**Milestone Document Instructions:**

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| **RESTORE CLEAN WATER** | | | | |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **TMDL/WIPs/Water Quality Standards** | | |  |  |
| Winter 2020 | Announce federal 2020-2021 water quality two-year milestones. (EPA, USDA, DoD, USACE, DOT, USGS, FWS, NPS, NOAA, GSA) | Provide your 2021 agency update for this milestone.  Your update can be “complete” “ongoing” “delayed”  Provide a very brief narrative explanation. If a document or other output was finalized, provide url link. | If the 2020-2021 milestone is carrying forward, copy it, or an updated version here.  If the 2020-2021 milestone is complete and no further action is needed, leave this blank. | Provide target date for any milestones |

**RESTORE CLEAN WATER ACTIONS: Federal Water Quality Two-Year Milestones for 2020-2021**

*The Executive Order (EO) 13508 Strategy* calls upon federal agencies to join the Chesapeake Bay watershed jurisdictions in establishing two-year milestones, many of which are designed to support the jurisdictions in meeting their water quality milestones leading to the 2025 implementation goal of 100 percent practices in-place. This set of federal two-year milestones for water quality applies to calendar years 2020 and 2021. The list below presents milestones for the Environmental Protection Agency (EPA) and nine other federal agencies (USDA, DoD, USACE, USGS, NPS, FWS, NOAA, DOT, and GSA) that support the water quality goals and outcomes in the *Chesapeake Bay Watershed Agreement*. The milestones commitments represent activities with the potential to have significant environmental outcomes, require significant resources, or directly support the jurisdictions in meeting Watershed Implementation Plan (WIP) commitments. These commitments are contingent on receiving adequate funding in the 2020 and 2021 fiscal year budgets.

The federal milestones, along with the jurisdictional milestones, will contribute to the achievement of the Outcomes stated in the Watershed Agreement. Assuming a steady rate of implementation toward the 2025 goal, the following increments of progress will be achieved for the outcomes by the end of the 2020-2021 milestone period.

Numeric Milestones:

* EPA facilitates the CBP Partnership to collectively achieve 80 percent of the 2025 goal by 2021 for implementing nitrogen, phosphorus and sediment pollution reduction actions to achieve final Total Maximum Daily Load (TMDL) allocations, as measured through the Phase 6.0 Watershed Model.\* As of 2021, BMPs in place to reduce pollution are estimated to have achieved 48% of the nitrogen reductions, 66% of the phosphorus reductions and 100% of the sediment reductions needed to attain applicable water quality standards when compared to the 2009 baseline established in the 2010 Bay TMDL.
* Using the latest 2017 Air Model scenarios developed for the 2017 Midpoint Assessment, EPA’s air deposition load to tidal surface waters will be reduced by 0.30 million pounds of nitrogen over the 2020-2021 period based on the Phase 6.0 Watershed Model.  This is 86 percent of the required load reductions from 2010 to achieve the 15.7 million pound air deposition load allocation to tidal waters by 2025.  (2010 = 19.4 million pound load of atmospheric deposition to the tidal Bay; 2021 = 16.2 million pound load of atmospheric deposition load to the tidal Bay). Ongoing (EPA update needed Lew Linker)
* Apply 300,000 acres of conservation practices in conjunction with U.S. Department of Agriculture (USDA) High Priority Performance Goals.Update needed USDA Leonn Tillman
* Timber harvest 745 acres each year with BMPs (1,490 acres total) in Virginia (FS) FY20 - confirmed only 100 acres of timber was harvested due to low market demand; FY21 - approximately 300 acres harvested.
* Monitor at least one timber sale/year for water quality BMPs utilizing the USFS National BMP Monitoring protocol for Veg Management (protocol A). The monitoring protocol assesses post-harvest BMP implementation and effectiveness. (If the site is not found to be meeting standards, then follow-up corrective actions are required.) (FS) FY20 - did not monitor due to covid; FY21 – completed 2 monitoring sites for Tub Run Sale and GNA sale.
* Develop CAST scenarios to quantify the benefit of these BMPs. (FS) This cannot be completed in the current version of CAST, as harvested forest is currently not an eligible federal land use. To inform a partnership decision on changing eligible federal land uses, USFS will work with CBP to evaluate the relative costs and benefits of updating the list of eligible federal land uses and to determine whether adequate data is available. Incomplete and ongoing.
* Implement 2 culvert/road improvements projects per year (4 total). (FS) FY20 - completed 1) Bob Downey Branch - culvert and weir removal; 2) Skidmore ford - aquatic organism passage improvement (AOP). FY21 - completed 1) Porter's Mill culvert replaced for AOP improvement; 2) Little Patterson culvert replacement for AOP improvement.
* Implement Road Decommissioning of approximately 4 miles (equivalent to ~6 acres restored). (FS) FY20 - completed for Kephart Run and Pines Chapel. FY21 - completed for Nicholson Run and Braley Pond Access.

**\*** This outcome used 2009 as the baseline year.

# Programmatic Milestones:

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| **RESTORE CLEAN WATER** | | | | |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **TMDL/WIPs/Water Quality Standards** | | |  |  |
| Winter 2020 | Announce federal 2020-2021 water quality two-year milestones. (EPA, USDA, DoD, USACE, DOT, USGS, FWS, NPS, NOAA, GSA) | Complete. See <https://federalleadership.chesapeakebay.net/> |  |  |
|  |  | Complete <https://www.epa.gov/chesapeake-bay-tmdl/epa-final-evaluation-2018-2019-milestone-progress-and-2020-2021-milestone> | Evaluate Pennsylvania’s amended Phase III WIP. (EPA) | Spring 2022 |
| Summer 2020 | Evaluate jurisdictional and federal 2020-2021 two-year milestones. (EPA) | Complete July 2020. See <https://www.epa.gov/chesapeake-bay-tmdl/epa-final-evaluation-2018-2019-milestone-progress-and-2020-2021-milestone> | Evaluate jurisdictional, Conowingo, and federal 2022-2023 two-year milestones. (EPA) | Summer 2022 |
|  |  |  | Evaluate how jurisdictions accounted for 2025 climate change conditions in a Phase III WIP addendum or two-year milestones. (EPA) | Summer 2022 |
| Summer 2020 | Assess progress made to implement the 2018-2019 two-year milestones to ensure jurisdictions remain on pace to achieve 100% practices in place by 2025 to achieve the CBP partnership’s restoration goal. (EPA) | Complete July 2020.  <https://www.epa.gov/chesapeake-bay-tmdl/epa-final-evaluation-2018-2019-milestone-progress-and-2020-2021-milestone> | Assess progress made to implement the 2020-2021 two-year milestones to ensure jurisdictions remain on pace to achieve 100% practices in place by 2025 to achieve the CBP partnership’s restoration goal. (EPA) | Summer 2022 |
| 2020/2021 | Federal agencies to report BMP implementation progress to the Bay jurisdictions annually with copy to EPA. (Multiple Federal Agencies/EPA) | Ongoing – modest progress, not all agencies reported | Federal agencies to report BMP implementation progress to the Bay jurisdictions annually with copy to EPA. 80% complete by October 2022 and 100% complete by October 2023. (Multiple Federal Agencies/EPA) | October 2022 and 2023 |
| December 2020 | Complete technical review of the CBP analysis of future climate risk to the living resource-based Chesapeake water quality standards. (EPA) | Complete for 2025. Work on 2035 climate impacts ongoing. |  |  |
| December 2021 | Complete policy review of the CBP analysis of future climate change risk to the living resource-based Chesapeake water quality standards. Starting with the 2022-2023 milestones, determine how climate change will impact the BMPs included in the WIPs and address these vulnerabilities in the two-year milestones. (EPA) | Policy review complete. Technical work on understanding climate resilient BMPs is still ongoing (led by NOAA and STAC) |  |  |
| 2020/2021 | Continue to assess federal agency progress using the Phase 6 suite of modeling tools.  (EPA) | Ongoing - gaps in needed data have been identified through detailed analysis completed by contractor |  |  |
| 2020 | Continue to provide funding to support a consortium of land grant universities to run BMP expert panels and to provide other technical expertise to the partnership. (EPA) | Ongoing |  |  |
| 2020/2021 | Provide trainings on CAST to federal, state and local partners in the Bay watershed. (EPA) | Several sessions Completed in 2020 and ongoing |  |  |
| 2020/2021 | Develop BMP planning, prioritization, tracking and reporting tools in coordination with jurisdictions and their local partners to provide access to data that can help with BMP siting and streamline tracking and reporting, especially from local partners. (EPA working with Chesapeake Conservancy) | CBPO (Power) - The support for BMP planning and reporting remains on track and has implemented key features, such as the relative confidence index. Some delays in BMP opportunity mapping have occurred related to dependencies on the land use/land cover and hydrography data but accelerated momentum is anticipated during the next year. |  |  |
| 2020/2021 | Communicate findings of trends updates in the watershed and tidal waters to support WIP implementation. Provide key results updates for watershed trends (nutrients and sediment) and tidal trends (DO, clarity and nutrients) to WQ GIT and associated work groups. Work with jurisdictions to understand water-quality response in selected areas to practices being implemented to reduce nutrients and sediment. See agriculture, storm water and science support sections for more details. (USGS, academic partners, working with EPA) | Completed fact sheet of nutrient trends and drivers. [Fact Sheet Summarizes Nutrient Trends and Drivers in the Chesapeake Watershed (usgs.gov)](https://www.usgs.gov/centers/cba/science/fact-sheet-summarizes-nutrient-trends-and-drivers-chesapeake-watershed?qt-science_center_objects=0#qt-science_center_objects)  Ongoing interactions with jurisdictions on applying results. |  |  |
| 2020/2021 | Continue to work with Chesapeake Conservancy and partners to update the watershed-wide high-resolution land cover and land use, and to develop methods for improved mapping of hydrologic features throughout the watershed. (EPA, USGS) | Ongoing: USGS working with Conservancy on improving hi-resolution mapping of streams. |  |  |
| 2020/2021 | Federal agencies will work with jurisdictions to correct any errors identified in the federal land GIS files for landholdings within the Chesapeake watershed. (USGS coordinating; DoD, GSA, NPS, USFWS, USDA-USFS, USDA-other, Smithsonian) | Ongoing. Completion expected late 2021 or early 2022. NPS needs further direction from EPA on where to access GIS files for review and how to provide comments. |  |  |
| 2020/2021 | Continue to work with Chesapeake Commons, Chesapeake Conservancy and jurisdictions to develop BMP siting, tracking and reporting tools, such as Field Doc, that incorporate available high-resolution data for use in WIP implementation. (EPA, USGS) | Ongoing: USGS working with PA on pilot study of BMP reporting. |  |  |
| 2020 | Conduct review and evaluation of draft and final Conowingo WIP. (EPA) | Complete.  [Draft evaluation](https://www.epa.gov/chesapeake-bay-tmdl/epa-evaluation-draft-conowingo-watershed-implementation-plan) completed May 2021.  [Final evaluation](https://www.epa.gov/system/files/documents/2022-01/cover-letter-and-epa-evaluation-of-final-cwip_v1.24.2022_0.pdf) completed January 25, 2022. |  |  |
| 2021 | Support development of the Conowingo WIP Financing Strategy. (EPA) | Ongoing |  |  |
| 2020/2021 | Take appropriate action on proposed state water quality criteria updates developed to be consistent with the *Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries- 2017 Technical Addendum*. (EPA) | Lee McDonnell/Greg Voigt  Ongoing. |  |  |
| 2020/2021 | By 1 October, report BMP implementation progress to EPA and the Bay jurisdictions annually. (DoD and multiple federal agencies) | Partial completion for federal agencies in entirety  This milestone was met by DoD in FY 21 and DoD expects to meet the milestone again in FY22. This milestone was met by NPS in FY21 and NPS expects to meet the milestone again in FY22. |  |  |
| 2020/2021 | Develop BMP Crediting Reports in VA, MD, DC, and PA. (DoD) | BMP Credit Reports were completed in FY20 and FY21 and provided to EPA and the jurisdictions (MD, VA, PA, and DC). The reports are an invaluable tool for identifying the reasons why BMPs do not get credit and the roles and responsibilities for rectifying errors to maximize TMDL credit in support of State and District WIPs. |  |  |
| 2020/2021 | Conduct DoD CB TMDL Progress Evaluations in VA, MD, DC, and PA. (DoD) | TMDL progress evaluations were completed in FY20 and FY21 in VA, MD, DC, and PA. They provide a number of metrics for DoD performance evaluation including: progress nutrient and sediment loads through June 30th in each evaluation year, an evaluation of numeric two-year milestone progress, an evaluation of nutrient and sediment load reductions based on planned BMP implementation, and a determination of the nutrient and sediment load reductions needed to meet any gaps between planned load reductions and the federal planning goals in each jurisdiction (“fill gap”). Information from the progress evaluation is communicated to installations at one of the quarterly DoD’s Chesapeake Bay Action Team meetings for their awareness and action. Historically, the progress evaluation was used to develop and suggest fill gap strategies for adoption by the installations. In FY21, the data in the progress evaluation was used to provide installations with individual installation-scale approximations of their portion of the fill gap load reduction needed to meet FPGs so that they could better track and manage their contributions to the jurisdiction-wide goal. The progress evaluations are also used to recommend DoD CBP improvements through collaboration with jurisdictional partners. |  |  |
| 2020 | Submit 2020-2021 planned BMP implementation in CAST for VA, MD, DC, and PA. (DoD) | This milestone has been met. DoD is in communication with EPA about the development of a numeric assessment of the DoD CAST input deck. |  |  |
| 2020/2021 | Determine feasibility and develop four to five installation local-scale Chesapeake Bay status reports that would track BMP implementation progress toward the 2025 DoD Phase III Fill Gap and 2025 DoD Federal Planning Goals. (DoD) | This milestone has been met. The DoD CBP developed a two-page template with standardized language and set of metrics to characterize installation Chesapeake Bay Program performance. Five installations representing a cross section of DoD Services and jurisdictions volunteered to be part of the pilot project. Information from the FY19 annual datacall and BMP Credit Report were used to create the reports. Feedback from the participating installations showed that the pilot reports were not a successful tool, primarily because they lacked sufficient customization of the fill gap strategy to recognize the differing needs of installations, to properly characterize their programs, and provide customized metrics for internal and external communication of CBP status. In response, the DoD CBP developed training, factsheets, and guidance that would allow installation staff to better manage their Chesapeake Bay Programs by tracking their individual contributions to pollution load reduction and determine combinations of acceptable BMPs to meet their portion of the overall jurisdiction-wide FPG. |  |  |
| 2020/2021 | Work with installation staff to pilot the identification and documentation of Integrated Natural Resources Management Plan (INRMP) projects with a water quality co-benefit. (DoD) | DoD has provided a detailed analysis of one installation’s Integrated Natural Resource Management Plan (INRMP), identifying areas where language could be strengthened to recognize and align the overlap between the INRMP and Chesapeake Bay Watershed Agreement and EO 13508 goals and outcomes. The DoD CBP identified INRMP projects with water quality co-benefits and recommended consideration of co-benefits in project implementation prioritization. Recommendations for identifying climate vulnerabilities were also made. Four additional installations asked for the example analytical review for consideration of similar updates in their own INRMPs. |  |  |
| 2020/2021 | Participate in the Federal Facilities Workgroup to enhance collaborative efforts within the Chesapeake Bay Program Partnership. (multiple federal agencies) | This milestone was met in FY20 and FY21 The DoD, USACE and NPS have been an active participant in the FFWG. |  |  |
| 2020/2021 | Work with USGS to produce updated shapefile of forest boundaries and land use (e.g., in FY20 the GWJ NF acquired Grace Furnace (4,664.5 acres) and The Knob (91.23 acres). (FS) | Ongoing | Continuing with previous milestone. | 2022/2023 |
| 2020/2021 | The NPS will implement the following BMPs:  District of Columbia - More than 3 acres of permeable pavement at multiple sites in Washington, DC, as well as 11.4 acres treated by bioretention BMPs.  Maryland - 19 acres of warm season grasses at Parks Farm (Antietam National Battlefield Park). 32.3 acres of forest buffer at Catoctin Forest Park, as well as 0.5 acres of permeable pavement. Over 3,000 feet of stream stabilization/restoration associated with the George Washington Memorial Parkway &  Chesapeake and Ohio Canal National Historic Park, and Fort Washington park. Virginia -  0.28 miles of urban shoreline erosion control and 40 acres of wetland restoration at George Washington Memorial Parkway. Replacement of sewer systems and sewage tanks at Prince William Forest Park. ¼ miles of urban shoreline erosion control, septic conversion at Petersburg National Battlefield Park. 18 acres of conversion from agriculture fields to forest at Richmond National Battlefield. 8.4 acres of impervious surface reduction and forest planting at Shenandoah National Park. | Ongoing.  Projects completed in each jurisdiction are summarized below and more detail on project status is provided in the Key BMP Milestones document provided to the FFWG:  DC: NPS is an active partner with DC agencies in permitting and approval of DC funded BMPs on NPS land, including the completed Rock Creek Park tennis facility LID retrofits (11.4 acres treated).  MD: warm season grasses, forest buffer and permeable pavement were constructed at Antietam and Catoctin.  VA: Dyke Marsh Phase I is complete along GW Parkway. | The NPS will select and fund at least two prioritized projects from the Wetland Restoration Action Plan for Catoctin, Monocacy, Harper’s Ferry, and Chesapeake and Ohio Canal.  See the 2022/2023 Key BMP Milestones document provided to the FFWG for detail on planned implementation of BMPs | 2022/2023 |
| 2020/2021 | NPS will complete development of a stormwater BMP geodatabase in ArcGIS Online for tracking and reporting stormwater projects for future milestone and BMP reporting. | Completed in FY21 | NPS will continue to update and refine the BMP database for tracking and reporting of stormwater BMPs. | 2022/2023 |
|  |  |  | The NPS will evaluate opportunities to integrate stormwater management with NPS climate resilience goals in the Chesapeake Bay, such as creating a Climate Action Projects Database. | 2022/2023 |
|  |  |  | The NPS will evaluate opportunities to support partnership projects in the MD, PA, VA, and WV similar to the tennis court retrofits and stream restoration projects in Rock Creek Park in the District of Columbia. | 2022/2023 |
|  |  |  | The NPS will evaluate development of a bundled Chesapeake Bay design and construction contract as a resource for park staff to implement pollutant reduction and climate resilience projects. | 2022/2023 |
|  |  |  | NPS completed evaluations of voluntary BMP opportunities in six parks in 2021. NPS will continue to evaluate opportunities at additional parks in 2022-2023. | 2022/2023 |
|  |  |  | USACE will finalize Facilities TMDL Action Plan-- assess impervious surfaces and develop recommendations for stormwater BMP implementation | 2022 |

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| **Agriculture** | | | | |
|  |  |  | Kelly suggest adding a new milestone to reflect the recommendations made by EPA, NRCS, and USGS on WQ monitoring in ag watersheds. Will need USGS and NRCS OK to include this.  Identify watersheds in which to coordinate/enhance monitoring to demonstrate the impact of agricultural conservation practices on water quality of local streams and rivers. (USGS, NRCS, EPA) |
|  |  |  | EPA and USDA will work together to fund climate-smart agricultural conservation practices that benefit both climate resiliency (sequester carbon, reduce greenhouse gas emissions) and local/Chesapeake Bay water quality. | 2022/2023 |
|  |  |  | EPA and NRCS will assess opportunities to prioritize support historically under-served farmers and ranchers through outreach, ranking, match adjustment options, and the selection process associated with agricultural conservation practice grants in the Chesapeake Bay watershed. | 2022/2023 |
| 2020 | Provide assistance and oversight to Maryland in reissuing the MDE NPDES General Permit for CAFOs (MDG01A). (EPA) | Completed: The new [General Discharge Permit](https://mde.maryland.gov/programs/LAND/RecyclingandOperationsprogram/Documents/Final_19AFPERMIT_6.26.20%20signed.pdf) for CAFOs was issued and became effective 7/8/2020 and will expire 7/7/2025. |  |  |
| 2020 | * Provide assistance and oversight to Delaware to develop and issue the DNREC NPDES General Permit for CAFOs for Non-Poultry Animal Feeding Operations that land-apply manure as fertilizer (GP3). (EPA) * Provide assistance and oversight to Delaware to continue to grant permit coverages under the DNREC NPDES General Permit for CAFOs for Poultry Animal Feeding Operations that do not land-apply manure as fertilizer (GP1). (EPA) * Provide assistance and oversight to Delaware to start to grant permit coverages under the DNREC NPDES General Permit for CAFOs for Poultry Animal Feeding Operations that land-apply manure as fertilizer (GP2). (EPA) | Delayed. GP3 permit was public noticed 4/21, but remains unissued.  DNREC has not been issuing coverages under GP1 and GP2 for the past year due to a redacting issue and public availability of information. EPA sent DNREC and DDA a letter on 11/19/20 making a final determination on this issue and encouraged DNREC to resume processing of NOIs. DNREC & DDA have reached resolution allowing the granting of coverages again. | * Provide assistance and oversight to Delaware to develop and issue the DNREC NPDES General Permit for CAFOs for Non-Poultry Animal Feeding Operations that land-apply manure as fertilizer (GP3). (EPA) * Provide assistance and oversight to Delaware to continue to grant permit coverages under the DNREC NPDES General Permit for CAFOs for Poultry Animal Feeding Operations that do not land-apply manure as fertilizer (GP1). (EPA) * Provide assistance and oversight to Delaware to start to grant permit coverages under the DNREC NPDES General Permit for CAFOs for Poultry Animal Feeding Operations that land-apply manure as fertilizer (GP2). (EPA) * Provide assistance and oversight to PADEP to develop and reissue the PAG-12 General Permit for CAFOs in Pennsylvania (Reissuance targeted 2023). (EPA) | 2022/2023 |
| 2020 | USGS will work with NRCS and FSA to renew the USGS-USDA 1619 data sharing agreements for 2020-2025. (USGS and USDA) | USGS renewed data agreement with NRCS, but still in progress with FSA. |  |  |
| 2021 | EPA will provide funding to USGS to implement the USGS-USDA 1619 data sharing agreement to provide aggregated USDA agricultural practice data to the States for reporting Chesapeake Bay restoration progress. (EPA) | Ongoing |  |  |
| 2020/2021 | USDA, USGS, and EPA will continue to support State agencies in BMP reporting within the Chesapeake Bay watershed through the annual provision of aggregated USDA conservation data to the States. (EPA, USDA, USGS) | Complete. Aggregated data provided each year. | USDA, USGS, and EPA will continue to support State agencies in BMP reporting within the Chesapeake Bay watershed through the annual provision of aggregated USDA conservation data to the States. (EPA, USDA, USGS) | 2022/2023 |
| 2020/2021 | EPA, USDA, and USGS will conduct a pilot project in PA to develop a data management methodology to more comprehensively account for agricultural conservation practices implemented through state, federal and voluntary efforts. (EPA, USGS, USDA) | Ongoing. USGS working on reporting results for pilot. | EPA, USDA, and USGS present the findings of the pilot project in PA to develop a data management methodology to more comprehensively account for agricultural conservation practices implemented through state, federal and voluntary efforts. | 2022/2023 |
| 2020/2021 | EPA and USGS will update the Chesapeake Bay Partnership’s Priority Agricultural Watersheds Map used to target EPA grants such as the Chesapeake Bay grants and EPA’s Innovative Nutrient and Sediment Reduction Program and Small Watershed Grants programs. (EPA, USGS) | Completed. |  |  |
| 2020/2021 | USGS will examine nutrient trends in agricultural showcase watersheds to better understand water-quality response to implementing conservation practices. The showcase watersheds were established in 2010 by NRCS with monitoring by USGS, and include sites in MD, VA, and PA. (USGS) | Ongoing. |  |  |
| 2020/2021 | USDA and EPA coordinate respective grant programs in FY2020 and FY2021 to ensure best use of federal funding to support state Phase III Watershed Implementation Plans commitments to reduce agricultural nutrient and sediment loadings and to address key challenges facing the agricultural community.  Note for future update from Kelly Shenk EPA: Consider incorporating some of the recommendations the EPA/NRCS Ag Conservation Funding Team made in their December report. Once we get a final implementation schedule approved, we may want to consider including these items as new and separate programmatic milestones. | Complete  EPA and NRCS formed the Agricultural Conservation Funding Team to develop recommendations for how to enhance federal coordination of funding programs.  EPA, NRCS, and USGS also formed a water-quality monitoring team and produced final report.  EPA and NRCS started holding quarterly meetings to enhance this federal coordination in Nov 2021. NRCS and EPA signed a decision memorandum for EPA and NRCS funding coordination in June 2021.  EPA and NRCS held a Local Workshop on July 29, 2021 with agricultural stakeholders to ensure this federal coordination addresses the needs of the agricultural community. | USDA and EPA coordinate respective grant programs to further implement the recommendations of the Ag Conservation Funding Team in FY2022 and FY2023. This will ensure best use of federal funding to support state Phase III Watershed Implementation Plans commitments to reduce agricultural nutrient and sediment loadings and to address key challenges facing the agricultural community. | 2022/2023 |
| 2020/2021 | EPA will facilitate meetings, as requested, with State agencies (CWSRF, environmental, agricultural, etc.) to explore how the Clean Water State Revolving Fund can be used to reduce nutrient and sediment loads from agriculture and rural communities. (EPA) | Ongoing.  One regional SRF training in 2020; and one in 2021. Four presentations on CWSRF to reduce nutrients and sediment in 2020 and two in early 2021.  February 2021 discussion at national meeting of Water Division Directors on CWSRF reducing nutrients through NPS projects.  Spring 2021 SRF Regional All-States meeting addressed CB goals.  EPA is conducted research and interviews with the PA and VA state CWSRF leads and EPA and NRCS held a Local Workshop on July 29, 2021 to identify successful approaches for marketing and using CWSRF for agricultural conservation practices will be showcased.  PA Center for Water Quality Excellence established in 2021 to provide technical assistance to farmers and local governments regarding the various funding options for ag BMPs and stormwater. The Center is funded by support from PENNVEST under the CWSRF. | EPA will facilitate meetings, as requested, with State agencies, local partners, and the agricultural community to explore how the Clean Water State Revolving Fund can be used to reduce nutrient and sediment loads from agriculture and rural communities. (EPA) | 2022/2023 |
| 2020/2021 | Continue to support the implementation of agricultural certainty programs in the Bay watershed states.  (EPA, USDA) | Complete. EPA continues to fund program implementation through annual Chesapeake Bay grants to the states (as requested). VA is only state using CB funding for implementation for their Resource Management Plan program. | Continue to support the implementation of agricultural certainty and recognition programs in the Bay watershed states.  (EPA, USDA) | 2022/2023 |
| 2020/2021 | Investigate the DoD Agricultural Out-lease program for opportunities to support jurisdictions’ Phase III WIPs and the 2025 WIP Outcome. (DoD) | The DoD CBP has collected information on installations with agricultural outleases. Complications with the COVID-19 pandemic has slowed progress but opportunities at some installations have already been ruled out due to conflicts with military operations or authority to conduct or direct work. Work will continue to gather information on lease duration, renewal periods, etc. through a separate agricultural outlease datacall as time allows. |  |  |
| 2020/2021 | NRCS will continue to support voluntary actions by farmers and landowners to improve water quality and other resources by providing technical assistance through its Conservation Technical Assistance (CTA) program; and technical and financial assistance from the Environmental Quality Incentives Program (EQIP), Regional Conservation Partnership Program (RCPP), Agricultural Management Assistance (AMA) Program, Agricultural Conservation Easement Program (ACEP), Conservation Stewardship Program (CSP). (USDA-NRCS) | Complete  NRCS is continuing to provide technical and financial assistance to agriculture producers through various programs. Working up dollar figures for 2020 and continuing work in 2021. | NRCS will continue to support voluntary actions by farmers and landowners to improve water quality and other resources by providing technical assistance through its Conservation Technical Assistance (CTA) program; and technical and financial assistance from the Environmental Quality Incentives Program (EQIP), Regional Conservation Partnership Program (RCPP), Agricultural Management Assistance (AMA) Program, Agricultural Conservation Easement Program (ACEP), Conservation Stewardship Program (CSP). (USDA-NRCS) | 2022/2023 |
| 2020/2021 | USDA will continue to provide financial and technical support for voluntary temporary retirement of cropland and marginal pasture and establishment of conservation cover for water quality and wildlife habitat improvement, through the Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP). (USDA-FSA, USDA-NRCS) | Complete  NRCS provided technical support to FSA’s CRP and CREP programs in 2021. | USDA will continue to provide financial and technical support for voluntary temporary retirement of cropland and marginal pasture and establishment of conservation cover for water quality and wildlife habitat improvement, through the Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP). (USDA-FSA, USDA-NRCS) | 2022/ 2023 |
| 2020/2021 | Incorporate changes in Farm Bill Conservation Programs resulting from the new 2018 Farm Bill into ongoing efforts to improve water quality in the Chesapeake Bay. Work with partners to inform Chesapeake Bay Program partners and the general public about farm bill conservation program opportunities. (USDA-NRCS) | Complete  NRCS worked and coordinate with partners to implement Farm Bill programs in 2021. | Incorporate changes in Farm Bill Conservation Programs resulting from any new Farm Bill or conservation funding bill into ongoing efforts to improve water quality in the Chesapeake Bay. Work with partners to inform Chesapeake Bay Program partners and the general public about farm bill conservation program opportunities. (USDA-NRCS) | 2022/2023 |
| 2020/2021 | Work with partners to develop and implement strong projects to improve water quality, working with agricultural producers through the Regional Conservation Partnership Program (RCPP). (USDA-NRCS) | Complete  Several RCPP projects funded (4) in 2020 and continuing additional partnership opportunities through RCPP. FY 2021 RCPP announcement went out in April 2021. | Work with partners to develop and implement strong projects to improve water quality, working with agricultural producers through the Regional Conservation Partnership Program (RCPP). (USDA-NRCS) | 2022/2023 |
| 2020/2021 | Provide opportunities for non-USDA conservation professionals to participate in NRCS technical training activities such as for conservation planning and practice design and implementation. (USDA-NRCS) | Complete  NRCS has provided training and education to conservation professionals through the CB Action plan with 761 trained in 2020. Continuing the work in 2021. | Provide opportunities for non-USDA conservation professionals to participate in NRCS technical training activities such as for conservation planning and practice design and implementation. (USDA-NRCS) | 2022/ 2023 |
| 2020/2021 | Promote adoption of practices and systems by agricultural producers that improve soil health. (USDA-NRCS) | Complete  NRCS worked with producers to implement conservation that improves soil health on 306,413 acres in 2020. Will continue in 2021. Adopted 2 interim standards for soil health, 808- Soil Carbon Amendment and 810- Annual Forages for Grazing Systems. | Promote adoption of practices and systems by agricultural producers that improve soil health and mitigate climate change. (USDA-NRCS) | 2022/ 2023 |
| 2020/2021 | USDA will continue to work with partners to develop and implement strategies to ensure that federal, State, and NGO conservation programs create mutually reinforcing incentives for producers to install and maintain riparian forest buffers. (USDA) | Complete  NRCS continue to work with other agencies and NGOs to implement riparian forest buffers. | USDA will continue to work with partners to develop and implement strategies to ensure that federal, State, and NGO conservation programs create mutually reinforcing incentives for producers to install and maintain riparian forest buffers. (USDA) | 2022/ 2023 |
| 2020/2021 | Annual review of grazing permits. Assess opportunities to restore grazing allotments along the SF Shenandoah River. (FS) | Ongoing. FY20 completed.  Restoration plans for allotments along SF Shen River floodplain were submitted in FY20, as part of the Dupont Settlement case. Waiting to hear if proposal was approved for settlement funding.  FY21 – only partial funding secured for implementation | Continuing with previous milestone | 2022/2023 |

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| **RESTORE CLEAN WATER** | | |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **Atmospheric – Rules, Deposition, Allocations** | | |  |  |
| 2020/2021 | Significantly reduce nitrogen deposition to the Bay and watershed by 2020 through implementation of national rules under the Clean Air Act. (EPA)   * Apply and track new Community multi-scale Air Quality Model (CMAQ) air deposition modeling for future climate risk in the CB watershed incorporating estimated increased wet deposition loads. (EPA) * Continue implementation of Tier 3 vehicle emission standards. (EPA) * Oversee state implementation of Clean Air Act 129 rules, including those for Commercial and Industrial Solid Waste Incineration Units (CISWI); Sewage Sludge Incineration Units (SSI); and Hospital, Medical, Infectious Waste Incinerators (HMIWI). Once fully implemented, these rules will reduce emissions of NOx as well as air toxic pollutants. (EPA) | On track.  CBPO Modeling Team and USGS published paper on reduction of nitrogen from atm. deposition. <https://doi.org/10.1016/j.atmosenv.2021.118277>. |  |  |
| 2020/2021 | Work with states to develop State Implementation Plan (SIP) revisions to reduce NOx emissions. (EPA)   * Work with states and review SIPs that address reasonably available control technology (RACT) standards for the 2008 ozone National Ambient Air Quality Standards (NAAQS). RACT requirements limit the NOx emissions at certain sources. (EPA) * Work with states and review SIPs that address infrastructure requirements, including interstate transport, for the 2015 ozone NAAQS. (EPA) * Work with states to develop rules to implement the 2015 ozone NAAQS. (EPA) * Assist states with their development of state implementation plan submissions to address reasonably available control technology (RACT) for the 2015 ozone NAAQS. (EPA) * Assist states with their development of regional haze state implementation plan submissions for the second planning period. These plans may include federally enforceable rules that reduce air emissions of visibility impairing pollutants, including NOx. (EPA) | Ongoing. | Work with states to develop State Implementation Plan (SIP) revisions to reduce NOx emissions. (EPA)   * Work with states and review SIPs that address reasonably available control technology (RACT) standards for the 2008 ozone National Ambient Air Quality Standards (NAAQS). RACT requirements limit the NOx emissions at certain sources. (EPA) * Work with states and review SIPs that address infrastructure requirements, including interstate transport, for the 2015 ozone NAAQS. (EPA) * Work with states to develop rules to implement the 2015 ozone NAAQS. (EPA) * Assist states with their development of state implementation plan submissions to address reasonably available control technology (RACT) for the 2015 ozone NAAQS. (EPA)   Assist states with their development of regional haze state implementation plan submissions for the second planning period. These plans may include federally enforceable rules that reduce air emissions of visibility impairing pollutants, including NOx. (EPA) | 2022/2023 |
| 2020/2021 | Review state permits which may include rules that limit emissions of NOx. (EPA) | Ongoing | Review state permits which may include rules that limit emissions of NOx. (EPA) | 2022/2023 |
| 2020/2021 | Issued the final Affordable Clean Energy rule (ACE). In 2030, the ACE rule is projected to reduce NOx emissions nationwide by 7,100 tons. (EPA) | ACE Rule was vacated by D.C. Circuit |  |  |

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| **RESTORE CLEAN WATER** | | |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **Stormwater** | | |  |  |
| 2020/2021 | Conduct oversight review and comment, per federal regulations and NPDES Memoranda of Agreement with the states, on draft state Municipal, Construction, and Industrial Stormwater permits: to ensure consistency with the Bay TMDL allocations and the level of pollutant reduction called for in state WIPs; and to ensure permits contain enforceable performance measures. (EPA) | The following SW permits were reviewed:  DE: 2 Phase II MS4 GPs; Construction GP; Industrial GP  MD: Ph I MS4 permits for Balt. City, Balt. Co., Montgomery Co., Anne Arundel Co., PG Co., Carroll Co., Charles Co., Frederick Co., Howard Co., and Construction GP; Industrial GP  PA: PAG-01 (Construction GP for small sites-new permit), MS4 individual permits for PennDOT and PA Turnpike  VA: Arlington Co. Ph I MS4 permit  WV: Modified Construction GP (to the 2019 permit); Industrial GP modification; draft Phase II MS4 GP; draft individual MS4 permit for Berkeley Co. | Conduct oversight review and comment, per federal regulations and NPDES Memoranda of Agreement with the states, on draft state Municipal, Construction, and Industrial Stormwater permits: to ensure consistency with the Bay TMDL allocations and the level of pollutant reduction called for in state WIPs; and to ensure permits contain enforceable performance measures. (EPA) | 2022/2023 |
| 2020/2021 | Review certain MS4 TMDL Plans for compliance with permit requirements. (EPA) | Ongoing. | Review certain MS4 TMDL Plans for compliance with permit requirements. (EPA) | 2022/2023 |
| 2021 | Conduct MS4 permittee and state inspector trainings in coordination with jurisdictions. (EPA) | 4 MS4 virtual Forums completed in PA for small MS4 permittees. Dates for the forums were February 17-18, May 5-6, and June 9-10.  Held virtual MS4 training for PA inspectors in November 2020 | Conduct MS4 permittee and state inspector trainings in coordination with jurisdictions. (EPA) | 2022/2023 |
|  |  |  | Conduct Forums/Workshop for regulated MS4s in Maryland. | 2022/2023 |
|  |  |  | Reissue DC MS4 permit (expiration date is 6/22/23) (EPA) | 2022/2023 |
| 2020/2021 | Meet with Federal Agencies and the District of Columbia Department of Energy and Environment (DC DOEE) as part of the 2013 Memorandum of Understanding among EPA, DoD, NPS and GSA regarding Federal Agency Stormwater Management in the District of Columbia. (NPS, DoD-Navy, GSA, EPA) | Complete. No meetings during FY20 or FY21. This MOU sunset in 2018. Information exchange improved from the MOU and no updated MOU is being requested.  DoD and DOEE staff have shared data and engaged in a dialog about a variety of topics of mutual concern. Through cooperative efforts 34% of FY20 DoD BMPs have been credited in the model (up from 0% in 2018). Significant issues remain to be resolved however, including questions regarding duplicate records and Navy BMPs not being credited to DoD. DoD plans to continue to focus in calendar years 2022 and 2023 on aligning DoD/DOEE records. Once resolved, DoD plans to work with DOEE on outstanding equity issues related to the collection of stormwater fees. DoD collected information through its FY20 and FY21 datacalls on stormwater utility fees paid by DC installations. |  |  |
| 2020/2021 | Share results of the effects of stormwater practices on water-quality response. USGS has been working with Fairfax Co, VA, and Montgomery Co, MD to monitor water quality and stream conditions as stormwater practices are implemented in these areas. (USGS) | Completed: USGS presented results to the Urban Stormwater WG, with new findings to be presented at future meetings. |  |  |
| 2020/2021 | Develop Facilities Master Plan-- assess impervious surfaces and maintenance/operational changes. (FS) | Ongoing. Progress delayed due to covid. | Continuing with previous milestone. | 2022/2023 |

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| **RESTORE CLEAN WATER** | | |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **Wastewater** | | |  |  |
| 2020/2021 | Continue to partner with state technical assistance (TA) staff and non-profit TA staff to conduct classroom and on-site training to wastewater professionals on topics ranging from compliance assistance to nutrient removal optimization. (EPA) WVDEP, PADEP and VADEQ requested funding for this work. | Ongoing:  EPA provided funding assistance to Bay jurisdictions to support this work.  Provided technical assistance to 6 wastewater utilities.   * I&I flow monitoring with 3 * Others are assisting with compliance issues and for optimizing treatment.   Workforce Development: Conducted 10 different training events. Some virtual some in person. All related to wastewater treatment. | Continue to partner with state technical assistance (TA) staff and non-profit TA staff to conduct classroom and on-site training to wastewater professionals on topics ranging from compliance assistance to nutrient removal optimization. (EPA) | 2022/2023 |
| 2020/2021 | Track number of significant NPDES permits reviewed and objections. (EPA) | Ongoing using internal Permit Tracking System (PTS) | Track number of significant NPDES permits reviewed and objections. (EPA) | 2022/2023 |
| **Trading and Offsets/Growth** | | |  |  |
| 2020 | Conduct assessments of the jurisdictions’ trading and offsets programs per Section 10.1.4 of the TMDL. (EPA) | Ongoing. Assessments completed in 2021. The next assessments are due in 2025. |  |  |
| 2020/2021 | As part of the 2-year milestone evaluation, determine how much of the change in loads is due to BMP implementation versus how much is due to changing conditions in the watershed, for example, increases in impervious areas, changes in animal populations, etc. (EPA) | CBPO  What is the net load growth during this period? Nutrient loads increase – load decreases. |  |  |
| 2020/2021 | Review Bay jurisdictions’ trading and offset regulations and policies and support Bay jurisdictions as they develop trading and/or offset programs. (EPA) | Ongoing.  Reviewed VA’s final Nonpoint Source Nutrient Credit Certification regulation. | Review Bay jurisdictions’ trading and offset regulations and policies and support Bay jurisdictions as they develop trading and/or offset programs. (EPA) | 2022/2023 |
| 2020/2021 | Work with other Federal agencies to build capacity that will support an efficient and robust trading market. (USDA, EPA, DOT, USACOE) | Ongoing.  Provides guidance and input as requested. Nothing notable this time period. | Work with other Federal agencies to build capacity that will support an efficient and robust trading market. (USDA, EPA, DOT, USACOE) | 2022/2023 |

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| **RESTORE CLEAN WATER** | |  |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **Toxic Contaminants** | |  |  |  |
| 2020/2021 | Take appropriate action on proposed PCB TMDLs submitted in the Bay watershed for local waters. (EPA) | Ongoing. | Take appropriate action on proposed PCB TMDLs submitted in the Bay watershed for local waters. (EPA) | 2022/2023 |
| 2020/2021 | Take appropriate action on proposed state water quality criteria updates developed to be consistent with the 2015 EPA Updated Ambient Water Quality Criteria for the Protection of Human Health. (EPA) | Ongoing. | Take appropriate action on proposed state water quality criteria updates developed to be consistent with the 2015 EPA Updated Ambient Water Quality Criteria for the Protection of Human Health. (EPA) | 2022/2023 |
| 20 20/2021 | Update a GIS desktop tool to identify potential land sources of contamination in the watershed (PCBs and mercury). The use of EJ SCREEN will be evaluated to identify the location of such sites in areas with diverse populations. (EPA) | Need to identify lead contact in EPA R3 |  |  |
| 2020/2021 | Review NPDES permits to ensure consistency with the requirements and assumptions with the PCB TMDLs. (EPA) | Ongoing. |  | 2022/2023 |
| pra | Conduct inspection(s) and take appropriate enforcement follow-up to ensure compliance with the Toxic Substances Control Act regulations related to PCBs. (EPA) | Ongoing.  There was one PCB inspection conducted in the watershed in FY2021 (ACV Enviro, Lewisburg, PA). ECAD plans to conduct two PCB inspections in the watershed in FY22 (Halltown, WV and Lewistown, PA). |  | 2022/2023 |
| 2020/2021 | Conduct studies of the sources and occurrence of PCBs in the Washington DC region to help support multi-jurisdictional approach for reduction. (USGS working with DC and MD) | Ongoing, with recent findings reported. <https://doi.org/10.3133/sir20195092>. |  |  |
| 2020 | Share results of STAC report on potential co-benefits of nutrient and sediment practices with reducing toxic contaminants in agricultural and urban settings. Results will be shared with WQ GIT and associated workgroups. (USGS) | Completed. Report findings shared with ag and urban stormwater WGs. |  |  |
| 2020/2021 | Update materials on the potential co-benefits of nutrient and sediment practices with reducing toxic contaminants in agricultural and urban settings. (USGS working with CBP workgroups) | Ongoing |  |  |
| 2020/2021 | Complete publications from study on the sources of endocrine-disrupting compounds (EDCs) and their effects on fish health. Share results with Toxic Contaminant WG and WQ GIT to inform potential co-benefits of nutrient and toxic contaminant reduction. (USGS) | Ongoing. Six papers published during 20-21, and working to communicate findings. |  |  |

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| **RESTORE CLEAN WATER** | | |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **Enforcement** | | |  |  |
| December 2020 and 2021 | Track EPA-led enforcement cases for Stormwater, Wastewater, Agriculture, Trading/Offsets, Air that result in nitrogen, phosphorus, sediment, and/or nitrogen oxides reductions.   * Clean Water Act enforcement case conclusions for stormwater, wastewater and agriculture operations (EPA) * Clean Air Act stationary source enforcement case conclusions with nitrogen oxide reductions (EPA) * Clean Air Act case enforcement case conclusions for stopping after-market defeat devices (EPA) | Ongoing.  For 2020-2021, for CAA, EPA finalized 16 administrative orders that included nitrogen oxide reductions to the Chesapeake Bay airshed. These actions reflect settlements with 1 stationary source and 15 mobile sources, where these settlements support the National Compliance Initiative for stopping after market defeat devices for vehicles and engines.  For 2020 (R3), for NPDES, EPA finalized 3 stormwater and 1 combined animal feeding operation (CAFO)  administrative orders on consent (AOCs). EPA also finalized 2 stormwater and 1 CAFO final agreement and penalty orders (FAPOs).  For 2021 (R3), for NPDES, EPA Region 3 had 10 formal enforcement actions associated with stormwater in the Bay watershed (6 FAPOs and 7 Orders).  (R2) For 2020 there were no permit objections, and in 2020 there was just one permit review done (Erwin). |  | December 2022 and 2023 |

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| **RESTORE CLEAN WATER** | |  |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **Monitoring and Science Support** | | |  |  |
| 2020/2021 | Utilize the Partnership’s Strategic Science & Research Framework to assess opportunities to address science needs across the program and work through STAR to facilitate collaborations between science providers and CBP as well as between CBP workgroups. (EPA, USGS, NOAA, NPS) | **Completed**. Science needs were updated for all Water-Quality Outcomes after Aug 2020 MB review. |  |  |
| 2020/2021 | Update the Chesapeake Bay Watershed Data Dashboard with the most recent monitoring trends, modeled progress, and BMP implementation. (EPA, USGS) | **Completed**. Trends update through 2018 |  |  |
| 2020/2021 | Conduct trainings to jurisdictional and local partners on the Chesapeake Bay Watershed Data Dashboard. Conduct user testing and iteratively incorporate feedback to improve content and usability of the tool. (EPA, USGS) | **On-going**. Beta version complete, updating based on user testing before release. |  |  |
| 2020/2021 | Assess current decision-support tools developed and used by the Partnership and develop path forward for integrating new information on water quality and other outcomes. (EPA, USGS) | **Minimal progress**. An inventory was begun but no additional steps. |  |  |
| 2020/2021 | Continue to support the Chesapeake Monitoring Cooperative's ongoing integrated non-traditional monitoring partners into the Chesapeake Bay Program Partnership's Watershed and Tidal Monitoring Networks, thereby expanding data of documented quality available to support Chesapeake Bay and watershed restoration decision making. (EPA, USGS) | **On-going**. CMC project data being considered for different analyses. |  |  |
| 2020/2021 | Collaborate with the all six states and DC to continue monitoring of nutrient and suspended-sediment conditions across the full range of hydrologic conditions at each of the stations in the CBP nontidal network and the associated river-input stations. Work through STAR Integrated Monitoring Networks work group to coordinate activities. (USGS working with States and EPA) | **On-going**.  Monitoring continues at all NTN sites. Was disruption at some sites during 2020 due to COVID-19 safety concerns. |  |  |
| 2020/2021 | Provide updates of nutrient and sediment load trends in the Bay watershed to help assess progress toward implementing the Bay TMDL. Updates of loads at the River-Input Monitoring stations will be provided annually with results from additional stations in the non-tidal network provided every two years. (USGS working with states and EPA) | **Completed.** Trends updated at all sites for 2009-2018 and released in 2020. [USGS updates trends for nutrients and sediment in the Chesapeake Bay Watershed](https://www.usgs.gov/centers/cba/science/usgs-updates-trends-nutrients-and-sediment-chesapeake-bay-watershed?qt-science_center_objects=0#qt-science_center_objects)  **On-going.** Trends being updated through 2020; and will be released in 2021. |  |  |
| 2020/2021 | Compute total loads to the Bay to help understand changes in tidal water-quality conditions. The CBP monitoring and modeling teams combine information from the RIM stations with loadings from unmonitored areas to estimate annual loads for N, P, and S. Activity is funded by EPA. (UMCES, PSU, USGS, EPA) | **Ongoing**: loads for 2020 will be completed in 2021 |  |  |
| 2020/2021 | Conduct monitoring of tidal waters to assess attainment of water-quality standards and associated conditions. Monitoring conducted by multiple partners in MD and VA and funding provided mostly by USEPA. (EPA, MD, VA) | CBPO/Tango  **Ongoing**. Updated attainment through 2019 will be released in 2021. |  |  |
| 2020/2021 | Analyze tidal monitoring data, including results from SAV surveys, to assess progress toward attainment of water-quality standards. The CBP monitoring team is responsible for the analysis and funded primarily by EPA. (EPA, UMCES, ICPRB, USGS) | CBPO/Tango  **Ongoing**. Updated attainment through 2019 will be released in 2021. |  |  |
| 2020/2021 | Analyze tidal monitoring data to assess changes in water-quality conditions important for living resources. The CBP monitoring team works with state and academic partners to employ consistent trend methods for updates in nutrients, clarity, and selected parameters important for living resources. The effort is funded primarily by EPA.  (UMCES, ICPRB, USGS, agencies in MD and VA, EPA) | CBPO /Tango and Keisman  **Ongoing**. Updated trends through 2019 will be released in 2021. |  |  |
| 2020/2021 | Conduct surveys of submerged aquatic vegetation (SAV) to provide information for attainment of water-quality standards and assess progress toward SAV acreage goals. (VIMS, EPA) | CBPO  Ongoing.  Additionally researching the use of satellite imagery for these surveys. |  |  |
| 2020/2021 | Complete the second 2-year cycle of the Biennial Strategy Review System, an adaptive management process designed to improve our effectiveness in achieving the Chesapeake Agreement Goals and Outcomes.  ChesapeakeDecisions, second in the suite of ChesapeakeStat tools, will support this process. (EPA working with the Partnership) | CBPO  Ongoing.  2nd cycle will be complete Spring 2021.  [https://www.chesapeakebay.net/decisions](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.chesapeakebay.net%2Fdecisions&data=04%7C01%7Cswphilli%40usgs.gov%7C6ce4f468e88b4a5eb29e08d8df1b5416%7C0693b5ba4b184d7b9341f32f400a5494%7C0%7C0%7C637504655762039422%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=%2Fjja62IoT2%2BSXEdNPiidlnEp4ND%2BphDa59GkVOewVw8%3D&reserved=0) |  |  |
| 2020/2021 | USGS and NOAA will provide technical leadership to complete the Chesapeake Bay mainstem vertical profile hypoxia monitoring pilot and work with the Chesapeake Bay Program to explore longer term implementation. USGS efforts are through the CBP monitoring team. (USGS, NOAA) | Tango/Vogt  **Ongoing.** CBP Monitoring coordinator working with NOAA |  |  |

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| **RESTORE CLEAN WATER** | | |  |  |
| **Target Date** | **Programmatic Milestone** | **2021 Milestone Progress** | **2022-2023**  **Milestone** | **2022-2023**  **Target Date** |
| **EPA Grant Support to States and the District of Columbia** | | |  |  |
| 2020/2021 | Provide financial support to Bay jurisdictions, as authorized and assuming adequate appropriations, through EPA’s assistance programs including CWA Section 319, SRF, CWA 117 CBIG and CBRAP. (EPA) | CWA 319: FY20 and FY21 awards completed.  CWSRF FY20: Awards totaling $174,236,000 completed before 9/30/20.  CWSRF FY21: Awards totaling $174,213,000 completed before 9/30/21.  CWA 117: FY20 Completed. Over $35 million was awarded to the seven jurisdictions under the CBIG/CBRAP grant programs. This included the new FY20 appropriation for MEBs. Approx. $3.4M of the MEB funding allocated to PA was competitively awarded to NFWF. This is not included in the $35M+ total identified above. Over $5 million was awarded under the CBP’s monitoring initiative. | Provide financial support to Bay jurisdictions, as authorized and assuming adequate appropriations, through EPA’s assistance programs including CWA Section 319, SRF, CWA, [Sewer Overflow and Stormwater Reuse Municipal Grants](https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title33-section1301&num=0&edition=prelim) (OSG), 117 CBIG and CBRAP. The recent passing of the Bipartisan Infrastructure Law will provide supplemental funding for the Chesapeake Bay Program and SRF programs for the next five years.(EPA) | 2022/2023 |
| 2020/2021 | Provide financial support to localities and other entities, as authorized and assuming adequate appropriations, through the Innovative Nutrient and Sediment Reduction Grants and the Small Watershed Grants. (EPA) | Bisland/Hindin  Completed. EPA awarded a combined total of $18 million to these grant programs. This includes the FY20 appropriation increase for both of these programs. |  |  |

**Acronym Guide**

BayFAST/CAST/MAST/VAST – Federal Assessment Scenario Tool/Chesapeake AST/Maryland AST/Virginia AST

BMP – Best Management Practice

CAFO – Concentrated Animal Feeding Operation

CBP – Chesapeake Bay Program

CBIG – Chesapeake Bay Implementation Grants

CBRAP – Chesapeake Bay Regulatory and Accountability Program Grants

CEAP – Conservation Effects Assessment Project

CWA - Clean Water Act

DNREC - Department of Natural Resources and Environmental Control

DoD – Department of Defense

DOT – Department of Transportation

EJ SCREEN – Environmental Justice Screening and Mapping Tool

EO Strategy – Executive Order 13508 Strategy for Protecting and Restoring the Chesapeake Bay Watershed

EPA – Environmental Protection Agency

FSA - Farm Services Agency

FWS – Fish and Wildlife Service

GIS – Geographic Information System

GSA - General Services Administration

Maryland DNR – Maryland Department of Natural Resources

MS4 – Municipal Separate Storm Sewer System

NAAQS – National Ambient Air Quality Standards

NFWF - National Fish and Wildlife Foundation

NOAA – National Oceanic and Atmospheric Administration

NOx - Nitrogen Oxides

NPDES – National Pollutant Discharge Elimination System

NRCS – Natural Resources Conservation Service

NPS – National Park Service

PCB – Polychlorinated Biphenyl

RACT - Reasonably Available Control Technology

SAV – Submerged Aquatic Vegetation

SIP - State Implementation Plan

SRF - State Revolving Fund

STAC – Scientific and Technical Advisory Committee

STAR – Scientific and Technical Assessment Reporting team

TMDL – Total Maximum Daily Load

UMCES – University of Maryland Center for Environmental Science

USACE – U.S. Army Corps of Engineers

USDA – U.S. Department of Agriculture

USGS – U.S. Geological Survey

WIP – Watershed Implementation Plan

WQ GIT - Water Quality Goal Implementation Team