Lancaster
CLEAN WATER PARTNERS

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January 20, 2021
Re: Lancaster Clean Water Partners Conowingo Watershed Implementation Plan Comments

Conowingo Watershed Improvement Plan Steering Committee,

The Lancaster Clean Water Partners would like to thank you and your team for conducting the recent comment session regarding the proposed Conowingo Watershed Implementation Plan (CWIP). It is our understanding that the development of the CWIP BMP implementation strategy will determine the direction and structure of the funding plan so we are providing our comments with that order in mind. We hope that these comments will be helpful to your Steering Committee in developing its implementation, finance, and monitoring strategies.

The first two comments are observations about potential pitfalls that we hope can be avoided by working together. Either pitfall alone is of concern, but the possibility that they might amplify each other is also possible and problematic. It was encouraging to hear recognition of them in the presentation, but we want to make sure the Steering Committee fully grasps the significance from our perspective. The third comment is a practical recommendation that could help address our concerns but stands on its own, nonetheless, as a great opportunity for your multi-state WIP to address.

1. We have a concern that there will be an expectation of Lancaster County in the CWIP, and that in Lancaster County, at least, you may not be able to achieve your N reduction objectives with the limited opportunities that have not already been identified by our Countywide Action Plan (CAP). This plan, developed to support the Commonwealth's WIP and address the responsibility for the 21% of the entire state's N reduction allocated to Lancaster County, uses a reduction strategy that includes many of the BMPs you identify.

The CWIP draft approach raises additional concern since your stated objective is to pursue the highest ROI BMPs. This is precisely the approach we are utilizing with an added caveat. We don't get to choose only the highest ROI approaches; we have 60 (+/-) BMPs in our CAP. Part of our ROI assessment is not only to achieve our CAP reductions but to achieve "Clean and clear water by 2040." To the extent that there is additional work required in the county to achieve the CWIP reductions a collaborative, coordinated approach must be established. Absent of that approach, the likely outcome is an inefficient competitive framework that will undermine our current efforts. We strongly recommend that the Conowingo WIP not be implemented at the expense of local pre-existing programming and planning goals.

2. Related to this concern is the possibility that as you develop financing strategies for the CWIP, potential and committed funds available to Lancaster (and the rest of the watershed) might be siphoned away from existing efforts. Currently, we have an abundance of projects for which we are seeking funds but the financial need is well in excess of available resources. Recognizing this reality, we continue to

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develop our own financing strategy that is less dependent on state and federal agencies. It's easy to imagine how CWIP's need for $53 million will compete and/or cannibalize our need for at least an additional $50 million annually we have determined is required to fully implement our CAP.

There is a potential double-whammy: If the CWIP financing strategy effects a redirection of some of the funding we might have received, it will reduce opportunities to fund projects we need to achieve our WIP. As you go after the highest ROI projects, we could have fewer opportunities to compete and our CAP could be left with the lower priorities - projects with less impact at a higher cost - and unable to achieve our goals. Hopefully you understand how the best intentions could go very wrong.

3. One way to collaborate and avoid the referenced adverse consequences is to work in a common area that provides a high potential ROI and addresses a significant policy and practice gap in Bay Program crediting. We see dam removal, associated legacy sediment and nutrient reductions, and restored ecosystem service opportunities provided by these targeted restoration projects as a potentially significant area that would help achieve CWIP and Lancaster County goals without unnecessary competition. We know:

A. The State of Maryland has a pilot project to examine the efficacy of dredging and repurposing sediment behind the Conowingo dam with the potential for having this become a credited BMP by the Bay Program. We think that local dam removal and aquatic resource restoration practices and policies should be examined by the Bay Program as a prevented sediment, nutrient reduction, and change of land use crediting opportunity.

B. Seven Pennsylvania counties in the lower Susquehanna watershed mapped by the Water Science Institute and Franklin and Marshall College researchers contain over 1,400 historic milldam sites. Lancaster County alone has nearly 400 milldam sites and many of these sites contain fine sediments overlaying hydric soils that indicate wetland restoration and floodplain reconnection opportunities contemplated in the draft CWIP. These sites cause thousands of miles of stream impairments and thousands of acres of floodplain wetland impairments that represent a legacy of local pollutants. Targeted restoration of these local watersheds is a cost-effective investment for long term, sustainable water quality and other aquatic ecosystem benefits that eventually benefit the Chesapeake Bay itself.

C. Many of these milldam sites contribute to local erosion hot spots that under extreme weather conditions create hot moments of high sediment and nutrient load. Historic dam breaching and failures create hot moments that can last for many years and remain as hot spots of erosion for decades. Penn State University, using long term data from the existing watershed gage monitoring system, has recently released a study identifying the targeting of hot spots during hot moments as a viable component of restoration strategies for the Chesapeake Bay. Current dam removal efforts also should be a significant component in considering this approach.

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D. In 2018, one milldam removal from a local watershed is annually releasing 3-4 tons per FOOT of bank sediment and attendant N and P from a 1,400 foot length of stream behind the dam site. Using CAST, it was modeled that to offset approximately 5,000 tons (10 million pounds) of erosion in Lancaster County would require the implementation of 3,100-3,500 acres of riparian buffer.

E. A proposed milldam removal scheduled for 2021 has an estimated 80,000 tons of sediment that could begin to mobilize following removal creating another hot moment and long-term hot spot. Several other milldams in the County are now under active discussion for removal. Sediment analysis for the proposed project shows that each ton of sediment contains 3.9 lbs. of N and 1.25 lbs. of P. This is a typical ratio not only for Lancaster County but throughout the seven counties mapped and in other parts of the lower Bay watershed.

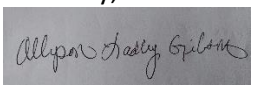
F. The long-term release of this sediment from dam removals is not contemplated in CAST modeling and the practical effect is that even the most cost effective upland BMPs may have many of their conservation benefits offset by bank erosion associated with dam removals, reducing the targeted reduction goals of the state TMDL. In other words, CWIP could be 100% successful installing high ROI BMPs, nevertheless downstream reductions at the Conowingo Dam would still not be met. The Pennsylvania Department of Environmental Protection, as well as State Conservationist for NRCS, have recognized this policy disconnect and are providing funding and technical support to develop more holistic dam removal and aquatic resource restoration projects. This approach is supported by a range of agencies and organizations including the Susquehanna River Basin Commission and Lancaster Clean Water Partners.

Conowingo WIP is uniquely positioned to raise this issue and work towards reducing the impact of these legacy dams and sediments as part of an overall strategy to meet its goals. Our view is that it makes far more sense to reduce these sediments and nutrients closer to their source than to focus on downstream dredging or pursuing BMP funding that competes with existing county requirements.

We have invested heavily in building a cooperative partnership in Lancaster. With this approach, Lancaster County's partners could be an active partner in the Conowingo WIP process. It certainly would pose some difficulties at the outset, but we believe that the time is right to elevate the issue and that by working together the obstacles can be overcome.

We appreciate your consideration of this approach as you develop the next phases of the CWIP strategy.

Sincerely,



Allyson Gibson
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