

US EPA ARCHIVE DOCUMENT

# Draft EPA-USGS Technical Report: Protecting Aquatic Life from Effects of Hydrologic Alteration

## Summary

EPA and U.S. Geological Survey (USGS) are releasing a draft technical report, *Protecting Aquatic Life from Effects of Hydrologic Alteration*, for a 60-day public comment period. The report provides information to help states, tribes, territories, water resource managers, and other stakeholders responsible for the maintenance of hydrologic flow regimes to quantify flow targets for the preservation of aquatic life and habitat. This report describes the relationship between hydrologic condition and water quality, and gives examples of what states have done to address flow concerns using Clean Water Act authorities and programs that can be used to support the natural flow regime and maintain aquatic life. The report provides a flexible, nonprescriptive framework to quantify flow targets to protect aquatic life from the effects associated with flow alteration.

## Background

EPA and USGS partnered on this technical report on hydrologic alteration, which can be an important contributor of impairment for water bodies that are designated to support aquatic life. Stresses on aquatic life associated with hydrologic alteration may be further exacerbated through climate change. Recent climate trends have included the change in frequency and duration of extreme weather events, such as droughts and floods, which can have an impact on flow and affect aquatic life.

## Technical Report Development

This document has undergone internal and external peer reviews and is now being published in the Federal Register for a 60-day public comment period. Once the comment period has ended, EPA and USGS will consider the comments, revise the document, as appropriate, and then publish a final document that will serve as a source of information for states, tribes, territories, and other stakeholders.

## Hydrologic Alteration

Hydrologic alteration is a change to an aquatic system and can include an increase or decrease in water volume, seasonal pulse flow disruption, dramatic variation in water temperature, and other factors.

## Effects of Hydrologic Alteration

Hydrologic alteration can impact aquatic species' ability to spawn, gather nutrients from a stream system, access high-quality habitat, and more.

## Why this Report is Important

This report is a nonprescriptive framework that can be used to quantify targets for flow regime components that are protective of aquatic life and their habitats. Flow targets can help states, tribes, and territories prepare for changes in historic flow patterns that can result from climate change. Maintaining flow targets may help increase a stream's resilience to climate change by reducing or avoiding intensification of existing stresses.

## How to View the Criteria Document and Supporting Information

EPA has established an official public docket for this action under Docket ID No. EPA-HQ-OW-2015-0335, accessed at [www.regulations.gov](http://www.regulations.gov). You may also download the document and supporting information from EPA's aquatic life criteria website at:

<http://www.epa.gov/wqc/aquatic-life-ambient-water-quality-criteria>

## Where to Find More Information

For more information, please contact EPA's Diana Eignor by phone at (202)566-1143 or by email at [eignor.diana@epa.gov](mailto:eignor.diana@epa.gov); or contact USGS' Jonathan Kennen by phone at (609)771-3948 or by email at [jgkennen@usgs.gov](mailto:jgkennen@usgs.gov)