



**TROUT UNLIMITED'S MISSION IS TO CONSERVE,  
PROTECT AND RESTORE NORTH AMERICA'S  
COLDWATER FISHERIES AND THEIR WATERSHEDS**

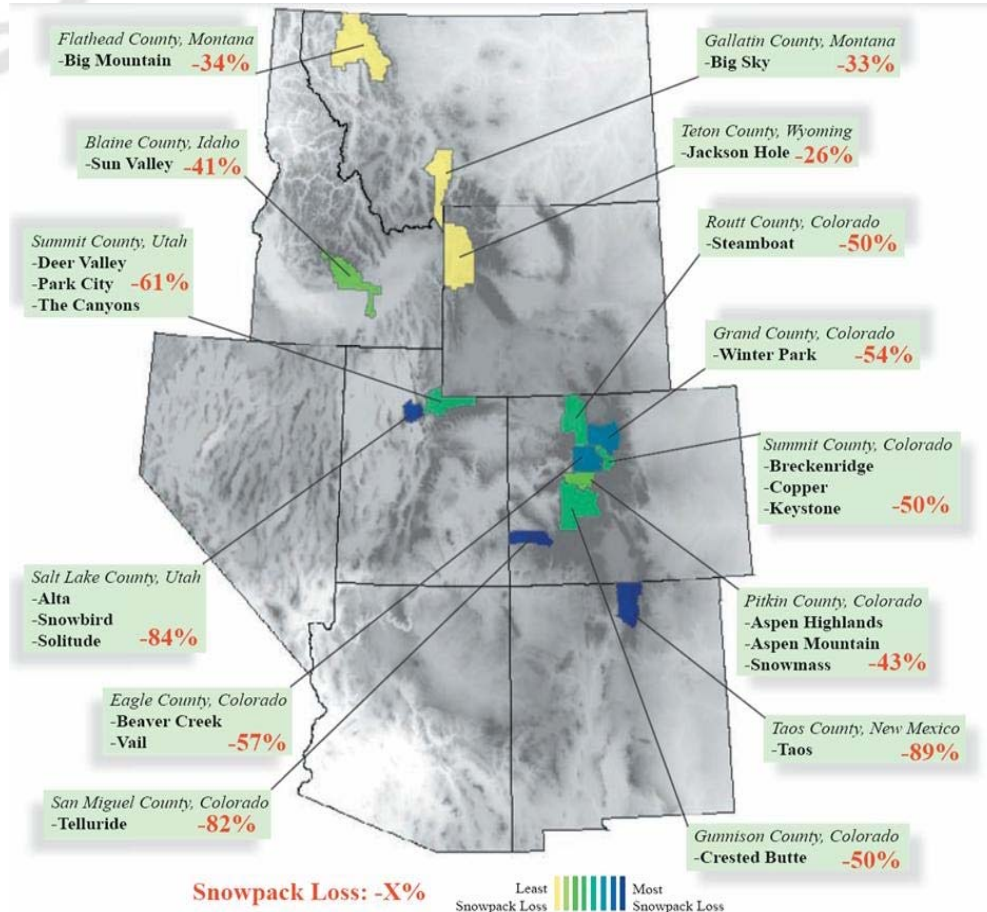


## **Finding Flows: Fish Still Need Water Every Day**

**NRLC Western Water Policy Conference  
June 3, 2009; Boulder, CO  
Melinda Kassen, Director  
Western Water Project**

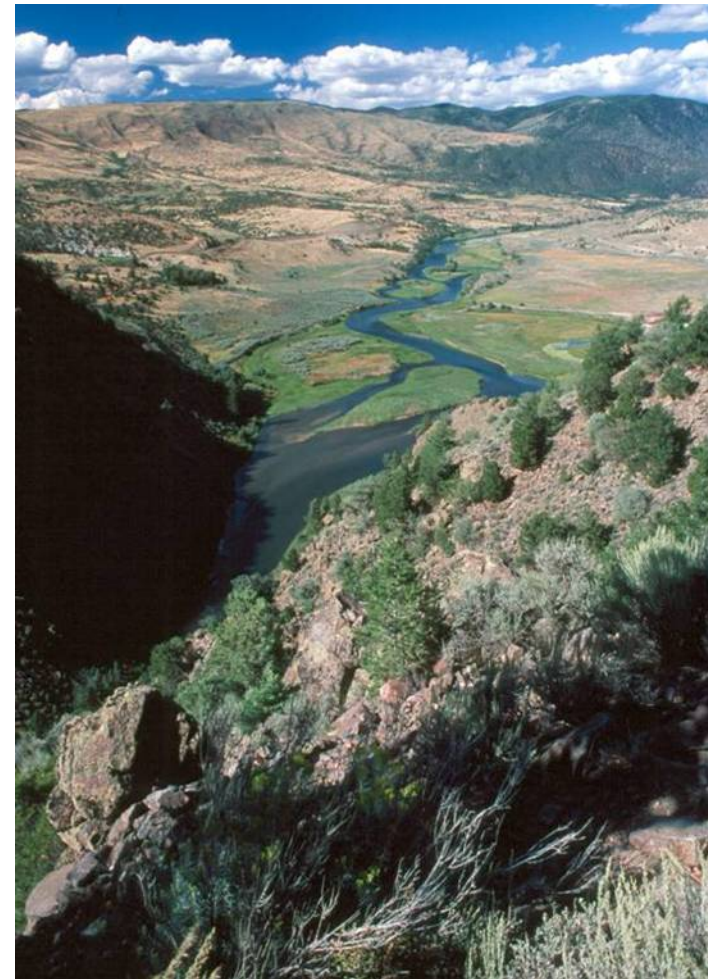
# Challenge: Less Water

- Givens:
  - Climate Change may mean less water than the 20<sup>th</sup> Century “norm”
  - Population in Western cities and recreational communities is growing.
- Is the assumption that more human use means less water is available for environmental flows valid?



# Goal: Protecting Headwaters

- Opportunities for ensuring headwater flows, as opposed to downstream mainstem flows, come from compacts delivery requirements – headwaters states have to send water down stream and might as well do so in a way that benefits environmental needs and the recreation economy.
- Challenges to protection of headwaters flows come as a result of transbasin diversions, which are often seen as being easier & cheaper from high up in the system.



Headwaters of the Colorado

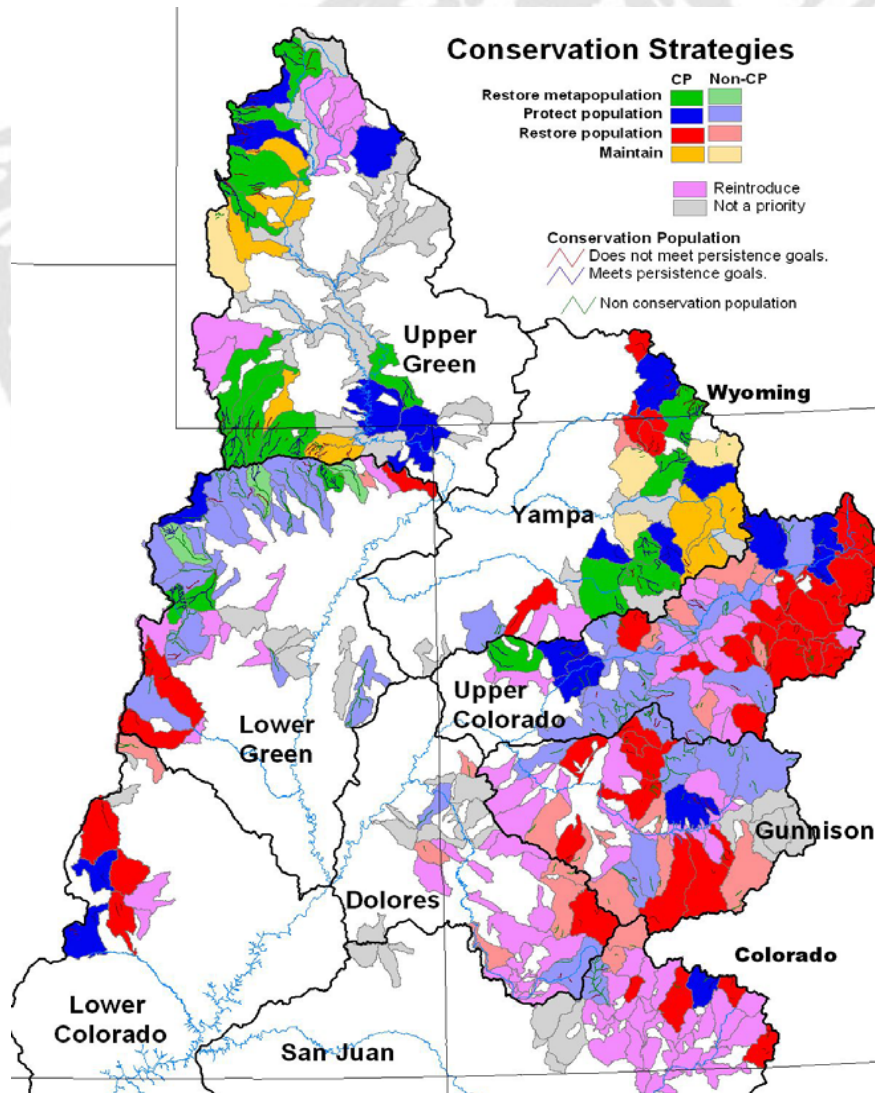
# Goal: Connectivity

- To withstand warmer conditions with less flow, fish will need access to all elements of their habitat
  - Spawning, Rearing, Big Water & Refugia (pools, shaded water, hiding places)
- Ideally, populations need multiple reaches of each to allow survival where local incident damages or removes a reach.
- Threats to passage:
  - Culverts, dams and diversions blocking the whole stream bed
  - Low flows
  - Polluted waters
  - Non-Natives (for native fishery)



Diversion Bear River ID and a perched culvert  
Iron Gate Dam, Klamath River CA

# Goal: Landscape Scale



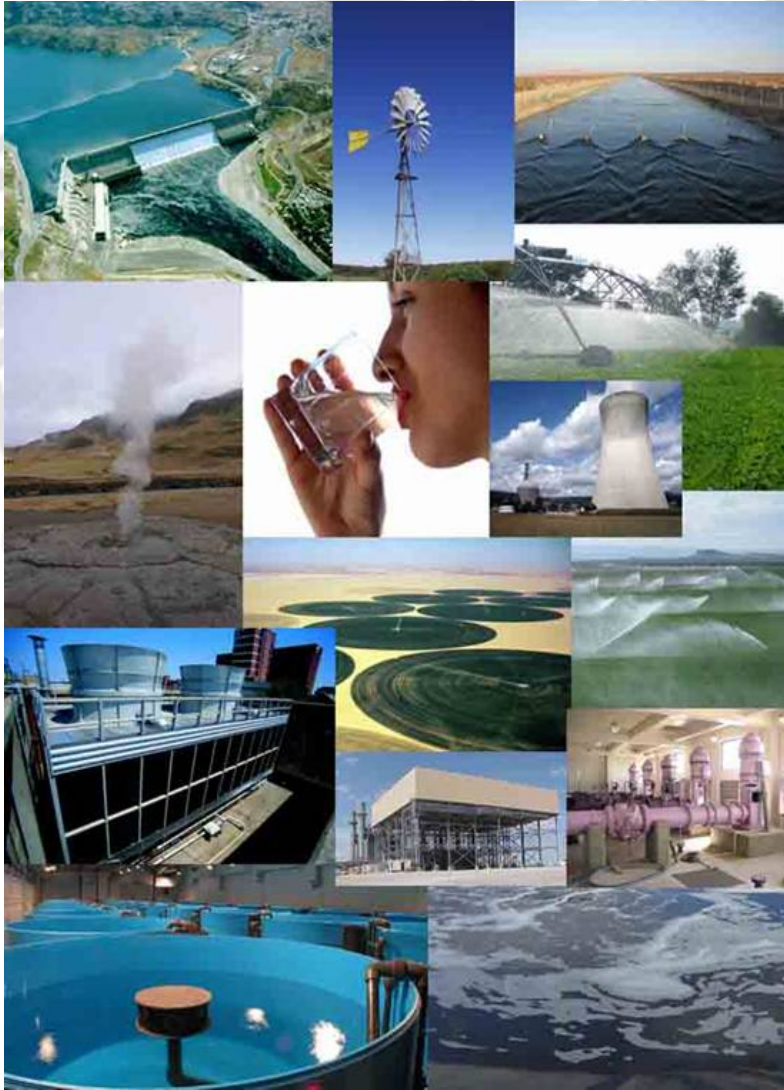
- Resilience would mean five connected, conservation-size populations per sub-basin (again, to increase the chances that overall, the sub-basin fishery survives localized fire or drought events).
- S. 22-type protection of untrammelled landscapes is critical, but to ensure survival, fisheries will also require restoration and reconnection of habitat on a mile by mile basis.

# Need: Willing Partners

- Protection and restoration are easier and more robust with local community support.
- Government agencies, at all levels of government, and including agencies with both water and wildlife/fishery agendas must be at the table developing protection and restoration strategies.
- Landowners and water diverters control resources necessary to achieve both protection and restoration.
  - E.g., WY's Little Snake River



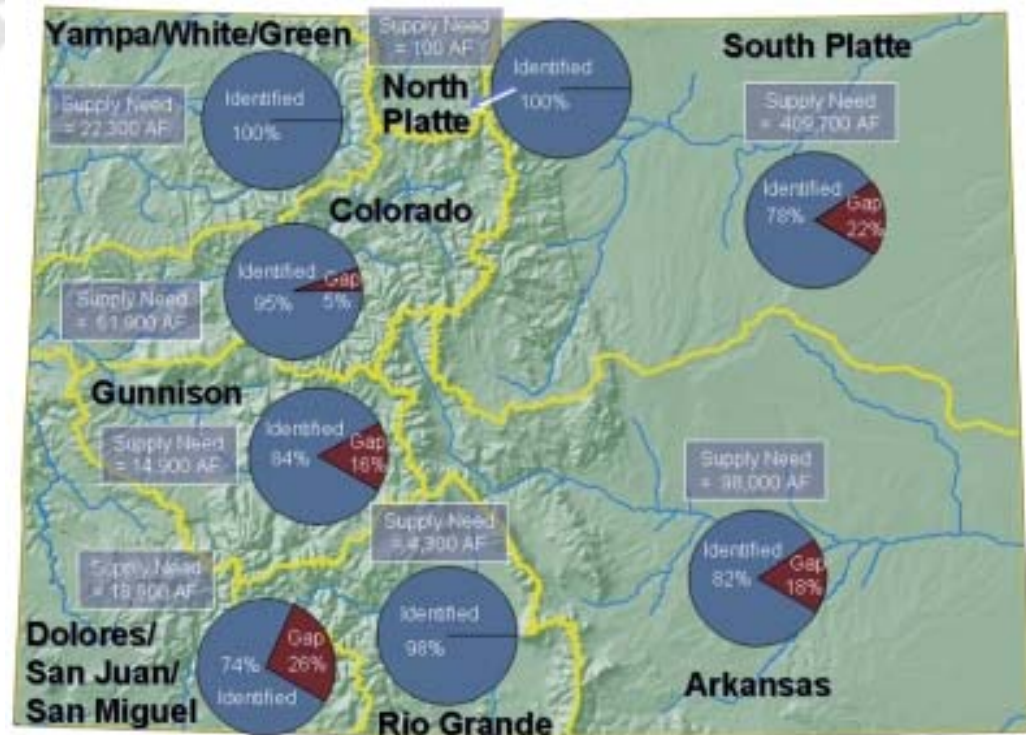
# Need: Better Tools



- Most western states have instream flow protection programs, but few are comprehensive.
- To achieve a holistic approach, states need:
  - Reach-level, quantified needs assessments for environmental and recreational purposes
  - Means and incentives to protect or restore needed instream flows – including their administration
  - Ground/Surface water integration
  - Water quality/quantity integration
  - Means to evaluate and reduce energy embedded in water delivery and water embedded in energy development

# Need: Fundamental Shift

- The prior appropriation system is NOT a state-wide water plan.
- Discussions need to create “safe pastures” for “sacred cows” (as someone else said recently in Las Vegas)
- We need incentives for “Haves” to work with “Have Nots” to avoid losing species and other important values.



CWCB-projected water supply gaps in Colorado for 2030



# Need: Money, Money, Money

- Available Now:
  - Stimulus
  - Farm Bill AWEP, EQIP & CRP
  - SECURE Act
  - Cooperative Watershed Management Act
  - Clean Water Act §319
- Coming sometime (maybe soon, maybe not) -- Cap & Trade (or Carbon Tax) Revenues to be used for adaptation (which must mean reconnecting streams with healthy flows, not longer boat ramps)



Before: A dewatered Grade Creek, WY



After: the water has started to flow

# Challenge: One of Each or All in One?

## Silver Bullet Approach

- Big new transbasin diversions from far far away, *or*
- Massive Ag Dry Up

v.

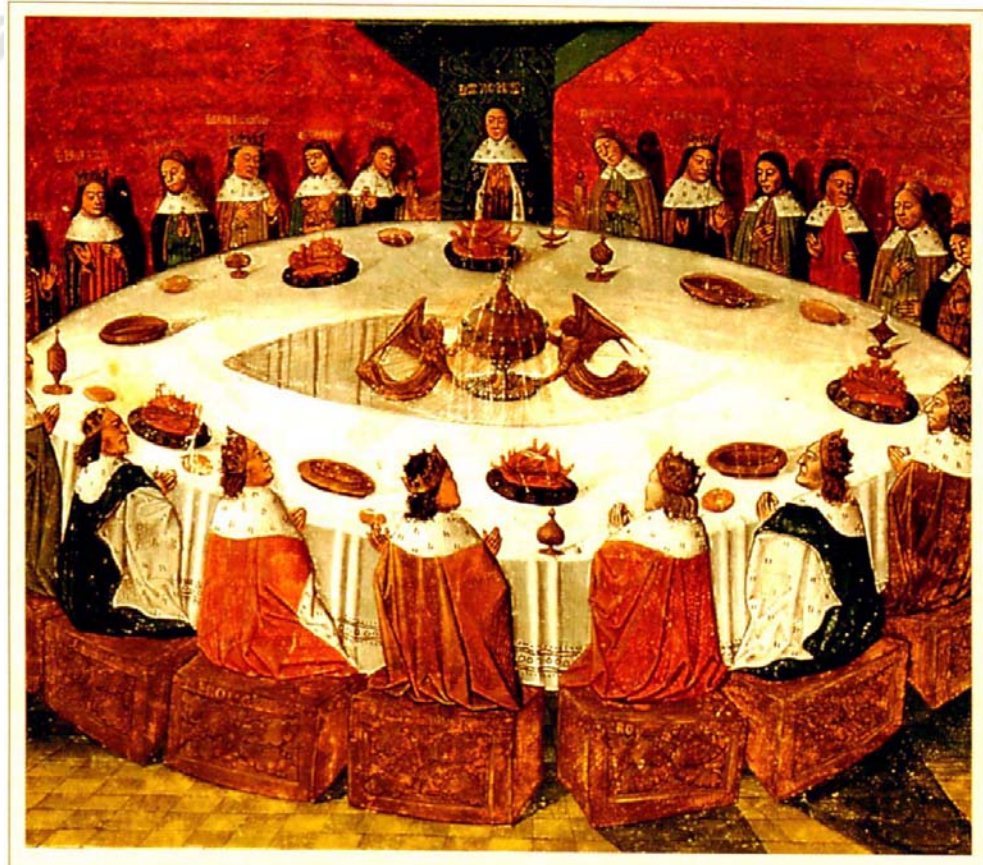
## Incremental “Basket” Approach

- Energy & Water Conservation,
- Ag leasing,
- retrofitting existing projects,
- reoperations, and
- smaller, multi-purpose projects



# Setting the Table

- Water is power
- Money is power
- Who decides?
  - In case of IBCC, no power to make a deal
  - States v. Providers v. Land use decision-makers v. “Interested 3<sup>rd</sup> parties”
- Who gets a seat?
  - E-flows; recreation flows latecomers in seniority system



## Conclusion: Get Muddy

- Include all the parties at the table – those with power and those with interests
- Use all the tools available
  - Find & create more
- Follow the money
- Prepare for a long (mile-by-mile) slog

