



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

AUG 22 2019

Mr. Timothy M. Fox
Natural Resources Planner
Maryland Department of the Environment
Water and Science Administration
1800 Washington Blvd.
Baltimore, MD 21230

Dear Mr. Fox:

The U.S. Environmental Protection Agency (EPA) has reviewed the draft "Existing Use Identification Procedures" document last updated July 31, 2018, and provided for review at the August 8, 2019, Maryland Department of the Environment (MDE) Cold Water Advisory Committee meeting. EPA appreciates MDE's ongoing efforts to address and protect existing uses. Please see the attached version of MDE's draft procedure document incorporating the EPA's suggested edits and clarifications.

If the existing use require more protection than the designated use, then MDE should work towards changing the designated use as soon as possible. It should specify that at the end of the document, that once they made an existing use determination, they will consider changing the designated use in the next triennial. It should also be explained that this document only is for upgrading designated use, If the documentation indicates that the existing use requires a downgrade of designated use, MDE will have to do a Use Attainability Analysis. Existing uses must be protected even if they have not been incorporated into water quality standards.

We appreciate your commitment towards protecting water quality and all the work being done on existing uses and the opportunity to comment on this Existing Use Identification Procedures document. EPA Region III looks forward to continuing to work collaboratively towards our mutual goal. If you have any question or concerns, feel free to contact me at (215) 814-5717 or Mark A. Barath at (215) 814-2759.

Sincerely,

A handwritten signature in blue ink that reads "Evelyn S. MacKnight".

Evelyn S. MacKnight, Associate Director
Office of Standards, Assessment and Total Maximum Daily
Loads

cc: Matthew Stover, MDE
Enclosure

Existing Use Identification Procedures

Background and Statement of Purpose

The Clean Water Act (CWA) establishes the statutory basis for restoring, protecting, and enhancing the nation's waters. Under the CWA, one of the fundamental tools afforded to states for managing their waters are water quality standards. Water quality standards consist of the designated uses of a given water body, water quality criteria to ensure that designated uses are supported, and antidegradation policy for maintaining water quality that has already been achieved. States, territories, and authorized tribes may then adopt such water quality standards so as to best describe and protect the uses of their unique water bodies.

Maryland has adopted a use classification system which groups specific designated uses (e.g. aquatic life and wildlife, water contact recreation, industrial water supply, etc.) into a small number (4) of use classes. Each waterbody in Maryland is assigned a use class representing a group of specific designated uses. These designated uses may or may not be currently supported, but should be attainable. These use classes are predominantly differentiated based on the aquatic life assemblage likely to be found in these waters or, in one case (Use Class IV), based on the beneficial use of trout stocking and fishing. Maryland's use classes are described briefly below.¹

- Use Class I: Water Contact Recreation, and Protection of Nontidal Warmwater Aquatic Life
- Use Class II: Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting
- Use Class III: Nontidal Cold Water²
- Use Class IV: Recreational Trout Waters

In addition to defining designated uses as part of water quality standards, the CWA (Code of Federal Regulations (CFR) Title 40 § 131.3(e)) also establishes the concept of an "existing use", one of the foundational principles for antidegradation policy. The CWA defines existing uses as "...those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards". Federal regulations additionally discuss existing uses in 40 CFR § 131.12(a), part of the Code of Federal Regulations that establishes the basis for EPA and state's Antidegradation Policy. Here the regulation asserts that "*at a minimum... (1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.*" Existing uses therefore represent the highest level of use and water quality (necessary to support that use) that has been achieved since 1975. In this manner, existing uses function as the baseline or floor of water quality that must be maintained.

Commented [FE1]: Recommend citing to 131.10(i) in this section, which states, "Where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained." This provision in the EPA's regulations is consistent with MDE's intent to identify and protect existing uses that may be better than currently designated uses, with the ultimate objective of achieving the Clean Water Act goal of restoring and maintaining the integrity of the nation's waters.

¹ Water bodies of any of these use classes may also be given a "-P" suffix to denote that the public water supply designated use also applies.

² Maryland's water quality criteria for temperature, dissolved oxygen, and ammonia are different for cold and warm waters

Maryland's Code of Regulations (COMAR) also address the potential for a water body to have existing uses that are not formally designated in state water quality standards. Section 26.08.02.02 A. explicitly states that "(2) *The actual uses of surface water are not limited to those designated in this chapter. Any reasonable and lawful use is permitted provided that the surface water quality is not adversely affected by the use.*" In addition, Maryland's Antidegradation Policy (Section 26.08.02.04 A.) echoes the federal regulations by saying "*Waters of this State shall be protected and maintained for existing uses and the basic uses of water contact recreation, fishing, protection of aquatic life and wildlife, and agricultural and industrial water supply as identified in Use I.*"

Several aspects distinguish an existing use from a designated use. For example, the existing use of a water body can be lower, higher, or identical to the currently codified designated use for the surface water body since it describes a past or present condition (while a designated use should describe the highest attainable condition ~~or goal for that waterbody to strive for in the future~~). Existing uses can also be expressed in more specific terms than a designated use since they describe an attained condition and are not designed to apply broadly throughout regions of a state.

Recent data have become available which demonstrates that the existing use of some waters is different than the currently codified designated use classification found in Code of Maryland Regulations 26.08.02.08. Specifically, several streams with warm or semi-warm use classifications (Class I, I-P, and IV) have been found to contain naturally reproducing populations of cold or cool-water obligate species. The cold or coolwater species require (and are present because of) the cooler temperatures currently found in the stream. However, the applicable temperature criterion is significantly warmer than the current, site-specific conditions. If permits have Class I-derived temperature criteria limits (or no temp limits) then the Department may not in all cases be ensuring protection of the cold or coolwater obligate species currently present, depending on location and site-specific characteristics.

Commented [FE2]: "Different than" is okay if the existing use is "lower" than the designated use but the designated use is still protecting the existing use. Suggest editing to say "...that the existing use of some waters is better than..." or "...that the currently codified designated use classification found in Code of Maryland Regulation 26.08.02.08 is no longer protective of the existing use in some waters."

In some cases, water temperature readings at such locations meet the class III water quality criterion which thereby provides justification for describing the existing use similar to a class III water. In many other cases, water temperature readings do not meet the Class III criterion and, as a result, the existing use will need to be described differently than a Class III water. The Department previously had a use class redesignation methodology that would have applied in such instances. However, based on EPA recommendations and concerns over the attainability of the water temperature criterion, MDE felt it necessary to reconsider this methodology and take a closer look at how it handles existing use determinations.

The Department decided it needed a transparent set of procedures to follow when determining what the existing use of a stream is in these circumstances. This is important for two main reasons. For one, even in cases where data demonstrates the presence of a reproducing

population of a coldwater obligate species and temperature readings are ~~below~~ cooler than Class III water quality criteria, use class redesignation most often occurs with the Triennial Review of Water Quality Standards (which is completed once every 3 years). This can leave a long temporal gap of protection if such existing use information is not adequately advertised to the appropriate stakeholders. Secondly, existing use determinations can have the same regulatory impacts as designated uses and thus all potentially-affected parties should be aware of such information at the earliest stage possible in the process.

Commented [FE3]: Is MD referring to Tier 1 antidegradation requirements here, and/or something else?

The procedures outlined in this document are meant to be applied when identifying an existing use for a water body that may require cooler water temperatures than those specified (as a water quality criterion) for the water body's codified designated use. The purpose of this document is to not only address the concerns described in the preceding paragraph but to also accomplish the following objectives:

- describe the steps in the existing use determination process,
- establish clear responsibilities and pathways for data submission, communications, and notifications,
- lay out a defined timeline for completing the various steps in the existing use determination process,
- incorporate robust public participation for existing use determinations, and
- ensure that appropriate protections are in place

This document is not intended to determine any specific waterbody's existing use or the scale of any such existing use. That data-driven work and related discussions (as described later in this document) will occur separately on an ad hoc basis as existing use data become available.

The following sections outline the steps used for reaching an existing use determination. In brief, the process entails:

1. The Coordination of Monitoring Activities
2. Documenting an Existing Use
3. Early Notification and Convening of an Advisory Body
4. Summary Rationale and Final Notification
5. Data Gaps and Identifying Monitoring Needs

Coordination of Monitoring Activities

The State of Maryland is fortunate to have many different organizations that monitor the physical, chemical, and biological characteristics of Maryland streams. Though the Maryland Department of Natural Resources and the Maryland Department of the Environment collect the

largest portions of this water quality data, an increasing amount of information is also being produced by non-governmental organizations, local governments, and academia. These additional data sources have been essential to State assessors, allowing for improved spatial and temporal resolution for assessments relating to the Integrated Report, TMDL development, and existing use determinations.

Commented [FE4]: Can citizen science data also be used?

Since existing use determinations can have such wide-ranging effects on the regulation of state waters, the sooner the Department is aware of such monitoring efforts that may prompt an existing use evaluation, the better it can plan for such water quality standards changes and the sooner it can inform regulated entities. Even though such monitoring efforts may not produce any new information that leads to an existing use evaluation effort, being notified early on of the potential may help the State avoid conflicts later when issuing permits or other approvals. To help avoid such conflicts, monitoring activities which have the potential to identify new existing uses should be coordinated (which would largely consist of notification) with MDE's Water Quality Standards Section. The Water Quality Standards Section, in concert with other WSA programs, would then be responsible for communicating the possibility of an existing use evaluation to potentially regulated entities so as to avoid surprises during permit applications and/or renewals.

Commented [FE5]: Can MDE explain up front the types of data that might have this potential, and more detail on how the notification should happen? Would help to provide this clarity to any potential data collectors.

Submitting Data to the State and Documenting an Existing Use

Once data or information becomes available which ~~may indicate~~ demonstrates the potential presence of an existing use that is different than the codified designated use, that information should be submitted to MDE's Water Quality Standards Section for evaluation and potentially distribution to MDE's permitting programs. As with any data used by the Department to support regulatory decision-making, quality assurance and quality control checks must be performed to ensure the data are valid. Thus, for the purposes of determining whether the existing use of a water is different than the codified designated use, MDE requires that data submitted should be collected using protocols that are consistent with "Tier I" data as described in the data evaluation process for the Integrated Report of Surface Water Quality. To read about what is needed for a dataset to be considered as Tier I data please visit Section A.1 of Maryland's Draft 2018 Integrated Report.

Commented [FE6]: Per earlier comment, "different" isn't necessarily a problem. The real concern is where the designated use is not protective of the existing use.

Commented [FE7]: Suggest including instructions for how the data will be submitted or how instructions will go out to the entities collecting data.

For the types of existing use evaluations covered by this document, biological (verifying the presence of a coldwater species) (and hence that the use has occurred or is occurring) and/or water temperature data (and hence the water quality data to support the use has been achieved) are the predominant kinds of data submitted for review. However, to the Department for will review and the Department will consider all available data in determining whether there is an existing use that is different than the water's codified designated use. As a guide for data submitters, the following types of information should be provided with any such submittal. This list notes, in parentheses, whether each data type is mandatory for evaluation.

- Geographic coordinates for station sampled or start and end points for transect sampled (mandatory)
- Date(s) of sampling (mandatory)
- Data collector names and contact information (mandatory)
- Trout species identification and total length per individual (if trout were found)
- Benthic macroinvertebrates identified to genus and counts (if coldwater benthos were found)
- Basic water quality parameters such as pH, dissolved oxygen, etc (if available)
- Water temperature readings taken preferably at 30 minute or more frequent intervals during the summer between June 1 and August 31 (if available).

Commented [FE8]: Also time of day, since that might influence certain parameters?

Commented [FE9]: Suggest explaining why this time period is important.

After the Department receives such data, it will also request information from the Maryland Department of Natural Resources on trout stocking activities in hydrologically connected surface waters. This will help to inform any future discussions concerning the appropriate existing use of that water body.

When MDE receives data related to existing use documentation, a review of those data will be completed as soon as possible with the goal of ten business days or less, after receipt. The results of the review will have three possible outcomes:

1. Data are not considered high quality or do not demonstrate the presence of an new existing use not protected by the current codified designated use. In this case, the Department will not move forward with establishing, identifying and recognizing a new existing use.
2. Data that are submitted are high quality but are incomplete. The Department will respond within five business days to data submitters outlining additional data needs.
3. Data are high quality, complete, and verify the presence of an existing use that is not protected by the current different than the codified designated use. The Department will move forward with identifying and recognizing a new existing use.

When the Department has determined that data are of sufficient quality and completeness, staff will create a data summary and recommendation document to post to the MDE website and to provide to interested stakeholders. Materials including in this document may include maps depicting sampling and/or stocking locations, biological and chemical data summary tables, and text descriptions of the available data and any data gaps that may exist. Along with these summary materials, the Department will also include draft recommendations as to the geographic extent (scale) of an existing use determination and the water quality thresholds that should be met to maintain this existing use.

Commented [FE10]: Is MDE asking for people to collect chemical data as well? Or if you just happen to have these data for a site, you'll post those in addition?

Early Notification and Convening of Advisory Body

Using the summary materials and draft recommendations created in the preceding step of this existing use evaluation process, the Department will provide notification of an existing use to a broader audience including, but not limited to: permitting programs at MDE, other state staff (e.g. State Highway Administration), local government staff, regulated entities, landowners, environmental organizations, and any other potentially interested parties. The primary methods to be used for providing such notification may include an announcement in the Maryland Register, the Department's website and social media platforms, and any other methods as appropriate. This notification will also solicit participation on the ad hoc advisory committee for that particular existing use evaluation with the goal of convening this committee 35 days after the Department's existing use confirmation. This committee will meet one time, in a setting open to the public, to provide comment on the proposed scale and water quality threshold recommendations. An audio recording of this meeting will be saved and made available to the public via the MDE website. Based on the available information and the comments provided at the advisory committee meeting, the scale of the existing use and protective water quality thresholds will be determined by the Department within ten business days after the meeting.

Commented [FE11]: Suggestion that MDE think through and provide some additional detail, such as how many people will be on the committee and how the committee will be selected, who will be selecting the committee and what the responsibilities are of the committee aside from attending the meeting that is open to the public.

Summary Rationale and Final Notification

The Department will create a final existing use determination and rationale document that describes the reasoning and justification behind the final scale determination and water quality thresholds. This existing use determination and rationale document will, at a minimum, include the following information:

- Text and cartographic depictions of the sampling locations and available data
- The stream segments (and associated catchments) that support an existing use that is different than not protected by the currently codified designated use
- The water quality thresholds and mechanisms that will be used to protect the existing use in the interim until either more data can be collected or until the stream can be re-designated as another use class.

Commented [FE12]: This will include a narrative description of the species present and temperatures detected (which could be separate from the selected water quality thresholds)? Will thresholds include DO and pH in addition to temperature?

Commented [FE13]: "Mechanisms" added to potentially consider use of Tier 1 antideg to ensure that permits are written to protect existing uses in the interim.

This document (the existing use determination and rationale document) will then replace the original data summary and recommendation document on MDE's website and will be emailed to interested parties. The Department will also provide notice of the existing use determination in the Maryland Register.

In addition to the final existing use determination and rationale document, the Department will also produce GIS layers so as to update online maps that display the designated use class and existing use of Maryland's surface waters. The current designated use class map can be accessed at:
<http://mde.maryland.gov/programs/Water/TMDL/WaterQualityStandards/Pages/DesignatedUsesMaps.aspx>.

Data Gaps and Identifying Monitoring Needs

Situations are likely to arise where the data record demonstrates the presence of an existing use that is different from that which is designated but for which water quality information or spatial resolution is lacking. Though having a complete data record for an area is preferable, it may not be available in many cases. As the Department and interested parties discuss the issues of scale and water quality thresholds, it will become readily apparent what data needs exist. Throughout the existing use determination process, the Department will keep record of these data gaps and in cooperation with the Department of Natural Resources and other willing partners, will prioritize these areas for follow-up sampling. After such follow-up sampling efforts are completed, the Department may then reopen an existing use evaluation to further refine the scale and water quality thresholds in the final determination and rationale document.

Approximate Timetable for Major Existing Use Process Milestones

Milestone	Day
Data Received by MDE's Water Quality Standards Section	1
Review of Data for Quality and Demonstration of an Existing Use	15 (10 business days after receipt of data)
Early Notification of Interested Parties	20
Convene Advisory Meeting	50
Complete Existing Use Determination and Rationale Document	64 (10 business days after meeting)

