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# Water Resources Development Act: 2010 Authorization

Proposed National Authority U.S. Army Corps of Engineers

This proposal would improve the health of tens of thousands of river miles by using science to adjust dam operations to better protect water quality and natural habitat while preserving other benefits that dams provide to people.



## **What This Proposal Would Authorize**

- Congressional authority to the U.S. Army Corps of Engineers to manage water releases at Corps dams hundreds across the nation in ways that improve river health and protect economically important resources.
- *Up to \$25 million* per year to scientifically determine and implement environmental flow requirements consistent with existing Corps project purposes.
- Up to \$100 million per year to enhance environmental flow implementation and community flood risk reduction by improving integration of river and floodplain management, with a 35% non-federal cash and/or in-kind match.

## **What This Proposal Would Achieve**

- *Improve the health* of tens of thousands of river miles and millions of acres of associated riparian, floodplain and estuary habitat.
- *Increase resiliency* of communities, economies and nature in the face of diverse and growing threats, including the uncertain impacts of climate change.
- Enhance the effectiveness of other public investments made through the Clean Water Act, Endangered Species Act, and local, state and federal parks, wildlife refuges and fisheries management programs.
- Facilitate the Corps' ability to:
  - Meet its Congressionally-authorized mission in ecosystem restoration and comply with environmental and critical habitat regulations.
  - Catalyze substantial coordination of resources across federal agencies, including the Geological Survey,
    Fish and Wildlife Service and NOAA, as well as state agencies, non-governmental organizations and
    academic institutions.

### Why Is This Important?

The Problem: Holding river levels steady throughout the seasons has far-reaching consequences, including:

- Breaking down animal and plant lifecycles, habitats and processes, such as fish spawning.
- Preventing rivers from recharging wetlands and underground water supplies.
- Blocking nutrient-rich floodwaters from reaching floodplain soils and plant communities.
- Facilitating encroachment of invasive plants that crowd out native species.

**The Solution:** Restoring river health related to dams requires:

- Determining *environmental flows* for a given river scientifically-rigorous prescriptions for the timing and level of flow that must occur downstream of dams in order to sustain a range of river processes, such as maintaining habitats and triggering fish migration.
- Adjusting dam releases to achieve environmental flows.
- Giving rivers more seasonal access to their historic floodplain where vital processes such as natural water filtration occur.

**The Proof:** A ten-year collaboration between the Corps, The Nature Conservancy, and other partners – the **Sustainable Rivers Project** (SRP) – is effectively demonstrating on eight rivers around the nation that adjusting water release regimes to restore more natural seasonal patterns of river flow can yield an array of benefits including:

- Improving the health of rivers, lands and wildlife that support economically-important activities.
- Improving flood protection.
- Sustaining hydroelectric power generation.
- Extending recreational opportunities.

**The Goal:** Establish a **National Sustainable Rivers Program** within the Army Corps to ensure that innovative methods and tools designed, tested and refined over the last decade are constructively used to guide operations at all Corps dams. A **National Sustainable Rivers Program** would grant the Corps the authority and ability to:

- Universally implement science-guided operation regimes at hundreds of dams around the nation to improve river health while meeting Congressional authorizations for each dam.
- Manage water at a basin-wide scale by integrating dam operation and floodplain restoration, boosting flood protection downstream and supporting critical river lifecycles and processes.

## Why This Solution?

- Given that the Corps is the nation's largest water management agency, improving operations of Corps dams is an opportunity to significantly improve river health across the nation with exceptionally modest investment.
- With the experience, sound science and strong network of partners amassed through the SRP, the Corps is well-positioned to effectively implement a national-scale program.

### Why Now?

- Conflict over water management continues to expand, infusing uncertainty into public and private efforts to provide reliable flood protection, water supply, food, energy, recreation and a healthy environment.
- Economic losses due to flooding have been increasing for decades, driven by inappropriate floodplain encroachment and over-reliance on control infrastructures, such as dams and levees. With this infrastructure aging, more integrated management of rivers and floodplains offers an opportunity to reverse this trend and create a more socially and ecologically resilient future.
- If steps are not taken now to improve dam operations, rivers that are struggling to continue to provide benefits to society will further degrade. Resources that communities, jobs and businesses depend on will be increasingly jeopardized, including commercial fish populations.

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