



Division of Surface Water Response to Comments

Rule: Water Quality Standards Beneficial Use Designation Rules OAC Chapter 3745-1

Agency Contact for this Package

Division Contact: Dan Dudley
Division of Surface Water
614-644-2876
daniel.dudley@epa.ohio.gov

Ohio EPA held an interested party comment period from January 8, 2016 to February 9, 2016 regarding eight Water Quality Standards beneficial use designation rules. This document summarizes the comments and questions received during the associated comment period.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. The name of the commenter follows the comment in parentheses.

General Comments

Comment 1: EPA commends OH for fulfilling their commitment to updating the designated uses of their streams based on their monitoring work. (U.S. EPA Region 5)

Response 1: Ohio is committed to eliminating the existing backlog of use revisions and plans to complete this process through a series of rulemakings this year.

Comment 2: EPA recommends that Ohio revise its existing definition of “coldwater habitat, native fauna” at 3745-1-07(B)(1)(f)(ii) to recognize that coldwater fish species may not be present in all waters capable of supporting populations of native coldwater vertebrate and invertebrate organisms and plants. (U.S. EPA Region 5)

Response 2: Ohio will take this comment under consideration in any potential future revisions to the definition.

Comment 3: EPA adopted revisions to the water quality standard rules at 40 CFR 131 in October 2015 that included updates to rules related to designated uses. The revisions included a requirement that states consider the use and value of water when adopting non-101(a)(2) uses, which would include water supply uses. In the proposed rule package, previously undesignated streams are designated for agricultural and industrial water uses but not the public water supply use. For the previously undesignated streams in this rule package, EPA requests that Ohio provide information showing how the use and value of these segments for the public water supply use was considered in light of the public water supply characteristics in 3745-1-07(B)(3). (U.S. EPA Region 5)

Response 3: The use and value as a public water supply is viewed through the characteristics listed in OAC 3745-1-07(B)(3), the relative size of the streams in question and the regional availability of more suitable sources of raw water. The streams in question have no lakes or reservoirs and no existing water supply intakes or emergency intakes. Local communities have ready access to large and far more suitable sources of drinking water (groundwater and the Ohio River). As such, the public water supply use designation is not applicable.

Comment 4: We note that some of the segments with proposed use changes are upstream of waters containing federally-listed mussels. EPA anticipates conducting Endangered Species Act (ESA) consultation with the USFWS regarding the proposed updates and associated changes to applicable water quality criteria. Therefore, any information on water quality in the affected segments and the listed mussel waters and/or efforts by Ohio to protect listed mussel species downstream of the segments proposed for new or revised use designations would be helpful to EPA in consulting with USFWS. We have provided a preliminary list of segments believed to be upstream of listed mussel waters (see the attached spreadsheet). Currently, the list is incomplete, as we expect that some of the segments included in the Mill Creek basin will also be upstream of listed mussel waters. EPA can provide an updated segment list in the future. (U.S. EPA Region 5)

Response 4: Ohio EPA will provide the Region with any water quality data within its possession that could assist the consultation.

Comment 5: The anticipated ESA consultation with USFWS will likely focus on any potential effects of ammonia on listed mussel species that may be present in the action area because: (1) mussels are sensitive to ammonia, (2) Ohio's existing ammonia criteria vary by aquatic life use class, and (3) Ohio's criteria have not been updated to reflect EPA's publication of 304(a) recommendations in 2013, which incorporates new toxicity data for mussels. Therefore, EPA strongly encourages Ohio to revise its ammonia criteria to be consistent with EPA's current 304(a) recommendations. (U.S. EPA Region 5)

Response 5: Ohio EPA plans to propose revisions to its aquatic life water quality criteria that would be consistent with the current 304(a) recommendations as part of the triennial review scheduled to commence later this calendar year. This is an

issue is best addressed as part of the revisions to the water quality criteria as it is relevant to all water bodies in the state, not just the water bodies that are involved in the particular set of use designation revisions. Ohio EPA will keep Region 5 abreast of progress in adopting the 304(a) ammonia criteria.

Comment 6: Comment: Each river noted in Rule 3745-01, the Scioto River basin, Grand River basin, Southwest Ohio tributaries, Huron River basin, Rocky River basin, Portage River basin, Mahoning River basin and Mill Creek River basin respectively, are proposed to have amended language to remove the warm water habitat designation and amended language to recreation and water supplies. It is important and necessary to retain this beneficial use designation and not amend recreation and water supply designations and language to Rule 3745-01.

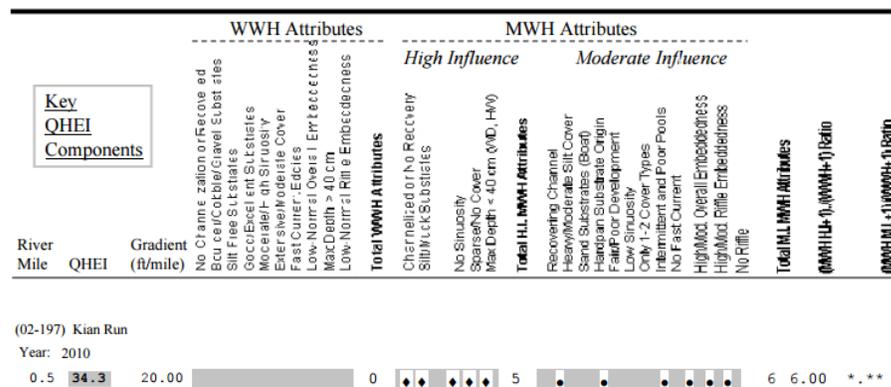
Suggestion: Retain the language in Rule 3745-01 for the warm water designation. Changing the designated use based on a biological field assessment performed by the Ohio EPA does not define the habitat responsibly. Designation or categorization of the river drainage basins assigned in this rule based on a biological field assessment remove important protections with respect to the increased risk of algae blooms, cyanobacteria and increased risk of microcystin poisoning. Ohio experienced the warmest summer on record in 2014. NASA and NOAA studies conclude the past ten years of weather activity were the warmest in recorded history. A warm water designation provides responsible protection. (Scott Bushbaum)

Response 6: In paragraph D of the water quality standards beneficial use designation rules contained in this rulemaking, the Agency is proposing to remove the reference to the "L" symbol as it refers to a designation, limited warmwater, that no longer applies to any water bodies listed within these rules. Limited warmwater habitat and warmwater habitat are defined in paragraph B of rule OAC 3745-1-07. These are separate use designations. The Agency is not removing the warmwater habitat use designation from the rules. The use designations are based on Agency biological and chemical water quality surveys. For more information on Ohio EPA's Biological and Water Quality Monitoring and Assessment program, please see the program's website at: <http://epa.ohio.gov/dsw/bioassess/ohstrat.aspx>.

OAC 3745-1-09

Comment 7: The aquatic life use for Kian Run in the Scioto basin is proposed to be changed from WWH to MWH. The Middle Scioto River Basin Water Quality Report indicates that heavy siltation/sedimentation and poor channel development limit the stream's biological potential. Based on the description, it is unclear whether the stream condition is due to prior channelization or other sources. We request additional information on any stream modification that has occurred within the segment that is the basis of the proposed MWH designation. (U.S. EPA Region 5)

Response 7: As noted in the technical support document, Kian Run exhibits very poor habitat conditions as measured by the QHEI of 34.3, which was the lowest habitat score for any stream in the entire survey area. Direct habitat alterations to this highly modified urban stream on the south side of Columbus include stream bank modifications and channelization. The stream exhibits poor channel development and extensive siltation/sedimentation. As a result, biological community present is well below WWH expectations with an IBI of 24 and an ICI narratively rated as very poor. Biologically, this was the lowest performing stream in the entire survey area. As the QHEI attributes table shows below, Kian Run did not possess a single WWH attribute, and had five MWH attributes of high influence.



OAC 3745-1-20

Comment 8: Cleveland Metroparks opposes the redesignation of the upper segments of Abram Creek to Modified Warmwater Habitat – Channel Modification (MWH-CM) as proposed in the draft of OAC Chapter 3745-1. We are submitting the following comments on behalf of our position.

Abram Creek is identified as a priority subwatershed by Cleveland Metroparks and our partners in the watershed. We fear that this designated use change may limit our ability to attract grant funding for watershed restoration initiatives. Because only minor improvements are needed to reach attainment for MWH-CM designation in Abram Creek, funding opportunities that target impaired waters may become unavailable. Few funding entities prioritize restoration of streams with MWH or lower designated aquatic life uses.

A change to Modified Warmwater from Warmwater will raise pollutant discharge limits for new and existing dischargers permitted through the NPDES program. Permitted MS4 communities may have less stringent requirements under future versions of their Phase 2 NPDES permits. In addition to limiting the effectiveness of future restoration efforts, this scenario has potential to harm water quality in Abram Creek downstream of the culvert under Cleveland-Hopkins International Airport that is currently designated Warmwater habitat.

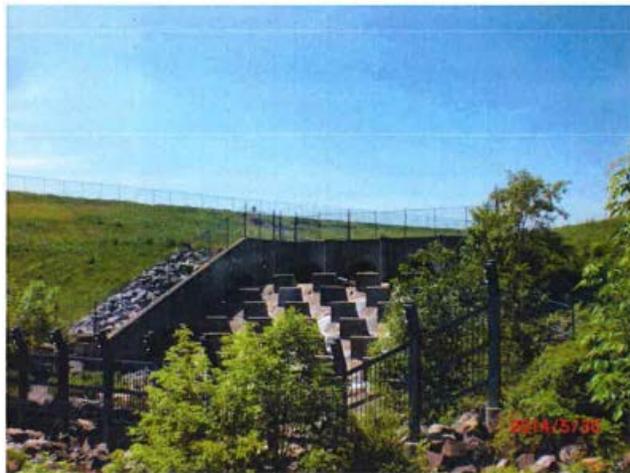
Park District lands in Abram Creek subwatershed offer an important recreational amenity for our guests. We feel that redesignation of this stream segment to less stringent MWH would be a disservice to those citizens who enjoy hiking, wildlife viewing, and other passive recreational activities in this area, and who have an expectation of Cleveland Metroparks to be diligent stewards of the Abram Creek stream and adjacent land holdings' natural assets.

Examples exist, even within the Rocky River Watershed, of stream segments upstream of fish passage barriers that were once in nonattainment of the WWH use designation that now are in attainment (e.g., uppermost segments of Baldwin Creek). This suggests that connectivity, while highly desirable and clearly effective, may not be the only route to attainment. (Terry Robison, Cleveland Metroparks)

Response 8: Based on the conditions present in the stream, the Agency is skeptical that Abram Creek will ever be able to meet the WWH biological criteria. However, given the community interest in making the effort, Ohio EPA believes it is prudent to postpone revision of the aquatic life use at this time. The Agency intends to work in a collaborative fashion with local community groups and citizens to study potential remediation concepts and develop cost estimates for implementation. The Cleveland Hopkins Airport should also be included in these efforts.

Comment 9: The Rocky River Watershed Council opposes the redesignation of the upper segments of Abram Creek to Modified Warmwater Habitat - Channel Modification (MWH-CM) as proposed in the draft of OAC Chapter 3745-1. We are submitting the following comments on behalf of our position.

1. Ohio EPA argues that this change is necessary because of the mile-long culvert system installed under the Cleveland-Hopkins International Airport to facilitate runway. This action was permitted by Ohio EPA and the US Army Corps of Engineers. There were better solutions/design alternatives that would have better allowed for fish passage through this stretch of Abram Creek, yet the existing, limiting design was permitted and built. The photo below of the culvert outlet that clearly demonstrates that fish passage was not a design consideration from the start.



2. Examples exist, even within the Rocky River Watershed, of stream segments upstream of fish passage barriers that were once in nonattainment of the WWH use designation that now are in attainment (the uppermost segments of Baldwin Creek, for example). This suggests that connectivity, while highly desirable and clearly effective, may not be the only route to attainment.

3. The change to Modified Warmwater from Warmwater will raise pollutant discharge limits for new discharges (and where existing dischargers expand operations) permitted through the NPDES program. Permitted MS4 communities may have less stringent requirements under future versions of their Phase 2 NPDES permits. In addition to limiting the effectiveness of future restoration efforts, these have the potential to negatively impact water quality in the portion of Abram Creek that would maintain the Warmwater designation downstream of the culvert under Cleveland-Hopkins International Airport. Essentially, this becomes a self-fulfilling prophecy brought about by lowered biological community expectations coupled with less stringent chemical water quality standards.

4. Abram Creek has been identified as a priority subwatershed by the Rocky River Watershed Council, Cuyahoga SWCD's Rocky River Watershed Program and our partners in the watershed. We fear that this redesignation will hamper our abilities to fully restore Abram Creek. For example, this change in designated use may limit our ability to attract grant funding, affect future TMDL development, etc. Due to the only slight improvement that would be needed to reach attainment for the MWH-CM designation in Abram Creek, funding opportunities that target impaired waters may soon become unavailable. Also, few funding entities prioritize the restoration of MWH or lower designated aquatic life uses.

5. OAC 3745-1-07(B) states that waterbodies designated Modified Warmwater "have been the subject of a use attainability analysis and have been found to be incapable of supporting and maintaining a balanced, integrated, adaptive community of warm water organisms due to irretrievable modifications of the physical habitat." Basically, they are incapable of meeting the criteria to be

designated "Warmwater." The same rule defines Warmwater as "waters capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the twenty-fifth percentile of the identified reference sites within each of the following ecoregions: the interior plateau ecoregion, the Erie/Ontario lake plains ecoregion, the western Allegheny plateau ecoregion and the eastern corn belt plains ecoregion." In other words, waterbodies designated Modified Warmwater do not maintain an aquatic community comparable to the twenty-fifth percentile of the identified reference sites for its ecoregion. The rule goes on to state that "the attributes of species composition, diversity and functional organization will be measured using the index of biotic integrity, the modified index of well-being and the invertebrate community index as defined in "Biological Criteria for the Protection of Aquatic Life: Volume II, Users Manual for Biological Field Assessment of Ohio Surface Waters," as cited in paragraph (B) of rule 3745-1-03 of the Administrative Code." The macroinvertebrate community scores for Abram Creek from 2014 as reported by Ohio EPA utilized a narrative evaluation in lieu of the invertebrate community index required in the rule. While we support the use of the narrative evaluation for the determination of attainment status, we feel it is insufficient for the redesignation of the aquatic life use for a waterbody.

6. Certain segments of the Upper East Branch near Hinckley Reservation and Rising Valley Park appear to meet the requirements for Exceptional Warmwater Habitat designation, and should therefore be considered for redesignation as such. (Rocky River Watershed Council)

Response 9: See response to comment #8, above, concerning Abram Creek. In regard to the comment to consider redesignation of portions of the upper East Branch to EWH, Ohio EPA believes that such an action is not supported by the data at the present time. While the two sites at river mile locations 26.63 and 21.98 fully attain the EWH biocriteria, sites evaluated both upstream and downstream did not. Should future studies show more consistent EWH attainment throughout the upper portion of East Branch, the Agency will consider an EWH designation.

Comment 10: I am writing to oppose the redesignation of the upper segments of Abram Creek to Modified Warmwater Habitat - Channel Modification (MWH-CM) as proposed in the draft of OAC Chapter 3745-1. I believe that this action sends the wrong message to the local community about the value of a clean and healthy Abram Creek.

I am submitting the following comments in support of my position.

1. Ohio EPA argues that this change is necessary because of the mile-long culvert system installed under the Cleveland-Hopkins International Airport to facilitate runway. This action was permitted by Ohio EPA and the US Army Corps of Engineers. There were better solutions/design alternatives that would have

better allowed for fish passage through this stretch of Abram Creek, yet the existing, limiting design was permitted and built.

2. Examples exist, even within the Rocky River Watershed, of stream segments upstream of fish passage barriers that were once in nonattainment of the WWH use designation that now are in attainment (the uppermost segments of Baldwin Creek, for example). This suggests that connectivity, while highly desirable and clearly effective, may not be the only route to attainment.

3. The change to Modified Warmwater from Warmwater will raise pollutant discharge limits for new discharges (and where existing dischargers expand operations) permitted through the NPDES program. Permitted MS4 communities may have less stringent requirements under future versions of their Phase 2 NPDES permits. In addition to limiting the effectiveness of future restoration efforts, these have the potential to negatively impact water quality in the portion of Abram Creek that would maintain the Warmwater designation downstream of the culvert under Cleveland-Hopkins International Airport. Essentially, this becomes a self-fulfilling prophecy brought about by lowered biological community expectations coupled with less stringent chemical water quality standards.

Again, I oppose the proposed redesignation of upper Abram Creek, and I urge Ohio EPA to reconsider. (27 citizen letters)

Response 10: See response to comment #8 above.

Comment 11: The aquatic life use for Abram Creek - all other segments in the Rocky River basin is proposed to be changed from WWH to MWH. According to the Rocky River Beneficial Use Support Document, this change is being proposed due to the upstream impacts of a mile-long section of the stream that has been enclosed. Ohio EPA believes that this enclosure has fundamentally altered the system by creating a barrier to upstream fish migration and has lowered the potential of upstream segments to support assemblages of aquatic organisms consistent with the WWH biocriteria.

The support document states that impairments from urban sources and the airport limited biological communities in the stream prior to the stream enclosure. Since a MWH designation must be supported by documentation of an "irretrievable modification of the physical habitat," it is important to separate the impacts attributable to urban sources from the impacts of the enclosure. If Ohio proceeds with adoption of this use change, we request the following additional information be included in the submittal to EPA to evaluate the proposed change of this segment:

- A description of the enclosed section of the stream, including a more detailed description of both the enclosure and the natural stream (e.g. substrate, stream gradient, flow velocity, flow depth, width, etc.). How does the enclosure design affect fish and macroinvertebrate passage, and is

there any evidence from scientific literature of the effect, or lack thereof, of this type of enclosure on fish and macroinvertebrate passage?

- QHEI scores suggest that habitat upstream of the enclosure could support a warmwater fish community (upstream: QHEI scores of 62.0 and 61.8; downstream QHEI scores of 62.0 and 59.0). Are there other routes for fish to re-colonize the upstream segment (e.g. during flooding events, fish eggs attached to bird legs, etc.) and would that biological community be sustainable? (U.S. EPA Region 5)

Response 11: See response to comment #8, above.

OAC 3745-1-25

Comment 12: The aquatic life use for Dry Run – Oak Street (RM 1.42) to Wilson Avenue (RM 0.31) in the Mahoning basin is proposed to be changed from WWH to CWH. How were the boundaries of the proposed CWH segment delineated? Why doesn't the CWH segment extend downstream to RM 0 or upstream to RM 4.8 (the nearest upstream survey point)? (U.S. EPA Region 5)

Response 12: The lower end of the segment boundary is defined by Wilson Avenue at RM 0.31. The Agency typically uses recognizable geographic features to identify segment endpoints such as stream confluences or road crossings, so that the locations are more recognizable to the general public. Downstream from Wilson Avenue, the riparian zone is narrow, and the stream flows into a culvert as it passes under a rail yard and then into the Mahoning River. The upstream end does not extend to the upstream survey point at RM 4.8 because that site did not exhibit a coldwater biological signature and because there is a large impoundment (relative to the size of the stream) from RM 2.46 to 4.52. The CWH use is typically incompatible with such features. The influence of the lake likely continues somewhat downstream from the dam. Oak Street (RM 1.42) is the most upstream physical marker from the known coldwater biological signature, and is probably far enough downstream from the lake such that its influence on the composition of the biological community is mitigated.

OAC 3745-1-30

Comment 13: EPA notes that for 13 waters in the Mill Creek drainage basin (see list below), Ohio declined to designate or revise an AL use because the appropriate AL use is Primary Headwater Habitat and Ohio lacks that use classification in its rules. EPA notes that OH is required by the CWA to designate aquatic life uses for all its surface waters, including primary headwaters, and that adoption of the PHWH aquatic life use would give Ohio a useful tool for recognizing differences in the biological communities between headwaters and other rivers and streams.

23-029 Tributary to W. Fk. Mill Cr. at RM 14.26

23-031 Tributary (1.75) to Tributary to West Fork RM 9.82

23-035 Tributary (RM 0.8) to Tributary to West Fork at RM 8.72
23-059 Tributary to West Fork Mill Creek at RM 6.4
23-060 Tributary to West Fork Mill Creek at RM 3.23
23-061 Tributary (4.14) to Tributary to West Fork Mill Cr (RM 8.4)
23-002 West Fork Creek
23-057 Tributary to Sharon Creek at RM 3.0
23-027 Tributary to West Fork Creek at RM 2.54
23-028 Tributary to West Fork Creek at RM 1.24
23-064 Tributary to West Fork Creek at RM 2.24
23-062 Boldface Creek
23-063 Tributary to Boldface Creek at RM 1.02 (U.S. EPA Region 5)

Response 13: Although a specific aquatic life habitat use is not being assigned at this time to the Mill Creek basin tributaries mentioned, Ohio's water quality standards provide protection equivalent to the goals of the Clean Water Act since, by rule, the water quality criteria associated with the WWH use apply to all undesignated streams (see OAC 3745-1-07(A)(4)(a)).

Comment 14: Should the revisions to use designations in the Mill Creek basin be symbolized using a circle rather than the "plus" symbol. What is the significance of adding these waters to the rule? Why is the Agency adding the waters now? (Ted Boggs on behalf of Hamilton County Metropolitan Sewer District (MSD))

Response 14: We agree that a "circle" symbol is probably more appropriate and will make this adjustment in the proposed version of the rule. These designations are the result of a report done on behalf of MSDⁱ and not the result of biological field assessments performed by Ohio EPA.

It is routine practice for the Agency to add water bodies to the use designation rules in OAC 3745-1 based upon biological surveys. These streams had previously not been assessed before. Most basin surveys typically include some water bodies that are previously unassessed and/or not specifically designated in the use designation rules. Because these streams are being designated the basic Clean Water Act goal uses that apply to all streams not specifically assigned another alternative use designation, the revisions in question do not effect a change in the applicable criteria and thus have no practical regulatory impact.

Comment 15: Why aren't some of the smallest streams that were surveyed being designated secondary contact recreation? (Ted Boggs on behalf of Hamilton County MSD)

Response 15: Secondary Contact Recreation is considered a non-goal use under the CWA. A use attainability analysis (UAA) must be conducted to support the designation of a stream for a non-goal use. A recreation UAA should assess the recreational potential of the streams and must document characteristics of the water body including water depth, accessibility, potential for use by children and evidence of existing recreational use. The document prepared on behalf of MSDⁱ was incomplete with regards a recreation UAA because information on accessibility,

potential for use by children and evidence of existing recreational use was lacking. Ohio EPA has therefore designated these streams by default as Primary Contact recreation and added a new symbol to denote the absence of a valid UAA.

**** Designated use assigned by default**

Ohio EPA acknowledges that MSD retains the option to collect additional data for a recreation UAA and to pursue a secondary contact designation at a later date.

End of Response to Comments

ⁱ 2011 Biological and Water Quality Study of Mill Creek and Tributaries Hamilton County, Ohio. Technical Report MBI/2012-6-10. Midwest Biodiversity Institute, September 15, 2012.