

Conowingo Watershed Implementation Plan
BMP Opportunity Analysis Comment Response
Version 1: February 2024

1. CWIP BMP Opportunity Analysis Notes: PA DEP				
1a. Tool Feedback				
#	Received	Commenter	Comment	Response
1a.1	1-24-24	PA DEP	<ol style="list-style-type: none"> 1. Is this supposed to be used for planning on a farm scale or watershed scale? <ol style="list-style-type: none"> a. The purpose should be clearly stated in the instructions or background section of “About” button on the tool. The following should specify scale of use: <ol style="list-style-type: none"> i. <i>“This tool was created to help local practitioners plan for restoration activities and collect information that will be helpful to create proposals to apply for the funding available through SRBC.”</i> b. I do not believe that it is offering more information than what is available by looking at aerials or other data layers for planning at the farm scale. (There is no value add here, except for the very green technician). 	<ol style="list-style-type: none"> a) This tool is intended to be utilized for county and watershed level planning, but may also be utilized by local practitioners. New revised language will be included: <i>“This tool was created to help planning efforts at the watershed and county scale by quantifying and geographically locating potential opportunity areas for a suite of BMPs. This tool is intended to help local practitioners plan for restoration activities and collect information that will be helpful to create proposals to apply for the funding available through SRBC.”</i> b) The BMP opportunity acreage summaries at both the county and parcel scale will provide valuable information that cannot be gained by only viewing aerial imagery.

1a.2	1-24-24	PA DEP	<p>1. Regardless of the scale of use, there are significant inconsistencies that should be addressed before going live. Those are as follows:</p> <ul style="list-style-type: none"> a. Annual cropland practices layer includes acres that are pasture or forest, likely a consequence of incorrect land use designation in the 2017/2018 high res land use. b. Prescribed grazing layer includes acres that are crop, forest, hay, and orchard, likely a consequence of incorrect land use designation in the 2017/2018 high res land use. c. Potential areas for barnyard runoff areas were frequently missed: d. Barnyard runoff control layers are picking up industrial sites: e. Urban forest planting is being recommended in non-urban areas. 	<p>We are working to address issues through additional review of BMP opportunity datasets and to note through a disclaimer that errors in the land use data from which these BMP opportunity datasets are derived may potentially influence the accuracy of results. The 2020 Census Designated Urban Areas boundaries will also be applied to all agricultural practice opportunity parcels to remove any that fall completely within these boundaries.</p> <ul style="list-style-type: none"> a) The footprint area for annual cropland practices will be added to the tool to help visualize why certain parcels were flagged as opportunities. b) The footprint area for prescribed grazing will be added to the tool to help visualize why certain parcels were flagged as opportunities. c) The analysis for this practice was limited to potential opportunity areas found within 300ft of waterways. This constraint was added in order to limit the large total number of opportunity parcels that would then need review; something that would not be feasible within the project budget. Identifying opportunities that were closer to waterways was also inferred to have a greater impact on potential surface runoff reduction. Additional review is being conducted to identify any missed opportunities within the 300ft buffer zone. d) Additional review has been
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				<p>conducted to remove industrial sites.</p> <p>e) The 2020 Census Designated Urban Areas boundaries will be applied to remove any opportunities that fall outside of these areas.</p>
1a.3	1-24-24	PA DEP	<p>Is there an option to export BMP potential implementation amounts by sub-watershed? County? Without it, watershed-wide planning will not possible.</p>	<p>Potential implementation amounts will be available for download by county as Excel tables.</p>
1a.4	1-24-24	PA DEP	<p>This does not consider existing practices as an input, so the sum potential of BMP implementation is undoubtedly overstated.</p>	<p>A disclaimer will be included specifying that the BMP opportunity analysis does not account for already existing BMPs, so total opportunity numbers may potentially be less than reported. Existing BMP locations are currently difficult to access due to privacy concerns. BMP opportunity datasets will be available for download for those users who have existing BMP location datasets and would like to do further analysis to update the BMP opportunity dataset where there are already BMPs implemented.</p>
1a.5	1-24-24	PA DEP	<p>How was the decision made to focus on the counties that were chosen to analyze for BMP potential? Is the plan to expand it to the entire WS above the Conowingo?</p>	<p>Publicly available parcel datasets were utilized for the BMP opportunity analyses. Unfortunately some counties do not provide publicly downloadable versions of their parcel files, which limited the analysis area. If these files were to become available, the analysis could potentially be expanded to missing counties in the future.</p>

1a.6	1-24-24	PA DEP	Detailed methodology on Annual Cropland: No consideration for if manure is applied (for A-17 Manure Incorporation or timing)	The BMP opportunity area analysis sought to identify potential areas where this specific practice could be implemented as visible from aerial imagery. Factors that could not be mapped from imagery were not included.
1a.7	1-24-24	PA DEP	Detailed methodology on Barnyard Runoff Control: No consideration for animals on site?	While signs of livestock activity can occasionally be seen in aerial imagery, this metric was not able to be accurately mapped at the time of this analysis for the entire geography. Other metrics were relied on to identify likely locations where this practice could potentially be applicable. A disclaimer is included in the tool documentation that potential opportunity areas are not ground truthed and must be verified by experts on the ground.
1a.8	2-23-24	PA DEP	How does this tool provide a value add over local restoration planning tools with similar datasets?	While there may be overlap with local tools, the intention of this resource is to provide a broad standardized resource across the entire Susquehanna watershed. The addition of context layers (e.g. Justice40) will help grant applicants build compelling proposals for implementation funding, which may be helpful for those watershed regions that do not have a local restoration planning tool customized to their needs. For those regions that do have highly customized local tools, the BMP opportunity datasets will be available for download if local groups would prefer to incorporate this data into their existing systems. A tutorial document with examples of how this tool could be used will be included.

1a.9	2-23-24	PA DEP	PA has comprehensive data about existing BMPs. It would be helpful to exclude properties that have existing BMPs and only show places with true opportunities. Privacy restrictions with existing BMP data is preventing us from using this for planning, and is something that needs to go up the chain of command.	The challenge is that the data available with existing BMPs is protected for privacy. If we can get access to that data, one option would be to do an overlay analysis and exclude properties without providing information about existing BMPs. Alternatively, BMP opportunity datasets will be available for download for those users who have access to restricted information and want to do the overlay internally.
2. MDE Comments on the BMP Opportunity Analysis Web Viewer				
2a. Property Ownership				
#	Received	Commenter	Comment	Response
2a.1	2-21-24	MDE	Is this tool intended to be used by local practitioners to identify and contact land owners? If that is the intent, are local practitioners the contractors who will be paid to construct projects, or local watershed groups that are working to connect landowners to contractors? Will the tool be able to support an outreach strategy that relies on “trusted messengers”?	The tool is intended for local practitioners, which will primarily be local watershed groups but is not limited to them. This could be used by groups that are interested in implementing pay-for-performance contracts.
2a.2	2-21-24	MDE	Although ownership is already available in public databases, do you anticipate any concern from private landowners that their information will be publicly available for the purposes of BMP implementation opportunities? If so, is there a	Currently this tool is not planned to be shared with the general public. We can make the tool password protected if necessary.

			way to only allow access to this information to certain user groups, such as government agencies or watershed commissions?	
2a.3	2-21-24	MDE	How up to date is this information? Properties get sold frequently and new owners may not be available. Should this be included in the disclaimer?	Data sources and limitations of parcel information will be noted in a disclaimer.
2a.4	2-21-24	MDE	Would it be useful to provide property ownership type categories: federal, state, local government, corporate, private? Type of ownership may influence the ease of obtaining access rights.	Currently an official 2022 USGS protected lands dataset is included in the tool for reference. This dataset includes information on federal, state, and local ownership.
2. MDE Comments on the BMP Opportunity Analysis Web Viewer				
2b. Data				
2b.1	2-21-24	MDE	Adding relative effectiveness values to the attributes would provide a fuller picture of what opportunities are more desirable and should be targeted.	This could be a useful value add for future consideration.
2b.2	2-21-24	MDE	Adding all parcel data (e.g., parcel ID, property owner, the relative effectiveness value, land-river segment, state) to the BMP data table can increase its usefulness by providing more filter options and easier access to groups of data.	Parcel information (ID, address, owner) are being added to the tool where available.
2b.3	2-21-24	MDE	Is there a reason that certain counties are excluded in Maryland and Pennsylvania (e.g.,	There were barriers to obtaining the parcel data for these counties. If these datasets become available in the future, we could

			Cecil County)? In addition, the peripheries of the watershed seem to have fewer parcels identified. Including all counties would provide greater BMP opportunities. Can these areas be added so that the entire watershed can be considered? Are there barriers to obtaining these data?	potentially expand the analysis for missing counties.
	2-21-24	MDE	Will BMP implementation below the Conowingo Dam be credited toward progress to meet the necessary load reductions?	Please refer to the Geographic Extent of the Primary Conowingo WIP Strategy from the CWIP document page 35.
	2-21-24	MDE	Context layers provide valuable information, but MD and NY are missing some layers. For example, "Integrated List of Non-Attaining" and "High Quality Streams" are not included. Are there ways of obtaining and including this information?	Yes, available datasets can be incorporated into the tool.
	2-21-24	MDE	MDE also has a Maryland-specific EJ Screening Tool. Could this be included? https://mde.maryland.gov/Environmental_Justice/Pages/EJ-Screening-Tool.aspx .	Yes
	2-21-24	MDE	Some BMPs are identified by a minimum acreage or contiguous area. Do these include areas that cross property lines, so that even if one parcel does not meet the criteria, it is still included if adding the adjacent property results in	Yes, that is the current approach.

			reaching the minimum?	
2. MDE Comments on the BMP Opportunity Analysis Web Viewer				
2c. Land Use QA/QC				
#	Received	Commenter	Comment	Response
2c.1	2-21-24	MDE	<p>There are some land uses and BMP opportunities that do not seem to be aligned based on a review of imagery. Below are examples for consideration.</p> <p>Prescribed grazing</p> <p>Some properties should not be targeted for prescribed grazing due to their current use. Could there be a method by which parcels we deem not viable for certain BMP suggestions be identified and revised (e.g. Eden Mills Park in Harford County)?</p> <p>Some Prescribed Grazing opportunities are identified on parcels that have total forest cover. This leads to an overestimation of the potential BMP usage in the watershed.</p>	<p>Currently an editable feature is not available in the web tool. The tool will include disclaimers about potential errors that may have carried over from the land use data.</p> <p>The entirely forested parcel may be a multipart parcel where other connected polygons contain the real opportunity area. We will add prescribed grazing footprints to help users identify locations of focus within parcels. Noting that acreages for BMP opportunity are calculated off of the opportunity footprint within the parcel and not the parcel area itself.</p>
	2-21-24	MDE	Urban Forest Planting	Opportunity parcels will be limited to those that overlap 2020 Census Urban areas. An

			<p>BMP opportunities are often not in urban or suburban areas. In addition, some parcels look currently forested.</p> <p>There are little to no opportunities in urban hubs in PA (e.g., Harrisburg, York). There are suburban areas in Harford County MD that are suburban and do not have this BMP as an option. Is this because the parcels are too small?</p> <p>We suggest making sure the areas that are being assigned as Urban Forest Planting are not being misassigned due winter foliage loss in already existing forested areas.</p>	<p>error was discovered in one of the intermediate steps of the workflow which is being corrected. There will be more areas of urban opportunity with the corrected dataset.</p>
	2-21-24	MDE	<p>Vegetated Buffers</p> <p>Vegetated Buffer opportunities are very sparse in northern PA. Is this accurate?</p> <p>Can a BMP be applied where there is already existing forest cover present? Or is it that the BMP can be applied to a very small area within the parcel? (e.g., Broad Creek Park in Harford County MD).</p>	<p>The counties in northern PA did not have available parcel data and were not included in the tool. If you turn on the vegetative buffer opportunity footprint layer, you will see that there is a lot of opportunity throughout the northern region.</p> <p>Broad Creek Park is an example of a land cover error. Disclaimers will be included in the tool to alert users to potential errors in the opportunity area estimated.</p>
	2-21-24	MDE	<p>Annual Cropland Practices</p> <p>Some BMP opportunities seem to be</p>	<p>2020 Census Urban Areas will be utilized to filter agricultural practices.</p>

			misassigned to urban areas.	
	2-21-24	MDE	<p>Barnyard Runoff</p> <p>Opportunities seem to be misassigned in some areas such as urban and suburban areas that do not have farms but do have open grasses (e.g., SCI Camp Hill Prison in Harrisburg PA).</p> <p>Rural spot checks are assigned more accurately but still seem to have some misaligned opportunities.</p>	2020 Census Urban Areas will be utilized to filter agricultural practices.

2. MDE Comments on the BMP Opportunity Analysis Web Viewer				
2d. User Experience				
#	Received	Commenter	Comment	Response
2d.1	2-21-24	MDE	<ul style="list-style-type: none"> • The “Zoom To” has a list of 7 maps to choose from. Can this all be consolidated so the user does not have to click through each map to find the right one? • What is the difference between Zoom To and Show on Map? And what function does Pan To provide? • Under Actions, there are a number of options under All Data which do not seem 	These items will be updated in the tool.

			<p>applicable (e.g., Zoom To). Would the only applicable action be Filter?</p> <ul style="list-style-type: none"> • The Select Tool is challenging to use. The preset option “partial or completely within” selects the entire watershed and is not usable. “Completely contained by” is also challenging to use because the user has to zoom out to a scale so that parcel(s) that the user is trying to select can be fully surrounded. In this way it is often challenging to just select the one area of interest. • Reminder - add the links to the documentation and tutorials to the About summary when finalized. • In the data and methods document, the links to the CAST BMP Guides link to redirect pages. Is it possible to revise these to the direct link? 	
3. NYDEC Comments on BMP Opportunity Analysis Layers				
3a. General feedback				
#	Received	Commenter	Comment	Response
3a.1	2-23-24	NYDEC	What are the opportunities to keep parcel data updated?	Currently the tool does not have dynamic parcel update capability. It is recommended that the user verify parcel information against updated local resources.

3a.2	2-23-24	NYDEC	Properties like power lines and airports are showing up as urban tree planting. New York has data that includes land use information that could help with this.	We will exclude these properties where possible.
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