

# Iowa Department of Natural Resources

# WATER QUALITY STANDARDS

## USE ATTAINABILITY ANALYSIS (UAA)

### USE ATTAINABILITY ANALYSIS (UAA) AND THE REBUTTABLE PRESUMPTION

Pursuant to Iowa Code section 455B.176A, 567 IAC 61.3(1) (Water Quality Standards), the Iowa Department of Natural Resources (DNR) must classify all waters of the state for protection of beneficial uses. To do this, the DNR must assign water bodies the highest levels of protection, which are fishable and swimmable (Warm Water —Type 1 (BWW1), and primary contact recreation (A1)). Iowa's Water Quality Standards define designated use classifications for the protection of recreational and aquatic life uses and presume that all perennial streams are able to achieve the highest designated uses. The presumption, that all perennial streams are able to achieve the highest designated uses, may be rebutted through the completion of a use attainability analysis (UAA) which demonstrates that actual uses in the water body are different. A UAA is a scientific assessment of the factors affecting the attainment of uses specified in Section 101(a)(2) of the Clean Water Act (fishable/swimmable). Further, this presumption is referred to as the rebuttable presumption. In 2006, when the rebuttable presumption was first adopted in Iowa, it immediately applied protections to ~26,000 miles of Iowa water bodies.

### WHO NEEDS A UAA

If a facility is required to have a National Pollutant Discharge Elimination System (NPDES) permit pursuant state and federal law, the DNR is required to complete a UAA for the receiving water body before re-issuing the permit (permits are re-issued after five years). A UAA is conducted to verify that the presumed uses (A1, BWW1) are accurate for the water body. If the DNR concludes that the presumed uses are not accurate, the DNR will propose new designated uses.

### TIMELINES

The DNR tracks requested UAAs to plan seasonal field work, create a project schedule, and determine resources needed. When scheduling field work, staff also consider flow, weather, and water body conditions. Water bodies may only be assessed when the flow is within the 25<sup>th</sup> and 75<sup>th</sup> percentiles because these flow conditions are considered “normal” and therefore when recreational use or aquatic life conditions are the most representative.

The typical recreational season in Iowa is March 15 through November 15; therefore, recreational use assessments may only be conducted during this time. Aquatic life use assessments may only be completed from July 1 through September 30, because, during these months, stream flows and turbidities are usually low, and fish communities are relatively stable. Stream fish communities are typically unstable during spring spawning periods and during pre-winter movements to deeper water of rivers.

### COMPONENTS OF A UAA

The first step in the UAA process is a “desktop review.” To do this, DNR staff review all available information for a water body. If sufficient data are already available, additional field work may not be necessary, and a write-up may be completed.

If field work data are not available, or are deemed insufficient, DNR staff must collect new data. Scientifically based field procedures are used by the DNR for the assessments. To do this, three protocols are used: cold water, warm water, and recreational use. These protocols are found on the [DNR's water quality standards \(WQS\) website](#).

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<sup>1</sup> Perennial streams are defined as those identified by the U.S. Geological Survey (USGS) 1:100,000 DLG Hydrography Data Map (published July 1993).

## **GATHERING DATA**

The DNR considers a number of factors when conducting an assessment. Existing data are collected from the Drought Monitor (drought conditions), USGS stream gages (flow), the National Oceanic and Atmospheric Administration (NOAA) (precipitation), USGS topographic maps and aerial photos, and other sources. The DNR also reviews maps of the area and other references to look for parks, schools, and other land uses that indicate the potential recreational uses of the water body. Field work data can include water depth, fish species and number present, habitat, photos of the water body, and any indications of recreation (footprints, toys, fishing gear, docks, etc.). Once all the data have been collected, the DNR creates a UAA write-up that outlines the data and the proposed recreational and/or aquatic life uses.

## **AFTER THE UAA WRITE-UP**

Once a UAA is completed, a UAA write-up and a letter with the updated designated use recommendation(s) are sent to the permittee. The permittee may request a meeting to discuss the recommendation(s). The UAAs are posted to the [DNR's WQS website](#) to allow the permittee and the public to review the UAA write-ups. The recommended aquatic life and/or recreational designated uses for a receiving water body are noted in each UAA write-up in detail.

## **RULEMAKING**

The UAA's designated uses are not final at the time the UAA is written; it is only a recommendation. Formal rulemaking is required to adopt the recommended designated uses for the water body. UAA rulemaking activities can be found on the [DNR's WQS website](#). Once the formal rulemaking process is complete, the UAAs that were posted to the WQS website are moved to the [ADNet database](#).

For more information on water quality standards and designated uses, see the Water Quality Standards: Surface Water Classifications in Iowa Fact Sheet posted on the [DNR's WQS website](#).

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