


Division of Surface Water

Response to Comments

Rule: OAC 3745-1-09, -11, -17, -18, -25 (Water quality standards use designation rules)

Agency Contact for this Package

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Ohio EPA made available for review and comment five proposed 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 June 2, 2009.

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.

Rule 3745-1-11 Maumee River drainage basin use designations.

Comment 1: It appears that Ai Creek, which receives the discharge from the Village's wastewater treatment plant, is now being proposed to be classified as a "warm water habitat." Based on our review of available information from Ohio EPA, it does not appear that Ai Creek has been biologically evaluated for habitat diversity. Therefore, we are requesting that prior to Ai Creek being classified as a "warm water habitat," that the stream should be evaluated and consideration be given to classifying the stream as limited resource water. The section of Ai Creek immediately downstream from the Village has been channelized; has stretches without any tree canopy, and experiences wide hydraulic fluctuations. (Jon Gochenour, Village Administrator, Village of Swanton)

Response 1: Ohio EPA biologists conducted a biological, water quality, and habitat study of the Swan Creek watershed in June-October, 2006. A link to *Biological and Water Quality Study of Swan Creek and Selected Tributaries 2006* is on the Ohio EPA Web site at http://www.epa.state.oh.us/dsw/document_index/psdindx.html.

The study included four sites on Ai Creek. These included two sites upstream of the Swanton wastewater treatment plant discharge (which occurs at Ai Creek river mile 3.50) and two sites downstream of the plant discharge. The warmwater habitat biological criterion for the fish community (IBI) was attained at all four sites. Results of the survey concluded that Ai Creek has the potential to attain the warmwater habitat aquatic life habitat use designation.

Comment 2: It is also being proposed by Ohio EPA that Ai Creek be classified a “primary contact recreation” water. “Primary contact recreation” is defined as including swimming, canoeing, and scuba diving. Ai Creek is not capable of supporting swimming, canoeing, or scuba diving. The stream is a small drainage ditch and normally has insufficient flow to support any of these activities. We feel the proper classification would be for “secondary contact recreation.” (Jon Gochenour, Village Administrator, Village of Swanton)

Response 2: Potential access to a stream and potential use by children are also factors that are taken into account when considering the recreational use of a stream. Relatively little stream flow is needed to provide full body contact for children. Ai Creek drains 30 square miles and flows through populated areas such as the Village of Swanton and Oak Openings Park, both of which provide easy access and opportunities for recreational use, particularly by children. In addition, Ai Creek flows along numerous residences along State Route 64 and along some of the county roads. Accounting for these factors, Ohio EPA believes that the primary contact recreation use is appropriate for Ai Creek. The permit limits for the Swanton wastewater treatment plant are already based on the primary contact recreation criteria. Therefore, assignment of the primary contact recreation use will not result in any change to the Village of Swanton’s current permit limits.

Rule 3745-1-17 Southwest Ohio Tributaries drainage basin use designations.

Comment 3: OEPA is proposing to modify Town Run’s designated use from Limited Resource Water - Small Drainageway Maintenance, Agricultural Water Supply, Industrial Water Supply and Secondary Contact Recreational to Cold Water Habitat, Primary Contact Recreational based on the 2006 observations of OEPA biologists of Town Run characteristics as a Class III Primary Headwater Habitat. The Primary Headwater classification is placed on streams having the following characteristics:

Perennial Stream: The USGS quadrangle for Higginsport shows Town Run to be an intermittent stream.

Coldwater Conditions: The Brown County daily dew point temperature is reported by the Natural Resources Conservation Service Soil Survey as 63.1 degrees F in July and 61.8 degrees F in August. The surface water run-off and plant effluent which are the primary stream flow will approach the dew point that is indicative of the daily low temperature.

Ground Water Feed: The soils within the drainage basin are of Rossmoyne, Avonburg, and Clermont associations – glacial till on uplands, moderately well drained, with slow percolation and permeability of 0.6 to 2.0 inches per hour. Ground water is limited to localized perched water tables and does not support a continuous discharge. Drainage ways within Brown County with topography and drainage areas similar to Town Run are similarly intermittent streams. Town Run is a continuously running stream only due to the discharge from the Georgetown Wastewater Treatment Plant.

Contain Species of Animals Adapted to Cool Water Demanding Habitat Requirements: The Village undertook a “Biological Water Quality Study of Town Run” in February, 1997 which reported “poor abundance and species richness” and “degraded macro-invertebrate communities” in the upstream reaches, which “the wastewater discharge mitigates” by a “sharp increase in the number of macroinvertebrates” downstream of the discharge.

The study was reviewed by OEPA in the determination of the LRW-SDM designation and enabled the relaxed ammonia limits in the Village’s 2000 NPDES permit. We are enclosing a copy of the 1997 survey. (S. Kelly Jones, Village Administrator, Village of Georgetown)

Response 3: The comment implies that the rule change from limited resource water to coldwater habitat is invalid and should not be adopted based in part on the 1997 survey undertaken by the Village. However, the report provided by the Village makes the following recommendation: “It is recommended that any decision regarding an applicable use designation be postponed until a thorough biological and habitat investigation can be calculated.”

Additional study beyond the 1997 survey was necessary because sampling was performed in the winter as opposed to the summer sampling period prescribed by Ohio EPA sampling protocols. Additional sampling was done by Ohio EPA in 2006 and 2008 in support of this rule change as described below.

Ohio EPA biologists conducted a biological survey of Town Run in August 2006 and subsequently in May 2008. The results of the surveys are published in “Biological and Water Quality Study of the White Oak Creek Watershed, 2006.” A link to the report is on the Ohio EPA Web site at http://www.epa.state.oh.us/dsw/document_index/psdindx.html. In both surveys, pool depths of approximately 40 cm and breeding populations of the southern two-lined salamander, *Eurycea bislineata*, an obligate aquatic

species that requires two or more years of sustained flow to complete its life cycle, were found upstream of the Georgetown WWTP discharge. In addition, three coldwater macroinvertebrate taxa were found in Town Run in 2008. The photo below shows that much of the habitat of Town Run includes bedrock and boulder slabs, which are often associated with ground water connections. The stream is high-gradient, with a wooded riparian zone that shades the water. These observations indicate perennial flow sustained by ground water.



Ohio EPA disagrees with the contention made in the comment that the Georgetown WWTP discharge mitigates other environmental influences in Town Run. The 1997, 2006 and 2008 surveys all point to a degraded aquatic system downstream from the outfall as described below.

The sharp increase in the number of macroinvertebrates seen just downstream of the WWTP in 1997 was due to species indicative of poor water quality. The report states: "Despite the dramatic increase in macroinvertebrate abundance seen at the downstream stations, it should be noted the dominant taxa at these sites are Simuliidae (black fly) and Chironomidae (blood midge) larvae. These organisms are highly tolerant to poor water quality and can exist or even thrive in situations where other organisms cannot."

Ohio EPA's surveys in 2006 and 2008 found 26-29 macroinvertebrate taxa, including 9-10 EPT taxa and 6-9 sensitive taxa in Town Run upstream of

the Georgetown WWTP outfall. This type of macroinvertebrate community is indicative of good water quality. Ohio EPA's survey downstream of the Georgetown WWTP confirmed the poor water quality found in 1997, with the macroinvertebrate community rating very poor and no two-lined salamander larvae observed.

Ohio EPA's "Biological and Water Quality Study of the White Oak Creek Watershed, 2006" indicates that Georgetown's treatment system can become overloaded during wet-weather, resulting in the flushing of activated sludge from the aeration basin and into Town Run. High concentrations of ammonia, phosphorus, and nitrate-nitrite were recorded downstream of the Georgetown WWTP in the 2006 survey.

Comment 4: Since reclassification will impact the Village significantly, it would have been useful for OEPA to provide Notice of the Public Hearing to offer our residents the opportunity to be educated on the benefits and costs to our community. We respectfully request these comments be included in the public record (S. Kelly Jones, Village Administrator, Village of Georgetown)

Response 4: Notices of public hearings for proposed rules in Ohio are posted on the Register of Ohio Web site (<http://www.registerofohio.state.oh.us/>). Recognizing that the Village did not become aware of the proposed rules until after the close of the comment period, the June 11, 2009 comments from the Village have been included as part of the public record.

Comment 5: OEPA is currently proposing to enforce an improvement program to achieve compliance with more stringent effluent limits and operational requirements within the present permit cycle ending March, 2013. The Village has proposed an extended deadline for the following reasons:

1. While there has been correspondence notifying the Village of its potential impact, Town Run has not to date been reclassified.
2. The Village has been working with OEPA since 1994 to more effectively manage its wet weather flows. In the 1980's the Village constructed a rehabilitation program approved by OEPA which has subsequently been shown to have not been a good investment. The extended timetable will enable a comprehensive program with a significant "hands on" contribution by Village forces to improve the program's probability of success.
3. The 1992 WWTP Improvements Project created a significant financial burden for the Village residents as evidenced by the relaxed Town Run classification. However, the Village has pursued a steady and focused process of improving its sewers.
4. The process takes time. The Village needs time to rehabilitate its sewer and determine the cost effective sizing of upgrades needed for storage and transport of wet weather flows.

The existing plant is a highly efficient and well operated facility. The proof is in the significant improvement reported by OEPA's survey team. The Village's good faith efforts warrant implementation of program conducted in a timely and cost effective manner to assure a maximum return on the proposed investment in new Treatment Works. (S. Kelly Jones, Village Administrator, Village of Georgetown)

Response 5: This rulemaking addresses the first point, reclassification of Town Run. Ohio EPA surveys have shown that the proper aquatic life use designation for Town Run is coldwater habitat. The appropriate venue for negotiating compliance schedules is the NPDES permit renewal process.

Rule 3745-1-18 Little Miami River drainage basin use designations.

Comment 6: Could a clarification be provided on why the initial 1978 exceptional warm water habitat designations for the Todd's Fork tributary streams Lick Run and Dutch Creek were changed to warm water habitat? (Dennis TenWolde, Executive Director, Little Miami River Partnership)

Response 6: Ohio EPA conducted a biological study of portions of the Little Miami watershed in 2007, which included one site each on Lick Run and Dutch Creek. The current designations for these two streams, as pointed out in the comment, are based on 1978 water quality standards (as indicated by the asterisks in the exceptional warmwater habitat use designation column). As such, the exceptional warmwater habitat use designations were estimations of use potential made at the time by staff from a map or other best professional judgment and not based on an actual survey of the habitat quality or biological survey of the streams. The 2007 survey was the first actual assessment of use designation potential performed by Ohio EPA for these two streams.

The biological results for both streams indicate warmwater habitat conditions rather than exceptional warmwater habitat conditions exist. In addition, the habitat quality, as measured by the qualitative habitat evaluation index (QHEI), is not consistent with that which would be expected to support exceptional warmwater habitat communities. Therefore, both streams were proposed for redesignation based on the actual data collected.

End of Response to Comments