



MDE Guidance for Stream Restoration in Stream/Wetland Complexes

Frequently Asked Questions

What is the purpose of the assessment and guidance?

The assessment and guidance were developed for use with stream restoration projects proposed for Chesapeake Bay TMDL nutrient and sediment reduction credits.

MDE will use the assessment and guidance to better ensure that restoration projects are designed in a manner which protects aquatic resources that may be present or dependent on the site. Early identification of areas associated with certain aquatic or wetland wildlife resources is an important tool in better ensuring that restoration projects protect aquatic and wetland-dependent species.

While the assessment and guidance were developed for TMDL projects, they may have utility for practitioners documenting degradation and designing other restoration projects for ecological system improvements.

Why are the assessment and guidance needed?

A watershed implementation plan (WIP) has been approved for the Chesapeake Bay, and the State of Maryland and its local jurisdictions must meet waste load allocations to reduce nutrients and sediment. An updated WIP is also being developed for the Coastal Bays. There are certain practices in these plans (stream restoration, shoreline stabilization, and wetland restoration) which often require MDE authorizations, and hundreds to thousands of additional applications are anticipated over the next few years.

MDE believes that restoration and enhancement should recognize the integrated nature of streams and associated wetlands and floodplains. This assessment and guidance is intended to improve site selection, design, and decision making to better achieve this consideration of an integrated resource and resulting outcomes. The assessment is the first of its kind that we are aware of, which includes both substantial stream and riparian/wetland metrics. Most assessments focus on one or the other resource, but not both.

The degradation of a stream channel is not always matched by the same level of degradation in the floodplain/riparian area, particularly for those wetlands sustained by high groundwater levels. Due to these characteristics, the level of degradation in the channel is not necessarily matched by the same level of degradation in the adjacent wetlands. The wetlands may still show functioning existing habitat and may still be sustained by groundwater, with some lowered levels, depending on the size of the stream and its access (or lack of access) to the adjacent wetlands. MDE pursued development of this guidance so that stream restoration projects can receive TMDL credit, while not resulting in unintended adverse consequences to the functioning riparian area. It is the intent of the guidance to maintain or improve those areas which function well, despite adjacency to a degraded stream. In these cases, disturbance to the riparian area should be minimized to accomplish this goal.

Where is it used?

This assessment and guidance is tailored to the Western Shore Coastal Plain. Additional guidance, which is anticipated to be completed in 2023, is under development for the Piedmont region and lower Eastern Shore Coastal Plain.

Are these new requirements?

No. The assessment and guidance are refinements to what is already required. Specific use of this assessment is not mandated for applicants, however, in 2021 MDE began requiring a formal assessment of wetland or upland floodplain condition, and a description of measures to avoid or reduce tree loss for MS4/Chesapeake Bay TMDL stream restoration projects.

Justification for adverse impacts and minimization of impacts are required for all proposed regulated activities in nontidal wetlands under MDE authorities.

How is the guidance incorporated into the permit process?

The assessment and guidance are tools in the broader permitting and decision making process. MDE will be using this assessment and guidance as tools in our decision process, therefore, we encourage the use of these methods and practices in site selection and design decisions.

We believe that following this guidance will help reduce delays in the permit process due to concerns about resource tradeoffs.

How will the release of this new guidance impact a project already in the design or application phase?

The assessment and guidance are refinements to the existing review process, which requires justification for adverse impacts and minimization of impacts for all proposed regulated activities. While specific use of this assessment is not mandated for applicants, MDE began requiring a formal assessment of wetland or upland floodplain condition and a description of measures to avoid or reduce tree loss for MS4/Chesapeake Bay TMDL stream restoration projects in 2021. It is recommended that projects currently in the design or permitting phase are reviewed for consistency with the guidance and to determine if any elements can be easily incorporated in order to expedite the review process. However, full redesign of existing projects would not be required.

Is this required for mitigation?

No. There is a separate effort underway, led by the U.S. Army Corps of Engineers in collaboration with other State and federal agencies, to develop a stream mitigation calculator as well as a regulatory wetland assessment. These assessments will be used for mitigation, unlike this MDE assessment, which focuses specifically on restoration done at a particular site, with an intended objective of functional uplift while minimizing resource tradeoffs. MDE is attempting to make the assessments as consistent as possible given their different intended uses.

Can I do restoration work outside of the channel?

The extent of restoration activities depends upon the condition of the channel and the adjacent riparian area. High degradation in the channel and riparian area may justify more work in these areas.

Work should be confined to the channel when the channel has limited degradation, and the adjacent wetland/riparian area is in excellent condition.

How much additional time will it take to conduct the assessment?

MDE undertook the project with the goal of minimizing additional requirements upon applicants to complete the assessment. Metrics rely heavily on information already collected during a wetland delineation/determination, as well as what is required for engineering requirements and justification of degradation to qualify as a BMP under Chesapeake Bay TMDL BMP protocols.

Unfortunately, there were insufficient funds and time to create automated forms for data collections and calculations. We hope to do this as part of a comparable project for guidance in the Piedmont and lower Eastern Shore.

MDE has dedicated staff for restoration projects who are available to meet onsite to offer recommendations, including during early planning stages. When agency recommendations are followed, applications can be reviewed more expeditiously.

Will implementation of the guidance cost more?

We believe that there are areas where implementation of the guidance would result in lower costs. These may include: more expeditious permitting with fewer requests for additional information and justification; use of smaller equipment; less clearing and grading; and fewer and/or smaller structures.

Next Steps

This guidance is subject to revision as new information becomes available and user feedback and recommendations are considered. MDE will re-evaluate the assessment and guidance 6 months and 1 year after it is released, based on user feedback, ease of use, and other new information which may become available.

A summary of comments received on the draft guidance and MDE's responses can be viewed here: [Comment and Response Summary](#).

Please contact Danielle Spendiff, Wetlands and Waterways Program, Regulatory and Customer Service Division, with any follow-up questions or input at 410-537-4023 or danielle.spendiff1@maryland.gov.