

Module 4

Use Attainability Analyses (UAAs)



- What is a UAA?
- When is a UAA required?
- How complex do they have to be?
- What is EPA doing to encourage development of defensible UAAs?

Key Points about UAAs...



- “Getting uses right” requires an effective process for conducting credible, defensible UAAs
- There is nothing wrong with changing designated uses after completing a credible UAA
 - Change may bring more, or less, protective criteria
- The UAA process should integrate with TMDL development
- Improved public communication leads to acceptance

UAA MUST Be Conducted When: (40 CFR 131.10(j))

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- Designating uses that do not include CWA 101(a)(2) goals
 - Revising designated uses to remove 101(a)(2) goal uses
 - Adopting sub-categories of 101(a)(2) uses for specific water bodies which require less stringent criteria
 - A UAA is NOT necessary when establishing a sub-category structure

Definition Of UAA

40 CFR 131.3(g)



“ A Structured Scientific Assessment of the Factors Affecting the Attainment of the Use, Which May Include the Physical, Chemical, Biological, and Economic Factors as Described in 40 CFR 131.10(g)”

- Involves determining the feasibility of attaining the use in the future**
- May be conducted by any individual or entity**

Purpose(s) of a UAA

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- Meet the “fishable/swimmable where attainable” goals of the Act
 - Identify existing uses
 - Identify reasons attainment is “not feasible”
 - Identify “highest attainable” use
 - Establish a defensible rationale and record of decision when adopting a new or revised water quality standard for a waterbody

Is The Use "Attainable"?

(40 CFR 131.10(d))

At a minimum, a use is attainable IF:

- It is an existing use, OR
- It can be attained with:
 - 1) technology-based controls (sec. 301 and 306 of CWA) and,
 - 2) cost effective and reasonable best management practices for nonpoint source control.

No, IF

- Use not feasible due to any factor at 131.10(g)

40 CFR 131.10(g)

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- 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**

40 CFR 131.10(g) (cont.)

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- 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 modification 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 the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; 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.

The Complexity of a UAA can depend on Site Specific Conditions:

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- Amount of Data Available
 - Degree of Accuracy and Precision Desired
 - Size of the Resource
 - Value of the Resource to the Community
 - Degree of Change from current designation
 - Degree of Change from 101 (a) goals

Steps In A UAA Process

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1. Involve State, Federal and local constituencies.
 2. Agree on problem statement and objectives.
 3. Analyze existing data/establish data needs.
 4. Identify QA/QC and statistical requirements.
 5. Agree on an evaluation approach/select reference sites, if appropriate.

Steps In A UAA Process

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6. Collect any new data and conduct analyses.
 7. Evaluate/summarize results.
 8. Identify uncertainties/evaluate adequacy of information.
 9. Make recommendations – propose new/revised uses.
 10. Provide opportunity for public comment.
 11. Submit the revised standards and supporting analysis to EPA after State/Tribal adoption.

UAAs: Take Home Messages



- A designated use can be removed if:
 - it is not an existing use, *and*
 - implementation of tech. based limits and cost effective and reasonable BMPs would not result in attainment, *and*
 - attaining the use is “not feasible” because of at least 1 of the factors at 40 CFR 131.10(g)
- A UAA is required when designating uses or sub-categories that do not protect 101(a)(2) uses
- Agreement between all involved parties on what and how much information is needed and how it will be interpreted is a key factor in successful UAAs

UAAs: EPA Guidance (More Recent)

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- UAAs and Other Tools for Managing Designated Uses, March 2006
<http://www.epa.gov/waterscience/standards/uaa/index.htm>
(Click on "UAAs & Other Tools for Managing Designated Uses")
 - Guidance: Coordinating CSO Long Term Planning with WQS Reviews (EPA-833-R-01-002):
http://www.epa.gov/npdes/pubs/wqs_guide_final.pdf/