

Evaluation of Federal Agency Participation in Draft Phase III Watershed Implementation Plans

Background

The seven jurisdictions (Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia) in the Chesapeake Bay Program (CBP) partnership committed to develop Watershed Implementation Plans (WIPs) in three phases to provide a framework for reducing nitrogen, phosphorus, and sediment loads to meet water quality standards in the Chesapeake Bay and its tidal tributaries. The Phase III WIPs provide a road map for the numeric and programmatic commitments the jurisdictions intend to implement between 2019 and 2025 so that all practices are in place by 2025¹ to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation, and chlorophyll-a standards. The 2010 Chesapeake Bay Total Maximum Daily Load (Bay TMDL) document outlined the process for the development of WIPs and for tracking progress towards attaining the CBP partnership restoration goals.

The U.S. Environmental Protection Agency (EPA) is providing this evaluation of federal agency participation to determine whether there is confidence² that federal agencies will achieve the Phase III WIP federal planning goals agreed to with the jurisdictions by 2025, including the offsetting of any new or increased pollutant loads. This evaluation is also based on whether federal agencies met the numeric and programmatic expectations through documented plans for best management practices (BMPs) and Phase III WIP narratives describing federal program activities.

On August 16, 2018 the U.S. Environmental Protection Agency (EPA) provided expectations regarding federal agency participation in the Bay TMDL and Phase III WIPs entitled [*Expectations for Federal Lands and Facilities in Supporting Chesapeake Watershed Jurisdictions' Phase III Watershed Implementation Plans*](#). This evaluation is also based on whether the federal agencies met those numeric and programmatic expectations.

Load Reduction Review

When evaluating the federal agencies' Phase III WIP numeric commitments, EPA ran implementation scenarios along with wastewater discharge data through the CBP partnership's Phase 6 suite of modeling tools and compared those nutrient³ loads to the 2025 Phase III WIP federal planning goals. Federal agency submissions of implementation scenarios were incomplete, except for the United States Fish and Wildlife Service (USFWS) who submitted an implementation scenario and Phase III WIP narrative for each jurisdiction in which the agency owns land (see Table 1). Significant progress in meeting expectations was made by other federal agencies, notably Department of Defense (DoD), who provided the most complete submissions in the jurisdictions in which DoD information was submitted.

Based upon the agencies' submissions, the following increases in acres treated for stormwater have been forecasted through 2025 across the Chesapeake Bay watershed: DoD - 11,094 additional acres treated (135% increase over 2018 levels); National Park Service (NPS) - 2,013 additional acres treated (4,108% increase over 2018 levels); USFWS - 59 additional acres treated (983% increase over 2018 levels); other federal agencies combined - additional 2,353 acres treated (3,511% increase over 2018 levels). In addition, controls on nutrient

¹ This commitment to have all practices and controls installed by 2025 to achieve applicable water quality standards was reaffirmed by the Chesapeake Bay Program signatories in the 2014 Chesapeake Bay Watershed Agreement.

² The phrase "reasonable assurance" is a term of art specific to TMDL establishment. In evaluating the Phase I WIPs, EPA used the phrase and concept of "reasonable assurance" because those WIPs ultimately formed the basis of the 2010 Bay TMDL. EPA continued to use the phrase in its evaluation of the Phase II WIPs, but was using it in a more general, colloquial way, as TMDL establishment had been completed. In Phase III, in an effort to be more consistent with applicable guidance and regulations and to avoid potential confusion, EPA is using the term "confidence" instead of "reasonable assurance."

³ Phase III WIP planning targets for sediment are currently under development by the CBP partnership.

loads are planned to come from federal facilities through BMPs in the stormwater sector such as buffers, tree plantings, nutrient management, and stream restoration.

Key Strengths

- Participation and data submissions by some federal agencies were reasonably complete and on-time (see Table 1).
 - DoD and USFWS submitted documentation for most of their land in the Chesapeake Bay watershed.
 - NPS and the General Services Administration (GSA) submitted data for their District of Columbia regions.
 - The National Aeronautics and Space Administration (NASA) submitted data for its Virginia facility.
 - The United States Department of Agriculture (USDA) submitted data for facilities in the District of Columbia and Maryland.
- DoDs submission fulfilled most of the [*Expectations for Federal Lands and Facilities in Supporting Chesapeake Watershed Jurisdictions' Phase III Watershed Implementation Plans.*](#)
- Progress has been made by the CBP partnership's Federal Facilities Workgroup in the use of Chesapeake Assessment Scenario Tool (CAST) and the new P6 suite of modeling tools for the first time to quantitatively estimate current federal pollutant loads, reductions from federal BMP implementation scenarios and federal agency-specific progress toward meeting Phase III WIP federal planning goals.
- DoD and other federal agencies are providing lists of water quality-related permits and identifying regulated and unregulated land leading to greater clarity in planning and tracking stormwater BMPs and compliance.
- Significant federally-operated wastewater treatment plants are mostly operating at limits of technology and have collectively met 2025 Phase III WIP planning targets ahead of schedule.

Potential Enhancements

- All federal agencies should submit a Phase III WIP narrative and implementation scenario to all jurisdictions in which they own property and, after submission, work with the jurisdictions to ensure the information is useable. Approximately one third of the submissions were completed by the requested date.
- In Pennsylvania, DoD should consider the method that has been proposed for calculating federal planning goals and continue working with Pennsylvania and EPA to agree on a method.
- In the District of Columbia, DoD, GSA, NPS and other federal land owners should revisit the submitted implementation scenario and continue working with District's Department of Energy and Environment (DOEE) to resolve stormwater BMP database discrepancies.
- DOEE should work with federal agencies to improve how federal agency implementation data is reported to the District's Stormwater Database and the Chesapeake Bay Program Office so that federal practices are credited in future progress assessments.
- Federal agencies such as the NPS, USDA and DoD own and lease agricultural land in the watershed. The CBP partnership's Phase 6 suite of model tools does not track BMPs on federal agricultural land; however at least one state - Virginia - expects that federal agricultural land will be managed and BMPs will be implemented and reported.
- Except for DoD, federal agencies need improved systems for estimating growth and development and planning implementation scenarios over time to ensure there are no new or increased pollutant loads.
- National Oceanographic and Atmospheric Administration (NOAA) and other Department of Commerce (DOC) agencies should continue efforts to inventory facilities and current BMPs followed by planning future BMPs to achieve local federal planning goals.

Table 1

The following table summarizes the extent to which each major federal agency with land in the Chesapeake Bay watershed submitted a narrative and Chesapeake Assessment and Scenario Tool (CAST) scenario(s) for inclusion in each of the jurisdictions' Phase III WIPs. Federal agencies are submitting additional information for inclusion in the final Phase III WIPs. An update will be completed to reflect federal submissions in the final WIPs.

**Federal Facilities Workgroup
Phase III WIP Narrative and CAST Scenario Submissions**

Agency	DC		MD		NY		PA		VA		WV	
DHS	Grey		N	C	Grey		Grey		N	C	N	C
DOC - NOAA	Grey		N	C	Grey		Grey		N	C	Grey	
DOI - USGS	Grey		N	C	Grey		N	C	N	C	N	C
DOI - FWS	Grey		N	C	Grey		N	C	N	C	N	C
DOI - NPS	N	C	N	C	N	C	N	C	N	C	N	C
DoD - Services	N	C	N	C	N	C	N	C	N	C	N	C
DoD - ACoE*	N	C	N	C	N	C	N	C	N	C	Grey	
USEPA	Grey		1	1	Grey		Grey		Grey		Grey	
GSA	N	C	N	C	N	C	N	C	N	C	N	C
NASA	Grey		N	C	Grey		Grey		N	C	Grey	
Smithsonian	N	C	N	C	Grey		Grey		N	C	Grey	
USDA	N	C	N	C	Grey		Grey		Grey		N	C
USDA - USFS	Grey		Grey		Grey		Grey		N	C	N	C

5/28/2019

Key:

Grey – No known federal facilities for this agency in this jurisdiction
 Red – Not submitted
 Green – Submitted
 N – Narrative

C – CAST Scenario

1 – Included in the DoD submission Ft. Meade, Md
 * need information on location of reservoirs

Federal Agency Acronyms

DHS - Department of Homeland Security
 DOC - Department of Commerce
 NOAA - National Oceanographic and Atmospheric Administration
 DOI - Department of Interior
 USGS - US Geological Survey
 FWS – US Fish and Wildlife Service
 NPS – National Park Service
 DoD - Department of Defense

ACoE – Army Corp of Engineers
 USEPA – US Environmental Protection Agency
 GSA - General Services Administration
 NASA - National Aeronautics and Space Administration
 USDA - US Department of Agriculture
 USFS – US Forest Service