

# Colorado River Water Conservation District – State of the River

## May 3, 2022, Glenwood Springs CO



### OUTLINE

- Recovery Program Overview
- Instream Flow Protection – Opportunities and Challenges
- EX: CO River Basin – 15 Mile Reach

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# Program Overview



Upper Colorado River



Endangered Fish  
Recovery Program



# Program goal:

## RECOVERY and delisting of the four listed fish species



- Create viable populations of the four species in the upper basin
- Respect water development in accordance with state, federal, and Tribal law.
- Provide Endangered Species Act Compliance for Water Project Depletions in the Upper Co River Basin

# What that means...

## ZERO

- Water projects halted or postponed because of the ESA.
- Lawsuits for any partner regarding ESA compliance in the upper basin.

## SECTION 7

- The Program streamlines ESA compliance for all water development projects in the basin by serving as an applicant committed conservation measure.
- Consultations are strategic and integrated.

## ON THE GROUND SUCCESS

- Partners work collaboratively to enhance flows and habitat for endangered species, also providing benefits for irrigators, anglers, recreationists and more.
- Our collective actions sum to more than what any agency could do alone.



# Partners

- State of Colorado
- State of Utah
- State of Wyoming
- Bureau of Reclamation
- Colorado River Energy Distributors Association\*
- Environmental Groups
  - The Nature Conservancy
  - Western Resource Advocates
- Water Users
  - Colorado Water Congress
  - Utah Water Users Association
  - Wyoming Water Association
- National Park Service\*
- U.S. Fish and Wildlife Service
- Western Area Power Administration

\* CREDA and NPS joined the partnership in 2000



# The four listed fish species

Clockwise in order:

bonytail (BT) – listed endangered in 1980

Colorado pikeminnow (CPM) – listed  
endangered in 1973

humpback chub (HBC) – listed endangered in  
1973 – reclassified as threatened in 2021

razorback sucker (RBS) – listed endangered  
in 1991 – proposed for reclassification in  
2021





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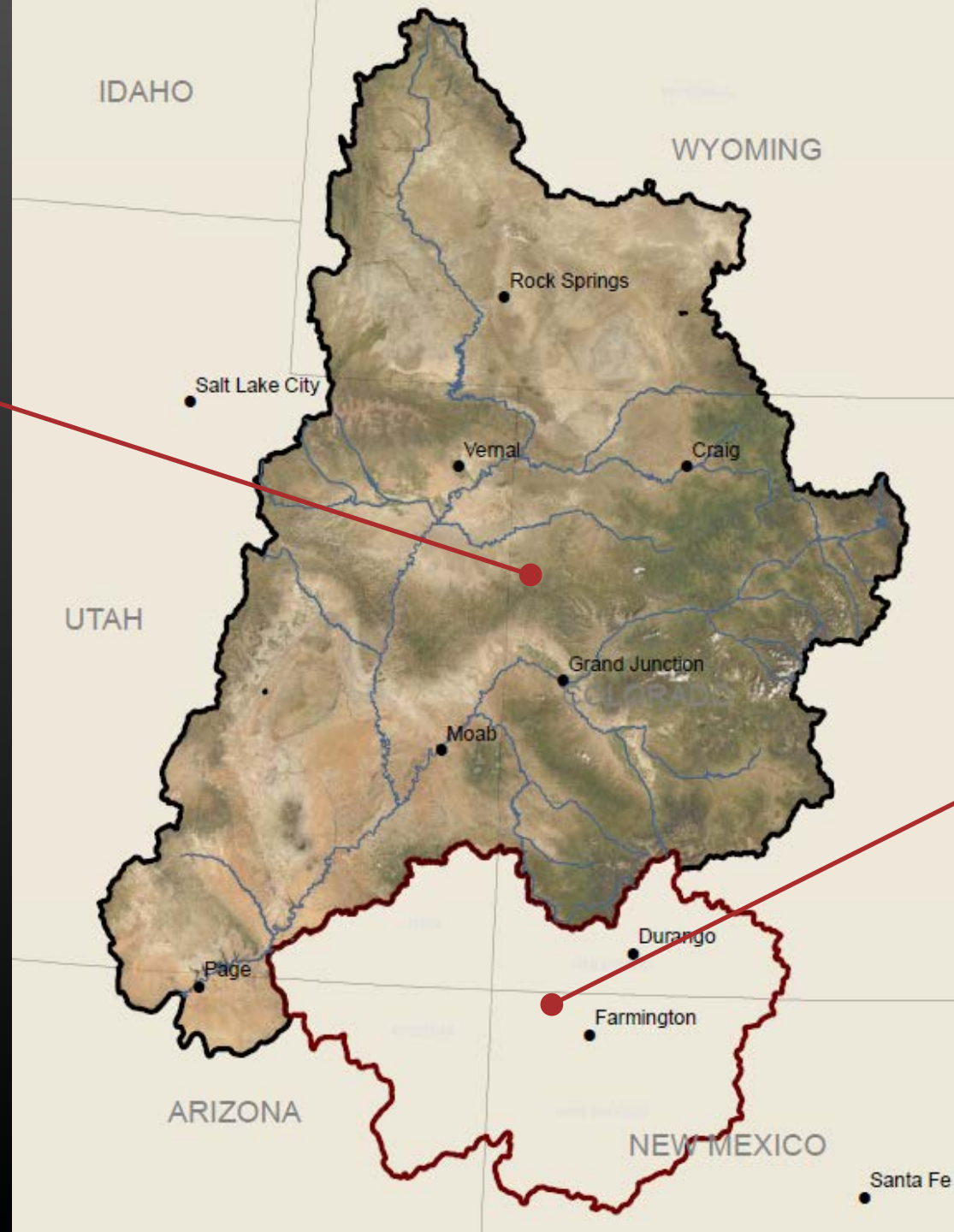
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Upper CO River  
Endangered Fish  
Recovery Program

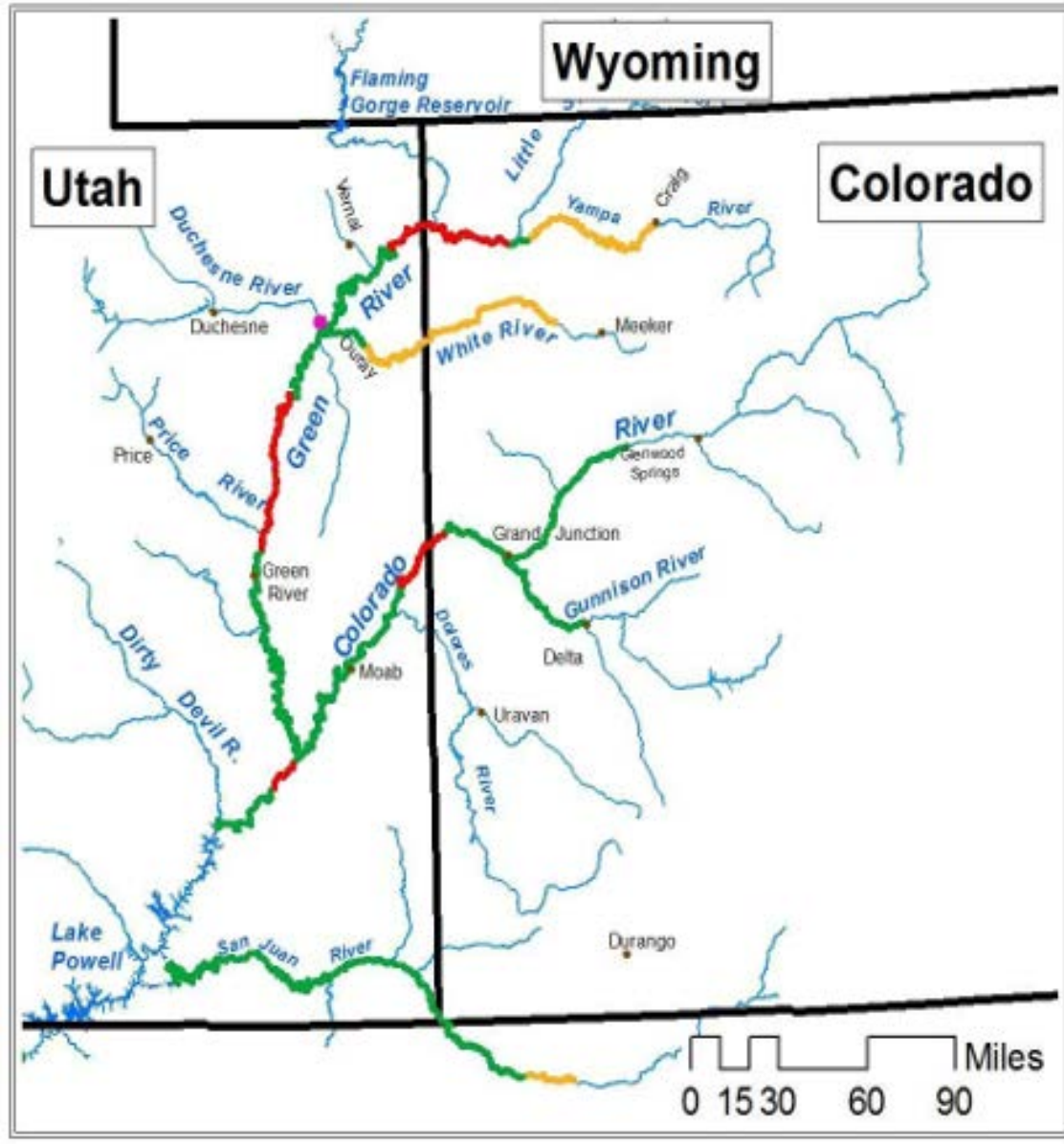


San Juan  
Endangered Fish  
Recovery Program






## Designated Critical Habitat in the Upper Colorado River Basin for Federally Listed Colorado River Fish



## Critical Habitat Designation: a 'Critical' Component of ESA Compliance Activities







# Instream Flow Coordination

Instream flows are the foundation for all fish habitat and provide water for people, recreation and fishing. Program partners use scientifically based flow recommendations to drive management decisions to ensure endangered fish are protected as water is used to grow crops and supply homes and businesses with clean, reliable water.



A man wearing a cap and a light-colored shirt is seen from behind, sitting in a green canoe on a calm river. The river is surrounded by lush green reeds and marshland. In the distance, there are rolling hills or mountains under a clear sky. The water reflects the surrounding landscape.

# Habitat Protection

Each of the protected species has different habitat preferences that often change as the fish mature. Program partners work cooperatively to provide passage across diversion dams, access to warm, food-rich nursery habitat and to protect fish from entering canals where they could end up on a farmer's field instead of in the river.





# Nonnative Fish Control

Nonnative fish have been introduced across the basin, for many years and for many reasons. Predation by nonnative fish species is a serious threat to endangered fishes and perhaps the most challenging to manage. Program partners are using a diverse range of solutions to address this threat, but novel solutions are needed.







# Information & Education

Public support is essential to recover the endangered fishes, now and in the future.

Program partners visit schools, attend community events, engage anglers and boaters along the rivers, present at professional meetings, and develop a variety of printed materials and educational items that inform people about the value of endangered fish in their communities.





# Propagation

Hatchery-produced fish are stocked into rivers and streams when populations fall below self-sustainability. Program partners work together to maximize genetic diversity and continuously improve techniques so stocked fish are more likely to survive in the wild.



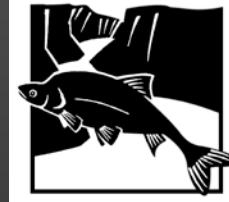


# Research & Monitoring

Research and monitoring produce information to evaluate progress to recovery and guide management efforts. Program partners provide the science to support decision making regarding recovery actions, to see what is working and what isn't, and make adaptive improvements.



[www.coloradoriverrecovery.org](http://www.coloradoriverrecovery.org)



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# Instream Flow Coordination

Examples:

- Flaming Gorge/ Green River
- Yampa River
- Aspinall/. Gunnison River
- Colorado River: 15 Mile and 18 Mile Reaches



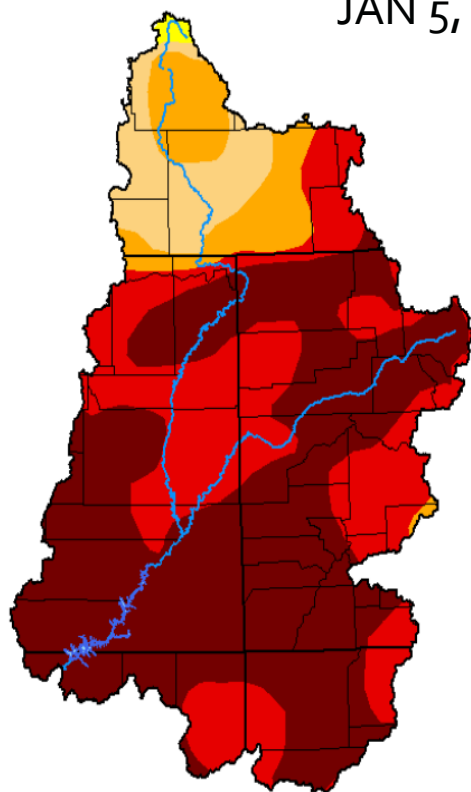
# Drought and Climate



## Upper Colorado River Endangered Fish Recovery Program

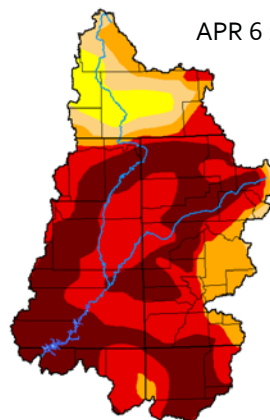
### *U.S. Drought Monitor* Upper Colorado Watershed

JAN 5, 2021



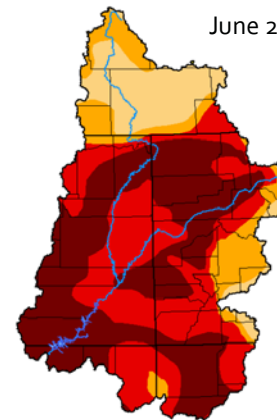
### *U.S. Drought Monitor* Upper Colorado Watershed

APR 6 2021



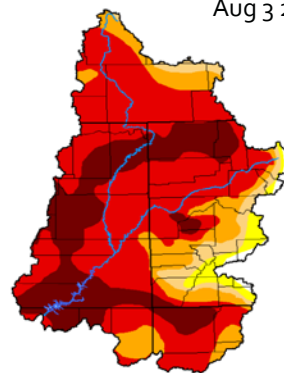
### *U.S. Drought Monitor* Upper Colorado Watershed

June 2 2021



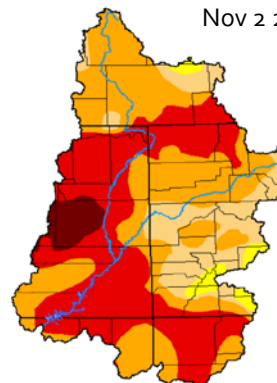
### *U.S. Drought Monitor* Upper Colorado Watershed

Aug 3 2021



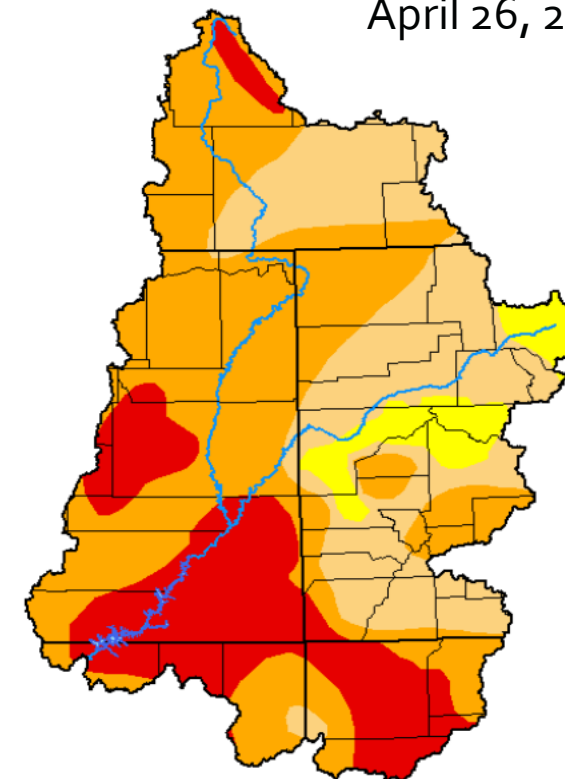
### *U.S. Drought Monitor* Upper Colorado Watershed

Nov 2 2021



### *U.S. Drought Monitor* Upper Colorado Watershed

April 26, 2022

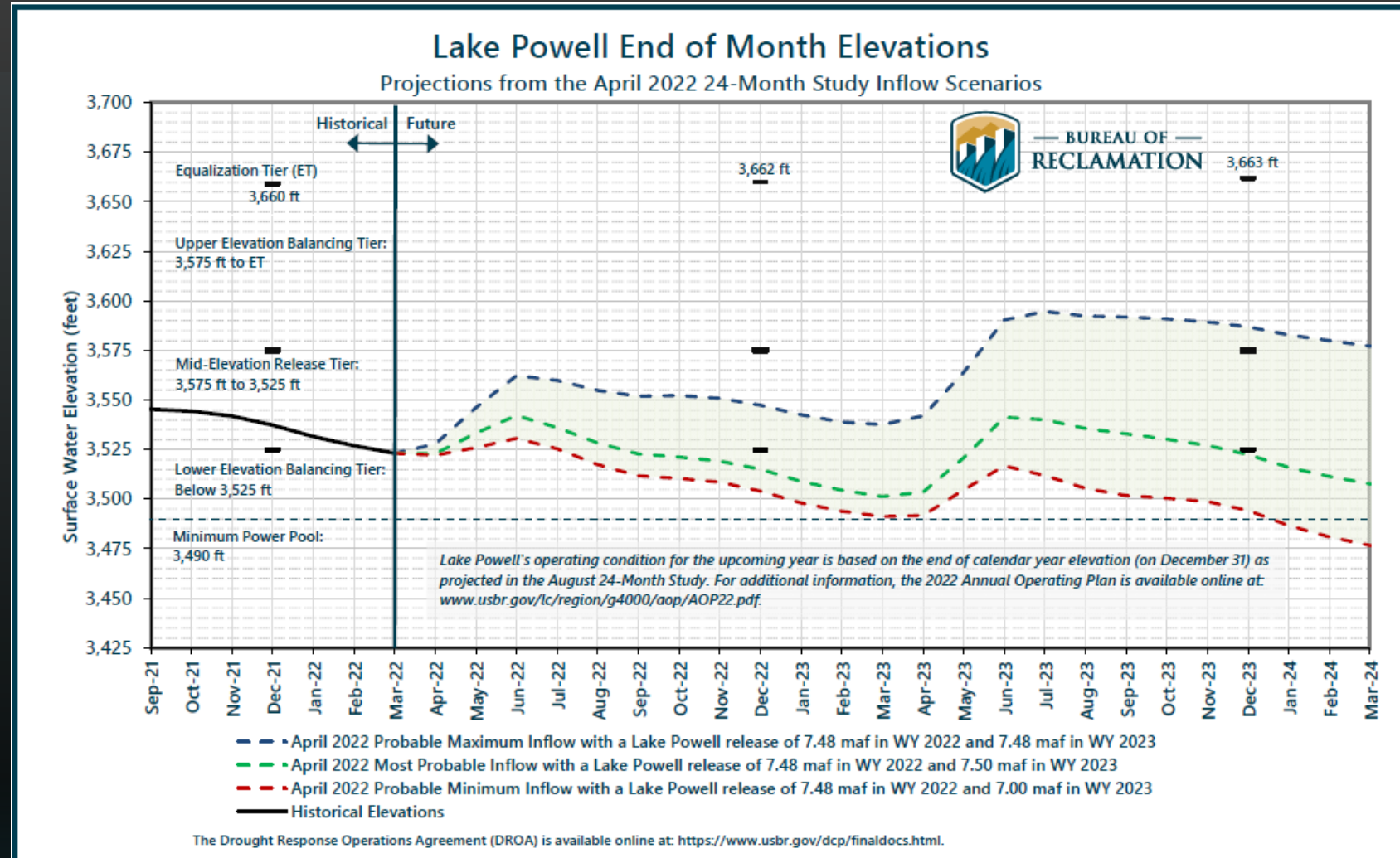




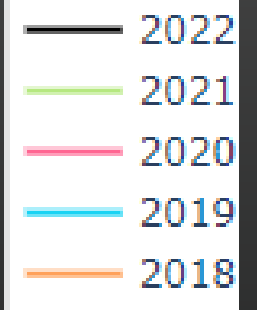
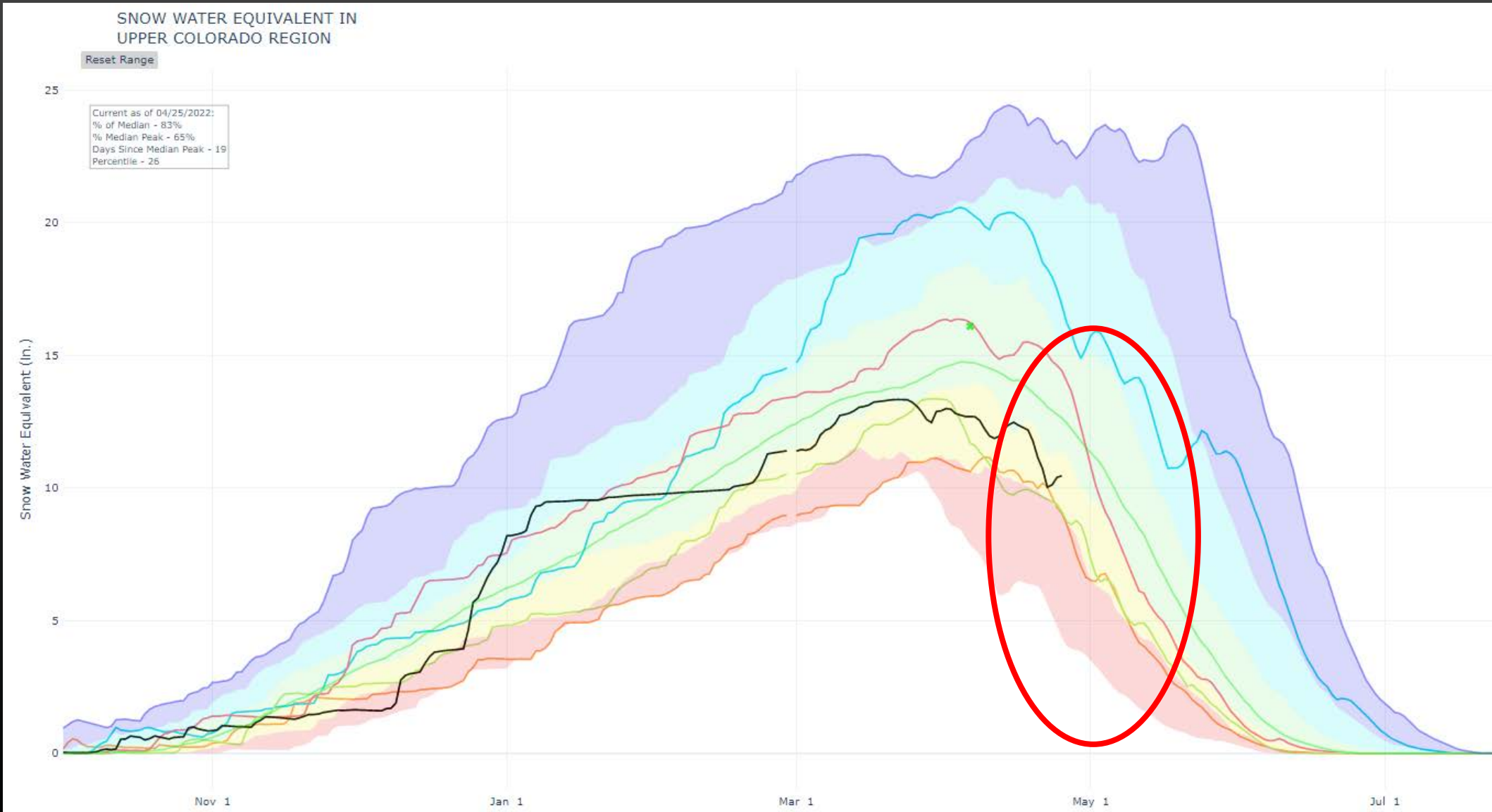
# Upper Colorado River Endangered Fish Recovery Program

## BIG RIVER ISSUES

LAKE POWELL  
ELEVATION =  
3522.24 on 4/24/2022  
(3522.75 on 5/2/22)



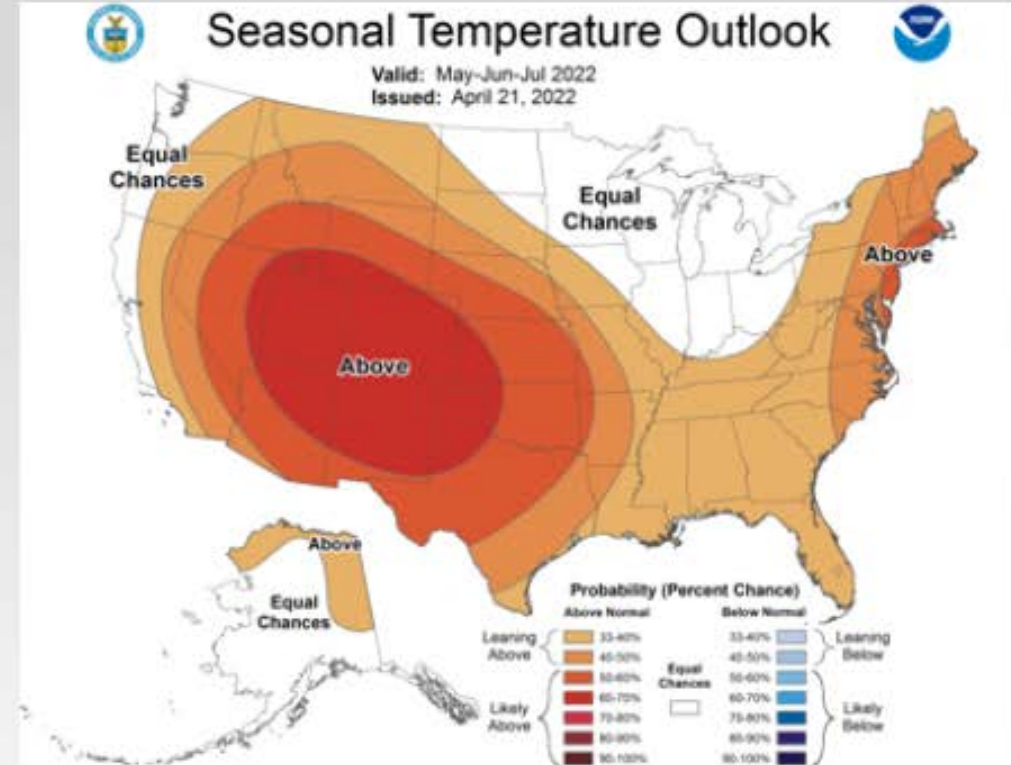
# Water Year 2022 – Not great, but better than 2018 or 2021



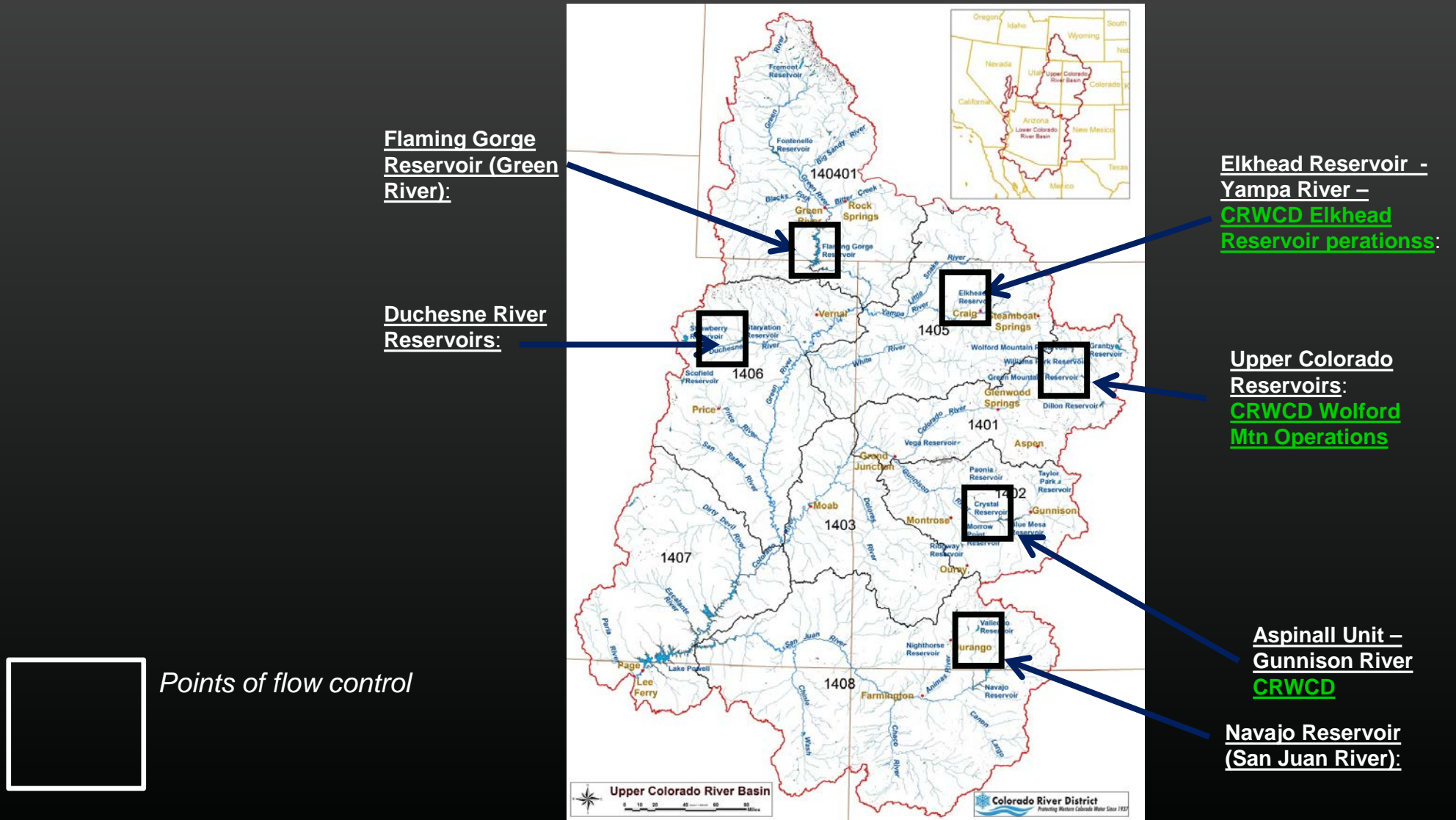


## Precipitation

### May/Jun/Jul



# Instream Flow Management Occurs Throughout the Upper Basin: Opportunities for Meeting Multiple Needs







**Upper Colorado River  
Endangered Fish  
Recovery Program**

## **EX: Colorado River – 15 Mile Reach Managed Flow Program**

**COLORADO RIVER: Water Year 2022 - 85 % AVE Projected unregulated Apr-July Inflow at Cameo**  
**Challenge: Meeting Minimum Aug-October Monthly Flow Target of 810 cfs**

### **Opportunities:**

- **~30,000 AF of water from storage in multiple reservoirs;**
- **Long-Term HUP\* Partnership working as necessary through spring, summer and fall to help meet the challenge**

**\* HUP = Historic User Pool – 66KAF Green Mtn Reservoir Allocation available for the benefit of Western Slope Water Users, including flow needs for threatened and endangered fish**





# Upper Colorado River Endangered Fish Recovery Program

## EX: 2021 Ruedi Operations Colorado River – 15 Mile Reach Flows

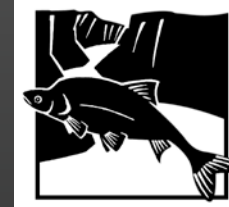
### FLOW TARGETS

CO River 15-Mile Reach: With and Without Fishery Pools



	Percent Exceedance			
	25	50	80	810
AUG	1,630	1,630	1,240	810
SEP	1,630	1,630	1,240	810
OCT	1,630	1,630	1,240	810
NOV	1,630	1,630	1,630	1,240
DEC	1,630	1,630	1,630	1,240
JAN	1,630	1,630	1,630	1,240
FEB	1,630	1,630	1,630	1,240
MAR	1,630	1,630	1,630	1,240

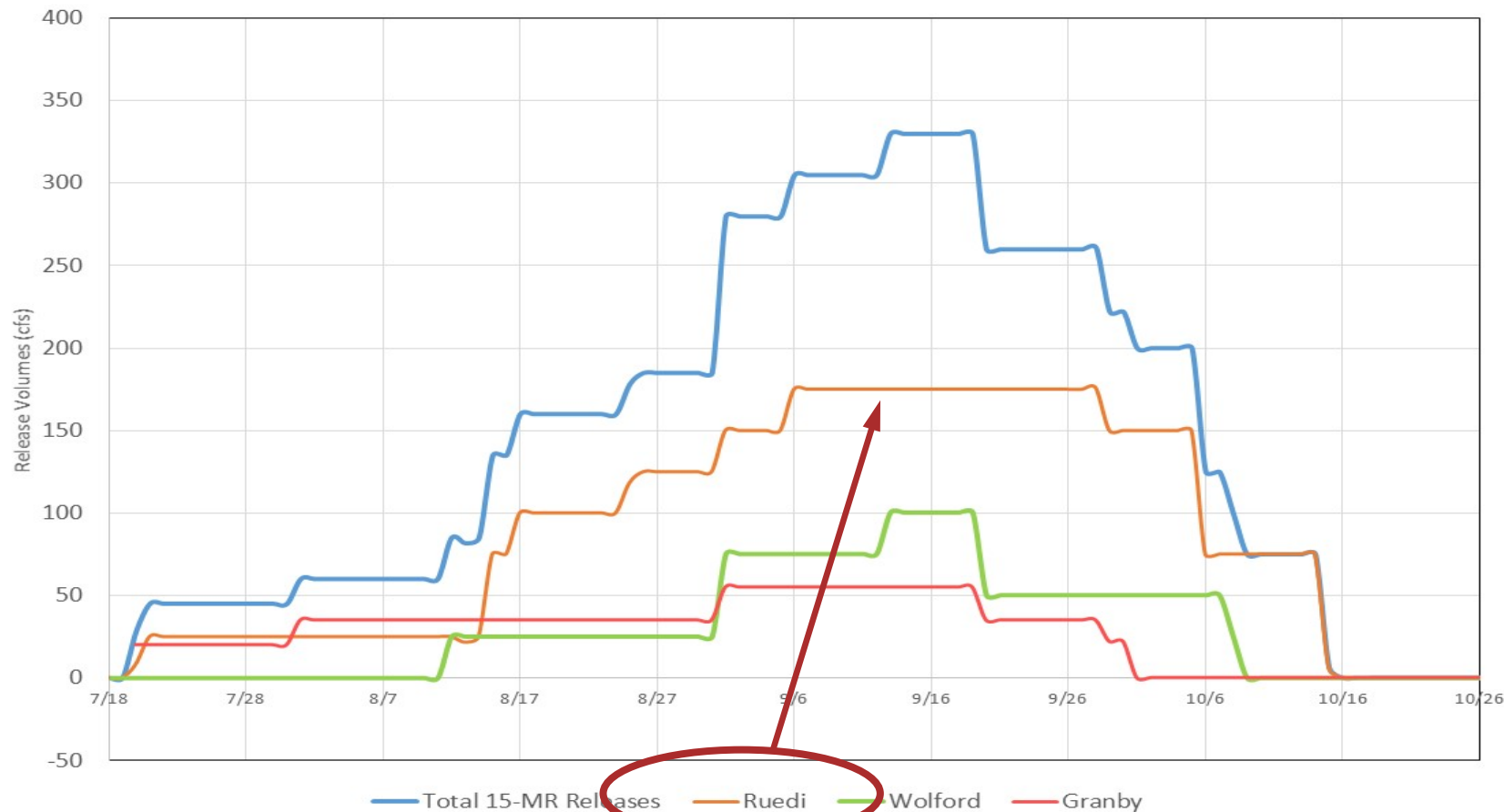
- **POSITIVE:** ~33,000 AF of Supplemental Water was made available in 2021 to Augment Flows in the 15-Mile Reach
- **NOT SO POSITIVE:** Another Dry Year, Low Runoff, and  $Q < 810$  cfs 124 days;  $Q < 500$  cfs 56 days



# Upper Colorado River Endangered Fish Recovery Program

## Colorado River – 15 Mile Reach Managed Flow Program

### 2021 - 15 Mile Reach Releases - All Reservoirs



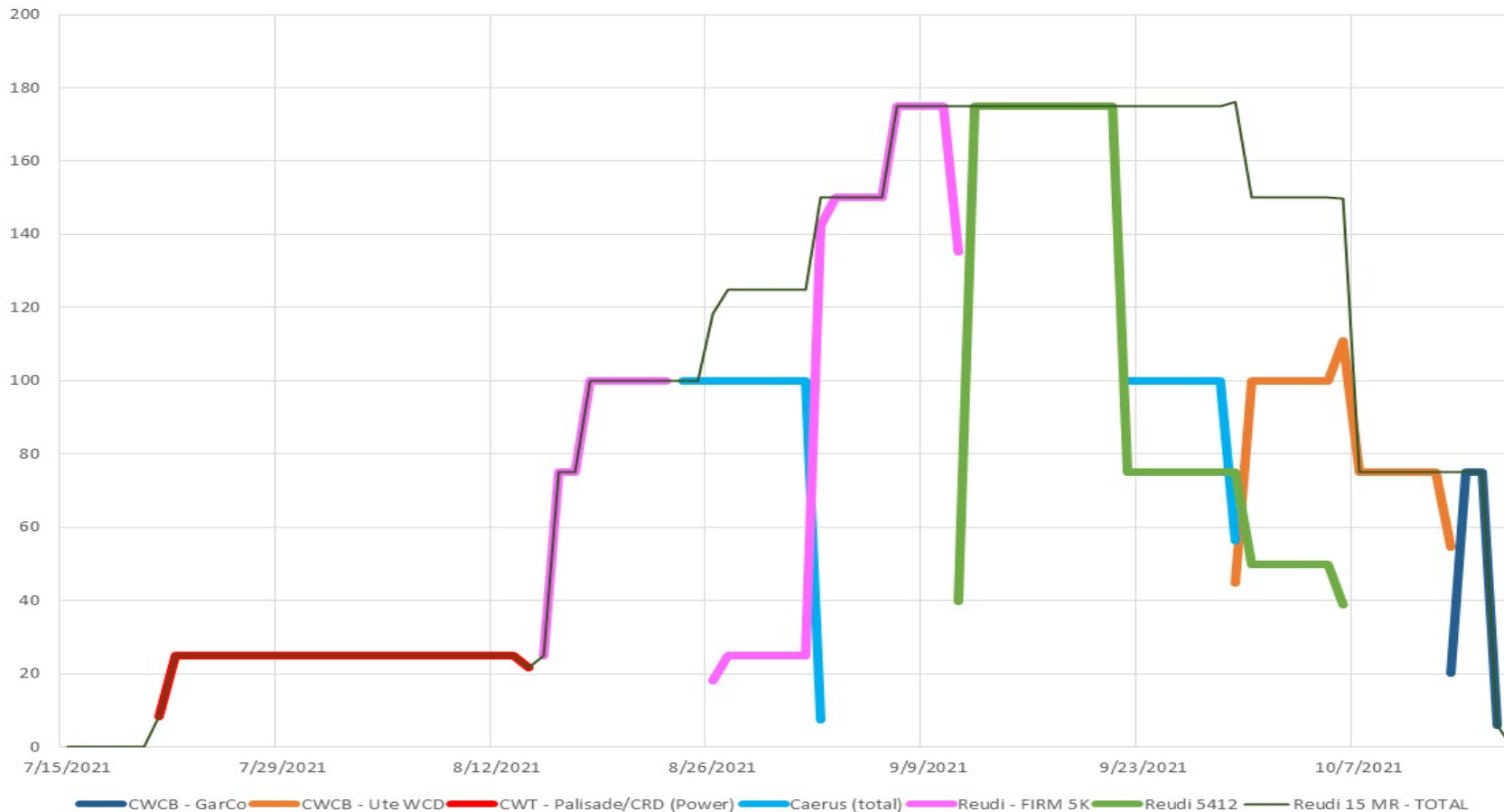




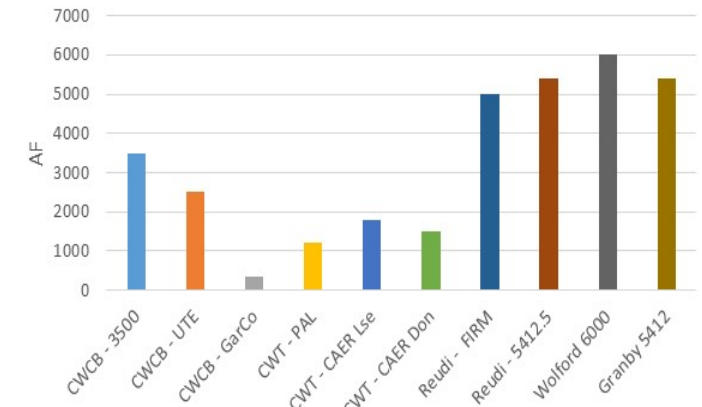
# Upper Colorado River Endangered Fish Recovery Program

## Colorado River – 15 Mile Reach Managed Flow Program

Ruedi Releases - The Colors of 15-MR Water



2021 Ruedi Releases



**Total Ruedi Release in 2021  
= 21262.5 AF**







# Upper Colorado River Endangered Fish Recovery Program



QUESTIONS?  
Thank You!  
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