

Pilot flex accounting to encourage more water conservation in a combined Lake Powell-Lake Mead system



David E. Rosenberg

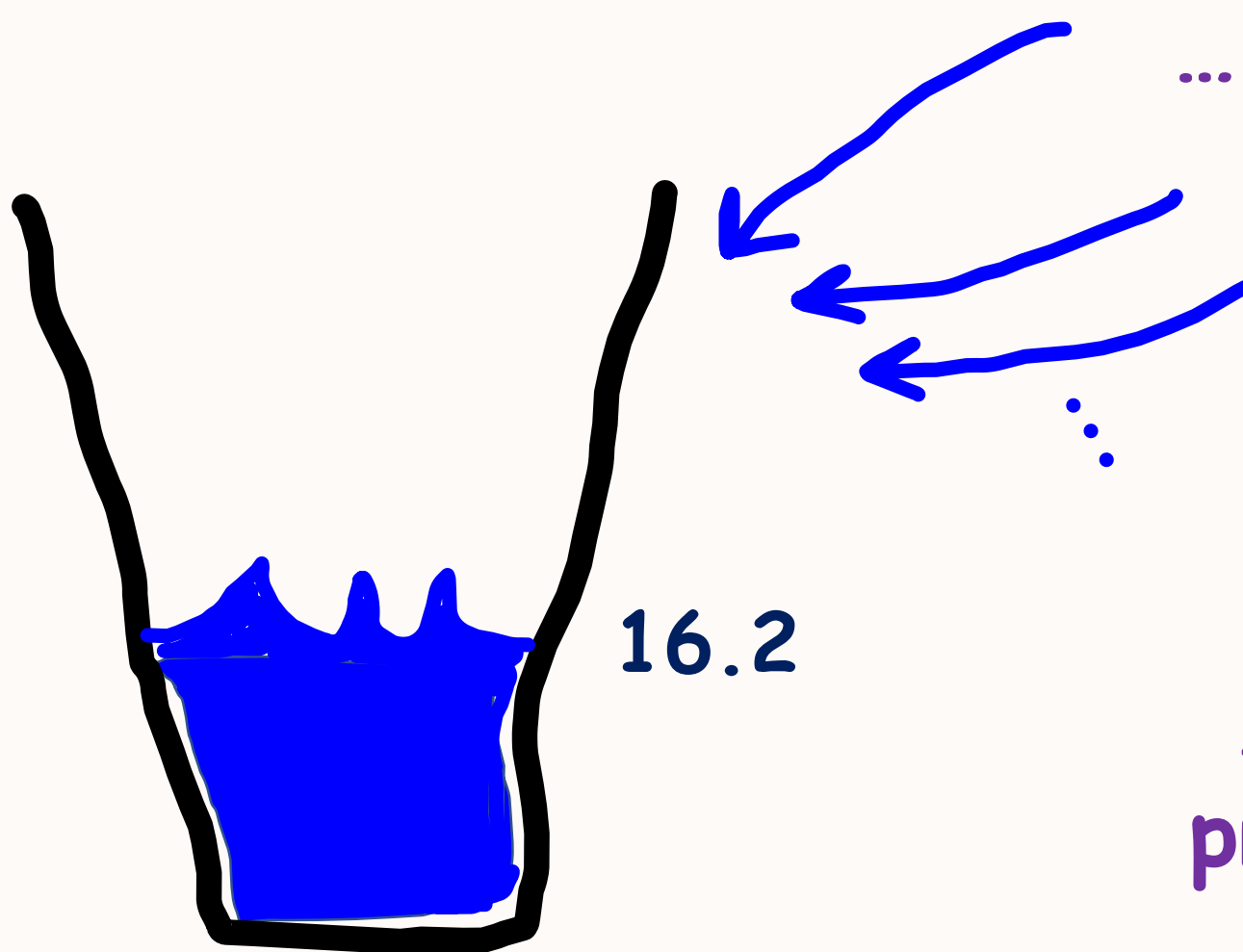
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Manage the water we already have ...

Combined Powell + Mead
Active Storage
(MAF)



... and will come in
future years ...

... while build on
prior agreements.

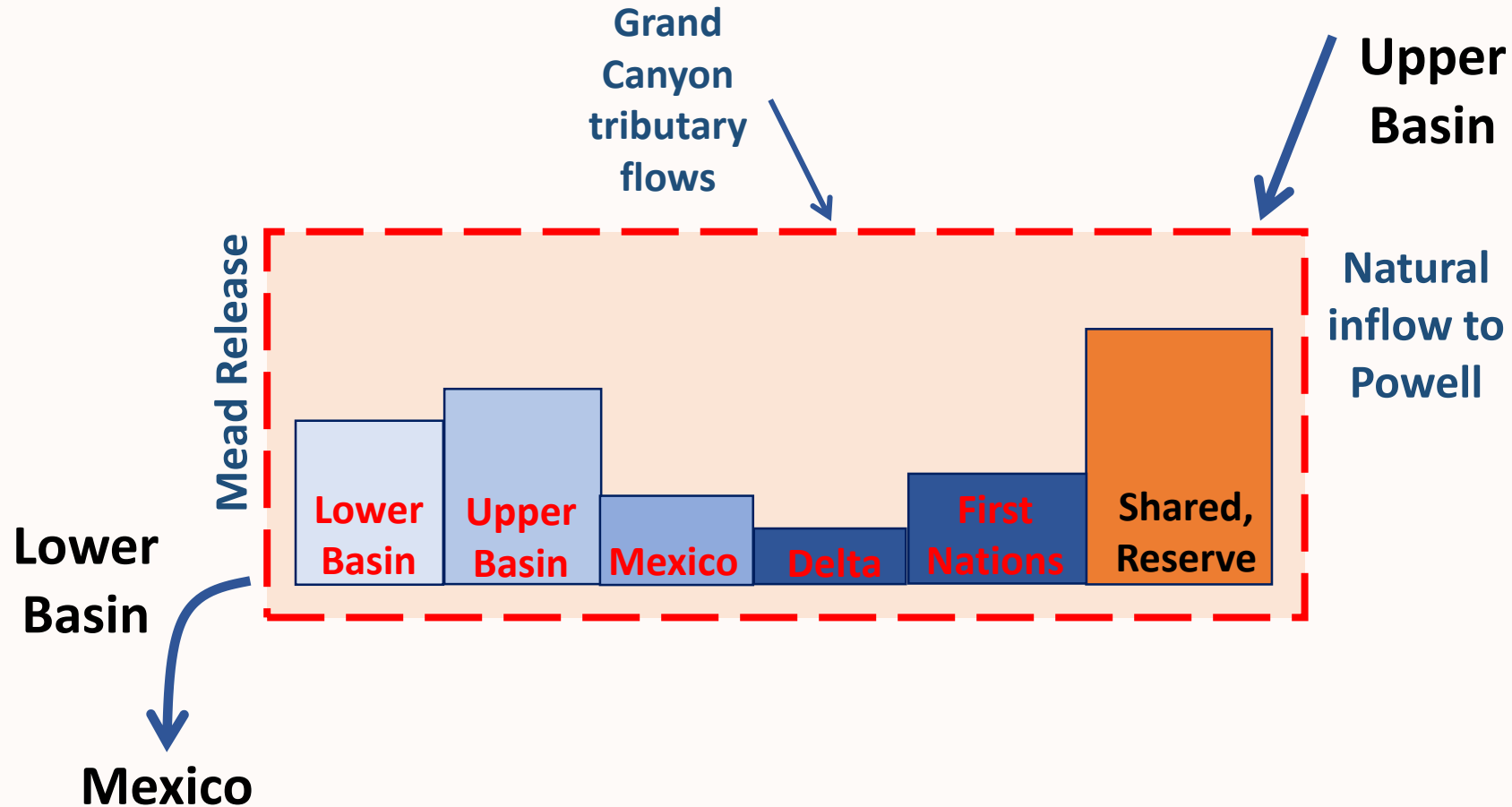
1. Guiding principles

Provoke thought and discussion on renegotiations of Lake Powell-Lake Mead operations.

Give managers more flexibility to conserve and consume water independent of other parties.

Convert a shrinking pie (lose-lose) conflict — Colorado River drying — into more positive processes for people and endangered fish.

2. Region of Combined Management



3. Include more parties

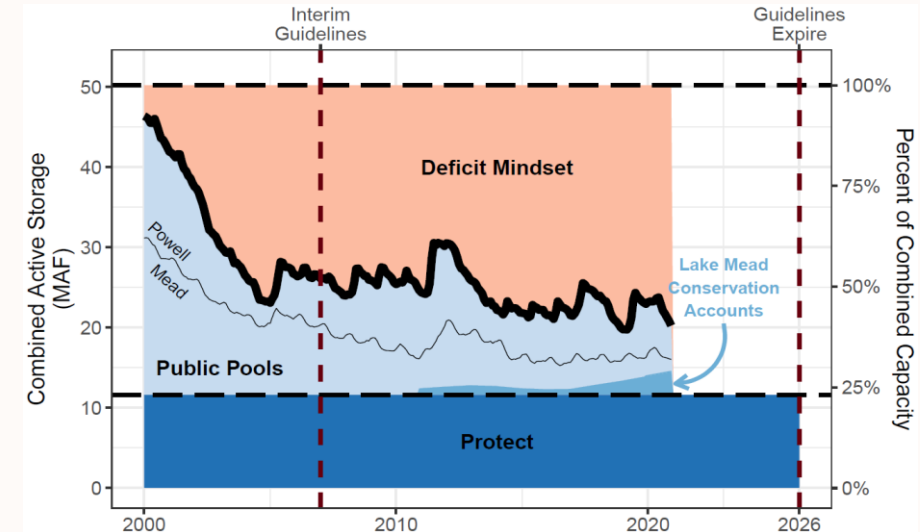
4. Manage all available water not just prior conserved water

$$\begin{array}{ccccccccccc} \text{Available} & & & & \text{Flex} & & \text{Share of} & & \text{Share of} & & \text{Purchases} & - & \text{Sales} \\ \text{Water} & = & \text{Account} & + & \text{Balance} & & \text{natural} & - & \text{Evaporation} & + & & & \\ & & \text{Balance} & & & & \text{flow} & & & & & & \\ & & & & & & & & & & \underbrace{\hspace{10em}} & & \\ & & & & & & & & & & \text{Optional} & & \end{array}$$

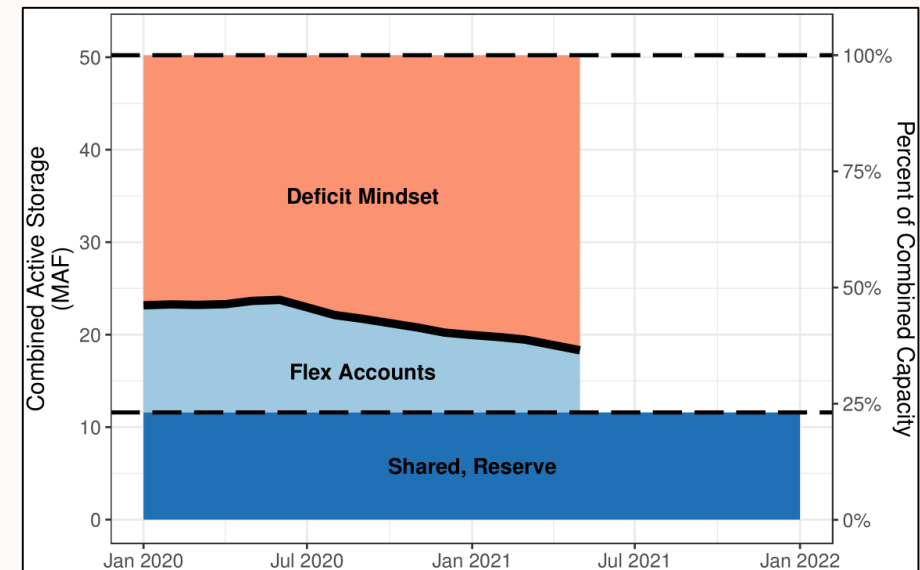
5. Adapt releases to natural flow and storage levels

6. Key Steps

1. Decide which parties get a flex account.
2. Assign reservoir storage (top) to accounts (bottom).
3. Divide natural flow among parties.
4. Parties conserve & consume within their available water.
5. Split combined storage between Powell & Mead.



2. Assign reservoir storage (top) to accounts (bottom).



7. Access water while help protect endangered fish
(a visualize exercise)

8. Effect on Existing Agreements?



The Same

- 1922 Compact
- 1928 Boulder Canyon Project Act
- 1944 US-Mexico Treaty
- 1948 Upper Basin Compact
- 1956 CRSP
- 1964 Arizona v. California
- 1968 CRBPA
- 2007 Lake Mead conservation account balances, Quantified surplus, Shortage conditions
- 2019 Drought Contingency Plan contributions, protect volumes, contributions for another party
- Expiration date for operations

Depends on Party Actions

- 2007 Lake Powell-Lake Mead Equalization

Flex accounting meets Interim Guidelines goals

- ✓ Encourage conservation.
- ✓ Plan for shortages.
- ✓ Closer coordinate Lake Powell and Lake Mead operations.
- ✓ ~~Preserve~~ Increase flexibility to deal with further challenges such as climate change and deepening drought.
- ✓ Implement operational rules for a long – but not permanent – period.
- ✓ Federal government facilitates – but not dictates – informed decision-making.
- ✓ Encourage parties to address future controversies on the Colorado River through consultation and negotiation... not litigation.

9. How can I help?



Manage a flex account!



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<https://github.com/dzeke/ColoradoRiverCoding/tree/main/ModelMusings>



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