



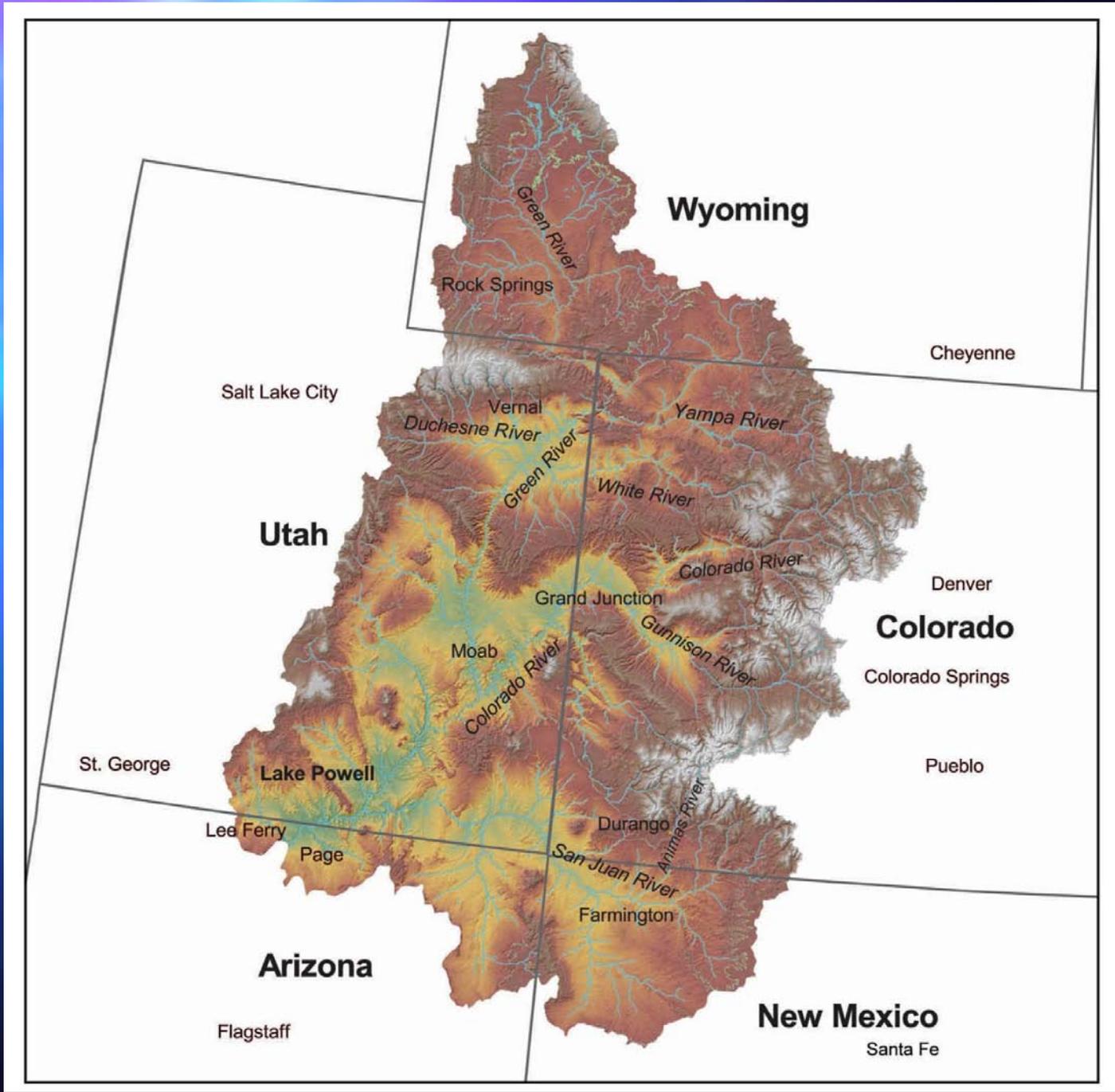
The Upper Colorado River Endangered Fish Recovery Program: A Continuing Collaborative Success Story



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Colorado River Basin







Colorado pikeminnow
Ptychocheilus lucius



Humpback chub
Gila cypha



Razorback sucker
Xyrauchen texanus



Bonytail
Gila elegans



Threats:

Water depletion



Large reservoirs



Fish barriers



Nonnative fish



The Recovery Program was established in 1988 to address conflicts between the Endangered Species Act and water development

Potential train wreck:

In the mid to late 1970s, U.S. Fish and Wildlife Service determined that any further depletion of water from the upper basin would result in jeopardy to endangered fish.



1984: Federal agencies, states, environmental groups, and water users began negotiations.

They recognized the **conflicts were a symptom of the problem that the fish were endangered.**

***SOLUTION:* Recover the fish.**

1985: Recovery Program proposed.

1987: Framework document completed.

1988: Cooperative Agreement signed by the Secretary of the Interior, governors of Colorado, Wyoming, and Utah, and the Administrator of the Western Area Power Administration

Multi-Agency Partnership



STATES

- Utah
- Colorado
- Wyoming

FEDERAL AGENCIES

- U.S. Fish and Wildlife Service
- U.S. Bureau of Reclamation
- National Park Service
- Western Area Power Administration

INTEREST GROUPS

- Water users (Colorado, Utah, Wyoming)
- Environmental organizations
- Colorado River Energy Distributors Association

Goal: Recover the endangered fish as water development proceeds in compliance with the Endangered Species Act and state water law.



Recovery elements

Habitat Development

Habitat-Flow Management

Research and Monitoring

Managing Nonnative Fish

Stocking Endangered Fish



Flow protection

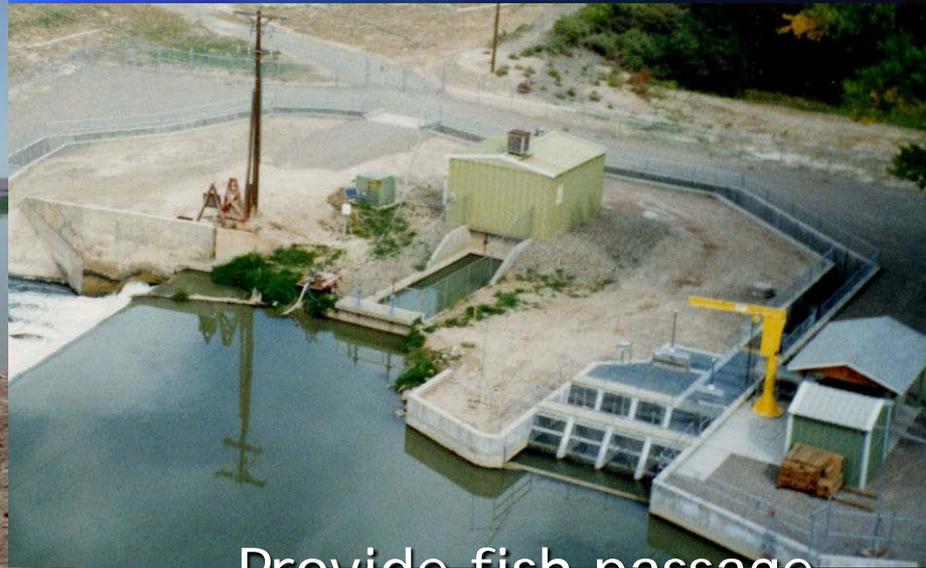
- Operation of Federal dams/ reservoirs
- Improved efficiency of irrigation systems
- Cooperative reservoir operations
- Partnered in a new water storage project



Habitat restoration



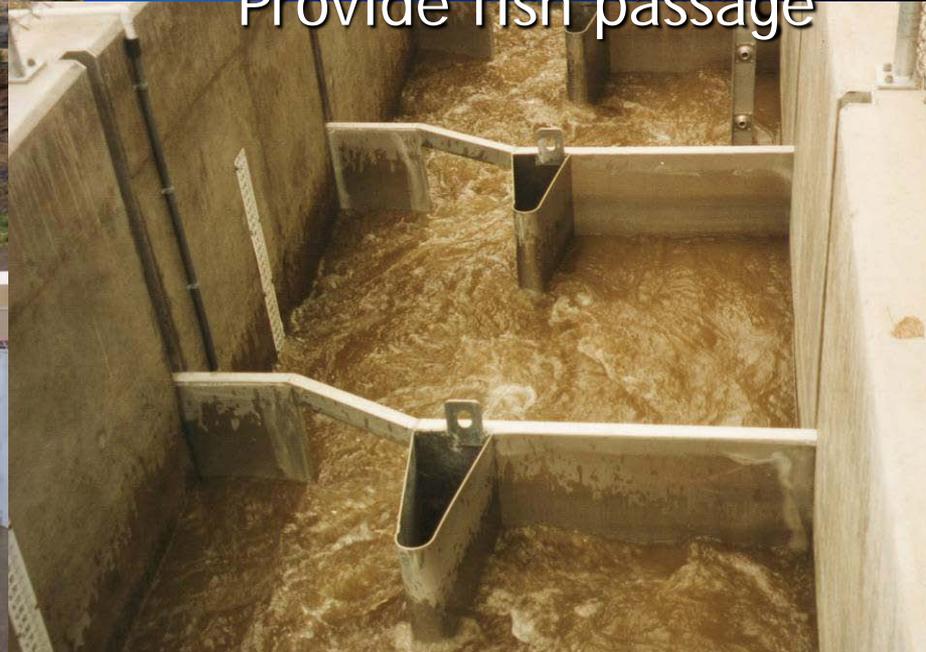
Restore floodplains



Provide fish passage



Screen diversions





Nonnative fish management

- Regulate nonnative fish stocking
- Prevent escapement from impoundments
- Change state fishing regulations to increase harvest
- In-river management of most problematic species
- Research/monitoring



Propagation, genetics, and stocking





Upper Basin annual stocking goals (Integrated Stocking Plan)

Stocked Razorback Suckers:



- Razorback sucker annual stocking goal = 29,700, age 2, ~12"
 - Fish recaptured up to 9 years after stocking
 - Fish moving among rivers
 - Ripe fish recaptured at spawning sites
 - Larval fish captured (documenting reproduction)
 - Juveniles captured (indicating larval survival)

Stocked Bonytails:

- Bonytail annual stocking goal = 15,990, age 2+, ~8"
 - Recaptures throughout basin
 - Low recapture rates and poor body condition indicated low survival past one year after stocking
 - Stocking expanded into floodplain wetlands and alluvial reaches to improve growth and survival
 - Fish conditioned to flows prior to stocking
 - 2009: Numerous, healthy fish recaptured in Green River more than one year after stocking



Research and monitoring



Population Status

Colorado pikeminnow



- Adult abundance in Colorado River system has increased from 440 in 1992 to 889 in 2005.
- Adult abundance in Green River system declined from 3,100 to 2,300 in 2001-2003.
 - Hypothesis: reduced recruitment (especially in middle Green River) attributed to increases in nonnative fishes and habitat changes associated with recent drought.
 - 2006 - 2008 sampling data show strong reproduction in 2006 and 2007, with fish recruiting to the population (report pending).

Population Status

Humpback chub



- ~ 3,000 adults in Black Rocks and Westwater canyons (Colorado R.)
- ~ 1,000? adults in Desolation/Gray canyons (Green R.)
- Populations in Yampa Canyon (Yampa R.) & Cataract Canyon (Colorado R.) small (as they were historically), each consisting of up to a few hundred adults.

Other Recovery Elements:

- Information, education, and public involvement
- Program management



ESA Compliance and Water Projects 1/1/1988 - 6/30/2009

Consultations Total Depletions (acre-feet)

1693 2,371,762 (2,084,938 hist.)

(633 consultations <100 af)



- The Upper Colorado River Endangered Fish Recovery Program works for water users and endangered fish... because:
- Cooperation and collaboration are more fruitful than confrontation.

Consensus-based collaboration takes:

- Time, patience, tenacity
- Creativity
- Tolerance & respect
- Listening to others
- High level of commitment
- Integrity & leadership
- Letting go of "us vs. them" mentality
- Accepting that no one gets complete "certainty"

Keys to Success:

- Develop a common goal (shared vision).
- All the details don't have to be resolved up front.
- Take one bite of the elephant at a time; build on successes.
- Adaptive management is key: we learn as we go.
- Develop relationships; build trust.
- Move from "stakeholders" to "partners" mindset.

- Avoid litigation.
- Use consensus-based decision making.
- Build strong Congressional support.
- Develop long-range plan with measurable objectives.
- Balance scientific rigor with “getting it done.” Sound science builds trust.
- Develop an effective governance structure.
- Provide adequate staffing.

The Colorado River

Home to native fish for millions of years



coloradoriverrecovery.org

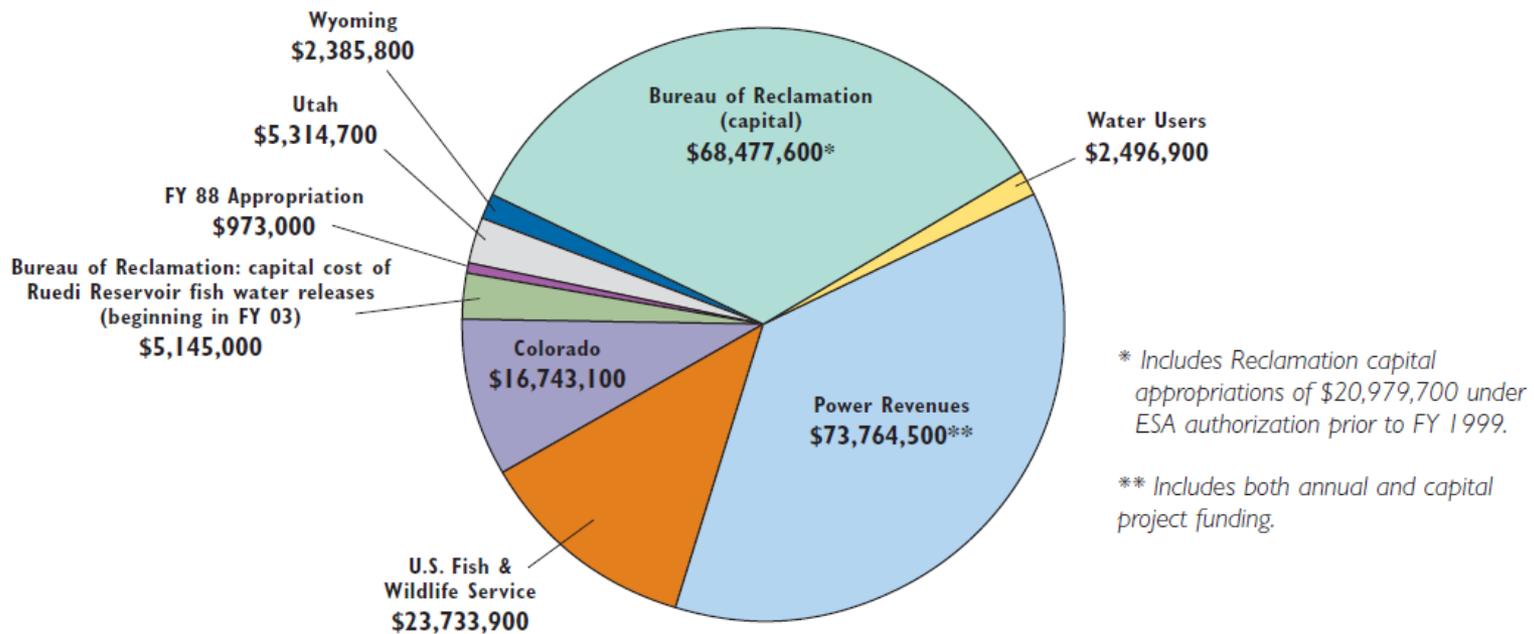
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Program Expenditures

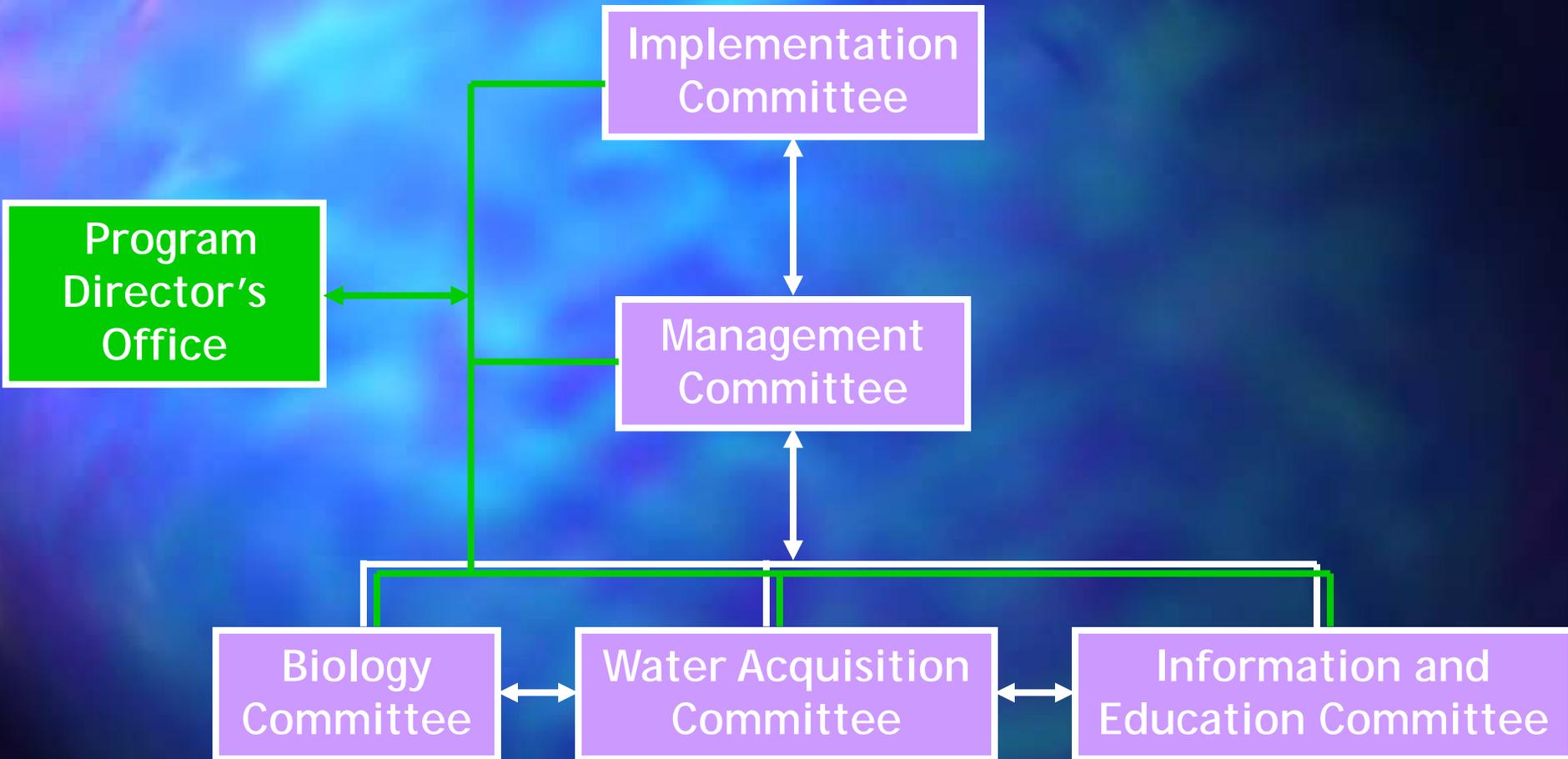
Upper Colorado River Endangered Fish Recovery Program

Total Partner Contributions = \$199,034,500 (FY 1989-2009)



21 years, \$199M. \$23.7M (12%) from FWS (~\$1.1M/yr)
\$8.40 from partners for every \$1 FWS

Program Structure



Legislative History

- ✓ 2000: P.L. 106-392 provides federal and non-federal cost sharing for capital construction projects and annual base funding.
- ✓ 2002: P.L. 107-375 extends authorization period to complete capital construction projects through 2008.
- ✓ 2006: P.L. 109-183 authorizes an additional \$15 million in federal funds for capital construction projects and extends construction period through 2010.
- ✓ 2009: Sec. 9107 of H.R. 146 Omnibus Public Lands Mgmt. Act (signed 3/30/09) authorizes an additional \$15 million in federal funds to repair/replace capital construction projects and construct Tusher Wash fish screen; extends construction period through 2023.