Experience

- **Program Evaluation and Assessment of Small Watershed Grants (SWG) Program, National Fish and Wildlife Foundation (NFWF).** ERG evaluated and assessed performance of the Chesapeake Bay SWG Program for NFWF. This program provides grants to help municipalities, nonprofits, and others implement a variety of best management practices to improve water quality in the Chesapeake watershed. Building off a previous program evaluation conducted in 2007, ERG used social, organizational, and biophysical data and measures to investigate changes in grantee capacity for project implementation, regional partnerships, and overall project impacts to the Chesapeake Bay bioregion. ERG also examined the extent to which recommendations from the 2007 evaluation had been implemented successfully. ERG designed and conducted interviews, surveys, document and metrics review, and site visits to help answer key evaluation questions. Recommendations will inform NFWF, EPA, and SWG program partners with insights regarding the efficacy of SWG investments in building grantees' capacity to implement conservation and restoration projects. ERG summarized evaluation findings in a comprehensive final report. [Click here for the Executive Summary: Evaluation of the Chesapeake Bay Small Watersheds Grants Program.](#)
- **Hawaii Department of Health Clean Water Branch Program Evaluations, EPA.** ERG help EPA Region 9 conduct evaluations of the Hawaii Department of Health's (HDOH) Clean Water Branch

(CWB) programs, along with a more in-depth evaluation of HDOH's National Pollutant Discharge Elimination System (NPDES) Permit Program. ERG identified strengths, weaknesses, challenges, and needs of the CWB, NPDES Permit Program, and Monitoring and Assessment Program. ERG also identified options and next steps to improve overall effectiveness of the CWB, as well as its role in cross-program efforts with other relevant offices of HDOH, such as the Wastewater and Safe Drinking Water Branch. Through the evaluations and reports, ERG provided a mechanism for HDOH to gain independent recommendations and perspectives, illuminated lessons learned and potential paths forward, and contributed to the state's collective efforts to provide evidence of the value and need of the CWB.

- **Evaluation of the National Coastal Resilience Fund and Hurricane Sandy Coastal Resiliency Program, NFWF.** Throughout the coastal United States, climate change is contributing to extreme weather events that are more intense, more frequent, and longer lasting. To address and mitigate these threats from climate change, NFWF has invested in sustainable coastal communities through the National Coastal Resilience Fund (NCRF) and the Hurricane Sandy Coastal Resiliency Grant Program (Sandy), in partnership with NOAA, the U.S. Department of the Interior (DOI), and other organizations. ERG is supporting NFWF in evaluating the outcomes of the Sandy and NCRF investments. Sharing program impacts and lessons learned with NFWF and its partners is critical to ensure continued success of these programs, particularly given the dynamic nature of emerging climate threats. This evaluation will examine outcomes of up to 125 NCRF and 39 Sandy grants under five broad question categories:

1. Ecological outcomes achieved by grantees, timelines for realized outcomes, and factors influencing outcomes.
2. Community resilience outcomes achieved by grantees, including observed benefits to community members and cumulative impacts stemming from geographic clustering of NFWF, NOAA, and DOI grants.
3. Appropriateness and utility of NCRF program priority areas.
4. Broader impacts stemming from implementation of NCRF and Sandy grants.
5. Long-term sustainability of ecological and community resilience outcomes achieved beyond a project's duration and factors influencing sustainability.

The evaluation process will consist of document review, metrics and geospatial analyses, grantee survey and interviews, and site visits. Major deliverables will include draft and final evaluation reports and draft and final presentations to NFWF and program partners summarizing findings.

- **Retrospective Evaluation of the Walton Family Foundation's Oceans and Fisheries Work in Mexico, Walton Family Foundation (WFF).** ERG supported a retrospective analysis of WFF's fisheries funding in Mexico over the past decade. The evaluation assisted WFF in understanding how its grant-making and portfolio has contributed to the achievement of WFF's goals of promoting fisheries management policies and programs; increasing legal, reported, and regulated fishing; and fostering the sustainable management of Mexico's most politically important fisheries (Gulf corvina, sardine/herring, tuna, shrimp, and lobster). The evaluation

informed the future of WFF's Mexico portfolio and how WFF will conduct monitoring, evaluation, and learning efforts moving forward. ERG conducted a mixed-methods evaluation, including 1) document review of grantee reports, WFF programmatic documents, and existing information on target fisheries; 2) interviews in English and Spanish with selected grantees, partners, and former WFF staff; 3) in-person interviews in Mexico regarding selected fisheries with grantees and partners; and 4) review and compilation of fisheries data for WFF's five key fisheries. ERG analyzed and synthesized findings and prepared a presentation and report for WFF, which included recommendations regarding how WFF could strengthen its contribution to sustainable fisheries management in Mexico and considerations for future monitoring, evaluation, and learning efforts.

- **Piloting a New Implementation Approach for the California Biodiversity Initiative, Coastal Quest and California Department of Fish and Wildlife.** As the implementing partner of Coastal Quest and with the financial support from the California Department of Fish and Wildlife (CDFW) and Resources Legacy Fund's Land-Sea Connection and California Conservation Innovations programs, ERG worked with CDFW to pilot the strategic implementation framework outlined in the "California State Wildlife Action Plan (SWAP) Initiative - Operation and Implementation Strategy," developed by ERG's Blue Earth Team and Coastal Quest in 2016. This project moved forward SWAP 2015 priorities, to effectively and sustainably conserve and manage California's ecosystems through integrating CDFW and partner conservation efforts, and acted upon Governor Brown's California Biodiversity Initiative executive order. ERG assisted CDFW along with other key partners; selected and developed pilot projects in the forests, marine, and water sectors; assessed the feasibility of a West Coast partnership; developed a collaborative grant-making approach and framework; secured matching funding; and improved effectiveness of granting processes. This innovative operational approach for CDFW could lead to increased public-private partnerships, staff and financial resources, awareness, and transparency in grant-making processes, paving the way for SWAP 2015 to be a solid conservation framework for California.
- **Veterans' Employment Training Service (VETS) Uniformed Services Employment and Reemployment Rights Act (USERRA) Investigation Process Analysis, U.S. Department of Labor.** Under USERRA, veterans returning from active duty are guaranteed reemployment with their former employers under most circumstances. If the former employer fails to offer reemployment, the veteran can request assistance from DOL VETS under the VETS USERRA investigation process. The VETS investigation process, however, had been criticized by Congress for both its lack of quality outcomes for veterans and the timeliness of the process. VETS asked ERG to assess the process using process analysis methods to both improve outcomes and increase timeliness. ERG performed a year-long assessment in which interviewed key staff and mapped the intended process (based on VETS manuals) against the actual process (based on field interviews). ERG identified discrepancies and hurdles that were leading to delays and reduced quality in the process. ERG recommended a series of improvements that VETS implemented, and a subsequent General Accounting Office (GAO) report found an increase in both case timeliness and quality.

- **Process Analysis of Alternate Case Resolution (ACR)/Litigation Process, Mine Safety and Health Administration (MSHA).** The passage and implementation of the Mine Improvement and New Emergency Response (MINER) Act of 2006 led to an increase in enforcement cases against mines and a subsequent dramatic increase in the number of contested cases. This further led to an increased time to resolve each case and a significant backlog of cases awaiting resolution. ERG developed a process analysis of MSHA's ACR/litigation process using a Lean Six Sigma approach. We began by developing a detailed map of the ACR process and led detailed site visits to MSHA district offices in support of an evaluation of the ACR/litigation process. ERG identified areas where MSHA processes and procedures were exacerbating the backlog and identified changes to the process that would reduce time to resolve cases.