

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



David E. Rosenberg

@WaterModeler

david.rosenberg@usu.edu

<http://Rosenberg.usu.edu>

1. Guiding principles

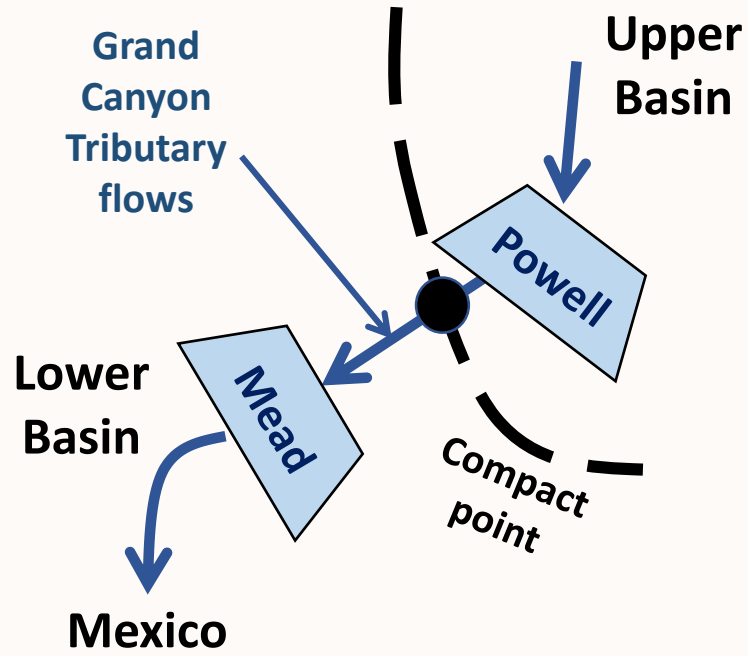
Provoke thought and discussion on renegotiations of Lake Powell-Lake Mead operations.

Current operations expire in 2026.

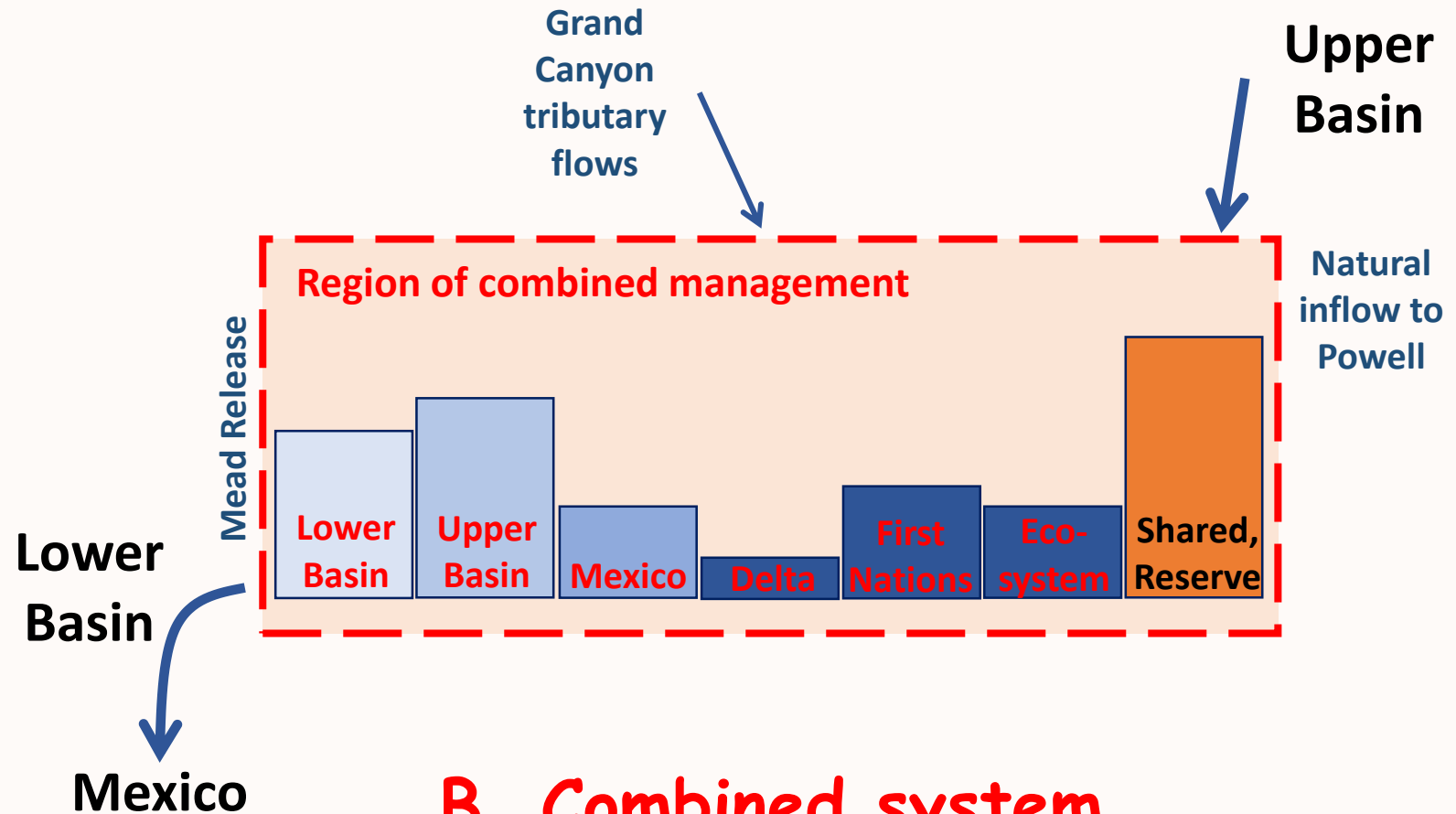
Give managers more flexibility to conserve and consume water independent of other parties.

Convert a shrinking pie (lose-lose) environmental conflict — Colorado River drying — into more positive processes.

2. Stretch the Lee Ferry Compact Point



A. 1922 to present

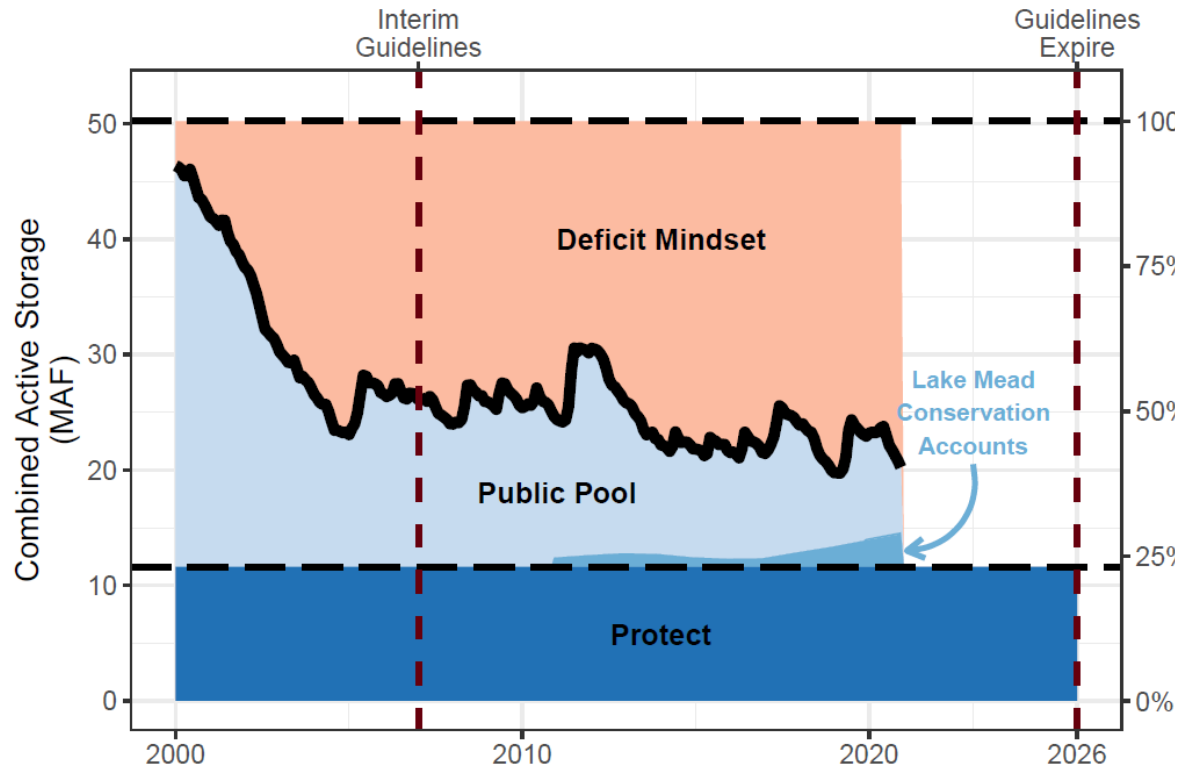


B. Combined system

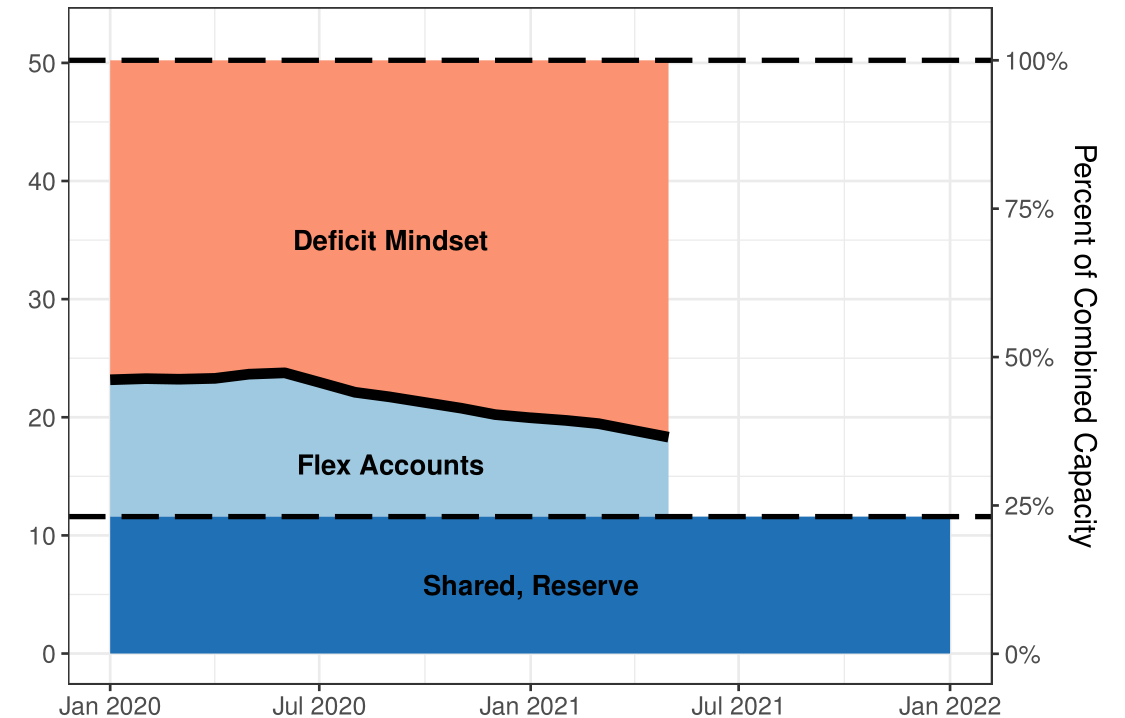
3. Manage all available water not just prior conserved water

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

4. Convert Lake Mead Conservation accounts and Public Pool to Flex account balances



A. 2000 to present



B. Combined system

5. Try a flex account with friends?



[Download link](#)

Cloud-based, synchronous
interactive model

Physical watershed data - Given
Individual political (player) decision - Flex account
Joint political decision
Calculated cell