



Division of Surface Water Response to Comments

Rules: Water Quality Standards Program Rules, OAC Chapter 3745-1:
OAC 3745-1-11: Maumee river drainage basin
OAC 3745-1-12: Sandusky river drainage basin
OAC 3745-1-19: Huron river drainage basin
OAC 3745-1-23: Portage river drainage basin

Agency Contact for this Package

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Ohio EPA held an Interested Party Review comment period on February 4, 2020 to March 5, 2020 regarding four Water Quality Standards Program 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.

Comment 1: Dry Creek (unnamed tributary at RM 7.48 to mouth) is proposed to be designated as modified warmwater habitat (MWH) because of poor habitat as a result of channelization and county ditch maintenance. However, biological surveys on this segment found fish communities that would be considered as attaining the warmwater habitat (WWH) use (Index of Biotic Integrity (IBI)=42) based on the biocriteria from the relevant ecoregion. Please provide further information and explanation as to why Ohio EPA decided to designate this segment as MWH in light of the observed fish community. (US EPA, Region 5)

Response 1: Upon further consideration, we agree that this stream segment should remain designated WWH rather than re-designated MWH and have made this revision to the TSD report, draft rule, and fact sheet. Although habitat quality is poor, the fish community is diverse (3 darter spp., tadpole matdom, central mudminnow, redbfin shiner, grass pickerel) and the index score does attain the applicable WWH biocriteria.

Comment 2: The West Branch of Tontogany Creek (headwaters to unnamed tributary at RM 3.2) is proposed to be designated as MWH because of poor habitat as a result of channelization and county ditch maintenance. However, biological surveys found fish communities that would be considered as attaining the WWH use (IBI=36). The *Biological and Water Quality Study of the Minor Great Black Swamp Tributaries, 2015-2016* explains that although the fish community met WWH expectations, “the community at RM 3.42 (P10P13) was anomalous and indicative of habitat and water quality stressors (channel modification, nutrient enrichment stressors) documented throughout this reach.” Please provide further information and explanations as to why the fish community performance was determined “anomalous” and why Ohio EPA concluded that the MWH designation is appropriate for this segment. (US EPA, Region 5)

Response 2: Despite an index score that nominally meets WWH, the fish assemblage here reflects the very poor habitat quality and water quality documented in this tributary. Fish assemblages were not well balanced and were dominated (79.4 percent) by only two species (johnny darter - 44.6%, western banded killifish - 34.8%). Only six other species were collected, totaling just 23 individuals. Four of these six species were highly tolerant. Poor habitat quality is undoubtedly limiting fish abundance and distribution at this location.

Collecting western banded killifish (state-endangered, limited range) in this portion of the watershed was an anomaly. They were only known to be found from a couple locations in Ohio, including the upper Portage River basin. The upper Portage River watershed is adjacent to the headwaters of the Tontogany watershed. In its very headwaters, streams/ditches on one side of a quiet country farm road are in the Portage drainage and the other side of the road is in the Tontogany drainage. There also happened to be very significant flooding in the spring and summer before the onset of our survey. A higher water table and flows were evident early in the sampling season. It would be easy for fish such as this to simply cross the road during one of these major flooding events. Western banded killifish are typically found in areas with an abundance of rooted aquatic vegetation, clear waters, and with substrates of clean sand or organic debris free of silt (ODNR). These were the antithesis of the conditions observed in West Branch Tontogany RM 3.42 where siltation was shin to knee high in areas and there was certainly no beneficial aquatic vegetation observed here either.

The western banded killifish is very similar to the blackstripe topminnow, which is common throughout the watershed and was also collected at RM 3.42. These “topminnow” fish species, though not categorized as highly tolerant by Ohio EPA, are morphologically adapted to use the thin layer of oxygen-rich water at the atmosphere-water interface; they are well suited

for occupying habitats characterized by periodic or continuous oxygen depletion. Wide diel D.O. swings (>18.0 mg/L) and near anoxic conditions (0.2 mg/l) were documented at this location, suggesting a stream environment for which these types of topminnows are able to persist. We re-sampled West Branch Tontogany in 2016 downstream from the unnamed tributary at river mile 3.2 and did not observe any killifish. Despite the presence of this species during 2015 in the upper West Branch Tontogany, its continued persistence via successful reproduction here seems unlikely given the very poor habitat (QHEI =17.25) and water quality conditions, and complete lack of aquatic vegetation needed for reproduction. This was the only location in the entire survey where killifish were collected in appreciable numbers (one individual was found near the mouth of Tontogany Creek proper).

Johnny darters, while not categorized as highly tolerant, are a pioneering species and are the most tolerant of the darter species in Ohio. Pioneering species are typically those that are first to reinvade areas after a period of stress or stream desiccation or can predominate in unstable environments as a result of anthropogenic stress. A high proportion of pioneering species is an indication of a habitat that is temporally not available, under stress, or both (Ohio EPA 1987). Aside from killifish, all but one other fish species found was a pioneering species. The QHEI evaluation noted that this stream would likely go intermittent later in the year or in a drier year – the high proportion of pioneering species at this location seems to corroborate this.

The dominance of species that can tolerate poor water quality and habitat reflect conditions documented at this location. Despite an IBI score that nominally meets WWH criterion, the fish assemblage at this location clearly reflects the poor habitat and water quality conditions. The fish community here is not well balanced and is lacking components typical of WWH streams throughout the study area (e.g., multiple darter species, non-tolerant minnows & sunfish, pickerel, mudminnow). Conditions in West Branch Tontogany Creek (biological, chemical, habitat) improve substantially once stream size increases downstream from the unnamed tributary at river mile 3.2.

Comment 3:

The Draft Rules for OAC 3745-1-11 include three Prairie creeks listed for proposed designations:

1. On page 10, the aquatic life designation for a “Prairie creek” in the Little Auglaize River sub-basin is proposed to be changed from MWH to WWH, based on data from the *Beneficial Use Support Document Northwest Ohio Tributaries 2014-2017*;
2. On page 24, the aquatic life designation for a “Twentyseven mile creek (Prairie creek)” is proposed to be verified as WWH,

- based on data from the *Biological and Water Quality Study of the Saint Marys River and Tributaries, 2015*; and
3. On page 25, the aquatic life use designation for a previously undesignated “Prairie creek” in the St. Marys River sub-basin is proposed to be designated as MWH, based on data from the *Biological and Water Quality Study of the Saint Marys River and Tributaries, 2015*.

In table 2 and 3 of the Draft Rules fact sheet, all three streams referenced above are proposed for WWH designations. In the rule language for the Maumee drainage (OAC 3745-1-11), however, the first and second stream referenced above are proposed for WWH, but the third stream is proposed for MWH. The *Biological and Water Quality Study of the Saint Marys River and Tributaries, 2015* states that “[b]ased upon the biological and habitat assessments, the WWH use designation is recommended for three previously undesignated streams: Prairie Creek [...]” (p.102); but also states that “[t]he Modified Warmwater Habitat Use (MWH-C) is recommended for Prairie Creek [...]” (p.102). Please clarify the proposed aquatic life use designations for the multiple streams named “Prairie creek” in the Maumee drainage basin and explain the potential discrepancies in the supporting water quality report. (US EPA, Region 5)

Response 3:

As mentioned in the comment, there are three streams named Prairie Creek that are involved in this rulemaking. The numeric summary of the draft revisions in the comment is correct and consistent with the draft rules. Two of these Prairie Creeks are in the St. Mary’s River watershed. The first, also known as Twentyseven Mile Creek, flows into the St. Mary’s River just across the Ohio/Indiana border. This Prairie Creek is identified in the TSD report with the river code 04-500-001 and had two sampling locations, the downstream sample location being at a latitude/longitude of 40.778041; -84.801344. It is correctly identified as an unverified WWH stream that is being verified as WWH in Table 3 of the fact sheet, in the draft rule (page 24), and in the TSD report.

The second Prairie Creek in the St. Mary’s watershed is also a direct tributary to the St. Mary’s River into which it flows just south of Kossuth, Ohio. It is identified in the TSD report with the river code of 04-501-000 and had two sampling locations, the downstream of which was at a latitude/longitude of 40.651335;-84.343547. This Prairie Creek is correctly recommended for MWH as intended in the third bullet on page 102 of the TSD report. However, the recommended designation appears incorrectly in several other locations with the TSD. These have been corrected. Also, the fact sheet erroneously indicated WWH for this Prairie Creek in Table 2 on page eight. This has been corrected. The draft rule correctly listed Prairie Creek as MWH on page 25.

The third Prairie Creek is a tributary to the Little Auglaize River and is correctly recommended as WWH on page 4 of the support document (*Beneficial Use Support Document Northwest Ohio Tributaries 2014-2017*), the draft rule (page 10) and the fact sheet (Table 2, page 10).

End of Response to Comments