

Cold Water Existing Use Determinations: Policy and Procedures

June 23, 2021



Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd Rutherford, Lt. Governor

Ben Grumbles, Secretary

ACKNOWLEDGEMENTS

The development of this policy and procedures document would not have been possible without the insight and collaboration of members of the Cold Water Advisory Committee. This Committee, made up of individuals from a representative subset of stakeholders, met four times between April and November 2018. The discussions of the Committee and the many comments provided by members and non-members during that time did much to improve the clarity of the process described in this document. We would like to acknowledge both the individuals who served on the Committee as well as others who provided comments or thoughts in the development of this document.

Cold Water Advisory Committee Members

Name	Affiliation
Mark Barath	EPA Region III
Frank Borsuk	EPA
Pat Depkin	MDE – Sediment, Stormwater, and Dam Safety
Yen-Der Cheng	MDE – Wastewater Permitting
Tom Devilbiss	Carroll County Dept. of Land and Resource Management
Erica Fleisig	EPA - Headquarters
Timothy Fox	MDE – Environmental Assessment and Standards
Dr. Robert Hilderbrand	Univ. of Maryland Center for Environmental Science - Appalachian Laboratory
Les Knapp	Maryland Association of Counties
Heather Nelson	MDE – Wetlands & Waterways Program
Todd Nichols	MD State Highway Administration

Name	Affiliation
Lisa Ochsenhirt	Maryland Association of Municipal Wastewater Agencies
Anthony Prochaska	MD Department of Natural Resources
Art Senkel	Trout Unlimited
Matthew Stover	MDE – Environmental Assessment and Standards
Brent Walls	Upper Potomac Riverkeeper

Other Individuals Contributing to the Document include:

- John Backus (MDE)
- Ray Bahr (MDE)
- Matthew Clagett (MDE)
- Lee Currey (MDE)
- Michael Kashiwagi (MD DNR)
- Virginia Kearney (MDE)
- Denise Keehner (MDE)
- Shirley Kirby (MDE)
- Steve Malan (Trout Unlimited)
- Jonathan May (MDE)
- Jennifer Smith (MDE)
- Nicole Voelker (US EPA)

Table of Contents

<u>Statement of Purpose</u>	
<u>Background</u>	7
<u>Coordination of Monitoring Activities</u>	11
<u>Submitting Data to the State</u>	12
<u>Documenting an Existing Use</u>	14
<u>Flowchart Explanation</u>	15
<u>Existing Use Determination and Public Review Procedures</u>	19
<u>Data Gaps and Identifying Monitoring Needs</u>	21
<u>Regulatory Implications and Steps Taken to Reduce Regulatory Uncertainty</u>	22

Statement of Purpose

The policies and procedures outlined in this document are meant to be applied when determining the “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 class. The purpose of this document is to establish a repeatable existing use determination methodology that will be used by the Maryland Department of the Environment (hereinafter referred to as “MDE” or “the Department”) and its stakeholders to protect cold or cool-water existing uses during the intervening time between identifying the presence of an existing use and properly re-designating the use class of the water body (i.e., in Code of Maryland Regulations usually in concert with the Triennial Review of Water Quality Standards). A second and equally important purpose of this document is to better serve the regulated community by making the Department’s processes more transparent, and thereby provide additional regulatory certainty. In so doing, this document describes measures the Department is taking to improve access to information, and to establish more frequent and more meaningful communication mechanisms so that the regulated community can better plan for the protection of cold water communities prior to making major resource investments.

To accomplish these purposes, this document covers the following topics as they relate to protecting cold or cool water existing uses:

- provide background information on existing uses and the regulatory basis for their protection,
- describe the steps in Maryland’s existing use determination process,
- establish clear responsibilities and pathways for data submission, communications, and notifications,
- lay out an approximate timeline for completing the various steps in the existing use determination process,
- incorporate robust public participation for existing use determinations,
- ensure that appropriate protections are in place, and
- outline steps taken to reduce regulatory uncertainty to the maximum extent practicable.

It should be noted that this document is not intended to determine any specific water body’s existing use, water quality, or the scale of any such existing use. Instead, this document describes the overarching policies and process that will be used to identify and protect cold or cool water existing uses.¹ The water body-specific determination of the existing use, water quality necessary to support the existing use, and spatial extent will be captured in a separate

¹ The Department generally assumes that by protecting a cold or cool water aquatic life existing use, other existing uses (e.g., contact recreation, fishing, potable water supply, agricultural water supply, etc.) will not be precluded. However, the Department will gather and encourage stakeholders to submit information when that scenario may not hold true.

water body-specific rationale document (i.e., generally described in the “Existing Use Determination and Public Review” Section).

Background

The Clean Water Act (CWA) establishes the statutory basis for restoring, protecting, and enhancing the nation's surface 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 help ensure that designated uses are supported, and antidegradation policy for maintaining water quality that has already been achieved. States, territories, and authorized tribes adopt such water quality standards into regulations so as to best describe and protect the uses of their unique water bodies. Water quality standards are then implemented through a variety of programs including water quality assessments, Total Maximum Daily Loads (TMDL), National Pollution Discharge Elimination System (NPDES) permits, Water Quality Certifications, voluntary and/or incentive-based water quality improvement projects, and a variety of conservation practices.

Maryland has adopted, into Code of Maryland Regulations (COMAR) section 26.08.02.02, a use classification system which groups several specific designated uses (e.g., aquatic life and wildlife, water contact recreation, industrial water supply, etc.) into four use classes². Each surface 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 they should be attainable and reflect the State's decision as to what uses the State wants the water to attain. These use classes are differentiated based on the aquatic life assemblage which should be found in these surface waters or, in one case (Use Class IV), based on the beneficial recreational use of trout stocking and fishing. Maryland's use classes are described briefly below.²

- 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 Water³
- Use Class IV: Recreational Trout Waters

In addition to defining designated uses as part of water quality standards, the implementing regulations of the CWA, found in Code of Federal Regulations (CFR) Title 40 § 131.3(e), also establish the concept of an "existing use", one of the foundational principles for antidegradation policy. Here, 40 CFR § 131.3(e) 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*

² 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.

³ Maryland's water quality criteria for temperature, dissolved oxygen, and ammonia are different for cold and warm waters.

*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 regardless of the codified designated use. Furthermore, 40 CFR § 131.10(i) goes on to state that “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.”*

Maryland’s Code of Regulations (COMAR) also establishes protections for existing uses. Specifically, Maryland’s Antidegradation Policy regulation (COMAR regulation 26.08.02.04) echoes the federal regulations by saying “A. *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.*” and “B. *Consistent with the Federal Act, existing uses and the level of water quality necessary to protect existing uses for any water body must be maintained.*” Further, Maryland’s regulations provide Antidegradation Policy Implementation Procedures for the Tier I level of protection in COMAR 26.08.02.04-1 which state that “A. *All waters of the State shall receive Tier I protection which requires the protection and maintenance of existing uses and designated uses.*” and “B. *Protections. Waters that have demonstrated an existing use that is not protected by the water quality criteria specified by the current designated use for this water body shall be protected so as to maintain the existing use and the water quality necessary to protect the existing use.*” This regulation also incorporates this document by reference and directs the reader to where specific existing uses are captured (specific language from the regulation is provided below).

COMAR 26.08.02.04-1

C. Implementation of the Tier I level of protection for cold water existing uses. The determination and protection of cold water existing uses in Maryland will be implemented according to the “Cold Water Existing Use Determinations: Policy and Procedures (Maryland Department of the Environment, May 12, 2021)”, which is incorporated by reference.

D. Compilation and Maintenance of the List of Waters with Existing Uses. The Department shall compile and maintain, on its website, a public list of the waters with an existing use that is not protected by the currently designated use and associated water quality criteria.

The statutory and regulatory language stated above therefore obligates the Maryland Department of the Environment to:

1. Identify and protect the existing uses of all surface waters for which the existing use requires greater protection than the codified designated use class and

2. Add or modify the codified designated use class to protect the existing use when necessary.

Several aspects distinguish an existing use from a designated use. For example, at a particular point in time, 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 that has been attained (while a designated use should reflect the State's desired and attainable condition/goal for a water body). Existing uses can also be expressed in more specific terms than a codified designated use since they can describe an attained condition in a specific surface waterbody and are not designed to apply broadly throughout regions of a state.

Data have been collected which demonstrate that the currently codified designated use classifications found in Code of Maryland Regulation 26.08.02.08 are no longer fully protective of the existing use in some waters. Specifically, several streams currently designated as having warm or semi-warm water aquatic life uses (Class I-P, IV, and IV-P) have been found to contain naturally reproducing populations of cold or cool-water obligate species. The cold or cool-water species require (and are present because of) the cooler temperatures currently found in the stream. However, the applicable temperature criterion associated with Use Class I-P, IV, and IV-P water bodies is significantly warmer than the current and observed/measured site-specific temperatures. If the Maryland Department of the Environment (Department) issues permits with conditions or water quality-based effluent limits based on Class I or IV time of year restrictions or criteria, then the Department may not, in all cases, be ensuring protection of the aquatic life (i.e., the cold or cool-water obligate species) currently present, depending on location and site-specific characteristics.

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 quite meet the Class III temperature criterion (and no evidence exists to demonstrate the water body has ever met the Class III criterion at any time after November 28, 1975) 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 re-designation methodology that would have recorded the existing use for such a water as Class III due solely to the existence of cold water obligate species. However, based on EPA guidance as to the definition of existing use and concerns about the attainability of the Class III temperature criterion in these waters, MDE felt it necessary to reconsider its prior approach for determining the existing use of a water body.

The Department subsequently determined that it needed to develop a new set of transparent procedures to follow when determining the existing use of a stream when that existing use may not be protected by the codified designated use. The development of these procedures was necessary for two reasons. First, even in cases where data demonstrate the presence of a

reproducing population of a cold water obligate species and temperature readings show attainment of Use Class III water quality criteria, use class re-designation most often occurs with the Triennial Review of Water Quality Standards (which is conducted once every 3 years). This can leave a temporal gap of regulatory protection if such existing use information is not adequately communicated to the appropriate regulators and stakeholders. Second, the existing use of a water body can have similar regulatory effects (e.g., it can result in certain permit conditions) as designated uses and thus all potentially affected parties should be aware of such information at the earliest stage possible in the process.

The Department also recognized that because the determination of existing uses is a data driven process there is a need to clarify how these situations will be handled when permit applications are received by the Department. Data on existing uses can be submitted to the Department at any time and, as a result, this document aims to provide some general information as to how this will affect the timing and considerations that go into issuing, for example, National Pollutant Discharge Elimination System (NPDES) or Wetlands and Waterways permits. In all cases, the Department seeks to reduce the planning and regulatory uncertainty associated with cold water existing uses while at the same time protecting the cold water resource.

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. Submitting Data to the State
3. Documenting an Existing Use
4. Existing Use Determination and Public Review
5. Data Gaps and Identifying Monitoring Needs
6. Regulatory Implications and Steps Taken to Reduce Regulatory Uncertainty

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 account for the largest portions of this water quality information, an increasing amount of information is also being collected by non-governmental organizations (e.g., citizen scientists), 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 of Surface Water Quality (required under Sections 303(d), 305(b) and 314 of the Clean Water Act), Total Maximum Daily Load (TMDL) development, and existing use determinations.

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 and determination, 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 of the potential of an existing use that is not protected by the designated use 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 will be coordinated with MDE's Water Quality Standards Section (WQS). This coordination can be accomplished simply by having data collectors send email notification, as early as possible prior to any planned sampling event, to MDE's Chief of Water Quality Standards. Examples of monitoring activities that have the potential to identify new cold water existing uses include surveys of the fish community where self-sustaining trout populations may be found and surveys of the benthic community where cold water obligate benthic species may be found. Generally speaking, there is a higher likelihood of finding such aquatic species in the piedmont and highlands regions of the state. The Water Quality Standards Section, in concert with other Water and Science Administration (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.

Submitting Data to the State

Once data or information becomes available which may indicate the potential presence of an existing use that is not protected by the codified designated use, that information should be submitted to MDE's Water Quality Standards Section (WQS) for evaluation and potential distribution to MDE's permitting programs. Data must be submitted in its most raw (i.e., not summarized) form, either as a Microsoft Excel spreadsheet, database (e.g., Microsoft Access) or field data sheet. 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 not protected by the codified designated use class, MDE requires that data submitted must 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. For additional details about what is needed for a dataset to be considered as Tier I data please visit Section A.1 of Maryland's Final 2018 Integrated Report which can be accessed at:

<https://mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/2018IR.aspx>.

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 (verifying the thermal regime that supports the use) are the predominant types of data submitted for review. However, the Department will review and consider all available data in determining whether there is an existing use that is not protected by 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) and time(s) of sampling (mandatory)
- Data collector names and contact information (mandatory)
- Biological Data (mandatory)
 - Trout species identification, photo documentation, and total length per individual (all mandatory if trout are found)
 - Benthic macroinvertebrates identified to genus and counts (mandatory if cold water benthos are found, benthic macroinvertebrate identifications should be completed by certified taxonomist or specimens should be preserved for review by certified State taxonomists)
- Basic water quality parameters such as pH, dissolved oxygen, etc. (recommended)

- Water temperature readings taken preferably at 30 minute or more frequent intervals during the summer critical period between June 1 and August 31⁴ . Raw temperature readings should be provided showing all readings (not summarized data). Appropriate stream temperature monitoring protocols are described in MD Department of Natural Resource’s (DNR) “Quality Assurance Document for Temperature Monitoring” accessible at:
https://dnr.maryland.gov/streams/Publications/QA_TemperatureMonitoring.pdf. (water temperature readings are mandatory)

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 the evaluation by confirming whether trout have persisted through natural reproduction (and are thus self-sustaining) or through supplemental stocking.

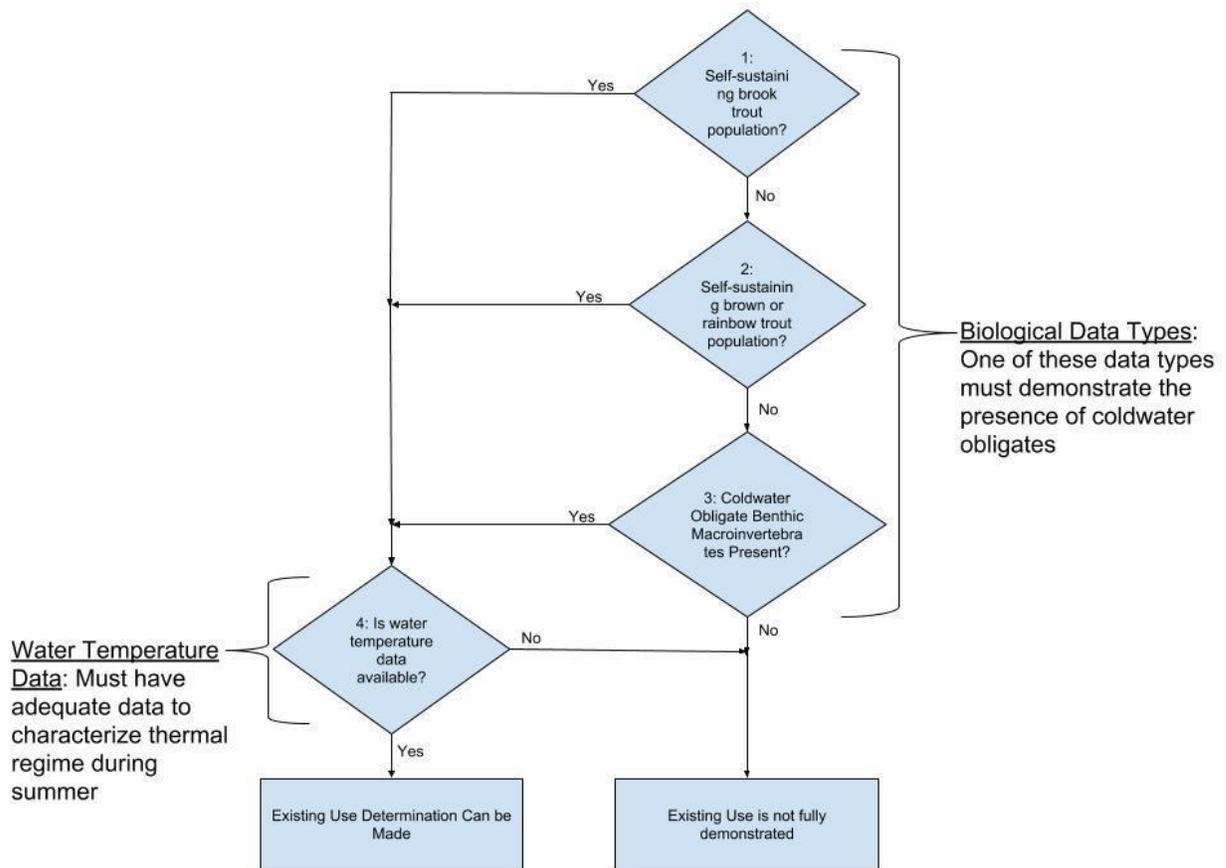
⁴ This period is generally when Maryland streams experience their highest prolonged water temperatures and thus is a limiting time period for cold water obligate survival and persistence.

Documenting an Existing Use

When MDE receives data related to existing use documentation, a review of these data will be completed as soon as possible with the goal of ten business days or less, after receipt. All data submitted to MDE's WQS will first undergo review for quality assurance. Assuming that the dataset is of sufficient quality, it will be evaluated according to the flowchart provided below. This flowchart ensures that the required types of data are available to determine whether the use is occurring and whether there are temperature data to describe the thermal regime that currently supports this level of use. Each numbered step in the flowchart is further explained (after the flowchart) as to how each type of data is considered in the existing use evaluation. If a particular type of data (e.g., biological or temperature) is not available or if none of the biological data provide evidence of a coldwater obligate species, an existing use determination cannot be completed and the process will not proceed beyond the data review step. Such locations will be prioritized for follow-up sampling efforts.

Worth noting, the flowchart below does not specify how the geographic scale of an existing use will be determined but instead leaves that to the available data and the best professional judgment of MDE's Water Quality Standards staff in consultation with DNR. This flowchart also does not specify how the stream's temperature regime will be described. This too will be informed by the site-specific conditions described by the temperature data available in these waters.

Please note that all steps below assume that the data was collected in a stream designated as Class I, I-P, IV, or IV-P.



Flowchart Explanation

1. Self-Sustaining Brook Trout Population

Decision Point: This decision will be answered in the affirmative if, during a single summer fish sampling event (summer: June - September), multiple age classes of brook trout adults (>1) *and/or* young of year (YOY, age: 0+) brook trout are observed in a stream segment that has not been stocked (with brook trout) within the last 5 years. It should be noted that assessors will consider brook trout stocking efforts in nearby hydrologically-connected streams in determining whether the brook trout population is ‘self-sustaining’.

Rationale: Brook trout (*Salvelinus fontinalis*) are Maryland’s only native salmonid species and are typically only found in Maryland’s coldest headwater streams (first, second or third order). Maryland DNR has analyzed extensive water temperature and fish community data and determined that brook trout are the best fish species in Maryland to detect the presence of cold water streams/ivers. In the absence of stocking, having more than one year-class of brook trout, even if they are only represented by a few individuals and do not include YOY, provides

evidence of successful reproduction during some time in the recent past (within the last 5-6 years). Likewise, the presence of YOY demonstrate that successful reproduction has occurred over the last 12 months. It is worth noting that, in time-series fish surveys, even self-sustaining brook trout populations can experience intermittent YOY production.

Sampling Methods: It is necessary for all fish surveys to be conducted during the summer months of June, July, August or September since this is the period of time when thermal conditions for brook trout can be limiting. Young-of-year brook trout collected in these months are generally easiest to identify as 0+ age class based on their small size during this season. In all cases, resource biologists must review YOY data to confirm that suspected YOY are 0+ age class individuals and not undersized 1+ year old fish.

2. Self-Sustaining Brown or Rainbow Trout Populations

Decision Point: This decision will be answered in the affirmative if, during a single summer (June - September) fish sampling event, multiple age classes of brown or rainbow trout adults (>1) and young of year (YOY, age: 0+) of that same species are found in a stream segment that has not been stocked within the last 5 years. As in the decision point above, assessors will consider any brown and rainbow trout stocking efforts in nearby hydrologically-connected streams in determining whether the trout population is 'self-sustaining'.

Rationale: Brown (*Salmo trutta*) and rainbow trout (*Oncorhynchus mykiss*) are non-native fishes that have been intentionally introduced to Maryland's surface waters to provide recreational fishing opportunities for anglers. Some of the introductions have resulted in naturalized populations where conditions supported their existence and reproduction. Brown and rainbow trout share similar habitat preferences as brook trout. To persist and reproduce, brown and rainbow trout also require colder stream temperatures (though not quite as cold as brook trout) than what is expected in a Class I(-P) (water temperature criterion: 90°F) or IV(-P) waterbody and thus also serve as indicators of an existing use that is colder than Class I or IV. (Though brown and rainbow trout are often stocked in Class IV waters, stream temperature and habitat limitations often preclude these species from reproducing.) A self-sustaining brown or rainbow trout population can be identified and defined by having multiple age classes of adults (minimum of 2) and age 0+ (young-of-year – YOY) individuals. Since brown and rainbow trout are the most commonly stocked trout species and stocked individuals are capable of traveling to and residing in unstocked areas, this decision point requires the presence of YOY individuals to provide evidence of recent successful reproduction.

Sampling Methods: It is necessary for fish surveys to be conducted during the summer months of June, July, August and September since this is the period of time when thermal conditions for brown or rainbow trout can be limiting. Young-of-year brown and rainbow trout collected in the months of June, July, August or September are generally easiest to identify as 0+ age based on

their small size during those months. In all cases, resource biologists must review YOY data to confirm that suspected YOY are 0+ age class individuals and not undersized 1+ year old fish.

3. Presence of Obligate Coldwater Benthic Macroinvertebrates

Decision Point: This decision will be answered in the affirmative if a single benthic macroinvertebrate sampling event reveals either *Tallaperla* or *Sweltsa* (stonefly) taxa in a stream.

Rationale: The stonefly taxa *Tallaperla* and *Sweltsa* are recognized in Maryland's water quality standards (Code of Maryland Regulations 26.08.02.02) as cold water obligate benthic macroinvertebrates. Analysis of DNR's Maryland Biological Stream Survey (MBSS) biological and temperature logger data has shown that these taxa exclusively inhabit the coldest streams in Maryland and have a thermal regime that is practically identical to that of brook trout. Life history information for both taxa indicates that they have aquatic nymph stages of 18 months or more and therefore are good indicators of a stream's thermal regime. The presence of either taxon in a benthic sample will be used to identify an existing use that may not be protected by the codified designated use.

Sampling Methods: Sampling for benthic macroinvertebrates typically occurs during the months of March or April. This time period is selected to ensure that the aquatic nymph stage of the organisms can be collected at a size large enough that they can be identified by benthic taxonomists.

4. Availability of Water Temperature Monitoring Data

Decision Point: To answer this decision in the affirmative, there must be temperature data for the stream which minimally covers the time period from June through August and which is collected at 30 minute intervals or more frequently.

Rationale: Fairly inexpensive temperature loggers allow for the collection of almost continuous temperature readings over several months. In order to properly describe an existing use and the water quality necessary to support the existing use, water temperature data must be available for assessment. Such data should be collected at 30-minute or more frequent intervals to ensure that State staff will have enough information to generally characterize a stream's thermal regime.

Sampling Methods: Data from continuous temperature loggers are used to characterize the thermal regime of a stream being evaluated for an existing use. Temperature loggers are deployed in streams/rivers from June 1 through August 31. When the temperature data is uploaded and analyzed, all data points are checked to ensure that loggers did not malfunction.

Temperature data should generally be collected according to the protocols outlined in DNR’s “Quality Assurance Document for Temperature Monitoring” available at: https://dnr.maryland.gov/streams/Publications/QA_TemperatureMonitoring.pdf. However, one exception to this set of protocols is the allowance of data collected at a less frequent interval of every 30 minutes as opposed to the 20-minute intervals mentioned in this document.

The results of the existing use evaluation will have three possible outcomes:

1. Data are not considered high quality or do not demonstrate the presence of an existing use not protected by the current codified designated use. In this case, the Department will not move forward with identifying and recognizing a new existing use.
2. Data that are submitted are high quality but are incomplete. The Department will provide a response to data submitters outlining additional data needs and will prioritize this area for future monitoring efforts.
3. Data are high quality, complete, and verify the presence of an existing use that is not protected by the current codified designated use. The Department will move forward with identifying and recognizing a new existing use.

When the Department has determined that the available data demonstrate the existence of a use not protected by the current codified designated use, staff will create a draft “Existing Use Determination and Rationale” document to post to the MDE website and to provide to interested stakeholders. Information that will be incorporated into this document includes:

- maps depicting sampling and/or stocking locations,
- a summary of biological data collected,
- a summary of physical water quality data collected (e.g., water temperatures),
- a summary of any other chemical water quality data collected (e.g., ammonia),
- the Department’s recommendations, in consultation with DNR, for the description of the existing use, the spatial extent of waters described by the existing use, and the temperature thresholds needed to protect the existing use, and
- the rationale for the recommendations outlined immediately above.

After undergoing public review (as described in the next section), this document and the resulting determination, captured in a list provided on the Department’s website, will serve as the Department’s formal description of the existing use. Waters with existing uses that are supported by a particular use class’ standards (e.g., Class III) will be placed in the appropriate designated use class with the next regulatory revision (most likely in concert with the next Triennial Review of Water Quality Standards).

Existing Use Determination and Public Review Procedures

In sharing the draft “Existing Use Determination and Rationale” document created in the preceding step of this existing use evaluation process, the Department will provide notification of a potential change in existing use to a broader audience including, but not limited to: permitting programs at MDE, other State agencies (e.g. State Highway Administration), local government, regulated entities, landowners, environmental organizations, any other potentially interested parties, and the general public. The primary methods to be used for providing such notification will include announcements both in the Maryland Register and Department’s website, social media platforms, and any other methods (e.g., targeted emails to interested stakeholder lists) as appropriate. This notification will also be used to announce the start of a 30-day public comment period where the public will be invited to submit data and/or comments that address the existing use evaluation, scale, any protective temperature thresholds, and whether the cold or cool water existing use impacts other beneficial uses of the water body. At this time, the Department will make sure to contact all upstream NPDES permit holders that may be affected by the proposed existing use determination. If requested during the public comment period, the Department will provide a public hearing. An audio recording of this hearing will be saved and made available to the public via the MDE website. Based on any additional information and comments submitted during the public review period or hearing, the Department will finalize the “Existing Use Determination and Rationale” document. In addition to the information included with the draft, this final version will include a section with public comments and the Department’s responses. This document will then be posted to MDE’s Water Quality Standards webpage and the water body will be added to the list of existing uses.

After posting the Existing Use Determination and Rationale document to MDE’s website, the Department will then notify all interested parties that the final determination has been made and where to view the “Existing Use Determination and Rationale” document. In addition to providing the “Existing Use Determination and Rationale” document on MDE’s website, 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>.

The following table provides a brief description and chronology of the steps in the cold water existing use determination process. An approximate timeline is also provided. MDE’s Water Quality Standards Section (WQS) will make every effort to meet the deadlines herein described but recognizes that factors outside of WQS’ control may prevent this from happening. In all cases, WQS will strive to make this process as timely and inclusive as possible.

Table 1: Major Existing Use Process Milestones

Step	Milestone	Day
1	Data Received by MDE’s Water Quality Standards Section	1
2	Review of Data for Quality and Demonstration of an Existing Use – Creation of Draft “Existing Use Determination and Rationale” document	15 (~10 business days after receipt of notice from MDE regarding data completeness)
3	Public Notification and Sharing of Draft “Existing Use Determination and Rationale” document. <i>(This step only commences if credible data demonstrates a cold water existing use not fully protected by the designated use.)</i>	20
	Start of the 30-day Public Comment Period	35
4	Hearing held (if requested)	50
4	Conclude the Public Comment Period, MDE compile and respond to comments	65
5	Publish Final Existing Use Determination and Rationale Document to MDE website and notify stakeholders	80

Data Gaps and Identifying Monitoring Needs

Situations may arise where the data record demonstrates the presence of an existing use that is not protected by the currently codified designated use but for which temporal or spatial resolution is lacking. Though having a complete data record for an area is preferable, it may not be available in some cases. As the Department and interested parties discuss the issues of scale and water quality thresholds, it will become readily apparent what data needs still 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 an existing use determination and rationale document.

Regulatory Implications and Steps Taken to Reduce Regulatory Uncertainty

When a cold water existing use is verified, the Department is obligated to protect the resources associated with that existing use. In some cases, this may require changes to the default conditions usually applied to a stream with a certain designated use class (e.g., application of a different time-of-year restriction for a nontidal Wetlands and Waterways permit or mitigation requirements) or may require the modification of a permit upon renewal (i.e., NPDES permit). This section outlines practices the Department is taking to help permit applicants better plan for such situations prior to making major time or financial investments and also describes several of the factors used by the Department to inform permit application decisions. The Department feels that broad and timely notification to stakeholders, enhanced screening practices, and the flexibility to customize permitting decisions to unique situations will both protect existing uses and minimize regulatory uncertainty.

1) Broad and timely notification of the presence of an existing use

As detailed in the sections above, the Department will prioritize efforts to verify the presence of existing uses (when data are available) and to notify a broad stakeholder group including but not limited to: the Department's permitting programs, other State agencies (e.g. State Highway Administration), local government, regulated entities, landowners, environmental organizations, and other potentially interested parties.

The rapid and efficient process by which interested parties will be notified of the presence of an existing use will reduce the probability (to the maximum extent practicable) that permit applicants will invest time and financial resources into submitting an application that is not protective of the existing use. Furthermore, online maps depicting the geographic extent of existing uses will be maintained and routinely updated for use by interested parties.

2) Screening Practices

In response to several recent and high profile permit applications affected by cold water existing use evaluations, the State has instituted some changes to its communication and screening practices⁵. These changes enhance the State's ability to identify permit applications for projects that may impact a water body with a cold water existing use.

For activities that require a permit or authorization from MDE's Wetlands and Waterways Program, the Wetlands and Waterways Program affords permit applicants the opportunity to request a pre-application meeting with the Department. This pre-application meeting provides an opportunity for permit applicants to obtain early feedback on their project design so as to

⁵ These changes will not only be applied to permit applications in waters with a formally recognized existing use but also any other waters where a cold water resource has the potential to be impacted.

avoid resource impacts, to ensure they have the information needed for their permit application, and therefore facilitate expeditious review of their permit. Information on how to request a pre-application meeting is provided on the MDE webpage located at:

<https://mde.state.md.us/programs/water/WetlandsandWaterways/Pages/PreApplicationIntroduction.aspx>. To better inform permit applicants on potential cold water existing uses (in their project area) as early as possible, the Department now provides a link on its pre-application webpage to a map (created and maintained by the Department of Natural Resources) that identifies watersheds with cold water obligate taxa.⁶ Clicking on any highlighted watershed within this map reveals information on what cold water obligate taxa were found as well as providing the contact information for a local DNR fisheries biologist. Permit applicants are encouraged to consult the local DNR fisheries biologist for site specific information on cold water taxa. Permit applicants are encouraged to review the map and consult the DNR fisheries biologist prior to the pre-application meeting so that potential impacts to cold water resources can be discussed at the pre-application meeting.

Once the permit applicant (for a Wetlands and Waterways permit or authorization) formally submits their permit application, the application is then screened by MDE for a variety of resource impacts. For example, when the Wetlands and Waterways Program receives a joint permit application associated with a nontidal wetland or waterway, the project is immediately screened for impacts to protected species and habitat. These projects are screened using mapping tools that are provided and regularly maintained by DNR (including the cold water resources map provided to applicants in the pre-application stage). Projects that are screened and shown to potentially impact a protected resource, are noted on the screening form. Both the application and screening form are immediately sent to DNR for review and comment, as well as assigned to a Wetlands and Waterways permit reviewer. If DNR determines that the proposed activities or project design associated with a wetlands and waterways permit application may negatively impact the existing use of a surface water, comments about the proposed project will be relayed to the Wetlands and Waterways permit reviewer within 30 days or sooner for MDE consideration in the application review process. The process allows the MDE permit reviewer to quickly identify projects that may impact the existing use of surface waters and to communicate potential project or design concerns to applicants so project modifications can be made early in the process. This information, along with any other application comments, will be provided to the applicant from MDE within 45 days from the date of the application.

NPDES permits undergo a similar screening process. All new and renewal permit applications are initially screened by MDE for environmental impacts and are then sent to the Environmental Review Division at DNR for additional screening and comment. Throughout the NPDES permitting process, MDE's Wastewater Permitting Program and MDE's Water Quality

⁶ <https://maryland.maps.arcgis.com/apps/webappviewer/index.html?id=dc5100c0266d4ce89df813f34678944a>

This link is also included in the Department's pre-application meeting request confirmation email that is sent to anyone requesting a pre-application meeting.

Standards Section communicate regularly to ensure that any possible existing use issues are addressed in the draft permit development stage and communicated as early as possible to permit applicants and stakeholders.

MDE is also making enhancements to how it screens for cold water existing uses for erosion and sediment control and stormwater management plans. MDE's Sediment, Stormwater, and Dam Safety (SSDS) Program is directly responsible for the review and approval of erosion and sediment control and stormwater management plans for construction activity by State and federal agencies. Construction plans for privately financed projects are reviewed by local soil conservation districts (SCDs) for erosion and sediment control. Enforcement of approved erosion and sediment plans is done by either MDE's Compliance Program, or by a local jurisdiction where the enforcement authority has been delegated by MDE. All local jurisdictions are required to administer a stormwater management program for the review and approval of permanent stormwater management structures. As part of this process, SSDS will be incorporating the latest cold water existing use layers (GIS layers created by the Water Quality Standards Section) into its plan review processes and will distribute this information to local review authorities as part of its oversight responsibilities for the State's erosion and sediment control and stormwater management programs.

3) Using case-specific factors to inform the permit issuance process

Despite efforts to notify stakeholders as early as possible in their project development, the Department recognizes the possibility that the verification of an existing use may engender unanticipated permit requirements. In situations where the verification of an existing use and permit issuance co-occur, a permit shall be revised or customized based on the factors associated with each specific circumstance. In such cases factors considered in such a revision may include the likely impact to the resource, environmental uplift from the project, stage of the permit application process, options available to mitigate or avoid resource impacts, the vested rights of the applicant, and the financial impact to the applicant. The value, uniqueness, and sensitivity of a resource coupled with the likely impact from permit issuance will play a significant role in determining the appropriate permit conditions. By considering these factors, the permitting authorities will be able to identify situations when including permit requirements beyond those that protect the designated use are both reasonable and necessary. Resource protection will generally be the highest priority but the Department reserves the right to tailor permit conditions to the unique scenario presented.