# Kansas and New York UAA Worksheets

## *Abstracts*

### Crosby Creek, Kansas

**Complexity:** Very simple
**Region:** 7
**Type of Action:** Assign primary contact recreational use
**131.10(g) Factors:** n/a

The Kansas Department of Health and Environment (KDHE) has developed a worksheet to conduct many simple use attainability analyses (UAAs). The worksheet provides reviewers with information such as the name, location, and description of the waterbody; an assessment of its current recreational uses; and observations of aquatic life. Users can evaluate this information and develop a justification for retaining or changing designated uses. One example of using this worksheet is the Crosby Creek UAA conducted in 2001. In the UAA KDHE proposed primary contact recreation use for Crosby Creek, an upgrade from the secondary contact recreation use designated previously. KDHE also proposes to maintain the current aquatic life use designation. Kansas adopted this change their water quality standards and EPA approved it.

### Antelope Creek, Kansas

**Complexity:** Very simple
**Region:** 7
**Type of Action:** Redefined as ephemeral stream
**131.10(g) Factors:** 2

KDHE's UAA worksheet was used for the Antelope Creek UAA conducted in 2001. In that UAA, KDHE did not recommend primary contact recreation as a designated use for this water because of the low flow conditions in the stream (131.10(g) factor 2). The segment fits Kansas' definition of an ephemeral stream, grass or vegetative waterway, culvert, or ditch. Photos are provided with the worksheet to show the dry conditions in the streambed. This change was adopted into Kansas' water quality standards and approved by EPA.

### Tributary of the Seneca River, New York

**Complexity:** Very simple
**Region:** 2
**Type of Action:** Aquatic life use support
**131.10(g) Factors:** 2

The New York State Department of Environmental Conservation (NYSDEC) has used a simple worksheet to document UAAs for aquatic life use support. These worksheets were developed as part of an overall 1985 State "Water Quality Standards Attainability Strategy," which included specific guidance for field biologists on assessing fish propagation for various habitats. The worksheet contains the name and location of the waterbody, a checklist of reasons why the waterbody cannot attain full aquatic life designated uses, and space for additional comments or recommendations. One example is a 1992 UAA for a tributary of the Seneca River in New York. Some segments were changed from Class D to Class C (supportive of both aquatic life and recreational uses), and others were determined incapable of attaining Class C on the basis of 131.10(g) factor 2. The worksheet documents the Department's proposed changes to the designated uses.

## *Background*

Use attainability analyses (UAAs) can vary in terms of complexity. Some assessments are complex and require extensive data collection and complex UAAs, whereas others are simple and straightforward and require simple UAAs. Kansas and New York are two states that have developed UAA worksheets for use in simple, straightforward assessments of designated uses.

### *Kansas UAA Reports*

In 2001 Kansas conducted many UAAs using the expedited stream recreational use UAA protocol (http://www.kdhe.state.ks.us/befs/uaas/UAAGuidance.pdf). The Kansas UAA Guidance was developed through an extensive stakeholder process and provides consistent methodologies for the Kansas Department of Health and Environment (KDHE) or third parties to follow in assessing designated uses. To present the results of these UAAs, Kansas developed a simple formatted worksheet. For an individual stream segment, the assessment team documents a variety of information such as the name, location, and description of the waterbody; an assessment of its current uses; and observations of existing conditions. Users evaluate this information and develop a justification for retaining or changing designated uses. Photos of the site are also attached to visually document the conditions of the waterbody. KDHE is required to evaluate the classification status of stream segments against the criteria for classification of stream segments provided in state law.

Kansas maintains a Surface Water Registry, which lists specific waters that carry specific designated uses with numeric criteria in addition to general narrative criteria. These are called "classified" streams in Kansas, and generally include stream segments that have the most recent 10-year median flow of equal to or in excess of 1 cubic foot per second, among other considerations. Waters that are not "classified" in this manner are afforded protection through narrative criteria, including: "Hazardous materials derived from artificial sources, including toxic substances, radioactive isotopes, and infectious microorganisms derived directly or indirectly from point or nonpoint sources, shall not occur in surface waters at concentrations or in combinations that jeopardize the public health or the survival or well-being of livestock, domestic animals, terrestrial wildlife, or aquatic or semiaquatic life."

A committee reviews the information collected to assist in making decisions about use classification changes. KDHE may recommend refining the designated use within the state water quality standards. For recreational UAAs, the state determines whether the stream is swimmable (primary contact recreation) or fishable/wadable (secondary contact recreation).[1] If a stream has no water or is an ephemeral stream, the review committee recommends removing primary contact recreation by removing the stream from the list of "classified" streams. This term is not related in any way to jurisdiction as a "water of the United States;" it merely refers to the designated uses and type of criteria that apply, as well as the manner in which Kansas keeps records of its waters. If changes to designated uses are subsequently approved, the classifications of individual stream segments are updated in the *Kansas Surface Water Register*. Any revisions to the Kansas Surface Water Register are subject to approval for Clean Water Act purposes by the U.S. EPA Region 7 office.

One example of use of the Kansas worksheet is the Crosby Creek UAA conducted in 2001. In this UAA, evaluators documented several pieces of information (Figure 1):

[1] The state has subclasses of primary and secondary contact recreation for classified stream segments.

**A.** Site Description: The exact location of the site and the date and time of the assessment were included.

**B.** Stream Description: The dimensions of the runs, both upstream and downstream of the site, were given, and the substrate type was listed as silt.

**C.** Aquatic Life Observed: Information about aquatic life observed in the streambed. No aquatic life was documented, but the evaluator indicated that the stream was perennial. Other observations were not included.

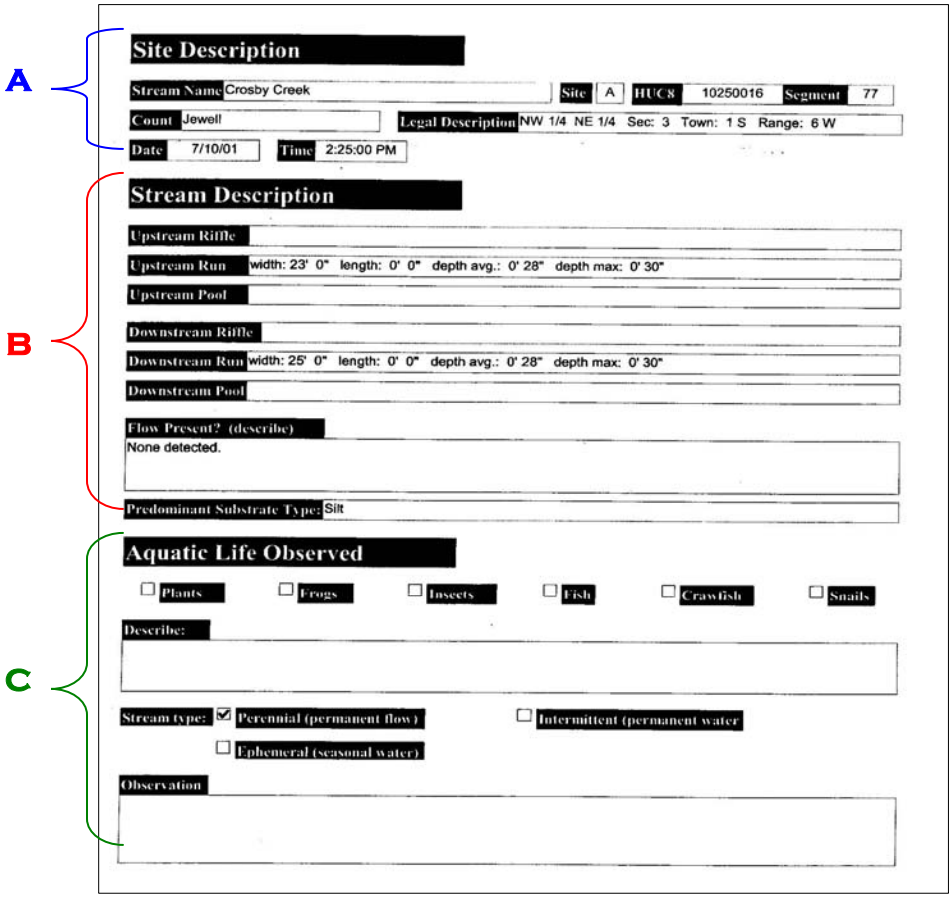



**Figure 1. Crosby Creek UAA: Basic site information.**

On the basis of the data collected in the Crosby Creek UAA, KDHE proposed a change to the designated uses set in 1999 (Figure 2). KDHE recommended primary contact recreation for Crosby Creek, an upgrade from the secondary contact recreation use designated previously. Specifically, the analysis proposed primary contact recreation "where full body contact recreation is infrequent during April 1–October 31, and secondary contact recreation use class b November 1–March 31." The UAA also proposed that the 1999 aquatic life use designation, "expected aquatic life use water," should be maintained. These changes were adopted in the *Kansas Surface Water Register.*

A second example of the use of Kansas' UAA worksheet was the Antelope Creek UAA conducted in 2001. In that UAA KDHE concluded that the stream was ephemeral and provided photos to document the dry conditions. Notations in the UAA added that some ephemeral pools existed but that terrestrial vegetation covered the channel. Additional notes indicated that the channel was poorly defined in some places. On the basis of the assessment, KDHE did not recommend primary contact recreation as a designated use for this water, due to the low flow conditions in the stream (131.10(g) factor 2). The segment fit Kansas' statutory definition of an ephemeral stream, grass or vegetative waterway, culvert, or ditch.

**KANSAS USE ATTAINABILITY ANALYSES (UAAs) COMPLETED IN 2001**

| | |
|---|---|
| **BASIN:** | KR |
| **HUC 8 NUMBER:** | 10250016 |
| **SEGMENT NUMBER:** | 77 |
| **STREAM NAME:** | Crosby Creek |

**CLASSIFIED IN KANSAS SURFACE WATER REGISTER (1999)**

**RETAIN:** X

**DELETION PROPOSED[1]:** ____

| **USE DESIGNATIONS:** | **1999 REGISTER** | **PROPOSED** |
|---|---|---|
| Aquatic Life Use Support[2] | E | |
| Primary Contact Recreation[3] | | C |
| Secondary Contact Recreation[4] | X | |
| Food Procurement | | |
| Irrigation Watering | | |
| Livestock Watering | | |
| Domestic Water Supply | | |
| Industrial Water Supply | | |
| Groundwater Recharge | | |

[1] Stream segment not classified due to

____ statutory definition as an ephemeral stream, grass or vegetative waterway, culvert, or ditch.

____ median flow less than one cubic foot per second. Cost of classifying stream outweighs the benefits of classification.

____ UAA survey documented no aquatic resource.

[2] E= expected aquatic life use water
S= special aquatic life use water
R= restricted aquatic life use water

[3] Primary contact recreation use classes:
A = designated public swimming area during April 1 - October 31 and secondary contact recreation use class a November 1 - March 31
B = where moderate full body contact recreation is expected during April 1 - October 31 and secondary contact recreation use class a November 1 - March 31
C = where full body contact recreation is infrequent during April 1 - October 31 and secondary contact recreation use class b November 1 - March 31

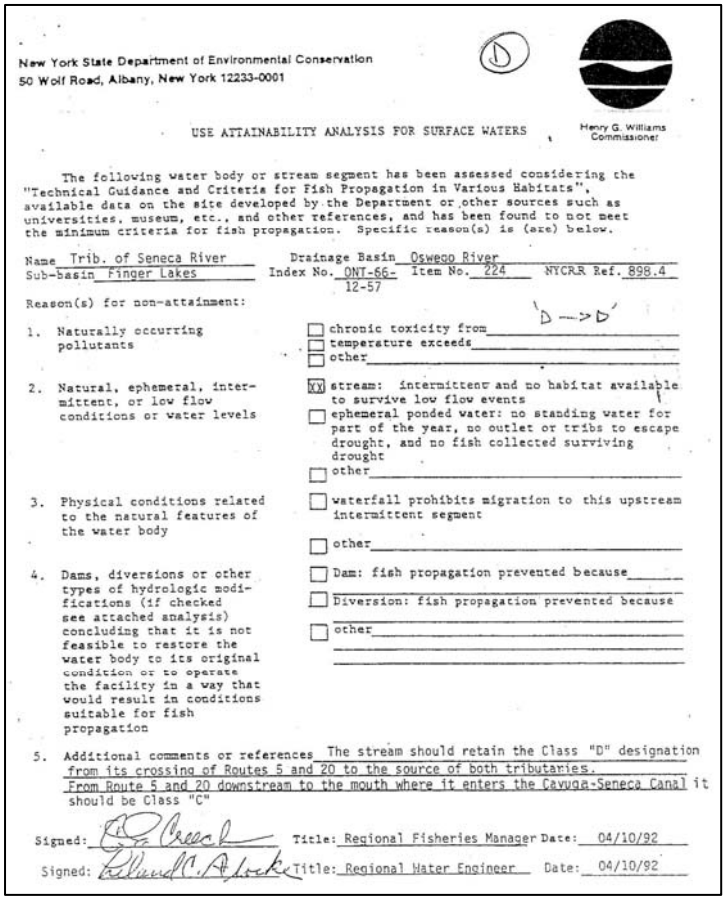
[4] Secondary contact recreation use classes:
a = capable of supporting secondary recreational activities and is open to and accessible by the public by law or written permission of the landowner
b = capable of supporting secondary recreational activities and is not open to and accessible by the public under Kansas law

Secondary contact recreation was not delineated in 1999 Register. Per 1999 Kansas Surface Water Quality Standards (KSWQS), classified surface waters where no UAA had been completed were designated for secondary contact recreational use by default.

**Figure 2. Crosby Creek UAA results.**

### *New York Worksheets*

The New York State Department of Environmental Conservation (NYSDEC) has used a brief worksheet to document UAAs for aquatic life uses (Figure 3). These worksheets were developed as part of an overall 1985 State "Water Quality Standards Attainability Strategy," which included specific guidance for field biologists on assessing fish propagation in various habitats. The worksheet contains the name and location of the waterbody, a checklist of reasons why the waterbody is not attaining its designated uses, and space for additional comments or recommendations. The worksheet documents the NYSDEC's proposed changes to the designated uses.



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Henry G. Williams
Commissioner

USE ATTAINABILITY ANALYSIS FOR SURFACE WATERS

The following water body or stream segment has been assessed considering the "Technical Guidance and Criteria for Fish Propagation in Various Habitats", available data on the site developed by the Department or other sources such as universities, museum, etc., and other references, and has been found to not meet the minimum criteria for fish propagation. Specific reason(s) is (are) below.

Name Trib. of Seneca River  Drainage Basin Oswego River
Sub-basin Finger Lakes  Index No. ONT-66-12-57  Item No. 224  NYCRR Ref. 898.4

Reason(s) for non-attainment:

1. Naturally occurring pollutants
   - ☐ chronic toxicity from
   - ☐ temperature exceeds
   - ☐ other
2. Natural, ephemeral, intermittent, or low flow conditions or water levels
   - ☒ stream: intermittent and no habitat available to survive low flow events
   - ☐ ephemeral ponded water: no standing water for part of the year, no outlet or tribs to escape drought, and no fish collected surviving drought
   - ☐ other
3. Physical conditions related to the natural features of the water body
   - ☐ waterfall prohibits migration to this upstream intermittent segment
   - ☐ other
4. Dams, diversions or other types of hydrologic modifications (if checked see attached analysis) concluding that it is not feasible to restore the water body to its original condition or to operate the facility in a way that would result in conditions suitable for fish propagation
   - ☐ Dam: fish propagation prevented because
   - ☐ Diversion: fish propagation prevented because
   - ☐ other
5. Additional comments or references The stream should retain the Class "D" designation from its crossing of Routes 5 and 20 to the source of both tributaries. From Route 5 and 20 downstream to the mouth where it enters the Cayuga-Seneca Canal it should be Class "C"

Signed: [signature] Title: Regional Fisheries Manager Date: 04/10/92
Signed: [signature] Title: Regional Water Engineer Date: 04/10/92

**Figure 3. New York UAA worksheet.**

One example of use of this worksheet is a 1992 UAA for a tributary of the Seneca River in New York. NYSDEC used the assessment to find that a portion of the stream was not in attainment due to CFR 131.10(g) factor 2, natural ephemeral, intermittent, or low flow conditions or water levels. NYSDEC proposed that this segment in non-attainment retain the Class D designation; however, one segment was proposed for an upgrade from Class D to Class C.[2]

### *Conclusion*

The Kansas and New York worksheets are two examples where states have streamlined their documentation for UAAs. These types of rapid-reporting worksheets might allow states to quickly document simple assessments that do not require complex evidence.

[2] The best usage of Class C waters is fishing. Water quality should be suitable for fish propagation and survival as well as for primary and secondary contact recreation. Other factors, however, might limit the use for these purposes. The best usage of Class D waters is fishing. Because of such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery, or streambed conditions, the waters will not support fish propagation. These waters shall be suitable for fish survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors might limit the use for these purposes.