

Progress Report on the January 1, 2022 – December 31, 2023 Conowingo WIP Programmatic and Numeric Two-Year Milestones and response to EPA Evaluation

The Conowingo Watershed Implementation Plan (CWIP) will reduce nitrogen delivered to the Chesapeake Bay by 6.7-million pounds per year by 2025. The final CWIP was approved by the Principals Staff Committee in September 2021. The CWIP Steering Committee developed 2022/2023 milestones for CWIP implementation that were submitted to EPA on January 13, 2022 and EPA completed their milestone evaluation on October 4, 2022. In response to EPA’s evaluation, this document outlines calendar year 2022 progress on the CWIP’s 2022/2023 two-year milestones.

Action Item	Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Progress Report
	Capacity Building				
	- Finance				
1	December 2021	Draft plan for the CWIP financing authority submitted to SC. (p.32)	Draft plan	Act 2	Complete. The final Conowingo WIP financing plan was developed and delivered to EPA in 2021 with revisions made in the last quarter of 2022.
2	Spring 2022	Complete financing system implementation, enable course adjustments and establish the permanent Conowingo financing system (p.30)		Act 2	This milestone is in progress and nearing completion. The financing system process was developed in 2021 and 2022 with the establishment of the Susquehanna River Basin Commission (SRBC) as the financing authority. The Principals’ Staff Committee LOU with SRBC, which in turn enabled the organization to receive and invest revenues in support of water quality restoration practices. In addition, the financing team worked with SRBC to establish capacity assessments and templates for formal requests for proposals.
3	Mid 2022	Begin to deliver implementation funding		Act 2	This milestone is in progress and approaching completion. SRBC is prepared to receive funding and invest funding. The RFP template has been established and is ready for implementation. Most importantly, SRBC has been in conversations with the State of Maryland Department of the Environment regarding an initial investment of \$25 million. The Maryland Board of Public Works approved \$25 million for SRBC to administer the Pay-For-Success program for Conowingo WIP implementation on January 4, 2023. The MOU with SRBC will be finalized in January 2023.

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4	July 2022 – July 2023	Launch implementation of financing authority and restoration investments. (p.32)		Act 2	Complete. SRBC was established as a CWIP financing authority and is ready to receive investments.
	- Technical				
5	December 2022	Updated QAPP detailing how BMP data will be collected and submitted annually to the CBP officer, assurance that the data is valued, and how the data will be interpreted for further use. (p.47)	Updated QAPP	Act 3	Ongoing discussions about tracking and reporting implementation data will be used to update the proposed CWIP QAPP. Revised QAPP will be shared with the Steering Committee once approved by EPA.
6	August 2022 – January 2023	Roll out of the BMP Opportunity Analysis with support to local stakeholders on the data tools produced to support planning of projects to implement the CWIP. (p.21)	Web-map with report generator. Written and recorded tutorial.	Act 1	Preliminary BMP opportunity data was re-run using the latest land use and land cover data. Web tools are being updated with results. This data is being shared within local GIS resources as well as a regional tool.
7	June 2023	Updated draft of Audit Framework to SC for review and comment. The Audit Framework is the development guide for tracking and validating data through FieldDoc. It will be used to ensure that projects being tracked towards the Conowingo WIP are being implemented as reported and do not overlap with other BMPs being tracked for jurisdictions' WIPs. This framework will help CBP staff and CWIP steering committee members understand how an automated and semi-automated series of audit steps can increase accountability and lower verification costs, as they will be compatible with existing CBP validation requirements. It will also align with BMP Verification programs through state offices/EPA. (p.47)		Act 3	The audit framework will be revised and shared with the Steering Committee pending feedback on data validation and BMP verification protocols.

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Action Item	Target Date	Milestone (WIP page reference)*	Deliverable	Lead Agency	Progress Report
8	Early 2022	Establish CWIP tracking and monitoring process; ensure coordination with jurisdictions' WIP 3 tracking processes. (p.47)	CWIP Project tracking module in FieldDoc; reporting alignment with NEIEN in place.	Act 3	Ongoing conversations with jurisdictions due to the updates to the finance and implementation plans. The tracking and monitoring process will change over time depending on the financing strategy. Grantees will remain on board and flexible to adapt the process. In November 2022, conversations with each jurisdiction and EPA are being held to ensure full awareness and set expectations.
9	Summer/Fall 2022	Implementation of new features/services necessary for Audit Framework in FieldDoc.		Act 3	Complete. Presented to the Steering Committee on August 1, 2022.
Fostering Innovation					
10	Ongoing	Explore financial innovations, including pay-for-performance options and private-public partnerships. (p.45)		Act 2	This milestone is in progress and nearing completion. The SRBC RFP process will focus primarily on establishing pay-for-performance processes, specifically as it relates to the implementation of structural practices. This in turn will incentivize if not require effective engagement with the private sector, specifically private capital.
11	Ongoing	Explore contingency plans and opportunities as needed. (p. 48) Re-evaluate Tier II BMPs that are currently under expert review (p.26)	Annual report; re-running CAST scenarios as needed.	Act 1, CBPO	Ongoing review of initiatives to close science gaps related to dredging behind the Conowingo dam, freshwater mussel restoration, and manure treatment technologies as viable and creditable BMPs. The National Fish and Wildlife Foundation hosted a Freshwater Mussel Workshop. As of January 12, 2023, two committees focused on species conservation will be formed to examine biodiversity conservation and water quality improvements. An EPEG is being established for Conowingo dredging, as well as model scope/development by MD and USACE. MDE's Sediment Characterization and Innovative and Beneficial Reuse Pilot testing is complete and the report was finalized in May 2021.

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Identifying and Building Partnerships					
12	Ongoing	Forming, tracking, and developing cooperative or informal agreements with partners in the Susquehanna River watershed to further CWIP goals and implementation. (p.13)		SC, Act 1,2,3	Three meetings have been held with the Octoraro Watershed Association (OWA) and other interested parties in the watershed to form partnerships and discuss project and funding opportunities. OWA is interested in partnering and learning more about funding opportunities. Cecil County has completed a Watershed Assessment to identify potential projects. In New York, collaboration has been targeted towards the Upper Susquehanna Coalition (USC). In 2023, Pennsylvania will provide funding to SRBC to assist with grant writing and furthering opportunities for innovative solutions through the Chesapeake Bay Program Partnership like Acid Mine Drainage (AMD) and freshwater mussels for water quality.
Pilot Project Development and Implementation					
13	Winter 2023	Identify and scope/ one or more implementation pilot projects to achieve numeric CWIP goals.		Act 1, 2, 3	Funding opportunities have been identified prior to soliciting for a project, and a two-level framework was developed for CWIP implementation. Maryland has allocated \$25M in the Capital Budget. Pennsylvania is exploring the use of the Clean Water Procurement Program through PENNVEST. And, New York is targeting \$500,000 to the Upper Susquehanna Coalition. PA, MD and NY have met to coordinate the approaches for Pay-For-Success project implementation. Identification of projects is being refined through implementation targeting in cooperation with the Steering Committee and the BMP Opportunity Analysis tool to narrow targeting within the most-effective basins, as identified in the CWIP, to identify locations where a pilot project may be implemented and necessary funding/resources pursued. A CWIP Implementation Framework (attached via link) was developed that establishes a two-tiered implementation process of Smaller-Scale Pilot watersheds using traditional grant programs in addition to Broader Scale State-wide pay-for-success implementation efforts with SRBC and PennVest.

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Securing CWIP Funding					
14	Ongoing	Identify and secure one or more funding sources for CWIP implementation over the 2-year milestone period, as well as continuing current partnership CBRAP support of CWIP.		Act 2	This is near complete. SRBC and the State of Maryland are finalizing the MOU that will result in \$25 million in investment in the Susquehanna watershed. New York has committed \$500,000 of funding for the USC and the majority of the CBP jurisdictions have committed to continue to contribute CBIG/CBRAP funds to CWIP implementation. SRBC is offering a Consumptive Use Mitigation Grant Program for up to \$5 Million annually to projects that could be used for CWIP implementation, per the March 21, 2022 letter .
Outreach/Engagement					
15	Spring 2023	Providing support to stakeholders to support implementation and the tracking verification and reporting. (p. 22)	Up to 12 training sessions. Written and recorded tutorial.	Act 1, 3	These training sessions will be scheduled to occur virtually and, when possible, in person across the Susquehanna River watershed. Invitees may include, but are not limited to, CAP coordinators in PA, Agency staff from the three implementing jurisdictions, and members of the Financing Authority (or proxy).
16	Fall 2022	Annual progress report, due to EPA on January 15, 2023. (p. 48)	Annual progress report	Act 1, 3	Draft progress report distributed to Steering Committee Members on November 18, 2022 and discussed at the Steering Committee meeting on December 12, 2022. The progress report will be submitted to EPA by January 17, 2023.
17	Summer/Fall 2023	Reconvene stakeholders to evaluate progress and make recommendations on the next set of two-year milestones due January 15, 2024. (p. 22)	Up to 12 stakeholder meetings	Act 1, 3	Continued engagement with stakeholders will occur in 2023. Specific engagement strategies will be guided by Steering Committee members from each jurisdiction involved with implementation. The Steering Committee Co-Chairs meet weekly to discuss CWIP progress. The weekly meetings include staff from the Chesapeake Bay Program, the EPA Grantees, and others as needed based on the topics of discussion. MDE has launched a dedicated website for Conowingo Dam impacts and updates.

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Numeric Milestones					
18	December 2023	Implement practices sufficient to reduce at least 25% of the nitrogen reductions identified in the CWIP, or 1.675-million pounds.		CWIP	Funding is in place to begin soliciting projects through a pay-for-performance model to target the reduction of 25% of the nitrogen reductions identified in the CWIP.

EPA Evaluation of the Conowingo 2022-2023 Milestones

The Key Areas to Address in the 2022-2023 Milestone Period are discussed below.

EPA Comment	EPA Evaluation Comment	Progress Report
	Programmatic Review	
1	Provide further details on how specific restoration investments will be identified as part of SRBC serving as the financing authority for the CWIP and two-year milestones.	SRBC will solicit, review, assess, and select proposals for projects in accordance with criteria developed by funding agencies. SRBC will administer the funds received from any state that provides funding and enter into Pay-For-Success contracts with Project Sponsors. To date, Maryland and New York have identified dedicated funding for CWIP projects and Pennsylvania is considering doing the same.
2	Provide further details on the process by which SRBC will manage funding for CWIP and two-year milestone implementation, including project selection and oversight.	SRBC will manage the funding by: <ul style="list-style-type: none">• Selecting projects based on lowest cost reduction per pound of nitrogen, and located with most effective basins• Establishing Performance Metrics that measure the quantity and quality of environmental outcomes• Developing a verification processes that define who, how, and when performance is assessed The Pay-For-Success project will contain: <ul style="list-style-type: none">• Outcome-Based Payment Terms• Project Utilization Clause that restricts the use of nutrient-based environmental outcomes to only those Pay-For-Success Projects that are attributable to Maryland’s commitment under the CWIP

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EPA Comment	EPA Evaluation Comment	Progress Report
3	Provide further detail on whether the implementation pilot project(s) is intended to achieve the numeric commitment of achieving at least 25 percent of the nitrogen reductions identified in the CWIP.	The Pay-For-Success project selection criteria are designed to solicit the most cost effective load reductions and only offer payment upon demonstration of success, which will ensure optimal success of the implementation pilot project(s).
4	Clarify whether identifying and securing one or more funding sources for CWIP implementation over the 2022-2023 milestone period and identifying and scoping one or more implementation pilot projects to achieve numeric CWIP goals are separate activities or interrelated.	The activities of securing funding and identifying project are absolutely interrelated given the frequent need to match specific project activities to appropriate funding sources given the range of eligibility and conditions surrounding appropriate use of various funding streams.
Expanding Partnerships		
5	Provide additional detail on which local stakeholders will be targeted for engagement within the Susquehanna Basin and their roles in BMP implementation, tracking, verification, and reporting.	We are aware that committee members have indicated some priority will be placed on identifying stakeholders to assist with implementation in several watersheds within most-effective basins, and those possibly with more interstate significance (i.e. Octoraro Watershed).
6	Clarify whether the annual progress report due to EPA on January 15, 2023, will reflect progress on BMP implementation data and/or updates on implementing the programmatic commitments under the CWIP and two-year milestones.	This progress report is the response to EPA's Evaluations on the two-year milestones and the annual progress report due on January 17, 2023 which reports on implementation and programmatic commitments.
Fostering Innovation		
7	Provide further details on how financial innovations will be explored (e.g., the role of pay-for-performance in two-year milestone implementation) and which private-public partnerships could be targeted for engagement.	Criteria for awarding pay-for-success contracts will emphasize innovative financing and greatest return on investment in terms of nitrogen reductions. Projects with co-benefits will also be encouraged in the interest of fostering new public-private partnerships.

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	Numeric Review	
8	While there is a commitment to implement practices to reduce at least 25 percent of the nitrogen reductions identified in the CWIP, or 1.675 million pounds of nitrogen, there is no detail on which practices will be targeted for implementation, the specific geographies in which implementation will occur, and the local stakeholders involved in the implementation efforts.	Practices will be among those already recognized and employed in CAST, and listed in the CWIP document as possibly priority practices; the Pay-For-Success solicitation in particular will target those practices that can be shown to have the greatest potential nitrogen reduction before 2025 at the lowest cost. Preferred projects will likely be located in Most-Effective Basins, with a particular emphasis on the Octoraro Creek watershed, within which there reside several active stakeholders.
9	There is currently no funding in place to support BMP implementation to achieve at least 25 percent of nitrogen reductions within this milestone period.	There is \$25M from MD and \$500,000 from NY dedicated for CWIP implementation. Without having targeted projects, we are not able to project the nitrogen reduction at this time. The Pay-For-Success and private-public partnership focus is designed to attract the most cost effective reductions possible, which will help the \$25M investment yield more favorable progress towards meeting the reduction goal.