



## Response to Comments – Draft Rules

**Rules:** OAC Rules 3745-1-10, -12, -19, -21, -23, -24, -25, and -30 (Water Quality Standards Use Designation Rules)

### Agency Contact for this Package

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On November 19, 2010, Ohio EPA made available for review and comment eight draft amended rules regarding water quality standards use designations for specific waters of the state. This document summarizes the comments and questions received during the associated comment period, which ended on December 20, 2010.

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 comments and 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:** Please ensure that all Technical Support Documents (TSDs) and/or other reports containing information on assessment units with proposed designated use and/or antidegradation classification changes are finalized and available when final rules are submitted. (Linda Holst, USEPA Region 5 Water Quality Branch Chief)

**Response 1:** Ohio EPA will provide documentation to support the rule revisions when the rules are filed as proposed rules. In most cases, this will be in the form of final TSDs published to the Ohio EPA web page at: [www.epa.ohio.gov/dsw/document\\_index/psdindx.aspx](http://www.epa.ohio.gov/dsw/document_index/psdindx.aspx). Draft TSDs or other documentation will be provided in the event final TSDs are not yet published.

- Comment 2:** It is occasionally unclear in assessment documents whether specific sites are wading, boat, or headwater sites. Please ensure that this information is incorporated into future reports (e.g., as superscripts to river mile in attainment status tables). (Linda Holst, USEPA Region 5 Water Quality Branch Chief)
- Response 2:** The type of assessment used for each site sampled is typically noted in the attainment tables within the TSDs. This information is necessary to determine the aquatic life use attainment status for each site sampled by our biologists. We will endeavor to ensure this information is always included.
- Comment 3:** It is occasionally unclear which ecoregion sites/stream segments are in. Please ensure that this information is provided in future TSD reports. (Linda Holst, USEPA Region 5 Water Quality Branch Chief)
- Response 3:** The ecoregion of each site sampled is typically noted in the attainment tables within the TSDs. However, for some study areas, all the sites lay within a single ecoregion and the ecoregion may not be explicitly stated within the attainment table itself, but rather elsewhere within the TSD. It is necessary to know the ecoregion in which the site is located to determine the aquatic life use attainment status because attainment expectations vary by ecoregion. We will endeavor to ensure this information is always included within the reports.
- Comment 4:** The biological and physical assessments of some waters previously designated as state resource waters (SRW) and now proposed as general high quality water (GHQW) (e.g., Killbuck Creek RM 30 – 40) seem to suggest that these waters fall on the cusp of the dividing line between SRW (now known as outstanding state water, or OSW) and GHQW. Please elaborate on the biological and physical assessment cut-off points, or other strategies, used to separate GHQW from OSW, superior high quality waters, and outstanding national resource waters, beyond the narrative definitions of these terms in Chapter 3745-1-05 of the Ohio Administrative Code. (Linda Holst, USEPA Region 5 Water Quality Branch Chief)
- Response 4:** The general methodology is described in the document “Methods and Documentation used to Identify Outstanding State Water (OSW) and Superior High Quality Water (SHQW) Candidates for Ohio’s Water Quality Standards (WQS)”, available on the web at [www.epa.ohio.gov/portals/35/rules/antideg\\_HQW\\_methods\\_documentation\\_dec10.pdf](http://www.epa.ohio.gov/portals/35/rules/antideg_HQW_methods_documentation_dec10.pdf). Ohio EPA provided justification for the water bodies recommended as GHQWs in the support document “Ohio Streams and Rivers Antidegradation Category Justification: GHQW.” We note that Kent Run was erroneously listed as a GHQW candidate. We have, in fact, listed it as a candidate for SHQW. Ohio EPA also has a list of water bodies out

for public review that have been identified as candidates for the OSW or SHQW category. The water bodies and supporting documentation are on the web at

[www.epa.ohio.gov/portals/35/rules/antideg\\_HQW\\_justification\\_dec10.pdf](http://www.epa.ohio.gov/portals/35/rules/antideg_HQW_justification_dec10.pdf).

Note that with specific regard to Killbuck Creek, we have listed it as an OSW candidate from Big Run (river mile 18.23) to its confluence with the Walhonding River, which is presently an OSW.

**Comment 5:** USEPA has reviewed ESA implications of the proposed rule changes. ESA-listed and candidate mussels are known to be present, or are potentially present, in several of the watersheds affected by this proposed rule, and initial analysis shows that several waters for which designated use changes have been proposed discharge to waters with endangered and candidate mussels present, or are within approximately 10 miles (upstream) of these waters (please see Appendices A and B and enclosed maps of the Muskingum River drainage basin). USEPA will seek to determine the potential effects of the proposed designated use changes on species of concern in these segments, and will consult with USFWS accordingly. Of particular concern will be any segment in the vicinity of waters that have known or potential populations of listed species where a use with less stringent criteria, or a designated use less than 101(a)(2) goal uses, is proposed. USEPA will further define segments of interest, and can discuss our analyses at your convenience prior to the adoption of the proposed use changes.

Additionally, USFWS has recently proposed the rayed bean and snuffbox mussels for listing (see <http://www.fws.gov/midwest/endangered/clams/rayedbean/RayedBeanSnuffboxPropListQAsNov2010.html>). Our analysis shows that several segments proposed for reclassification are known to support these proposed mussels, and that additional segments discharge to these waters (please see Appendix C and enclosed maps of the Grand, Great Miami, and Muskingum River drainage basins). USEPA will review the effects of the proposed designated use changes on these two species accordingly, and we encourage OEPA to review any related comments by USFWS. (Linda Holst, USEPA Region 5 Water Quality Branch Chief)

**Response 5:** Ohio EPA is aware that, of the water bodies proposed for aquatic life habitat use designation revisions, the snuffbox mussel (*Epioblasma triquetra*) is listed to be potentially present in the Grand River. Although Ohio EPA is not aware of any data documenting the actual presence of the snuffbox in the Grand River segments proposed for revision, we point out that the proposed revisions for the Grand River segments result in more stringent chemical criteria, and would, therefore, not have any adverse impact on the mussels should they actually be present. No revisions are proposed for any other water body segments in this rulemaking in which

existing, proposed or candidate mussel species are known or thought to be present.

The presence of freshwater mussels typically does not play a specific role in the assignment of aquatic life use designations in Ohio. These designations are based on the potential to attain (or demonstrate attainment in the case of the exceptional warmwater habitat use designation) the aquatic life use based on Ohio's biological criteria. Ohio EPA does consider state and federally listed, proposed and candidate species (including mussels) in assigning water bodies to the tiers of high quality waters as described in Ohio's antidegradation rule. The antidegradation rule requires a higher level of social and economic justification for any proposed lowering of water quality as one moves up the high quality water tiers. In addition, for OSWs and SHQWs, there is a 70% and 35% set-aside provision, respectively, that serves to preserve water quality at higher levels than the minimum deemed necessary to protect the assigned aquatic life use. As such, this provides an extra measure of protection for preserving both the high biological integrity of the water and the sensitive species, such as listed mussels, that are present.

**Comment 6:** Federally listed, proposed, and candidate mussel species are present or potentially present in four of the eight basins where use designations are proposed (i.e., Grand River drainage, Great Miami drainage, Muskingum River drainage, Mahoning River drainage). Please see the enclosed Table 1 for the range of listed mussel species within areas proposed for aquatic life use designation rule changes. Ambient concentrations of the chemical constituents affected by this rule have the potential to adversely affect federally listed, proposed, and candidate mussels.

In particular, research has demonstrated that juvenile mussels are especially sensitive to ammonia. Please see the enclosed list of relevant literature. We recommend that OEPA carefully evaluate how numeric criteria for ambient chemical concentrations associated with aquatic life use designation changes may affect federally listed, proposed, and candidate mussels. We request that use designations result in numeric criteria that are protective of listed, proposed, and candidate mussels. (Mary Knapp, USFWS Field Supervisor)

**Response 6:** We acknowledge the presence of listed, proposed and candidate mussel species in portions of the basins listed. Ohio EPA is not proposing to lower the aquatic life use or assign a non Clean Water Act (CWA) goal aquatic life use to any water body segments inhabited by listed, proposed or candidate mussels. Federal and Ohio rules require discharges to upstream waters be protective of downstream uses. Therefore, while some tributary waters within the basin and upstream of inhabited segments are proposed for a lowered aquatic life use or a non CWA goal aquatic life use, water

quality in water bodies actually inhabited by mussels must continue to meet the water quality criteria associated with the CWA goal use of warmwater habitat or better (depending on the stream in question). Most of the tributaries in which a lowered use or a non CWA goal use is being proposed are very small relative to the downstream water body segment in which mussels of concern are present. Thus, any theoretical difference in water quality that the mussels might be exposed to as a result of the revised use designation of upstream tributaries is likely to be very minor.

Ohio EPA is aware of research that has demonstrated the special sensitivity of juvenile mussels to ammonia. The context for addressing this concern, however, is the aquatic life ammonia criteria and not the designated aquatic life use of specific streams. Ohio's ammonia criteria are based on USEPA recommended criteria, which are currently under review. When USEPA finalizes those criteria, Ohio EPA will consider them in revising the Ohio criteria.

Another avenue of protection of endangered species is Ohio's antidegradation rule. Most of the inhabited segments in the basins mentioned in the comment have been or are in the process of being listed as special high quality waters under Ohio's antidegradation rule. Discharges to those waters have a higher level of social and economic justification for the allowance of new or expanded discharges. Those waters also have reserved pollutant assimilative capacity that helps preserve the existing higher water quality, thus providing an extra margin of safety for sensitive species, such as mussels, that may be present in the stream.

#### 3745-1-10 Grand River Drainage Basin.

**Comment 7:** With respect to Snyder Ditch, a new wadeable segment in the Upper Grand River drainage basin proposed for classification as a MWH stream, the IBI score is just below the WWH cutoff (34 observed vs. 38 required for WWH) and the IWB score is just above the modified warmwater habitat (MWH) threshold (6.4 observed vs. 6.2 required for MWH). In contrast, the ICI score qualifies the segment as EWH (46 observed vs. 46 required for EWH). The QHEI score of 50 suggests that WWH might be supported in the segment. Are other data available that might shed light on how to most accurately characterize the site, or explain the disconnect in biological assessments? (Linda Holst, USEPA Region 5 Water Quality Branch Chief)

**Response 7:** We believe that the poor habitat quality associated with ongoing channel maintenance of Snyder Ditch provides no potential to fully attain the warmwater habitat biological expectation based on the data collected in the 2007 survey and that, therefore, the proposed modified warmwater habitat aquatic life use designation is appropriate. Although Snyder Ditch is not on

the list of petitioned ditches in either Ashtabula or Trumbull County, it is clearly being maintained as a ditch. Snyder Ditch had the lowest gradient of any tributaries sampled in the upper Grand River basin at 2.56 feet per mile, thus resulting in limited stream power. The qualitative habitat evaluation index at river mile 0.6 was 50, with eight modified habitat attributes and only two warmwater attributes (mostly due to the bridge effect at the Moore Road sampling location). The macroinvertebrate community sampled in Snyder Ditch scored an invertebrate community index of 46; however, the qualitative sample EPT (10) and sensitive taxa (7) diversities were below warmwater habitat expectations. These parameters indicate that the biotic integrity of Snyder Ditch was not as high as the invertebrate community index indicated. In total, two sensitive mayflies and three sensitive caddisflies were collected at the site, none of them abundant.

3745-1-24 Muskingum River Drainage Basin.

**Comment 8:** There are a number of waterbodies in the Muskingum River basin that remain designated as limited warmwater habitat (LWH). Some of these waters have been investigated and are proposed for changes within this package (e.g., Morrison Run, Porter Run, Elk Run). Are there plans for field visits to the remainder of the LWH waters to update aquatic life use status? (Linda Holst, USEPA Region 5 Water Quality Branch Chief)

**Response 8:** There are 70 water body segments in Ohio's WQS for which the old LWH aquatic life habitat use designation is still assigned. The majority, forty-five, are located in the Muskingum River basin use designation rule, with most of the rest located in the Central Ohio River tributaries basin. This particular use designation rulemaking will assign new aquatic life use designations for almost half of the water body segments in the Muskingum River basin that still carry the old LWH use designation. Work has also been done on most, if not all, of the water bodies in the Central Ohio River tributaries basin still designated LWH. We plan to begin a rulemaking in 2011 to revise use designations in that drainage basin based upon the biological and habitat survey work performed over the last several years in this area. We will try to assess the remaining water bodies in future basin surveys and revise the aquatic life use designations for the remaining LWH streams as resources allow.

**Comment 9:** Table 2 on page 5 of the draft revisions fact sheet, OEPA notes 6 waterbody segments proposed for reclassification from exceptional warmwater habitat (EWH) to warmwater habitat (WWH). We have reviewed five of the six EWH to WWH segments and have identified no concerns. For the sixth segment, Bucklew Run (Killbuck Creek Sub-Basin), it is EPA's understanding that the support documentation will not be available until February 2011, thus we can offer no comment on this use

change at this time. (Linda Holst, USEPA Region 5 Water Quality Branch Chief)

**Response 9:** We will furnish documentation supporting the revision of Bucklew Run, a tributary to Killbuck Creek at river mile 0.03, from exceptional warmwater habitat to warmwater habitat when the Muskingum River use designation rule is proposed.

**Comment 10:** USEPA reviewed data on Sycamore Hollow Run, a new segment in the Muskingum River drainage basin which is proposed for designation as a limited resource water (LRW). Table 3 of the 2009 Muskingum River tributaries TSD indicates that this segment should be designated as coldwater habitat (CWH) use. OEPA has acknowledged that this segment should be designated as CWH and will make the change to CWH when the proposed changes are revised. (Linda Holst, USEPA Region 5 Water Quality Branch Chief)

**Response 10:** We agree that the appropriate aquatic life habitat use designation for Sycamore Hollow Run, a tributary of the Muskingum River at river mile 68.04 in Muskingum County, is coldwater habitat based on the results of the 2008 biological and water quality survey. It was mistakenly listed as a limited resource water in the draft rule. We have corrected this mistake in the proposed rule.

**End of Response to Comments**