Lake Mead Storage and Water Conservation Accounts Plots

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June 24, 2024

Description

This is an R Markdown document. This document shows a plot of Lake Mead Storage and Water Account Balances (ICS) over time. The purpose is to show the anticipated Lake Mead storage/elevation without the water conservation program.

Figure 1. A stacked area plot of Lake Mead storage shows the division between Lake volume, water conservation account balances, anticipated storage absent the water conservation program, and protection volume .

Data are from:

1. Storage elevation curve for Lake Mead: Colorado River Simulation System (Wheeler et al 2019). MeadDroughtContingencyPlan.xlsx.
2. Lake Mead Storage read in from USBR Application Programming Interface (API). https://www.usbr.gov/lc/region/g4000/riverops/_HdbWebQuery.html # # API query - https://www.usbr.gov/pn-bin/hdb/hdb.pl?svr=lchdb&sdi=1776%2C2091%2C1721%2C1874&tstp=MN&t1=2022-01-01T00:00&t2=2024-05-01T00:00&table=R&mrid=0&format=html
3. Lake Mead conservation account balances: USBR (2023). "Boulder Canyon Operations Office - Program and Activities: Water Accounting Reports". https://www.usbr.gov/lc/region/g4000/wtracct.html. These annual reports are aggregated in the Excel file IntentionallyCreatedSurplus-Summary.xlsx.

Requested Citation

David E. Rosenberg (2024), "Lake Mead Storage and Water Conservation Account Balances." Utah State University. Logan, Utah. https://github.com/dzeke/ColoradoRiverCollaborate/tree/main/LakeMeadStorageICS.

```
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##         TRUE         TRUE         TRUE         TRUE         TRUE         TRUE
##       pracma    lubridate directlabels         plyr      stringr      ggplot2
##         TRUE         TRUE         TRUE         TRUE         TRUE         TRUE
##       ggpubr        rvest        tidyr
##         TRUE         TRUE         TRUE
```

Figure 1. Lake Mead Storage, Water Conservation Account Balances, and anticipated Lake volume absent the water conservation program