RESTORE CLEAN WATER ACTIONS: Federal Water Quality Two-Year Milestones for 2018 – 2019

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 2018 and 2019. The list below presents milestones for the Environmental Protection Agency (EPA) and nine other federal agencies' 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 2018 fiscal year budget.

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 2018-2019 milestone period.

Numeric Milestones:

- EPA facilitates the CBP Partnership to collectively achieve 70 percent of the 2025 goal by 2019 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.*
- EPA's portion of air deposition load reduction to tidal surface waters of 0.340 million pounds of nitrogen by the end of 2019 based on the phase 6.0 watershed model. (20 percent of the required load reductions from 2010 to achieve the 15.7-million-pound air deposition load allocation to tidal waters by 2025.)
- Apply 300,000 acres of conservation practices in conjunction with U.S. Department of Agriculture (USDA) High Priority Performance Goals.
- Over 800 federal facilities and properties across the Bay watershed have received 2017 and 2025 pollution reduction targets from the jurisdictions and EPA. These are posted online at http://www.chesapeakebay.net/groups/group/federal.

* This outcome used 2009 as the baseline year.

Programmatic Milestones:

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Target Date	**Programmatic Milestone**
TMDL/WIPs	
January 2018	Announce federal 2018-2019 water quality two-year milestones. (EPA, USDA, DoD, USACE, DOT, USGS, FWS, NPS NOAA, GSA)
January 2018	Provide final Phase III WIP expectations to the jurisdictions. (EPA)
May 2018	Evaluate jurisdictional 2018-2019 two-year milestones. Assess progress made to implement the federal and jurisdictional 2016-2017 two-year milestones against the "60% by 2017" TMDL goal and initiate appropriate federal actions to ensure jurisdictions remain on pace. (EPA)
May 2018	Release final Phase III WIP Planning Targets to the jurisdictions. (EPA)
2018/2019	Federal agencies to report BMP implementation progress to EPA and the Bay jurisdictions annually. (Multiple Federal Agencies/EPA)
2018/2019	Provide Federal agencies with federal facilities pollution reduction targets and WIP expectations. (EPA)
2018/2019	Provide the information needed by the jurisdictions for inclusion in Phase III WIPs to effectively reflect federal agency commitments to implement sufficient BMPs to achieve federal reduction targets. (Multiple Federal Agencies/EPA).
2018/2019	Develop an approach for using the Phase 6 model and other information, if needed, to assess federal agency progress in meeting the federal portion of local planning targets. (Multiple Federal Agencies/EPA).
2019	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).
2018/2019	Provide trainings on BayFAST and CAST to federal, state and local partners in the Bay watershed. (EPA)
2018	Reconvene and staff the Partnership's BMP Verification Committee as the forum to support ongoing efforts to enhance the jurisdictions' BMP verification programs, address issues facing multiple jurisdictions and identify and address common resource needs. (EPA)
April 2019	Evaluate jurisdictions draft Phase III WIPs. (EPA)
2019	Begin the process to update the CBP high resolution land cover data. (USGS, EPA)
2018/2019	Communicate findings on explaining trends in the watershed and tidal waters to support the Mid-Point Assessment. Work through the STAR Integrated Trends and Analysis Team (ITAT) to provide key results WQ GIT and interact with jurisdictions, who will use the results to inform development of WIPs. See science support section for more details. (USGS, academic partners, working with EPA)

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Target Date	**Programmatic Milestone**
TMDL/WIPs	
2018/2019	Develop BMP Crediting Report in VA, MD, DC, and PA in coordination with EPA. (DoD, EPA)
2018/2019	Participate in and co-chair the Federal Facilities Workgroup to enhance collaborative efforts within the Chesapeake Bay Program Partnership. (DoD, NOAA)
2018/2019	Conduct DoD CB TMDL Progress Evaluation in VA, MD, DC, and PA in coordination with EPA. (EPA, DoD)
2018/2019	Submit 18/19 planned BMP implementation in CAST for VA, MD, DC, and PA. (DoD)
2018/2019	Develop draft 2025 Implementation Plans to support jurisdictions' Phase III WIPs in VA, MD, DC, and PA. (DoD)
2018/2019	Participate in jurisdictions' WIP processes by disseminating jurisdiction information throughout DoD to support effective implementation of future Phase III WIP expectations. (DoD)
2018/2019	Complete an assessment of the results of the first year of the new fertilization policy, determine if any soil nutrient testing is necessary, confirm the preferable alternatives if any are required in exceptional cases and quantify the action for reporting. Also work on developing a regional stormwater management policy and an annual regional tree planting goal. (GSA)
2018/2019	Four Stormwater management studies will reach conclusion within six months and scopes of work will be developed and the funding will be sought to carry out the design and construction recommended by the studies. Design and construction work will be overseen in FY19 for any of the projects successfully funded. (GSA)
2018/2019	By the end of FY18, all BMPs will have been visited, the maintenance status will be assessed and maintenance or repair needs will be noted. Strategies for pursuing the bulk maintenance or repair of targeted BMP groups will be initiated with ponds and cistern systems being the most likely top candidates and the corrective work will be overseen in FY19. (GSA)
2018/2019	The DC reconciliation work will be finished with all historical corrections necessary ready to report in the FY18 reporting cycle and the same methodology will be pursued to complete a similar exercise with MD and VA in FY18. (GSA)
2018-2019	Continue to develop the *Chesapeake Bay Comprehensive Water Resource and Restoration Plan* that guide the implementation of projects by agencies to assist in meeting the 2014 Chesapeake Bay Agreement. (USACE)
2018/2019	Continue efforts to foster healthy lands and waters, by balancing public recreational uses and needs at USACE reservoirs and dams. (USACE)

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Target Date	**Programmatic Milestone**
Agriculture	
2018/2019	Provide assistance to Maryland to develop and re-issue CAFO General Permit. (EPA)
2018/2019	Provide assistance to Pennsylvania to develop and re-issue PAG-12. (EPA)
2018/2019	Provide assistance to Delaware to develop and issue remaining CAFO General Permits. (EPA)
2018/2019	INNOVATION GRANTS: NRCS & EPA coordinate respective innovation grant programs in FY2018 and FY2019 to ensure best use of federal funding to support state Watershed Implementation Plans commitments to reduce agricultural nutrient and sediment loadings and to address key challenges facing the agricultural community. Grant programs are EPA's Innovative Nutrient and Sediment Reduction Program administered by NFWF and NRCS's Conservation Innovation Grant Program. (EPA and NRCS)
2018/2019	SRF: 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)
2018/2019	AG CERTAINTY: Support the development and implementation of agricultural certainty programs in the Bay watershed states. (EPA, USDA)
2018/2019	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 and technical 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)
2018/2019	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-NRCS)
2018/2019	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)

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Target Date	**Programmatic Milestone**
Agriculture	
2018/2019	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)
2018	Evaluate priority watersheds for NRCS assistance. To the extent possible, incorporate Chesapeake Bay Program priority watersheds and BMPs. Integrate findings from the CEAP Chesapeake cropland studies about the effectiveness of nutrient management on Chesapeake cropland and opportunities to fine-tune nutrient management to achieve the greatest water quality benefits. (USDA-NRCS)
2018/2019	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)
2018/2019	Promote adoption of practices and systems by agricultural producers that improve soil health. (USDA-NRCS)
2018/2019	USDA will work with State agencies and EPA to support accurate BMP reporting within the Chesapeake Bay watershed including, where appropriate, developing options for entering into and/or strengthening data sharing with the Bay watershed states. (USDA)
2018/2019	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)
2018/2019	USDA will work with the 6 bay watershed states on implementing the Riparian Forest Buffer Task Force recommendations. (USDA)

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Target Date	**Programmatic Milestone**
Atmospheric – Rules, Deposition, Allocations	
2018/2019 2018/2019 2018 2018	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 multiscale Air Quality Model (CMAQ) air deposition modeling for the CB watershed incorporating the most recent finalized rules with significant NO_x reductions in the Phase 3 Watershed Implementation Plans (WIPs) (EPA) • Continue implementation of Tier 3 vehicle emission standards. (EPA) • Finalize nitrogen dioxide (NO_2) primary national ambient air quality standards (NAAQS). (EPA) • Develop federal plan to address interstate transport for the 2015 ozone National Ambient Air Quality Standards (NAAQS). (EPA)
2018 2018/2019	Work with states to develop State Implementation Plan (SIP) revisions to reduce NOx emissions. (EPA) • Work with states and review SIPs that address infrastructure requirements for the 2015 ozone NAAQS. (EPA) • Work with states to develop rules to implement the 2015 ozone NAAQS. (EPA)
2018/2019	Review state permits which may include rules that limit emissions of NO_x . (EPA)

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Target Date	**Programmatic Milestone**
Stormwater	
2018/2019	Finalize District of Columbia MS4 permit. (EPA)
2018/2019	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, NPS, GSA, EPA)
2018/2019	Conduct update of 2012 stormwater assessments for Delaware, Maryland and West Virginia. (EPA)
2018/2019	Conduct oversight review and comment, per NPDES Memorandum of Agreement, 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)
2018/2019	Review MS4 TMDL Plans for compliance with permit requirements (EPA)
2018	Conduct MS4 permittee and state inspector trainings in coordination with jurisdictions. (EPA)
2018/2019	The stormwater program manager will continue to maintain involvement in all active projects triggering stormwater requirements to make sure what is designed meets federal, state, and local requirements. Then the stormwater program manager will make sure what is constructed meets the specified design parameters and will make sure all stormwater infrastructure is properly commissioned and maintained. (GSA)
2018/2019	All of the existing stormwater management infrastructure in place at every applicable facility in NCR's inventory will be linked to the maintenance requirements in the NCMMS system. The requirements will be made live in the system after all applicable building managers are alerted and all applicable O&M contracts are updated to cover the new scopes of work. Reports will be generated through the system periodically to identify locations where maintenance tasks are not being completed in the prescribed timeframes so that follow up can identify and fix the process breakdown. (GSA)

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Target Date	**Programmatic Milestone**
Wastewater	
2018	Finalize Blue Plains NPDES permit. (EPA)
Trading/Offsets	
2018/2019	Issue Compendium that summarizes all final technical memoranda. (EPA)
2018/2019	Issue draft "MS4 and construction mitigation" technical memoranda setting forth EPA expectations for the Bay jurisdictions' offset and trading programs and explore means for addressing "interstate trading" considerations. (EPA)
2018/2019	Update previously-issued technical memoranda, as needed. (EPA)
June 2019	As part of the 2-year milestone evaluation, determine which part of the jurisdictions load reduction is attributed to addressing growth and which part is attributed to load reductions made towards maintaining the TMDL allocation. (EPA)
2018/2019	Review Bay jurisdictions' trading and offset regulations and policies and support Bay jurisdictions as they develop trading and/or offset programs. (EPA)
2018/2019	Work with other Federal agencies to build capacity that will support an efficient and robust trading market. (USDA, EPA, DOT)

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Target Date	**Programmatic Milestone**
Toxic Contaminants	
2018	Conduct monitoring in D.C. and Maryland to support revision of toxics TMDLs in the Anacostia River, in accordance with monitoring plan and QAPP. (EPA)
2018/2019	Take appropriate action on proposed PCB TMDLs submitted in the Bay watershed for local waters. (EPA)
2018/2019	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)
2018	Finalize Management Standards for Hazardous Waste Pharmaceuticals Rule. (EPA)
June 2018	Complete the analysis of PCB removal from effluent that results from WWTP upgrade to enhanced nutrient removal. Disseminate the final report to jurisdiction PCB TMDL leads and make the report available to other watershed restoration programs. (EPA)
December 2018	Complete the analysis of the feasibility of a voluntary removal program for PCB-containing equipment and materials. Submit report to the Toxic Contaminants Workgroup for consideration of undertaking such a program. (EPA)
September 2018	Revise management strategy and work plans for toxic contaminants reduction and research management strategies. (EPA, FWS, USGS working with Toxic Contaminant Work Group)
2018/2019	Update a GIS desktop tool to identify potential land sources of contamination in the watershed. The use of EJ SCREEN will be evaluated to identify the location of such sites in areas with diverse populations. (EPA)
2018/2019	Review NPDES permits to ensure consistency with the requirements and assumptions with the PCB TMDLs. (EPA)
2018/2019	Conduct inspection(s) and take appropriate enforcement follow-up to ensure compliance with the Toxic Substances Control Act regulations related to PCBs. (EPA)
2019	Develop a Chesapeake Bay Fish Consumption Advisory Infographic and provide to jurisdictions, local governments and other stakeholders for use in their outreach efforts. (EPA)
2019	Prepare synthesis reports on the factors contributing to degraded health of bass within the Chesapeake watershed. The findings will be used to inform toxic contaminant research outcome (USGS).
2019	Finalize synthesis of historic data related to intersex and effects of estrogenic endocrine disruption (USGS, 2018), Prepare summaries of findings of relation between intersex conditions and endocrine disruption. (USGS)

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Toxic Contaminants	
2019	Synthesize data designed to characterize the occurrence, concentrations and sources of contaminants in selected agricultural areas of the Susquehanna Watershed (USG, 2018). Interpret data and release findings. (USGS)
2018/2019	Synthesize results designed to assess the relative risk of contaminants, and options for mitigation, for EDC and fish. Use findings to inform associated policy and prevention strategies. (USGS)

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Target Date	**Programmatic Milestone**
Oversight and Enforcement	
December 2018 and 2019	Permit and Enforcement Oversight – Stormwater, Wastewater, Agriculture, Trading/Offsets, Air. • NPDES Permit Reviews – Track progress annually on number of permits reviewed and objections. (EPA) • Inspections and Case conclusions – Track progress annually on inspections (including oversight inspections) conducted and cases concluded. (EPA) Ins = inspection, AA= Administrative Actions CA/FO + consent agreement/Final Order (Class I penalty); II = Industrial Inspections; CI=construction inspections;

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Target Date	**Programmatic Milestone**
Monitoring and Science Support	
2018/2019	Provide assistance to DC, DE, MD, and VA to promulgate the appropriate sections of the *Ambient Water Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries- 2017 Addendum* into their respective jurisdictions' Water Quality Standards regulations. (EPA)
2018/2019	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)
2018/2019	Collaborate with the all six states and DC to monitor nutrient and suspended-sediment conditions across the full range of hydrologic conditions at each of the 115 stations in the CBP nontidal network. Work through STAR Integrated Monitoring Networks work group to coordinate activities. (USGS working with States and EPA)
2018/2019	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)
2018/2019	Complete the first 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)
2018/2019	Update the TMDL Tracker in Spring of 2018 using the Phase 5.3.2 Watershed Model results and make available through ChesapeakeProgress. CAST will be used to track progress using the Phase 6.0 Watershed Model. (EPA)
2018/2019	Publish a new Ambient Water Quality Criteria Technical Addendum that provides updated guidance on water quality standards attainment assessment methods for the tidal Bay jurisdictions. (EPA/USGS)
2018	Complete efforts to explain watershed trends of nutrients and sediment to support the Mid-Point Assessment and development of Phase 3 WIPs. The effects of nutrient sources, land-use change, and BMPs will be investigated and presented for the River-Input sites, sites across the watershed, and sediment. (USGS, EPA, and academic partners working through the STAR ITAT group)
2018	Publish new approaches for quantifying and explaining water- quality trends in tidal waters. (USGS, EPA, and academic partners working through the STAR team)

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Target Date	**Programmatic Milestone**
Monitoring and Science Support	
2018/2019	Complete presentations and articles explaining estuary water quality trends. Topics include SAV, water clarity, water quality, and water-quality attainment. Coordinate efforts by research teams to present findings to WQ GIT and jurisdictions. (STAR academic partners, USGS, EPA)
2018	Integrate findings between the watershed and tidal system by conducting a STAC workshop on "Integrating Recent Findings to Explain Water Quality Change: Support for the Mid-Point Assessment and Beyond" and subsequent recommendations. (USGS EPA, and academic partners).
2018/2019	Using information gathered in 2016-2017 on patterns in water quality standards and criteria attainment and the explain trends (see above) on the effects of nutrient sources, land-use change, and BMPs in the watershed and for the major source sectors (agricultural, urban, and atmospheric deposition), develop an on-line data visualization tool to aid jurisdictions in understanding trend results for both the watershed and tidal waters at the segment level. (EPA and USGS)
2018/2019	Enhance the Chesapeake Bay Partnership water quality models to support decision making for the MPA and Phase III of the WIPs. The monitoring information and land use data is being used to enhance the CBP Watershed model and estuary water quality model. (STAR Modeling Workgroup with support from USGS, EPA and USACE)
2018/2019	EPA will work with NOAA to utilize information from the Chesapeake Bay Interpretive Buoy System (CBIBS) data to enhance tidal results. (EPA/NOAA)

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Target Date	**Programmatic Milestone**
EPA Grant Support to States and the District of Columbia	
2018/2019	Provide financial support to Bay jurisdictions, as authorized, through EPA's assistance programs including CWA Section 319, SRF, CWA 117 CBIG and CBRAP. (EPA)
2018/2019	Provide financial support to localities and other entities through the Innovative Nutrient and Sediment Reduction Grants and the Small Watershed Grants, as authorized. (EPA)

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
CBIBS – Chesapeake Bay Interpretive Buoy System
CBIG – Chesapeake Bay Implementation Grants
CBRAP – Chesapeake Bay Regulatory and Accountability Program grants
CEAP – Conservation Effects Assessment Project
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
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
NOAA – National Oceanic and Atmospheric Administration
NPDES – National Pollutant Discharge Elimination System
NRCS – Natural Resources Conservation Service
NPS – National Park Service
PCB – polychlorinated biphenyl
SAV – Submerged Aquatic Vegetation
STAC – Scientific and Technical Advisory Committee
STAR – Scientific and Technical Assessment Research 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
Virginia DEQ – Virginia Department of Environmental Quality
WIP – Watershed Implementation Plan