

Collaborative Water Quality Solutions: Exploring Use Attainability Analyses

Information and science in the area of use attainability analyses (UAAs) have advanced considerably since the mid-1990s, when WERF last released guidance on the subject. Recently, WERF and the National Association of Clean Water Agencies (NACWA) recognized the need for better guidance on the UAA process and both were planning similar UAA projects. This situation presented a unique opportunity for the two organizations to collaboratively produce a handbook to guide users through the UAA process to help them determine if it is the right tool for their situation.

UAAs can often help water quality improvements proceed more quickly and economically, and with the right scientific foundation. The handbook was designed to help the user better understand the UAA process, including the natural and human factors involved, how to conduct a UAA, and the applicable restoration potential.

A UAA, simply defined, is a process outlined in the Clean Water Act to help better understand water quality opportunities and constraints for a specific waterbody or watershed. The regulatory definition of a UAA is a structured scientific assessment of the factors and economic use removal criteria described in the Clean Water Act that affect attainment of “fishable” or “swimmable” uses.

The definition of a UAA drives several of the questions examined in this handbook, including:

- How much information is required to support a scientific assessment?
- What does it really mean to be fishable/swimmable?
- How are the six use removal criteria in 131.10(g) applied?
UAAs and associated use change



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analyses can be completed by states, tribes, the U.S. Environmental Protection Agency, or other stakeholders. If warranted, a state then adopts changes to water quality standards using the UAA as justification. Finally, U.S. EPA (usually on a regional level) reviews and approves or rejects the change in standards.

Actions can be driven by water quality standards and use designations that may not accurately reflect existing or attainable conditions in a waterbody, complicating advancement toward water quality improvements and sound watershed management. The UAA process is intended to remedy that situation and has been used successfully on numerous occasions by regulators and the regulated community. However, it is a process that has been historically prone to becoming entangled in regulatory resistance and misconceptions, which has driven the need for this guidance.

Ideally, the UAA process can provide a forum to bring together stakeholders who have sophisticated and broad-based

BENEFITS

- Provides a concise overview of the UAA process.
- Provides a practical roadmap for stakeholders who are trying to determine whether a Use Attainability Analysis (UAA) is the right approach.
- Includes a list of additional technical reference documents.
- Provides answers to commonly asked questions about the UAA process.

RELATED PRODUCTS

A Comprehensive UAA Technical Reference (91NPS1, CD of this document is included with the handbook)

Factors for Success in Developing Use Attainability Analyses (04WEM1)

Bioassessment: A Tool for Managing Aquatic Life Uses for Urban Streams (01WSM3)

RELATED ONGOING RESEARCH

Epidemiologic Study of Recreational Use of the Chicago Area Waterways (PATH1PR06)

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strategies to solve watershed problems, using solutions that meet appropriate uses. This approach instills public confidence and ensures that public resources are invested to achieve real benefits for the human community and aquatic resources.

Understanding the science and technology behind water quality standards can result in compliance strategies that allow wastewater utilities to continue operating. This handbook focuses on helping utilities work with stakeholders to understand and endorse a more holistic, scientifically based strategy. It allows utility managers to target their public investments and optimize restoration and protection of water resources.

Designated uses and the water quality criteria that protect those uses should be associated with community goals for watershed stewardship, which translates into customer services from the wastewater utility. This watershed stewardship value chain ultimately influences and shapes the utility's asset investment and management process. The UAA process can be an integral part of this endeavor. In some cases, a UAA will lead to the need to refine uses, criteria, or both. While in other cases it may lead to a more complete understanding of the needs of the watershed to support appropriate attainable uses so that public expenditures can be clearly articulated and justified.

The handbook is intended to be a practical roadmap for stakeholders who are trying to determine whether a UAA is the right tool for them. The roadmap is based on past experience and case studies and is intended to help answer the following questions:

- How did UAAs evolve, and why is this important?
- When is a UAA required?
- Is a UAA the appropriate alternative for my situation?
- What is the UAA process and what should be done throughout the process to increase its chance of success?
- What are some of the roadblocks to a successful UAA, and what are some

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practical strategies to address or avoid these roadblocks?

- What does a UAA cost?

The handbook also directs those contemplating a UAA to consider other alternatives that might help resolve Clean Water Act regulatory problems. Such alternatives may become part of a UAA

process or they may evolve logically from one.

In addition, the handbook contains a discussion of the history of and future prospects for use attainability analyses and includes a complimentary CD-ROM of the original WERF guidance document, *A Comprehensive UAA Technical Reference*.

CONTRACTOR

This project was produced jointly with the National Association of Clean Water Agencies, and was the result of a collaborative effort between two teams of contractors Tim Moore of Risk Sciences, and Tom Dupuis and his team of CH2MHill, in addition to Lori Terry of Foster Pepper & Schefelman.

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