

Recreational Use Assessment and Attainability Analysis Protocol



March 19, 2008

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Purpose

This Recreation Use Assessment and Attainability Analysis protocol is intended to assist any party interested in conducting investigations to provide scientifically defensible field information on the existing and attainable recreational uses of waters of the State. This protocol will be an important tool in recommending and justifying those waters to be designated (or re-designated) for one of the three Class A recreational uses. Designated waters are an important subset of the waters of the State as they are afforded specific protections under regulatory provisions and are subject to numeric criteria to protect the designated use. The information obtained using guidance presented in this document will be used to:

- Comply with federal requirements for the designation of recreational uses,
- Assist in identifying waters of the State which support recreational uses,
- Assist in identifying waters of the State which do not support contact recreational uses,
- Respond to the changes in ability of surface waters to support recreational uses, and/or
- Review and modify, as appropriate, the recreational designation of surface waters.

A significant number of stream reaches or water bodies are currently warranting Use Attainability Analysis (UAA) efforts because UAA documentation is now necessary for any water body for which Iowa proposes a Class A2 or Class A3 use designation. Thus, this protocol will serve to provide the methodology to obtain field data to assist in justifying a position on the recreational uses of a water body even if the designation is other than Class A1 primary contact recreation.

Any interested person may collect field data in support of preparing a form Use Assessment and Attainability Analysis (UAA) report on a waterbody or waterbody segment and submit the resulting data report to the Department of Natural Resources (the department). The department will use the resulting data report as supporting documentation (including preparation of a formal UAA report) in the development of applicable rules reflecting the use designation within the Surface Water Classifications.

The department encourages anyone wishing to perform a field collection for UAA purposes to meet with department staff prior to initiating the work. These pre-meetings may help ensure a confident understanding of this protocol.

Background

Federal Clean Water Act and Code of Federal Regulations

Use designations for waters under the Clean Water Act come from the Act's declaration of goals, commonly referred to as the "fishable/swimmable" goal.

Clean Water Act section 101(a)(2)

It is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.

The Clean Water Act contains details regarding the State's role in designating uses for water bodies, including suggestions for categories of use classifications.

Clean Water Act section 303(c)(2)(A):

Whenever the State revises or adopts a new standard, such revised or new standards shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this Act. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

The definition of waters of the United States can be found below.

40 CFR 122.2:

Waters of the United States or waters of the U.S. means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) All interstate waters, including interstate "wetlands;"
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. [See Note 1 of this section.] Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Federal definition of a Use Attainability Analysis can be found below.

40 CFR 131.3(g):

Use attainability analysis is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological and economic factors as described in § 131.10(g).

Federal regulations contain details regarding the State's role in designating uses for water bodies, including suggestions for categories of use classifications, which were derived from section 303(c)(2)(A) of the Clean Water Act.

40 CFR 131.10(a):

Each State must specify appropriate water uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of the water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

Provisions within the federal regulations preclude the removal of existing or attainable uses. Existing uses are those attained in the water body on or after November 28, 1975, regardless of listing in the State Clean Water Law.

40 CFR 131.10(g):

States may remove a designated use which is not an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible because:

1. Naturally occurring pollutant concentrations prevent the attainment of the use, or
2. Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met, or
3. Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place, or
4. Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modifications in a way that would result in the attainment of the use, or.
5. Physical conditions related to the natural features of the water body, such as lack of proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life

protection uses,¹ or

6. Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.

Federal regulation establishes when designated uses may not be removed.

40 CFR 131.10(h):

States may not remove designated uses if:

- (1) They are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added; or
- (2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

Provisions within federal regulations also require that States upgrade the designated uses of the water body to what is actually being attained.

40 CFR 131.10(i):

Where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained.

Federal regulations require the State to conduct a Use Attainability Analysis in order to justify deviation from the use designations set forth in the Clean Water Act's "fishable/swimmable" goal.

40 CFR 131.10(j).

A State must conduct a use attainability analysis as described in 131.3(g) whenever:

- (1) The State designates or has designated uses that do not include the uses specified in section 101(a)(2) of the Act, or
- (2) The State wishes to remove a designated use that is specified in section 101(a)(2) of the Act or to adopt subcategories of uses specified in 101(a)(2) of the Act which require less stringent criteria.

Iowa's Clean Water Law and State Regulations

The Iowa Code (445B) and the water quality standards (Iowa Administrative Code, 567, Chapter 61 establish water quality goals and requirements for all waters of the State. Waters of the State are defined in the Iowa Code (455B.171 (36) as: any stream, lake, pond, marsh, watercourse, waterway, well, spring, reservoir, aquifer, irrigation system, drainage system, and any other body or accumulation of water, surface or underground, natural or artificial, public or private, which are contained within, flow through or border upon the state or any portion thereof.

Iowa Administrative Code (IAC), Part 567, Chapters 60, and 61 note applicable definitions and provisions regarding Iowa's Water Quality Standards (WQS). The WQS establish specific use designations for waterbodies that support or are capable of supporting primary and secondary contact recreation and children's recreational activities, referred to as the group of Class A waters. Waters designated as Primary contact recreational use (Class A1) are:

'Waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risk of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not limited to, swimming, diving, water skiing, and water contact recreational canoeing.' [567-61.3(1)b(1)]

Waters designated as Secondary contact recreational use (Class A2) are:

'Waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the waterbody while on a boating activity.' [567-61.3(1)b(2)]

¹ Physical features, as described in 40 CFR 131.10(g)5., must be associated with one or more of the other removal criteria [40 CFR 131.10(g)1.-4. & 6.] in order to remove a recreational use.

Waters designated as Children’s recreational use (Class A3) are:

‘Waters in which recreational uses by children are common. Class A3 waters are water bodies having defined banks and bed with visible evidence of the flow or occurrence of water. This type of use would primarily occur in urban or residential areas.’ [567-61.3(1)b(3)]

In addition, 567-60.2 further defines Primary contact as

‘...any recreational or other water use in which there is direct human contact with the water involving considerable risk of ingestion of water or contact with sensitive body organs such as the eyes, ears, and nose, in quantities sufficient to pose a significant health hazard.’

Secondary contact is defined in Department rules (567-60.2) as

‘...any recreational or other water use in which contact with the water is either incidental or accidental and in which the probability of ingesting appreciable quantities of water is minimal, such as fishing, commercial and recreational boating and any limited contact incidental to shoreline activities. This would include users who do not swim or float in the water body while on a boating activity.’

Specific numerical criteria and narrative stipulations associated with the Class A designated uses are set forth in the WQS’. [567-61.3(3)] In summary, these provisions establish Escherichia coli (E. coli) bacteria levels and applicable calendar months (Table 1) when the levels shall not be exceeded.

Use	Geometric Mean	Sample Maximum
Class A1		
3/15-11/15	126	235
11/16-3/14	Does not apply	Does not apply
Class A2 (Only)		
3/15-11/15	630	2880
11/16-3/14	Does not apply	Does not apply
Class A2 and B(CW1), or HQ		
Year-Round	630	2880
Class A3		
3/15-11/15	126	235
11/16-3/14	Does not apply	Does not apply

Establishing a use other than Class A1 or A3 or the removal of a use

As noted above, federal regulations require the State to conduct a Use Attainability Analysis (UAA) in order to justify deviation from the use designations set forth in the Clean Water Act’s “fishable/swimmable” goal.

40 CFR 131.10(j).

A State must conduct a use attainability analysis as described in 131.3(g) whenever:

- (1) The State designates or has designated uses that do not include the uses specified in section 101(a)(2) of the Act, or
- (2) The State wishes to remove a designated use that is specified in section 101(a)(2) of the Act or to adopt subcategories of uses specified in 101(a)(2) of the Act which require less stringent criteria.

Existing Uses versus Designated Uses

Water uses are categorized as either “existing” or “designated,” or as both.

“Existing uses” are defined in 40 CFR 131.3(e) “...as those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.”

“Designated uses” are defined in 40 CFR 131.3(f) as “...those uses specified in water quality standards for each water

body segment whether or not they are attained.”

Water body segments that have a designated use may have that use removed or established at a lower recreational use designation (Class A2), if it can be shown that the use cannot be attained due to one or more of the factors described in Title 40 of the Code of Federal Regulations Section 131.10(g)1-6. A submitter of field information may provide evidence demonstrating that the Class A1 use is neither existing nor attainable. Evidence of an existing use that occurred after November 28, 1975, but is no longer observed at the time of the UAA, must remain designated for that use unless substituted for another use that has water quality criteria as stringent or more stringent than the original use. In addition, if the department determines that primary contact recreation is an existing use then the segment shall be designated for primary contact recreation.

Field Assessment Procedures for Recreational Use Assessments and UAAs

Recreational Season - Field Surveys for Use Assessments and UAAs aimed at assessing recreational use should normally be performed during the recreational season defined by rule as between March 15 and November 15 for all non-cold water bodies. However, data may be collected at any time of the year if existing conditions are appropriate.

Base Flow Conditions - Use Assessments and UAAs field surveys are only “snapshots” of observations when conducted in accordance with this protocol. To acquire the best results from a single field survey, the survey for Use Assessments and UAAs should be conducted during base flow periods. Base flow is that portion of a stream’s flow contributed by sources of water other than precipitation runoff. This refers to a fair weather flow sustained primarily by springs or groundwater seepage, wastewater discharges, irrigation return flows, releases from reservoirs, or some combination of these.

Points of Observation -Typically, field activities should include a visual inspection of the targeted water body at a minimum of three (3) road crossings and other publicly accessible locations which can include city, county, and state parks. Areas of public use shall be included when analyzing stream uses prior to proposing a change in the recreational use designation to Class A2 or removal of a recreational use designation. Other sources of information can supplement the stream use assessments including contacting the local county conservation board in each county where the stream segment is located for information about the recreational uses being made of those segments.

If stream segments are short or remote and do not provide three road crossings, then clarification shall be provided. If information is given regarding locations of Class A1 or Class A3 recreation within less accessible stretches within the Use Assessment and UAA segment², then those sites shall also be included in the survey prior to proposing a change in the recreational use designation to Class A2 or removal of a recreational use designation. For stream segments receiving a domestic discharge, a minimum of three (3) stream sites near the discharge point should be selected for assessment with, at least one site upstream of the discharge and at least one downstream, if possible.

Recreational uses of waters are likely to occur in cities, towns and public use areas such as parks and campgrounds and other areas where people congregate. The preparation of a UAA on a recreational use of a water body in these areas is the same process as a UAA in other areas. However, prior to proposing a change to Class A2 or removal of a recreational use designation, the search for evidence on the use attainability in waters in these areas must be thorough and may need to involve an expanded effort including, but not limited to, multiple field observations, several interviews with area residents in cities and towns, and interviews with owners and managers of public use areas and the public users of parks and other public areas.

At each of the stream sites, an upstream and downstream sample location will be established to collect the noted physical and hydrological data noted in Data Sheet B. The two sample locations should be selected to be representative of the overall assessment length. Normally the sample locations should be 40 feet to 150 feet from the center point of the stream site which is typically a bridge or access point. Where possible, the maximum stream depth between the two

² UA/UAA segment is the stream segment targeted for a UA/UAA and is not required to be the full length described as a separate segment in Surface Water Classification. If less than the full length represented by a WBID, the start and end points of the shorter segment must be clearly identified on the survey forms. Partial assessments of lakes are not allowed.

sample locations should be collected and the approximate spatial size determined (width and length) of the stream containing the maximum depth.

For lake assessments, one site may be sufficient to characterize existing or potential uses if the entire lake can be adequately observed from one location.

The Department staff may recommend primary field survey sample sites for waterbodies to be assessed. These primary sites may be moved to the nearest road crossing (upstream or downstream) if the site visit indicates that it is an inappropriate sample site for valid reasons. Field notes should indicate the reasons for rejecting the primary site and selecting the alternative site. When evaluating water bodies on private land, surveyors should attempt to secure the landowner's permission to access the sites.

Mapping - All field-surveyed sites shall be clearly marked on the maps provided by the department. When possible, it is suggested that Global Positioning System (GPS) coordinates of each site be taken on-site in the Universal Transverse Mercator (UTM), North American Datum 1983 (NAD 83), Zone 15 format (easting and northing) and recorded in the field notes. If GPS is used, the department also recommends that the coordinates be recorded on the department's Locational Data Sheet to ensure accurate documentation of details. The Locational Data Sheet can be obtained from the department upon request.

When a portion of a water body segment (as listed in the Surface Water Classification of the Water Quality Standards) is targeted for a Use Assessment and/or UAA field survey, the surveyor must clearly identify the start and end points (upstream and downstream coordinates) of the portion on Data Sheet A. The water body segments assessed should match the segments listed in the Surface Water Classification. Partial assessment of lakes is not allowed.

Use of Forms - Narrative site assessments are to be clearly recorded on the forms provided in this protocol. To eliminate the risk of confusion between multiple sites, each site must be recorded on a separate form.

Photographic Record - A photographic record must be made of each site during the site assessment. Photographs should include at least an upstream view, downstream view and any evidence of observed or potential uses. Photographs must be catalogued in the field notes in a manner that indicates the site location, date, view orientation and what is being shown.

Interviews - Users present during the survey, waterside landowners and local residents, including school-aged children, should be interviewed regarding the history of uses in or along the water body in question. Interviews are to be clearly recorded in the field notes. Persons interviewed should attempt to be identified by legal name and address in the field notes and written report.

If there is a nearby residence and no one is available for an interview, postage-paid interview postcards should be left at the resident for comment. See sample questions below.

If a lowering or removal of a recreational use is being considered, the owners and/or managers of public use areas along the segments shall be contacted and asked to provide information on the types of water recreation they have participated in or observed at the site.

Interviews are an important source of information for determining whether Class A3 use occurs on a stream because it is very unlikely that these types of uses will be observed directly and evidence may be hard to find. Local residents can be a good source of this information.

Surveys are one method for gathering comments about recreational activities on a stream. Surveys should provide a means for responders to record the name of the stream as well as identifying the specific segment of the stream to comment on. Areas of recreation can be identified by listing the county of access site such as a city park, road bridge or other landmark. The following list of questions should be asked of responders who are interviewed for the purpose of acquiring additional information about recreational uses:

Have you ever participated in or observed someone taking part in the following activities in the waterbody?

1. Swimming - If yes, please describe where, approximately when, and how often you participated in or observed swimming in this waterbody.
2. Children playing in or near the stream/river - If yes, please describe when, where, and how often you observed children playing in or near this waterbody.
3. Canoeing, kayaking, or tubing - If yes, please describe when, where, and how often you participated in or observed canoeing, kayaking, or tubing in this waterbody.
4. If you answered "yes" to #3, did the canoeing, kayaking or tubing also involve dunking the head under water or immersing the entire body?
5. Fishing, seining, or trapping of minnows - If yes, please describe when, where, and how often you participated in or observed fishing, seining, or trapping of minnows in this waterbody.

Partial responses to the survey questions are acceptable.

The Department has also established an online stream survey to gather information. Information received through this survey should also be considered for the purposes of a Use Assessment or UAA.

Data Relevant to the Recommendation of Removal of a Designated Use

The following italicized paragraphs set forth the criteria established by the U.S. Environmental Protection Agency and section 455B.176A of the Code of Iowa for establishing a non-Class A1 Use or removal of a designated use. The paragraphs that follow the italicized portions provide additional guidance for data which may be relevant to the application considering the federal criteria for Iowa's waters.

Natural Pollutant Sources

40 CFR 131.10(g): States may remove a designated use which is not an existing use, as defined in section 131.3 or establish subcategories of a use if the State can demonstrate that attaining the designated use is not feasible because:

1. Naturally occurring pollutant concentrations prevent the attainment of the use.

Field documentation could include, but is not limited to, watershed characterization, bacterial source tracking, antibiotic resistance analysis, historical accounts, and/or interviews. When watersheds contain both natural and anthropogenic sources of bacteria, the field data should attempt to separately quantify the bacterial contributions from natural sources to assist in scientifically determining if that the natural contribution alone is the cause for the water quality to exceed the bacterial standard.

Natural, Ephemeral, Intermittent or Low-Flow Conditions

40 CFR 131.10(g): States may remove a designated use which is not an existing use, as defined in section 131.3, or establish subcategories of a use if the State can demonstrate that attaining the designated use is not feasible because:

2. Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met.

The field data submitter may show that naturally caused ephemeral³, intermittent⁴ or low-flow conditions exist in the waterbody and may prevent the attainment of recreational uses. Stream studies should normally be conducted during the recreational season (March 15 to November 15). However, data may be collected at any time of the year if existing conditions are appropriate.

³ *Ephemeral stream* is a stream that flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice, and which has a channel bottom that is always above the local water table [30 CFR 701.5].

⁴ *Intermittent stream* is defined as a stream that flows only part of the time. Flow generally occurs for several weeks or months in response to seasonal precipitation, due to groundwater discharge, in contrast to an ephemeral stream, which flows but a few hours or days following a single storm.

Intermittent stream means a stream or reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface runoff and ground water discharge [30 CFR 701.5].

Isolated pools are occasionally found in rivers and streams. These isolated pools should be evaluated on a case-by-case basis. Factors considered to determine the applicability of this factor for a specific pool may include, but are not limited to:

- the overall size of the pool,
- the prevalence of the depth throughout the pool,
- hazards contained within or surrounding the pool (e.g. as logjams, riprap, rebar, swift current, or other hazardous conditions),
- evidence of existing use (e.g. landowner interview information revealing if it has ever been used for swimming),
- permanence of the pool (i.e. is the pool temporary such as a beaver dam or log jam pool that may only last until the next large rain event),
- whether low flow conditions that are associated with a depth that is not conducive to swimming predominate⁵.

Non-Remedial, Human Caused Conditions

40 CFR 131.10(g): States may remove a designated use which is not an existing use, as defined in section 131.3, or establish subcategories of a use if the State can demonstrate that attaining the designated use is not feasible because:

3. Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place.

Hydrologic Modifications

40 CFR 131.10(g): States may remove a designated use which is not an existing use, as defined in section 131.3, or establish subcategories of a use if the State can demonstrate that attaining the designated use is not feasible because:

4. Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modifications in a way that would result in the attainment of the use.

Factors considered to determine the applicability of this factor for a specific pool may include, but are not limited to hazards contained in or surrounding the pool.

Natural Physical Features

40 CFR 131.10(g): States may remove a designated use which is not an existing use, as defined in section 131.3, or establish subcategories of a use if the State can demonstrate that attaining the designated use is not feasible because:

5. Physical conditions related to the natural features of the water body, such as lack of proper substrate, cover, flow, depth, pools, riffles, and the like unrelated to water quality, preclude attainment of aquatic life protection uses.

Substantial Widespread Social & Economic Impact

40 CFR 131.10(g): States may remove a designated use which is not an existing use, as defined in section 131.3 or establish subcategories of a use if the State can demonstrate that attaining the designated use is not feasible because:

6. Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.

This criterion may be applicable when the construction of pollution control measures required to attain the bacteria standards for water-contact recreation would result in widespread and substantial adverse social or economic impacts. Potential sources for information on substantial widespread social and economic impacts, which provide criteria for decision making, include:

- USEPA's *Interim Economic Guidance for Water Quality Standards Workbook* (EPA 823-B-95-002, <http://www.epa.gov/waterscience/standards/econworkbook/>) or
- USEPA's *Combined Sewer Overflows - Guidance for Financial Capability Assessment and Schedule Development* (EPA 832-B-97-004, <http://www.epa.gov/npdes/pubs/csofc.pdf>).

⁵ See EPA Comment Letter, October 31, 2007, Enclosure A, Considerations for Use of Selected 131.10(g) Factors, Factor 2.

Preparation for Recreational Use Assessment and UAA Field Surveys

The reviewer should examine all applicable materials and be familiar with the water body to be surveyed. The following checklist may aid the reviewer.

The following materials are available from the Iowa Department of Natural Resources (DNR):

- Survey forms,
- UA/UAA Protocol
- Chapter 61, Iowa Water Quality Standards
<http://www.legis.state.ia.us/Rules/Current/iac/567iac/56761/56761.pdf>
- List of NPDES permitted facilities located on the water body of interest
- Water body identification number (WBID#)
- Eight-digit Hydrologic Unit Code (HUC)
- Stream survey data (if available)
- Maps of the watershed
- Water quality data
- Location datasheet for GPS data collection.

The following materials may be available from the United States Geological Survey (USGS):

- Daily stream flow records (<http://ia.water.usgs.gov/>)
- Water quality monitoring records
- 1:24,000 (7.5 minute) topographic quadrangle map

The following sources may also have stream survey records:

- Local universities
- DNR regional offices
- DNR Geological Survey
- United States Fish & Wildlife Service (<http://www.fws.gov/>)
- U.S. Army Corps of Engineers (<http://www.usace.army.mil/>)
- IOWATER (<http://www.iowater.net/>)
- Local municipalities
- Library literature searches

Water Body: _____ Date: _____ Time: _____

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A - Water Body Identification

Water Body Name (from USGS 7.5' quad): _____

8-digit HUC: _____

Iowa Water Body ID #: _____

County: _____

Upstream Legal Description: _____

Downstream Legal Description: _____

Upstream Coordinates (UTM): _____

Downstream Coordinates (UGS 84, ddd.ddddd): _____

Discharger Facility Name(s): _____

Discharger Permit Number(s): _____

Number of Sites Evaluated: _____

Name of Surveyor and Telephone Number: _____

Organization: _____

Position: _____

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this Use Assessment and/or UAA datasheet is true and accurate.

Signature: _____ Date: _____

Water Body: _____ Date: _____ Time: _____

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

IowaWater Body ID #: _____ Site GPS Coordinates: _____

Site Location Description: _____

Date & Time: _____ Facility Name: _____

Personnel: _____ Permit Number: _____

Current Weather Conditions: _____ Weather Conditions for Past 7 days: _____

Photo IDs: Upstream: _____

Downstream: _____

Other: _____

Uses Observed*:

- | | | | | |
|---------------------------------------|--------------------------------------|---------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Skin diving | <input type="checkbox"/> Kids playing | <input type="checkbox"/> Tubing | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing | <input type="checkbox"/> Kayaking | <input type="checkbox"/> Boating | <input type="checkbox"/> Wading | <input type="checkbox"/> Rafting |
| <input type="checkbox"/> Hunting | <input type="checkbox"/> Trapping | <input type="checkbox"/> Fishing | <input type="checkbox"/> None of the above | <input type="checkbox"/> Other: _____ |

Describe (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.):

Photographic Record*: Please number and describe each photo taken

#	Description	#	Description

Surrounding Conditions* (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.): Please check either "U" (upstream) or "D" (downstream) after each use that was observed.

- | | | | | |
|--|--|---|---|---|
| <input type="checkbox"/> City/county parks
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Playgrounds
(U / D) | <input type="checkbox"/> Conservation lands
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Urban areas
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Campgrounds
(<input type="checkbox"/> U / <input type="checkbox"/> D) |
| <input type="checkbox"/> Boating accesses
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> State parks
(U / D) | <input type="checkbox"/> National lands
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Nature trails
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Stairs/walkway
(<input type="checkbox"/> U / <input type="checkbox"/> D) |
| <input type="checkbox"/> Rural Residential areas
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Cropland
(U / D) | <input type="checkbox"/> Pasture areas
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Animal feeding operations/lots
(<input type="checkbox"/> U / <input type="checkbox"/> D) | |
| <input type="checkbox"/> No trespass sign
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Fence
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Steep slopes
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Other: _____
(<input type="checkbox"/> U / <input type="checkbox"/> D) | |

Evidence of Human Use*:

- | | | | | |
|--|--|--|---|--|
| <input type="checkbox"/> Streamside roads
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Foot paths/prints
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Dock/platform
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Livestock Watering
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> RV / ATV Tracks
(<input type="checkbox"/> U / <input type="checkbox"/> D) |
| <input type="checkbox"/> Rope swings
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Camping Sites
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Fire pit/ring
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> NPDES Discharge
(<input type="checkbox"/> U / <input type="checkbox"/> D) | <input type="checkbox"/> Fishing Tackle
(<input type="checkbox"/> U / <input type="checkbox"/> D) |
| <input type="checkbox"/> Remnants of Kid's play - small dams, shelters, food wrappers, others (<input type="checkbox"/> U / <input type="checkbox"/> D) | | | | |
| <input type="checkbox"/> Other: (<input type="checkbox"/> U / <input type="checkbox"/> D) _____ | | | | |

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

- | | | | | |
|---------------------------------|---|------------------------------------|------------------------|------------------------|
| <input type="checkbox"/> Riffle | Width (ft): _____ | Length (ft): _____ | Avg. Depth (ft): _____ | Max. Depth (ft): _____ |
| <input type="checkbox"/> Run | Width (ft): _____ | Length (ft): _____ | Avg. Depth (ft): _____ | Max. Depth (ft): _____ |
| <input type="checkbox"/> Pool | Width (ft): _____ | Length (ft): _____ | Avg. Depth (ft): _____ | Max. Depth (ft): _____ |
| <input type="checkbox"/> Flow | Present? <input type="checkbox"/> Yes <input type="checkbox"/> No | Estimated Velocity (ft/sec): _____ | | |

Substrate* (These values should add up to 100%):

- | | | |
|----------------|------------------|-----------------|
| % Cobble _____ | % Gravel _____ | % Sand _____ |
| % Silt _____ | % Mud/Clay _____ | % Bedrock _____ |
| Other: _____ | | |

Water Characteristics* Upstream view (Mark all that apply.):

- Odor: Sewage Musky Chemical None Other: _____
- Color: Clear Green Gray Milky Other: _____
- Bottom Deposit: Sludge Solids Fine sediments None Other: _____
- Surface Deposit: Oil Scum Foam None Other: _____

Downstream View Physical Dimensions:

- | | | | | |
|---------------------------------|---|------------------------------------|------------------------|------------------------|
| <input type="checkbox"/> Riffle | Width (ft): _____ | Length (ft): _____ | Avg. Depth (ft): _____ | Max. Depth (ft): _____ |
| <input type="checkbox"/> Run | Width (ft): _____ | Length (ft): _____ | Avg. Depth (ft): _____ | Max. Depth (ft): _____ |
| <input type="checkbox"/> Pool | Width (ft): _____ | Length (ft): _____ | Avg. Depth (ft): _____ | Max. Depth (ft): _____ |
| <input type="checkbox"/> Flow | Present? <input type="checkbox"/> Yes <input type="checkbox"/> No | Estimated Velocity (ft/sec): _____ | | |

Substrate* (These values should add up to 100%):

- | | | |
|----------------|------------------|-----------------|
| % Cobble _____ | % Gravel _____ | % Sand _____ |
| % Silt _____ | % Mud/Clay _____ | % Bedrock _____ |
| Other: _____ | | |

Water Characteristics* Downstream view (Mark all that apply.):

Odor: Sewage Musky Chemical None Other: _____
Color: Clear Green Gray Milky Other: _____
Bottom Deposit: Sludge Solids Fine sediments None Other: _____
Surface Deposit: Oil Scum Foam None Other: _____

Aquatic Vegetation*: (note amount and type of vegetation or algal growth at the assessment site) - For both of the Upstream and Downstream views.

Elevated Stream Flow (note if the stream flow is elevated above (or below) seasonally normal conditions):

Maximum Stream Depth (note the maximum depth of the stream between the upstream and downstream sample locations and the spatial extent of this maximum depth.):

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this Use Assessment and/or UAA datasheet is true and accurate.

Signature: _____ Date: _____

Organization: _____ Position: _____

Submittal & Review Procedures

Any interested party may conduct a Use Assessment and/or Use Attainability Analysis field survey for the possible removal, modification, or subcategorization of a designated use and submit the report to the Iowa Department of Natural Resources (the Department). Two copies of the completed Use Assessment and/or UAA field survey report and all supporting documentation should be sent to:

Lori McDaniel, Supervisor
Water Quality Resource Section
Iowa Department of Natural Resources
Des Moines, IA 50319

The Use Assessment and/or UAA field survey report shall contain, at a minimum, a statement of the issue, presentation and an evaluation of all evidence (including data), and a summary/conclusion. **A separate UA/UAA field survey report must be submitted for each designated use modification requested.** Supporting documentation for the UA/UAA field survey report may consist of any or all of the following items: topographic maps, aerial photographs, photo-documentation of any existing uses (or evidence of existing uses), transcripts of landowner/local resident interviews and photocopies of all field notes & summaries.

Normally, the Department will assemble provided field reports and supporting documentation and prepare a formal UAA report indicating the findings of the assessment and making recommendations on appropriate use designation. However, formal UAA reports may be requested or provided to the Department for consideration. Department staff will meet periodically as needed to review completed Use Assessments and UAAs for accuracy, completeness, and adequacy.

The Department or other partnering agencies may perform QA/QC procedures and follow-up surveys on any submitted Use Assessment or UAA field survey to ensure the completeness, adequacy, and accuracy of submitted material. Any incomplete Use Assessment or UAA field survey will be returned to the submitter for revisions. If the information gathered supports a confident decision, it will be integrated into a proposed Notice of Intended Action (NOIA) submitted for approval before the Environmental Protection Commission (the EPC). Any designated use modifications will be incorporated into Iowa's Water Quality Standards through the formal rulemaking process, including public comments. All designated use modifications proposed by the EPC will be open to comments from USEPA Region 7 during the water quality standards rulemaking process to seek federal agreement with the recommendations. (See Figure 1 - Flowchart of the Iowa Use Assessment and Attainability Analysis (UAA) Process).

Public Participation Opportunities

All work products associated with UAA activities are open to the public. The Department maintains records of each UAA conducted and will make this information available upon request. Completed UAAs will be posted on the Department's web page. The proposed use designation or removal of designated uses must be promulgated into rule. Public review and comment on the Use Assessment/UAA findings and the proposed use designation or removal of designated uses will be sought during the rulemaking.

Staff Review

The Water Resources Section staff will review submitted Use Assessments and/or UAAs for completeness and adequacy before a recommendation is made to peruse formal rulemaking. The findings of the staff will be recorded in the format presented in Table A. This table will be posted on the Department's web page.

Table A - Results of Staff Review

Date of Staff Review: _____

Staff Members: _____

Water Body Under Evaluation:

Water Body ID Number: _____

Name of Water Body: _____

River Basin and named downstream water bodies: _____

Length of Segment: _____

County(ies): _____

Submitter of UA/UAA Field Survey: _____ Date Rec'd: _____

Use Targeted for Lowering or Removal: _____

UA/UAA Completeness Check:

- | | | |
|---|------------------------------|-----------------------------|
| Does UA/UAA adequately establish lower use? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Does UA/UAA adequately establish no existing use? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| All Required Information Included? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Correct Forms Used? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Forms Signed and Dated? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

If information missing, what? _____

EPA's Criteria used to lower or remove Use Designation (check applicable):

- 1-Natural Pollutant Sources.
- 2-Natural, Ephemeral, Intermittent or Low-Flow Condition.
- 3-Non-Remedial, Human Caused Condition.
- 4-Hydrologic Modifications.
- 5-Natural Physical Features.
- 6-Substantial, Widespread Social and Economic Impact.

Summary of Basis for Use Designation or Removal:

Final Staff Decision - Agrees/ Disagrees with UA/UAA Findings to modify stream use designation:

If Disagrees, Why? _____

Figure 1- Iowa Assessment/Use Attainability Analysis (UAA) Outside Party Submittal Process

