

Combined Lake Powell-Lake Mead Plots

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Description

This is an R Markdown document. This document shows plots of combined Lake Powell-Lake Mead storage over time.

1. Line plot of the Lake Mead, Lake Powell, and combined storage over time.
2. A stacked area plot shows combined storage of Lake Powell and Lake Mead over time in comparison to Lake Mead conservation account balances, combined protection volume, and 2026 expiration of Interim Guidelines. Combined storage is split between Lake Mead conservation accounts and public pools in Lake Powell and Lake Mead. Within the public pool, a thin line shows the historical split between Lake Powell and Lake Mead (current operations).
3. A stacked area plot of combined storage divided into flex accounts and the shared water reserve.
4. A stacked area plot of Lake Mead storage shows the division between the public pool and conservation account amounts.

Data are from:

1. Storage elevation curves for Lake Powell and Lake Mead: Colorado River Simulation System (Wheeler et al 2019). MeadDroughtContingencyPlan.xlsx.
2. Lake Powell storage: USBR (2021). “Water Operations: Historic Data, Upper Colorado River Division.” U.S. Bureau of Reclamation. <https://www.usbr.gov/rsvrWater/HistoricalApp.html> (Powell-DataUSBROct2021.csv).
3. Lake Mead storage: USBR (2021). “LAKE MEAD AT HOOVER DAM, END OF MONTH ELEVATION (FEET)”. Lower Colorado River Operations, U.S. Bureau of Reclamation <https://www.usbr.gov/lc/region/g4000/hourly/mead-elv.html> (MeadLevelOct2021.xlsx).
4. Lake Mead conservation account balances : USBR (2020). “Boulder Canyon Operations Office - Program and Activities: Water Accounting Reports”. <https://www.usbr.gov/lc/region/g4000/wtracct.html>. (IntentionallyCreatedSurplus-Summary.xlsx)

Requested Citation

David E. Rosenberg (2021), “Combined Lake Powell-Lake Mead plots.” Utah State University. Logan, Utah. <https://github.com/dzeke/ColoradoRiverFutures/tree/master/CombinedPowellMead>.

Figure 1. Lake Mead, Lake Powell, and combined storage over time

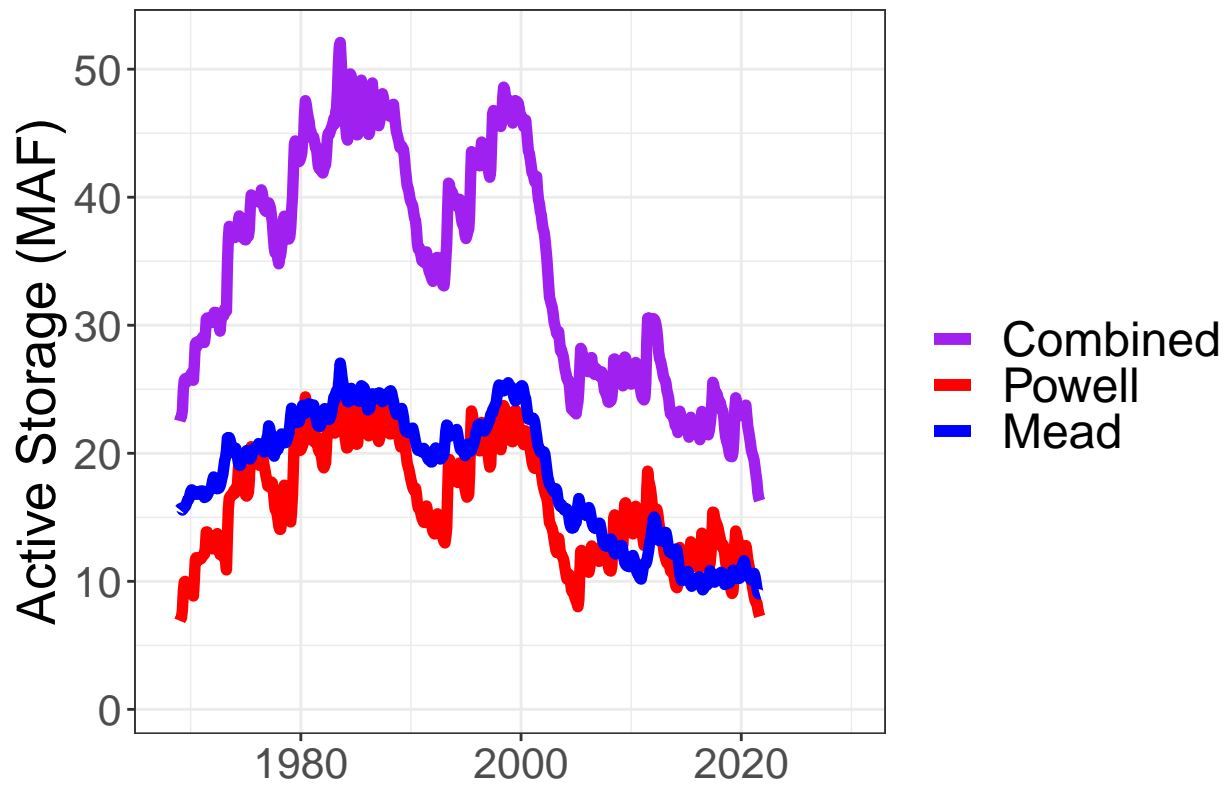


Figure 2. Combined storage of Lake Powell and Lake Mead over time in comparison to Lake Mead conservation account balances, combined protection volume, and 2026 expiration of Interim Guidelines.

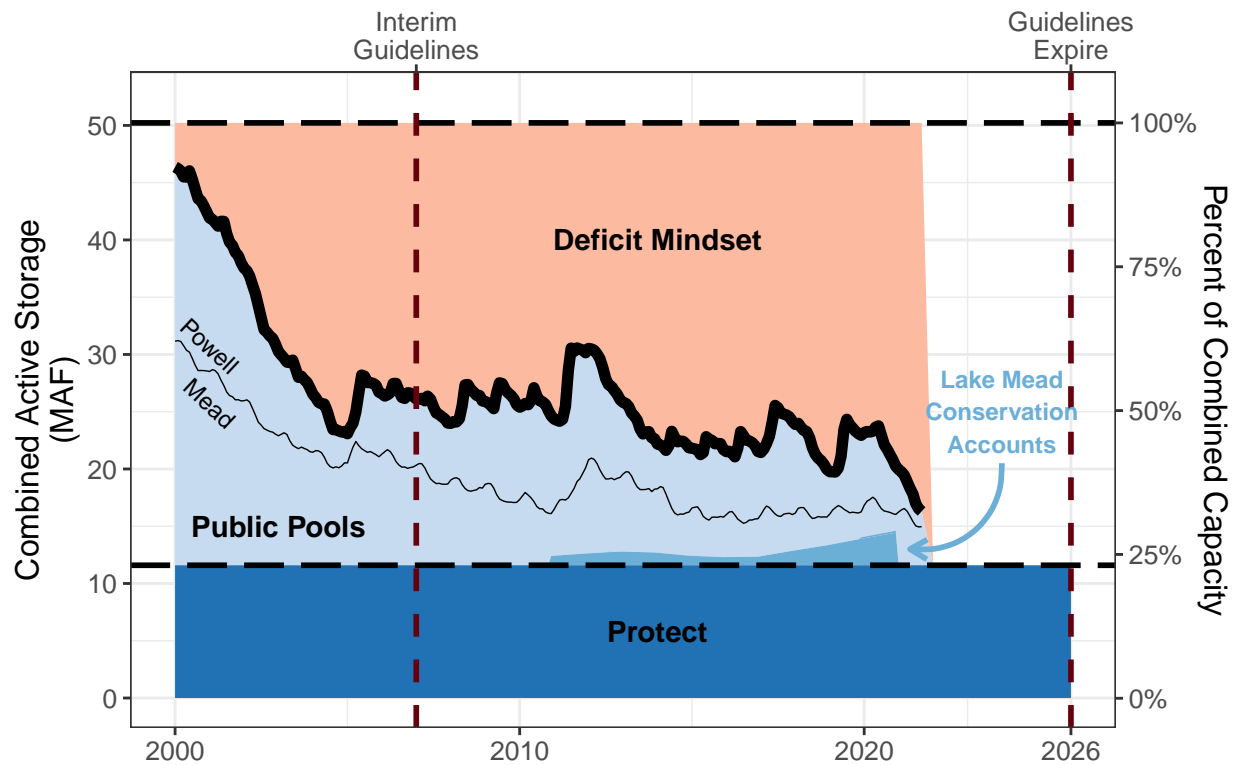


Figure 3. Combined storage of Lake Powell and Lake Mead over time with flex accounts

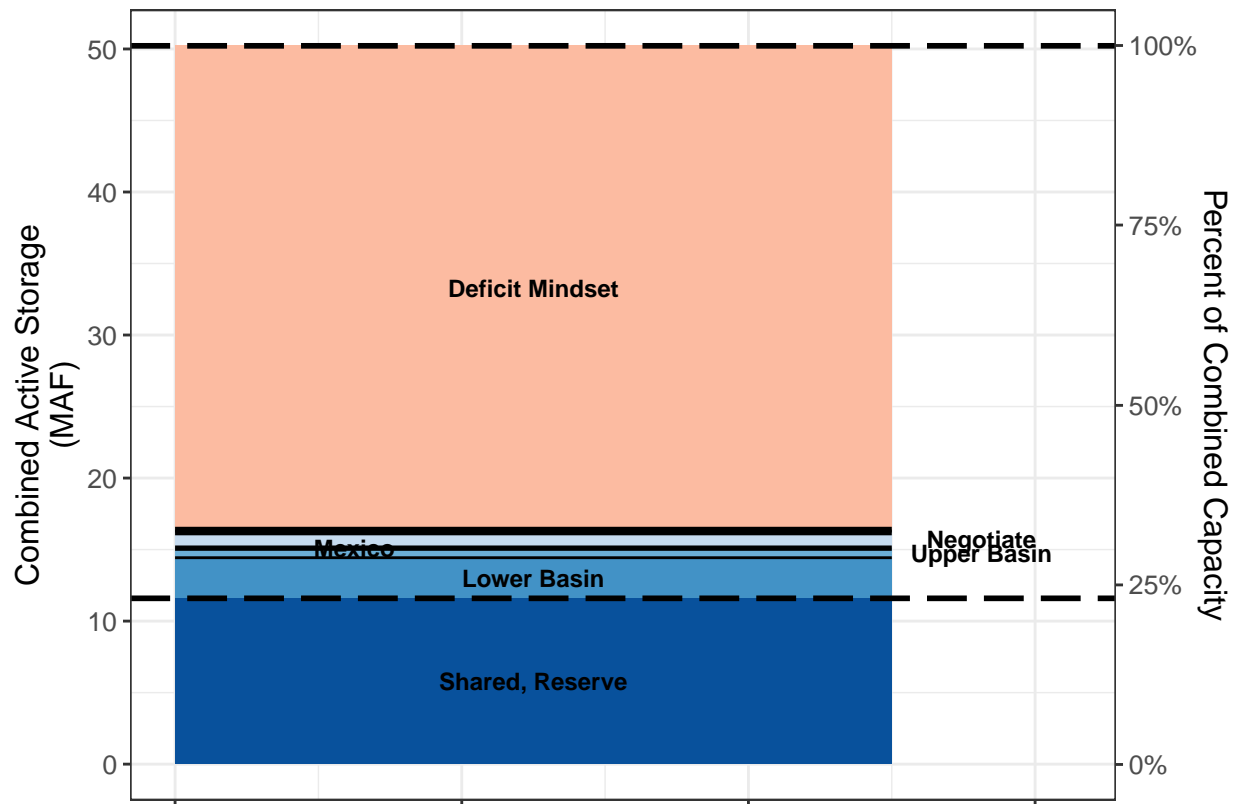


Figure 4. Lake Mead storage over time with conservation accounts

