Lake Powell Releases

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Overview

This is an R Markdown document. This document reads daily USBR data on Lake Powell Releases (Auto download daily data from Reclamation's HydroData portal - https://www.usbr.gov/uc/water/hydrodata/ reservoir_data/site_map.html. The code aggregates data to yearly (water year starting Oct 1), 9-year, and decadal values and then compares Lake Powell releases to The 1922 Compact Article 3(d) requirement. The document alsow shows histograms of Powell inflows and realeases.

- 10-year 74.8 maf requirement: Upper Basin delivers to Lower Basin by Article 3(d) of 1922 Compact
- 10-year 82.3 maf requirement: Upper Basin delivers to Lower Basin by 1922 Compact Article 3(d) and half of 1.5 maf per year United States obligation to Mexico by 1944 Treaty.
- Presently, the Upper Basin's 0.75 maf per year obligation to Mexico may be revised down by contigency plans in Minutes 319 and 323 to US-Mexico Treaty.
- 9-Year target is used to show Upper Basin flexibility to allow inflow to pass to Lower Basin in current 10th year.

Requested Citation

David E. Rosenberg (2026), "Lake Powell Annual and 10-Year Releases." Utah State University. Logan, Utah. https://github.com/dzeke/ColoradoRiverFutures/tree/master/Powell10year.

```
##     tidyverse        readxl RColorBrewer         dplyr        expss      reshape2
##          TRUE          TRUE         TRUE          TRUE         TRUE          TRUE
##        pracma      lubridate directlabels          plyr      stringr      ggplot2
##          TRUE          TRUE         TRUE          TRUE         TRUE          TRUE
##         ggpubr       ggrepel          zoo
##          TRUE          TRUE         TRUE
```

Figure 1: Lake Powell Annual Releases Compared to Target

```
## [1] "I made it here"
```