



# Upper Colorado River Basin: Endangered Fish Recovery Programs



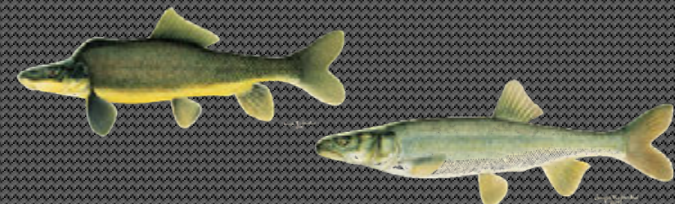
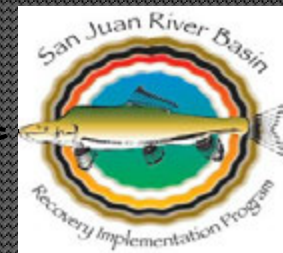
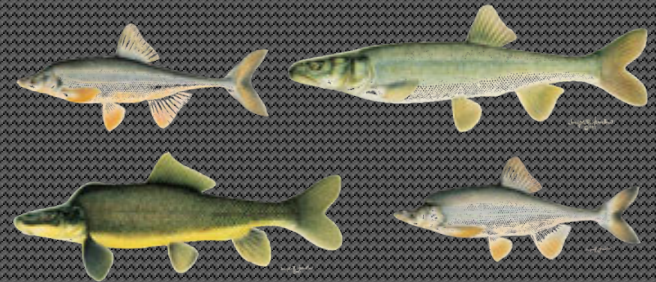
Tom Chart and Melissa Mata, USFWS  
*a report to the* Glen Canyon Dam Adaptive Management Program  
February 12, 2020



# Upper Colorado River Basin



Upper Colorado River  
Endangered Fish  
Recovery Program





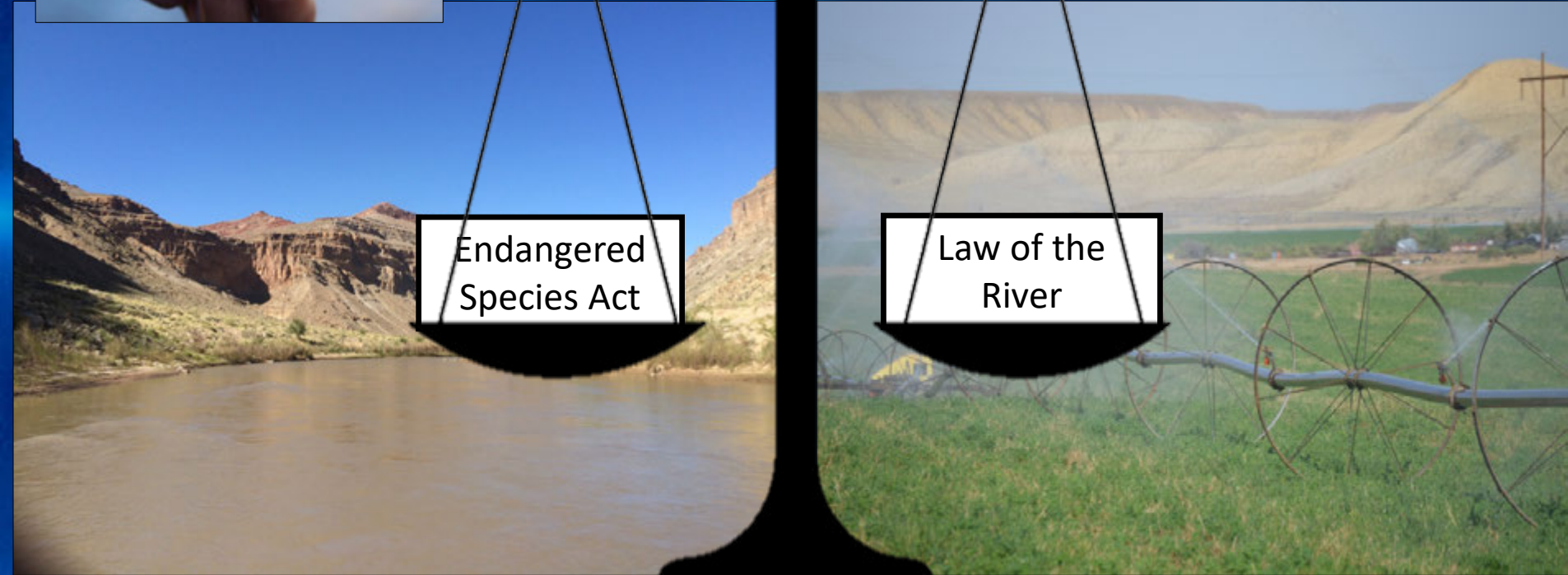


# Balancing the Law of the River and the Endangered Species Act



Endangered  
Species Act

Law of the  
River



Upper Colorado River



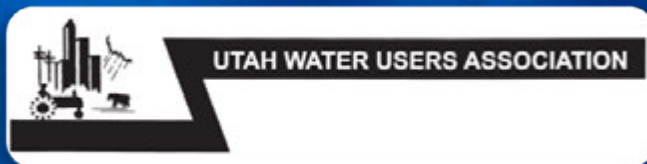
Endangered Fish  
Recovery Program

# Partners:

## The key to Programs' success



The Nature  
Conservancy







# Goal:

## Recover Federally Listed Fish



Colorado pikeminnow *Ptychocheilus lucius*



Humpback chub *Gila cypha*



Razorback sucker *Xyrauchen texanus*



Bonytail *Gila elegans*



# Goal:

## Continue Water Development



**ESA Compliance for: ~2,500 water projects & ~3.75 M af / year**



	Wyoming	Colorado	Utah	New Mexico
Projects	427	1,563	281	23
Acre-Feet/Yr	~123,000	~2,345,000	~627,000	~654,000





Habitat Flow  
Management



Habitat Development



Research and Monitoring



Stocking Endangered Fish



Managing  
Nonnative  
fish





# RECOVERY ELEMENTS

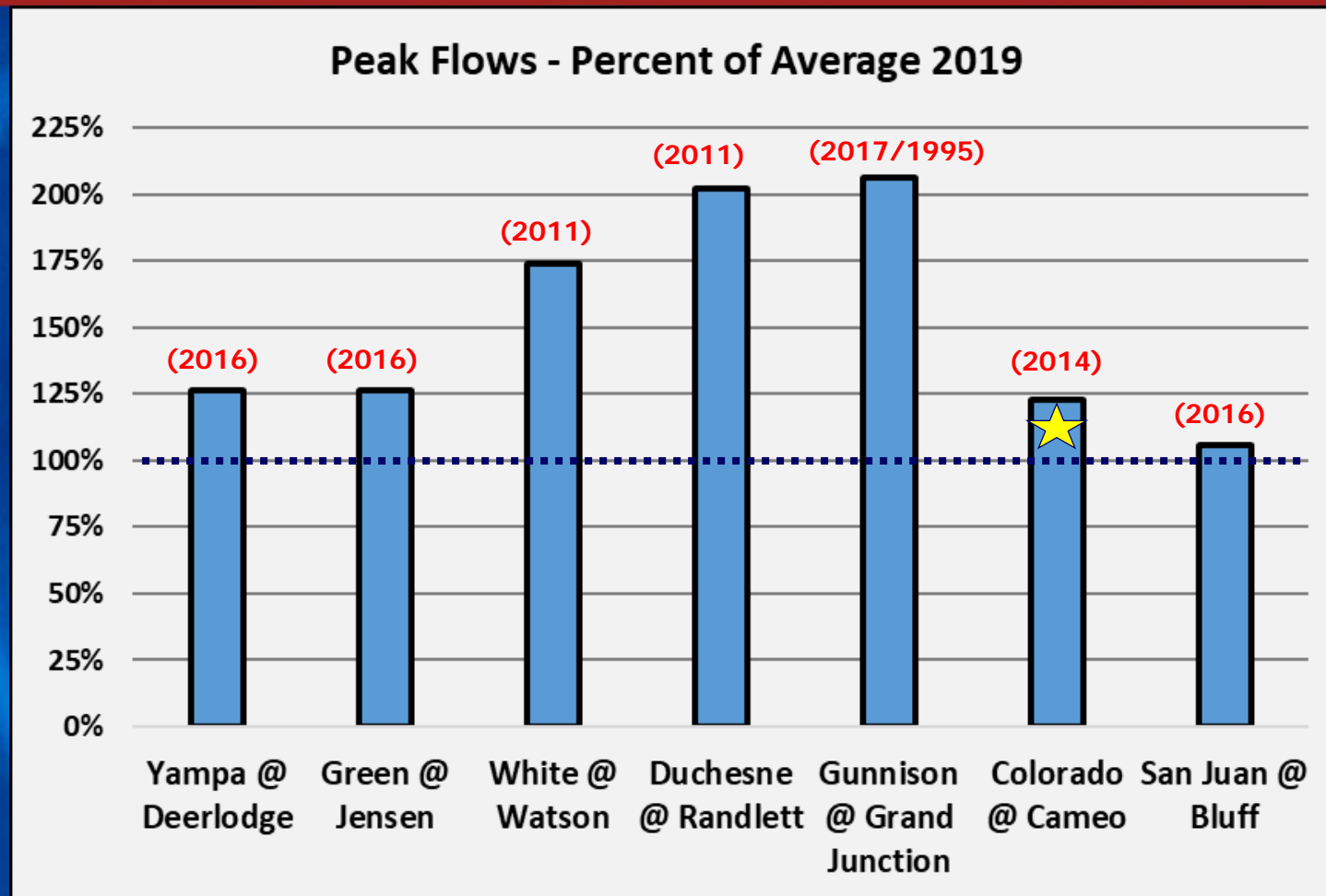


- **Instream Flows**
- Habitat Management
- Nonnative Fish Management
- Monitoring and Data Management
- Information and Education
- Propagation





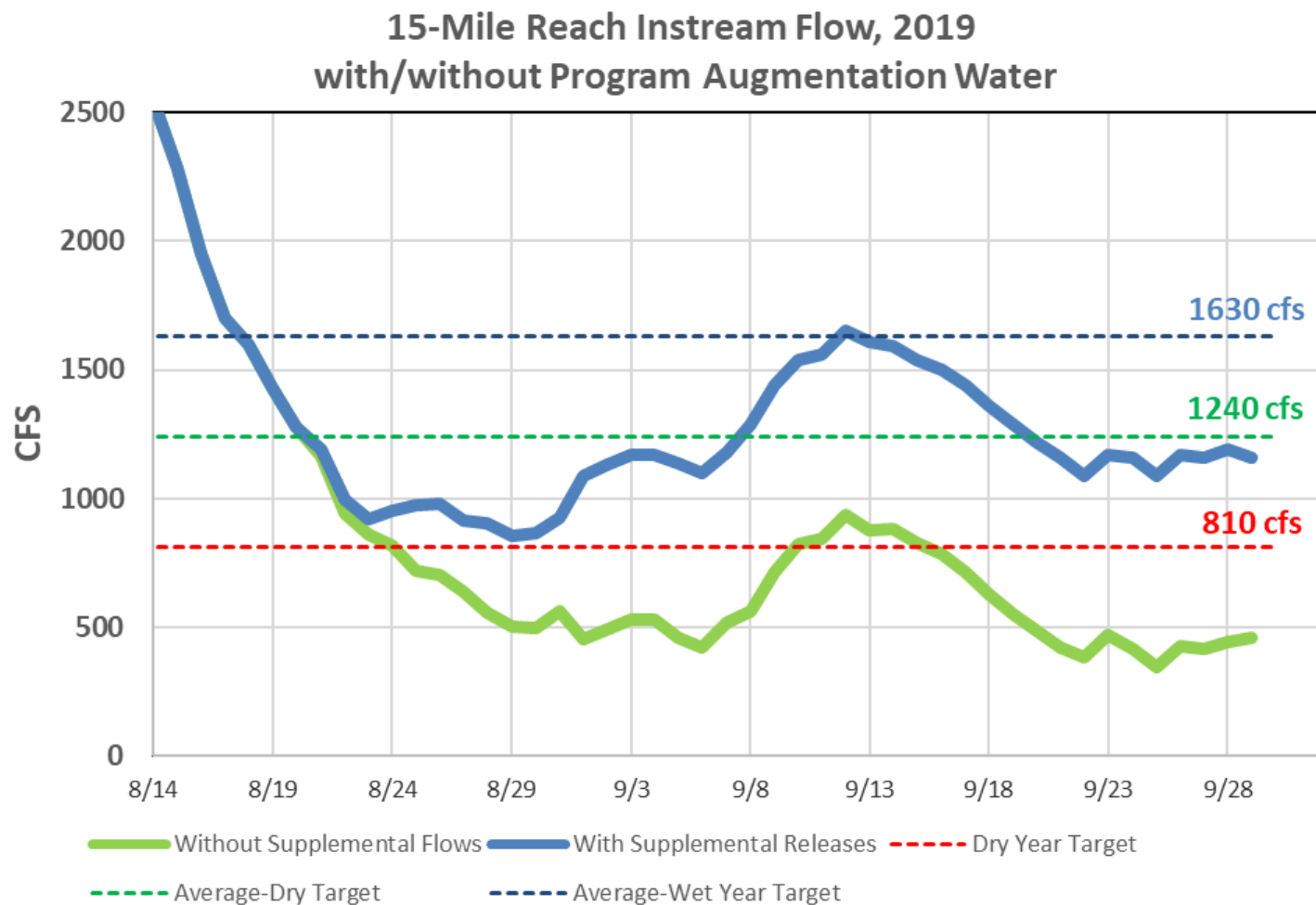
# 2019 Peak Flows



\* Coordinated Reservoir Operations (CROS) implemented in 2019 – 4<sup>th</sup> time in 5 years



# Colorado River: 15 Mile Reach Summer / Fall Baseflows: 2019







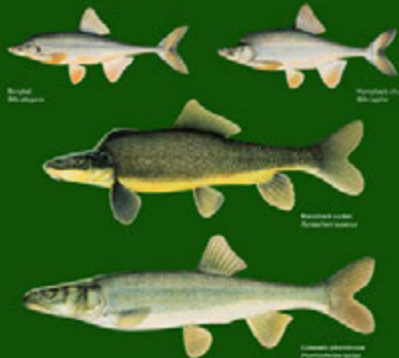
# Flow Recommendations Clear Technical Committee Review



## Green River Revised Flow Recs.

## White River Interim Flow Recs.

### Evaluation and Suggested Revisions of Flow and Temperature Recommendations for Endangered Fish in the Green River Downstream of Flaming Gorge Dam



Upper Colorado River  
Endangered Fish  
Recovery Program

Final Report  
October 2010



### DRAFT REVIEW OF FISH STUDIES WITH INTERIM FLOW RECOMMENDATIONS FOR ENDANGERED FISHES OF THE WHITE RIVER, COLORADO AND UTAH



Donald M. Anderson, T.W. Estes, Jane Mohrman,  
Tidón Jones, Matthew J. Green, and Thomas E. Chard

- Cont. Larval Triggered Spring Releases
- Flow Spikes to control SMB
- Revised Summer B-flows to benefit CPM

- Preserve the current flow regime
- Incorporate into a White River Man. Plan



# RECOVERY ELEMENTS



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# Tusher Wash Diversion Green River Canal





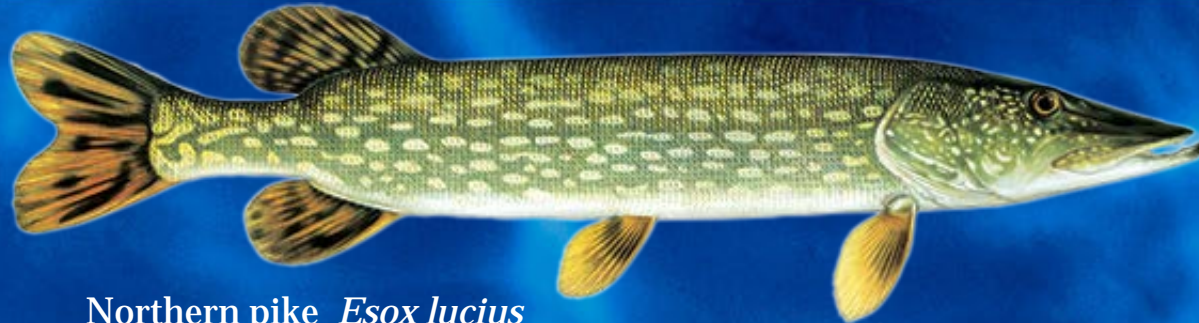
# RECOVERY ELEMENTS

- Instream Flows
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# Three Focal Nonnative Fish



Northern pike *Esox lucius*



Smallmouth bass *Micropterus dolomieu*



Walleye *Sander vitreus*

These fish escaped from reservoir sources and established populations in river habitats.



# Two-tiered Strategy

## Rivers: native fish recovery areas

- Large scale removal
- Disrupt spawning



## Reservoirs: compatible angling opportunities

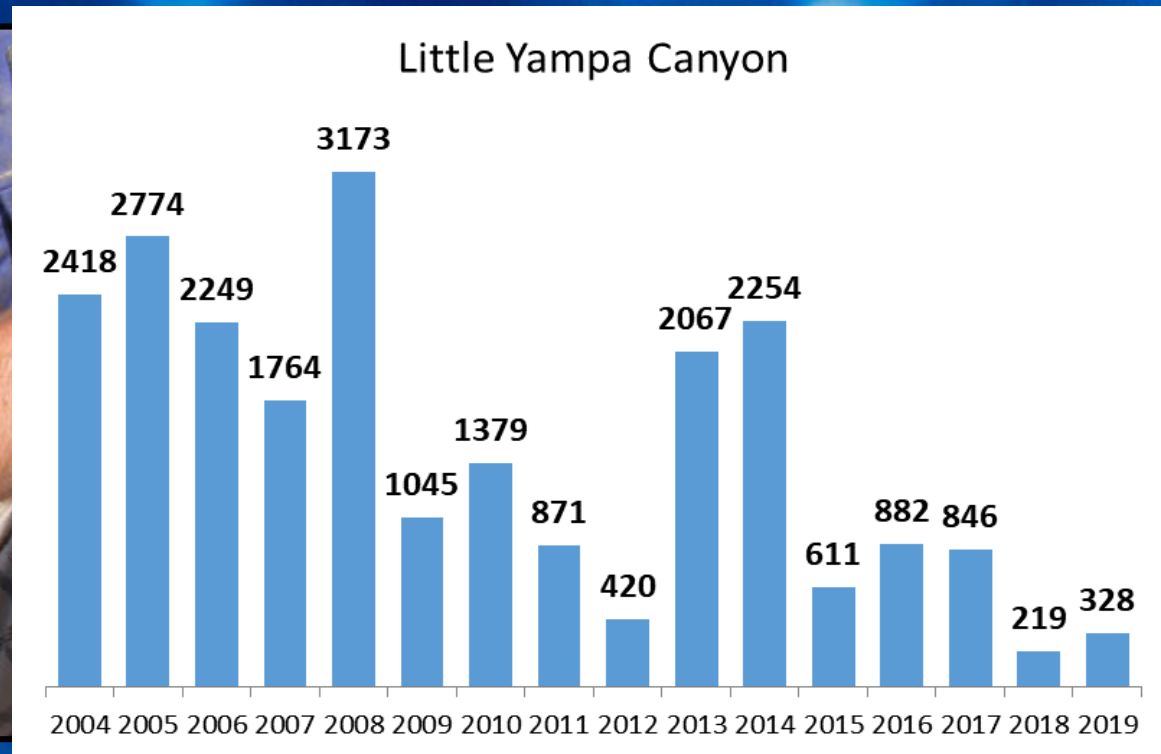
- Source containment
- Provide replacement fisheries for anglers







# Smallmouth Bass: Yampa River



*Estimated abundance of adult Smallmouth Bass ( $\geq 200$  mm) in Little Yampa Canyon, Yampa River, 2004—2019.*



# RECOVERY ELEMENTS



- Instream Flows
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-





# Continued Progress: San Juan River Basin



Wild young-of-year Colorado  
Pikeminnow detected in 2016, 2017  
and in 2019.

Record # of wild juvenile Razorback  
Sucker captured in 2018.

1<sup>st</sup> detection of overwinter survival of  
wild age-1 Razorback Sucker.

Larval detections occurred 20 miles  
further upstream due to change in  
fish passage operations.



# ESA (Section 4) Updates: Progress and Projected Timelines



Species	SSA	5-Yr Reviews	PDL + 4(d) rule	Final Rule	Revise Recovery Plan?
<b>Humpback Chub</b>	Complete; 3/2018	Complete; 2011; 3/2018	Published Jan 22, 2020	Public Comment Period Closes: March 23, 2020	Yes – to occur after Final Rule is complete
<b>Razorback Sucker</b>	Complete; 9/2018	Complete; 2012; 9/2018	Not Published – undergoing HQ review	?? Depends on scope and breadth of comments	Yes – to occur after Final Rule is complete
<b>Colorado Pikeminnow</b>	Complete; February 6, 2020	2011; Next 5-yr to be completed in 2020	-	-	Yes
<b>Bonytail</b>	no	Complete: 2012; 6/2019	-	-	Not recommended at this time; reevaluate at next 5-Yr review





# Future Status of the Programs



- Programs' Cooperative Agreements signed through 2023
  - PL 116-9 - Authorization for FY20 – FY23
    - Bills require a Report to Congress in FY21
      - Accomplishments
      - Status of the fish
      - Expenditures
      - Post 2023 Activities & costs



# Post-2023 Planning



Assess options for post-2023 Program structure and institutional framework

**Late 2018**

Identify suite of possible activities to remain ESA-compliant and advance recovery

**Feb-June 2019**

Identify the preferred package of post-2023 activities and estimated costs

**Summer / Fall 2019 -  
Complete**

Determine necessary funding, sources, cost-sharing

**Underway Now**

Draft Report to Congress -submit to DOI Bureaus HQ

**Sept 2020**

SOI submits report to Congress

**Sept 2021**

New Coop Agreements, Funding Legislation

**FY21-22**





# Recovery Programs: 30 years of Progress



**Recovering long-lived species requires  
patience and persistence**

**Collaboration is working**

**Thanks to partners, field crews, &  
other Programs**



Upper Colorado River



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# Thank You -- Questions?

