**BIENNIAL STRATEGY REVIEW SYSTEM**
***Chesapeake Bay Program***

# Logic and Action Plan: Post Quarterly Progress Meeting

**2025 WIP Outcome—have all practices and controls installed to achieve the Bay's water quality standards.**

**2020-2021**

**Long-term Target:** (the metric for success of Outcome)
**Two-year Target:** (increment of metric for success)

| **Instructions:** Before your quarterly progress meeting, provide the status of individual actions in the table below using this color key. |
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| Action has been completed or is moving forward as planned. |
| Action has encountered minor obstacles. |
| Action has not been taken or has encountered a serious barrier. |

Additional instructions for completing or updating your logic and action plan can be found on ChesapeakeDecisions.

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| *What is impacting our ability to achieve our outcome?* | *What current efforts are addressing this factor?* | *What further efforts or information are needed to fully address this factor?* | *What actions are essential (to help fill this gap) to achieve our outcome?* | *What will we measure or observe to determine progress in filling identified gap?* | *How and when do we expect these actions to address the identified gap? How might that affect our work going forward?* | *What did we learn from taking this action? How will this lesson impact our work?* |

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| **Best Management Practice (BMP) implementation:** Technical assistance with implementing, tracking, reporting, and verifying source control and mitigation practices | Convening a BMP Verification Ad-hoc Action Team<br><br>An optimization framework and tool are under development in CAST to plan and target implementation<br><br>The Chesapeake Bay Watershed Data Dashboard is available for use that provides comprehensive support for planning implementation, such as BMP targeting and monitoring trends analyses | A) Need additional technical assistance providers, and specificity on what assistance is needed, in the agricultural sector at the local scale<br><br>B) Training to technical assistance providers on BMP verification and the Data Dashboard.<br><br>C) An evaluation of BMP implementation and maintenance costs<br><br>D) Updates needed to the BMP verification framework to recognize resource limited verification programs<br><br>E) Funding for BMP Panels<br><br>F) Getting new BMPs and associated efficiencies included in CAST<br><br>G) Needs assessment to target implementation<br><br>H) Targeting lands that produce disproportionate pollutant loads, incentivize treatment by selecting cost-effective control measures<br><br>I) The current approach for crediting atmospheric | Provide more "boots on the ground" to address identified technical assistance needs expressed by the state and local jurisdictions (A, B,) [Ongoing]<br><br>Consider expanding circuit rider type programs to deliver technical assistance. (A, B) [New]<br><br>Develop BMP verification [Ongoing] and Data Dashboard training (B) [New]<br><br>Continue to update implementation costs on a regular basis (C) [Ongoing]<br><br>Potential refinements to the partnership's BMP Verification framework document, including potential approval of alternative verification methodologies and re-verification (D) [Ongoing]<br><br>Reassess and update BMP credit durations as determined by the BMP verification ad-hoc action team and the WQGIT (D) [Ongoing]<br><br>Understand how volunteers or citizen stewardship can be used | Number of staff increases or providers to deliver technical assistance<br><br>Number of trainings for the Data Dashboard<br><br>Number of BMP verification trainings provided (B)<br><br>Updated costs in CAST 2021<br><br>Adoption of revisions to BMP verification framework document<br><br>Completion and release of the optimization framework and tool<br><br>Percent and number of BMPs verified per year<br><br>Number of BMPs with lost credit due to inspection and maintenance lapse<br><br>The CBP partnership to identify a mechanism or | Increased delivery of technical assistance to support and accelerate BMP implementation, particularly in the agricultural sector<br><br>Revisions to BMP verification and panel protocols that adheres to a robust scientific process and framework while recognizing application challenges<br><br>Increased adoption and targeting of cost effective BMPs implemented in high loading lands | |

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| | | deposition reductions to WIPs limits which reductions can be credited, and the duration of that credit | to alleviate capacity shortfalls for BMP verification (D) [New]<br><br>Request CBP partnership to explore funding to continue supporting BMP expert panels (E) [New]<br><br>Potential refinements to the partnership's BMP Expert Panel Protocols (F) [New]<br><br>Working with the CBP Communications Office, build awareness (e.g., communication materials, trainings) of natural resource BMPs (e.g., wetlands, forest buffers, and tree planting) with water quality co-benefits that are lagging in implementation (E, F) [New]<br><br>Update CAST to incorporate optimization tools (C, G) [Ongoing]<br><br>Increase number of CAST training and users with a focus on showing how to target BMPs (H) [Ongoing]<br><br>Create an ad hoc group associated with the modelling workgroup to revisit the WIP atmospheric deposition | opportunities to fund BMP expert panels.<br>Adoption of revisions to BMP Expert Panel Protocols<br><br>Depending on resources and funding, start and finish at least one BMP expert panel process (F)<br><br>Adoption and implementation of natural resource BMPs (via annual progress submissions)<br><br>Adoption of an optimization tool into CAST<br><br>Number of CAST trainings and number of times recorded trainings are used<br><br>Allocation of funds toward most effective basins | | |

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| | | | crediting methodology, so that these practices can become part of the states' WIP reduction portfolio (I) [New] | | | |

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| **Funding for implementation:** Assistance insource sectors to implement local-scale programs, plans, and practices. Likely emphasis on the agricultural sector. | Continued federal funding though EPA Grant Programs (CBIG, CBRAP, 319, SRF), Watershed Implementation Plan assistance, state programs, and USDA Farm Bill and NRCS grant programs<br><br>Exploring pay for performance programs at various scales<br><br>Learning from Conowingo WIP financing strategy | (A) Expanding opportunities to leverage funding and resources to increase on-the-ground implementation<br><br>B) Lack of funding to reduce and prevent pollution and improve living resources<br><br>C) Innovative technical and financial solutions and assistance to implement practices, plans, and programs | Increase awareness (e.g., providing presentations and resource materials to the CBP partnership) of the SRF program to increase coordination and leverage opportunities for NPS implementation (A, C) [New]<br><br>Identify and discuss dedicated funding streams for technical assistance providers (A, B, C) [Ongoing]<br><br>Continue to support implementing Phase III WIPs and 2-year milestones (A, C) [Ongoing]<br><br>Identify lessons learned from the Conowingo WIP financing strategy and determine if there are opportunities elsewhere in the watershed (A, C) [New]<br><br>Create pay for performance program proposal (A, C) [New]<br><br>Identify full-scale regional case studies to bring to the CBP | Increased leveraging of available funding resources<br><br>Increased funding for technical assistance delivery in the agricultural sector | Accelerated implementation in the agricultural sector<br><br>Innovative financing approaches to attract private sector funding | |

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| | | | partnership for presentation (C) [New]<br><br>Discuss development of incentive structures, working with NRCS, to launch pay-for-performance programs (C) [New] | | | |

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| **Communication and coordination:** Consistent efforts with diverse stakeholders.<br>Other potential audiences include states and DC; local jurisdictions; and federal agencies such as USDA, DoD and EPA | The Diversity Equity, Inclusion, and Justice (DEIJ) Initiative<br><br>Consulting with Tribes within the Bay watershed | A) Participation from under-represented groups in the WQGIT and source sector workgroups<br><br>B) Clear and concise communication with the agricultural and urban communities<br><br>C) Integrating the Partnerships social science strategy to support water quality goal implementation<br><br>D) Strengthen coordination between federal, state, and local levels to accelerate implementation<br><br>E) Coordinating efforts to achieve consensus-based decisions | Build on the work of the DEIJ Action Team and work with the relevant teams (Diversity, Communications) to identify and engage under-represented groups (A) [New]<br><br>Obtain a list of potential members/nominees (e.g., LGAC) from under-represented groups to participate in the WQGIT and its source sector workgroups (A) [New]<br><br>Identify a WQGIT representative(s) to participate on the Community Advisory Board and to help contribute to the DEIJ implementation plan (D, E) [New]<br><br>Identify a WQGIT representative to engage and coordinate with LGAC as a means of information and knowledge exchange (D) [New]<br>Create trainings in underserved agricultural areas on the Chesapeake Bay TMDL and WIPs | Number of tribal consultations<br><br>Begin institutionalizing DEIJ approaches into WQGIT decisions<br><br>Increased funding opportunities and awareness for underserved areas<br><br>Incorporation of DEIJ principles in ranking criteria for implementation projects<br><br>Achievement of objectives in social science strategy<br>Number of meetings with LGAC<br><br>Increased implementation in underserved areas as a result of engagement | Increased engagement from under-represented communities<br><br>Greater understanding and application of social science in addressing implementation barriers | |

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| | | | process, including an overview of funding opportunities (B, C, D) [New]<br><br>Develop factsheets or webinars to explain local water quality trends for underserved areas of the watershed (B, D) [New]<br><br>Develop a factsheet explaining opportunities to advance DEIJ values into grant funding opportunities (see fact sheet developed by the Wetlands Workgroup for an example) (C, D) [New]<br><br>Help implement a CBP social science strategy (C) [New]<br><br>Focus a GIT meeting to identify ways to strengthen coordination between all levels of government (D) [New] | | | |

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| **CAST and other model updates:** Incorporating new science and data into models and decision support tools. | Drafted and now implementing the CAST workplan for 2021<br><br>A fine scale model of the Chesapeake watershed is being developed. The model will have 50 times more spatial resolution than the current Phase 6 CAST | A) Understanding and communicating how model update changes apply to milestone development and implementation<br><br>C) Methods for identifying spatial variation in pollutant source areas and BMP effectiveness and implementing BMPs based on these spatial analyses<br><br>D) Spatial resolution of the Chesapeake Bay TMDL accounting system<br><br>E) How to assess progress toward nutrient targets using a common currency<br><br>F) Understanding nutrient transformation and transport from land uses to receiving waters<br><br>G) Constraints on Bay model to assess dissolved oxygen water quality attainment in the Bay's shallow waters<br><br>I) Understanding how to use CAST to determine the number, type, and mix of BMPs that can be used to address new reduction planning targets | Implement and complete the CAST 2021 work plan (A)<br><br>Identify a WQGIT representative to work with the Communications team to assist in explaining the various model updates(A) [New]<br><br>Once CAST 21 is updated, create webinars for more novice users to explain changes (A) [New]<br><br>Build in Partnership-approved products of the BMP Verification Ad-Hoc Action Team related to credit duration [New]<br><br>Request that STAR and the Modeling Workgroup investigate methods to refine the spatial resolution of the TMDL accounting system, refine nutrient speciation accounting, and begin development of an estuarine model with improved shallow water simulation (D-G) [Ongoing]<br><br>Understand the time it takes for different tidal segments to achieve water-quality standards to better understand responses to restoration | Finalization and release of CAST 2021 for application<br><br>Release CAST 21 with new functionality to create and evaluate plans with BMPs at a finer scale<br><br>Press release about model updates<br><br>Number of CAST trainings | Updated decision support tool with the latest scientific information and data to support implementation efforts. | |

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| | | | efforts in the watershed (G)<br><br>Provide CAST and other training to interested stakeholders [Ongoing] | | | |

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| **Water quality monitoring: Sustain and enhance monitoring and interpretation of results to help understand water quality response to management actions**. It is important to demonstrate progress towards attainment of water quality standards. | Ongoing loads and trends project in the Chesapeake Bay nontidal monitoring network<br><br>Ongoing work in the USGS/CBPO being undertaken by STAR and associated science partners | A) Monitoring trends and loads data into assessing progress toward outcome<br><br>B) Translate monitoring findings to management implications, e.g., targeting source control and mitigation programs | Provide technical assistance to Bay jurisdictions to understand water quality monitoring trends in priority watersheds to further target implementation efforts (A) [Ongoing]<br><br>Incorporate more monitoring trends and loads data into assessment of progress toward outcome (e.g., Bay Barometer) (A) [Ongoing]<br><br>Use monitoring data to target practices to demonstrate success (B) [Ongoing] | Increased implementation in targeted areas to achieve water quality standards, using monitoring trends information<br><br>Reporting from jurisdictions regarding how monitoring data is incorporated into decisions regarding implementation | | |

| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| **Using co-benefits as a catalyst to increase implementation by aligning with priorities and goals beyond water quality:** characterization of benefits beyond water quality improvements associated with existing BMPs to identify new funding opportunities and opportunities to increase implementation | Projects underway to understand and quantify ecosystem services (e.g., Wetland Workgroup project to recognize the value of wetland protection and restoration to a variety of State initiatives and programs) | A) Understanding the science to support including co-benefits into BMPs, plans, and programs to achieve outcome<br><br>B) Understanding the carbon sequestration and toxic contaminant retention from Bay restoration efforts. Link to carbon markets and private financial markets<br><br>C) Understand and ascribe monetary value to cost savings from implementing projects with co-benefits<br><br>D) Understanding how co-benefits (e.g., habitat, flood protection, carbon sequestration) can be used as a tool to access funding to increase implementation to help achieve outcome | Work with other GITs to develop funded projects that provide co-benefits and integrate climate resiliency, habitat protection, and reductions of contaminants into the implementation of water quality BMPs (A, B, D) [Ongoing]<br><br>Work with financial experts to develop information that monetizes cost savings by implementing projects with co-benefits (C) [New]<br><br>Develop a few specific examples as a demonstration using projects with low implementation levels (e.g., wetlands, tree planting, forest buffers) (C) [New]<br><br>Use co-benefits as a tool to fund and accelerate BMP implementation efforts (D) [New] | Number of projects with WQ and other co-benefits.<br><br>Quantification and integration of co-benefits into CAST and optimization decision support tools | Stronger cross-GIT coordination<br><br>Increased understanding of those practices that have benefits beyond water quality. For example, living resources, public safety, property protection. | |
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| Factor | Current Efforts | Gap | Actions | Metrics | Expected Response and Application | Learn/Adapt |
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| **Climate change tracking:** understanding and allocating impacts of climate change induced watershed loads for 2022-2023 milestones. | Understanding and communicating climate resilient BMPs<br><br>Describing how climate change impacts nutrient targets in 2035 and beyond | A) Understanding how to incorporate climate change impacts into 2022-2023 programmatic and numeric milestones<br><br>B) Understanding changes in BMP effectiveness under climate changes (e.g., increase in temperature, changes in biological process rates, and BMP efficiencies<br><br>C) Understanding potential changes in agricultural projections into the future based on adaptation to climate change<br><br>D) Identification and promotion of climate projects with co-benefits<br><br>E) How will federal facilities play a role in addressing needed climate reductions? | Integrate the STAC technical synthesis on climate resilient and adapted BMPs and management actions into communications to jurisdictions for meaningful decision-making (A, B, C) [Ongoing]<br><br>Update Intensity-Duration- Frequency curves (IDFs) for all counties in the Chesapeake watershed and encourage the adoption and implementation of the updated IDFs for stormwater and other applications (A- D) [Ongoing]<br><br>Work with the Federal Facilities Workgroup to determine federal role in meeting climate reductions (E) [New] | Specific and programmatic milestones to address climate effects<br><br>Specific BMPs to address climate effects | Greater understanding of climate resilient BMPs to help mitigate climate effects | |

| ACTIONS – 2020-2021 | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 1: BMP Implementation** | | | | | |
| **1** | Provide more "boots on the ground" support to address identified technical assistance needs expressed by the state and local jurisdictions<br><br>Consider expanding circuit rider type programs to deliver technical assistance.<br><br>Develop BMP verification and Data Dashboard training | Number of staff increases or providers to deliver technical assistance<br><br>Number of trainings for the Data Dashboard and verification | Jurisdictions / WQGIT | Watershed-wide | 2021+ |
| **2** | Continue to update implementation costs on a regular basis | Updated costs in CAST 2021 | Jurisdictions/CBPO | Watershed-wide | 2020-2021 |
| **3** | Potential refinements to the partnership's BMP Verification framework document, including potential approval of alternative verification methodologies and re-verification | Updated partnership's BMP verification framework | BMP Verification Ad-hoc Action Team; Source Sector Workgroups; WQGIT | Watershed-side | 2020-2021 |
| **4** | Reassess and update BMP credit durations as determined by the BMP verification ad-hoc action team and the WQGIT | Final recommendations for BMP credit durations | BMP Verification Ad-hoc Action Team; Source Sector Workgroups; WQGIT | Watershed-wide | 2020-2021 |
| **5** | Understand how volunteers or citizen stewardship can be used to alleviate capacity shortfalls for BMP verification | Increased on-the-ground support of verification efforts | BMP Ad-hoc Verification Action Team | Watershed-wide | 2020-2021 |

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| **6** | Explore funding to continue supporting BMP expert panels | Funding delivered to initiate new BMP expert panels | WQGIT and Source sector workgroups | Watershed wide | 2020-2021 |
| **7** | Potential refinements to the partnership's BMP Expert Panel Protocols | Updated BMP Expert Panel Protocol | WQGIT and Source sector workgroups | Watershed-wide | |
| **8** | Working with the CBP Communications Office, build awareness (e.g., communication materials, trainings) of natural resource BMPs (e.g., wetlands, forest buffers, and tree planting) with water quality co-benefits that are lagging in implementation | Adoption and implementation of natural resource BMPs (via annual progress submissions) | WQGIT and CBP Communications Office | Watershed-wide | 2020-2021 |
| **9** | Update CAST to incorporate optimization tools | Adoption of optimization tool into CAST | Modeling Workgroup/WQGIT | Watershed-wide | 2020-2021 |
| **10** | Increase number of CAST training and users with a focus on showing how to target BMPs | Number of CAST trainings and number of times recorded trainings are used (H) | CBPO Modeling Team | Watershed-wide | 2020-2021 |
| **11** | Create an ad hoc group associated with the modelling workgroup to revisit the WIP atmospheric deposition crediting methodology, so that these practices can become part of the states' WIP reduction portfolio | Modeling framework for crediting air deposition as part of the WIPs and Bay TMDL | WQGIT and Modeling Workgroup | Watershed-wide | 2021+ |

| **ACTIONS – 2020-2021** | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 2: Funding for Implementation** | | | | | |

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| **1** | Increase awareness (e.g., providing presentations and resource materials to the CBP partnership) of the SRF program to increase coordination and leverage opportunities for NPS implementation | Increased leveraging of available funding resources | EPA | Watershed-wide | 2020-2021 |
| **2** | Identify and discuss dedicated funding streams for technical assistance providers | Increased funding for technical assistance delivery in the agricultural sector | WQGIT and Budget and Finance Workgroup | Watershed-wide | 2020-2021 |
| **3** | Continue to support implementing Phase III WIPs and 2-year milestones | Increased implementation | EPA (grant funding) and other funders | Watershed-side | 2020-2021 |
| **4** | Identify lessons learned from the Conowingo WIP financing strategy and determine if there are opportunities elsewhere in the watershed | Increased funding to support BMP implementation, particularly in the agricultural sector | WQGIT | Watershed-wide | 2020-2021 |
| | Create pay for performance program proposal | | | | |
| | Identify full-scale regional case studies to bring to the CBP partnership for presentation | | | | |
| **5** | Discuss development of incentive structures, working with NRCS, to launch pay-for-performance programs | Creation of a pay-for-performance program(s) | WQGIT | Watershed-wide | 2020-2021 |

| **ACTIONS – 2020-2021** | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 3: Communication and Coordination** | | | | | |

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| **1** | Build on the work of the DEIJ Action Team and work with the relevant teams (Diversity, Communications) to identify and engage under-represented groups<br><br>Obtain a list of potential members/nominees (e.g., LGAC) from under-represented groups to participate in the WQGIT and its source sector workgroups | Increased engagement from under-represented communities | WQGIT, DEIJ Action Team, and LGAC | Watershed-wide | 2020-2021 |
| **2** | Create trainings in underserved agricultural areas on the Chesapeake Bay TMDL and WIPs process, including an overview of funding opportunities | Increased funding opportunities and awareness for underserved areas<br><br>Increased implementation in underserved areas as a result of engagement | AgWG, WQGIT, and DEIJ Action Team | Watershed-wide | 2021-2021 |
| **3** | Develop factsheets or webinars to explain local water quality trends for underserved areas of the watershed | Increased implementation in underserved areas as a result of engagement | USGS and CBP Communications Office | Watershed-side | 2020-2021 |
| **4** | Develop a factsheet explaining opportunities to advance DEIJ values into grant funding opportunities (see fact sheet developed by the Wetlands Workgroup for an example) | Increased funding opportunities and awareness for underserved areas | WQGIT, DEIJ Action Team, and CBP Communications Office | Watershed-wide | 2020-2021 |
| **5** | Help implement a CBP social science strategy | Achievement of objectives in social science strategy | CBPO and WQGIT | Watershed-wide | 2020-2021 |
| **6** | Identify a WQGIT representative(s) to participate on the Community Advisory Board and to help contribute to the DEIJ implementation plan | Begin institutionalizing DEIJ approaches into WQGIT decisions | WQGIT | Watershed wide | 2020-2021 |

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| 7 | Identify a WQGIT representative to engage and coordinate with LGAC as a means of information and knowledge exchange | Number of meetings with LGAC | WQGIT | Watershed-wide | 2020-2021 |
| **8** | Focus a GIT meeting to identify ways to strengthen coordination between all levels of government | Increased coordination on restoration efforts | WQGIT | Watershed-wide | 2020-2021 |

| **ACTIONS – 2020-2021** | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 4: CAST and Other Model Updates** | | | | | |
| **1** | Implement and complete the CAST 2021 work plan | Finalization of CAST 2021 for management application | WQGIT | Watershed-wide | 2021 |
| **2** | Identify a WQGIT representative to work with the Communications team to assist in explaining the various model updates and their impacts and benefits, as well as release an article/press release about the updates | Increased understanding of CAST updates and impacts to restoration efforts | WQGIT and CBP Communications Office | Watershed-wide | 2020-2021 |
| **3** | Once CAST 21 is updated create webinars for more novice users to explain changes | Increased understanding of CAST updates and impacts to restoration efforts | WQGIT and CBP Communications Office | Watershed-side | 2020-2021 |
| **4** | Build in Partnership-approved products of the BMP Verification Ad-Hoc Action Team related to credit duration | Finalization of CAST 2021 for management application | BMP verification ad-hoc action team and WQGIT | Watershed-wide | 2020-2021 |

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| **5** | Request that STAR and the Modeling Workgroup investigate methods of refining the spatial resolution of the TMDL accounting system, refine nutrient speciation accounting, and begin development of an estuarine model with improved shallow water simulation | Release CAST21 with new functionality to create and evaluate plans with BMPs at a finer scale | STAR and Modeling Workgroup | Watershed-wide | 2020-2021 |
| **6** | Understand the time it takes for different tidal segments to achieve water-quality standards to better understand responses to restoration efforts in the watershed | Release CAST21 with new functionality to create and evaluate plans with BMPs at a finer scale | STAR and Modeling Workgroup | Watershed wide | 2020-2021 |
| 7 | Provide CAST and other training to interested stakeholders | Increased understanding of CAST updates and impacts to restoration efforts | WQGIT and CBPO Modeling Team | Watershed-wide | 2020-2021 |

| **ACTIONS – 2020-2021** | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 5: Water Quality Monitoring: Sustain and enhance monitoring and interpretation of results to help understand water quality response to management actions** | | | | | |
| **1** | Provide technical assistance to Bay jurisdictions to understand water quality monitoring trends in priority watersheds to further target implementation efforts | Increased implementation in targeted areas to achieve water quality standards, using monitoring trends information | USGS, STAR, and WQGIT | Watershed-wide | 2020-2021 |
| **2** | Incorporate more monitoring trends and loads data into assessment of progress toward outcome (e.g., Bay Barometer) | Reporting from jurisdictions regarding how monitoring data is incorporated into decisions regarding implementation | EPA, USGS, and Jurisdictions | Watershed-wide | 2020-2021 |

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| **3** | Use monitoring data to target practices to demonstrate success | Increased implementation in targeted areas to achieve water quality standards, using monitoring trends information | Jurisdictions | Watershed-side | 2020-2021 |

| **ACTIONS – 2020-2021** | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 6: Using Co-Benefits as a catalyst to increase implementation by aligning with priorities and goals beyond water quality** | | | | | |
| **1** | Work with other GITs to develop funded projects that provide co-benefits and integrate climate resiliency, habitat protection, and reductions of contaminants into the implementation of water quality BMPs | Number of projects with WQ and other co-benefits. | WQGIT | Watershed-wide | 2020-2021 |
| **2** | Work with financial experts to develop information that monetizes cost savings by implementing projects with co-benefits | Number of projects with WQ and other co-benefits. | WQGIT | Watershed-wide | 2020-2021 |
| **3** | Develop a few specific examples as a demonstration using projects with low implementation levels (e.g., wetlands, tree planting, forest buffers) | Number of projects with WQ and other co-benefits. | WQGIT | Watershed-side | 2020-2021 |
| **4** | Use co-benefits as a tool to fund and accelerate BMP implementation efforts | Number of projects with WQ and other co-benefits. | WQGIT | Watershed-wide | 2020-2021 |

| ACTIONS – 2020-2021 | | | | | |
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| **Action #** | **Description** | **Performance Target(s)** | **Responsible Party (or Parties)** | **Geographic Location** | **Expected Timeline** |
| **Factor 7: Climate Change Tracking** | | | | | |
| **1** | Integrate the STAC technical synthesis on climate resilient and adapted BMPs and management actions into communications to jurisdictions for meaningful decision-making | Specific and programmatic milestones to address climate effects.<br><br>Specific BMPs to address climate effects | STAC and Jurisdictions | Watershed-wide | 2020-2021 |
| **2** | Update Intensity-Duration-Frequency curves (IDFs) for all counties in the Chesapeake watershed and encourage the adoption and implementation of the updated IDFs for stormwater and other applications | Quantification and integration of co-benefits into CAST and optimization decision support tools | Modeling Workgroup and the WQGIT | Watershed-wide | 2020-2021 |
| **3** | Work with the Federal Facilities Workgroup to determine federal role in meeting climate reductions | Specific and programmatic milestones to address climate effects.<br><br>Specific BMPs to address climate effects | WQGIT and Federal Facilities Workgroup | Watershed-side | 2020-2021 |