

# Lake Powell Inflows and Releases

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## Overview

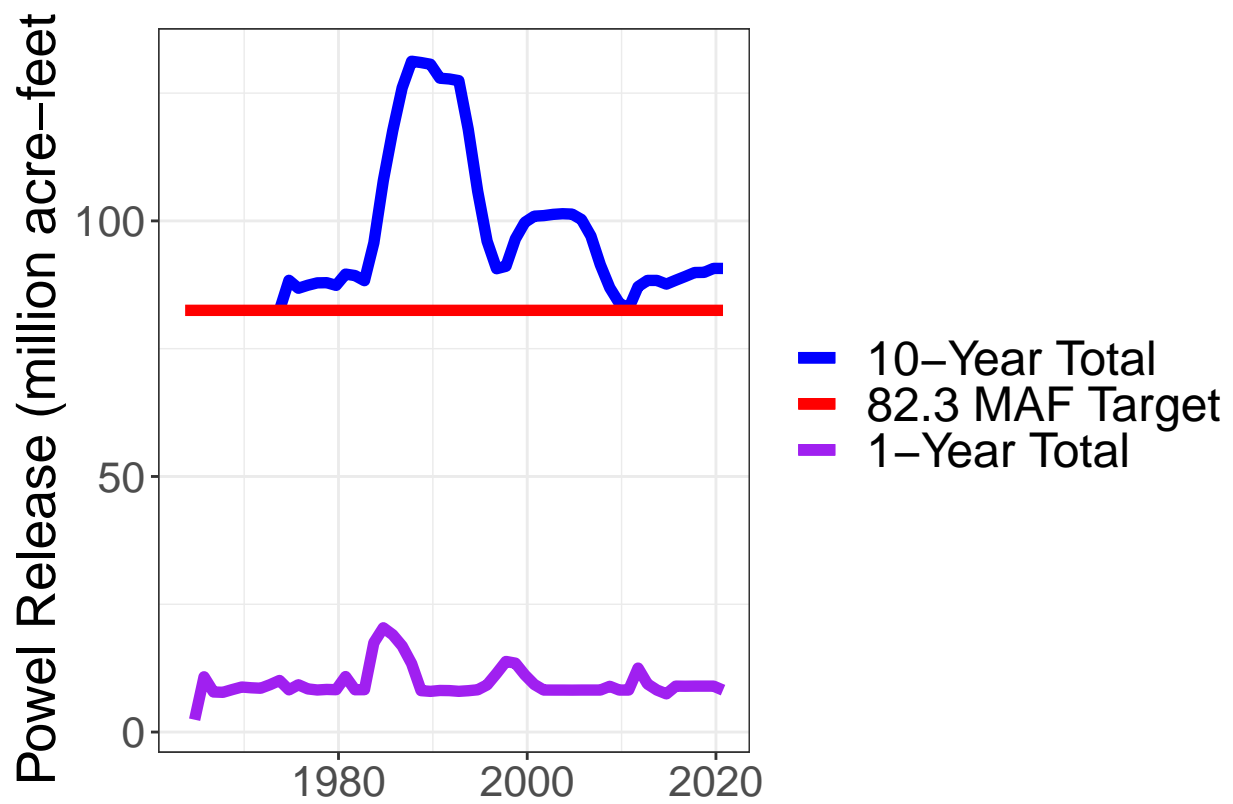
This is an R Markdown document. This document reads daily USBR data on Lake Powell Inflows and Releases (<https://www.usbr.gov/rsvrWater/HistoricalApp.htm>). The code aggregates data to yearly (water year starting Oct 1), 9-year, and decadal values and then compares Lake Powell releases to The 1922 Compact Article 3(d) requirement. The document also shows histograms of Powell inflows and releases.

- 10-year 75 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 contingency 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 (2021), "Lake Powell Inflows and Releases." Utah State University. Logan, Utah.  
<https://github.com/dzeke/ColoradoRiverFutures/tree/master/Powell10year>.

## 10-Year Powell Release in relation to Compact Article IIIId Requirements

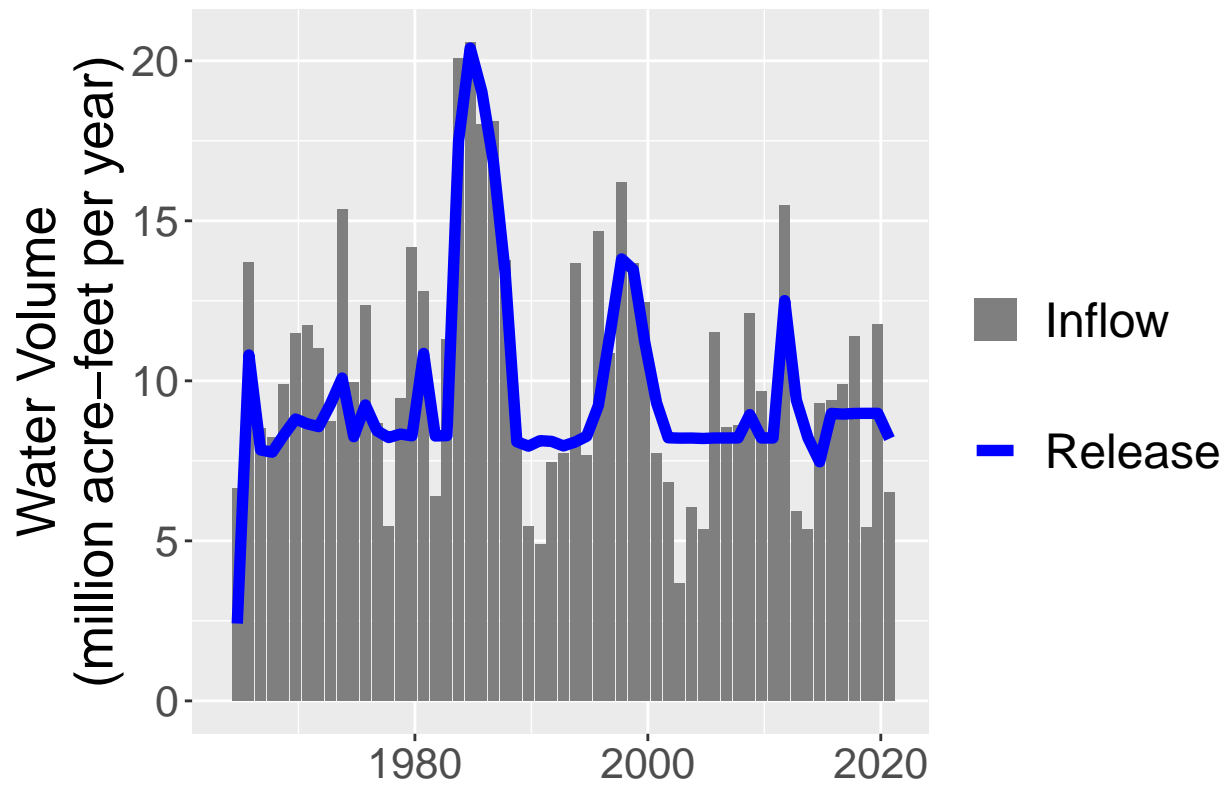


## Difference between Release and 82.3 MAF (10-Year) and 74.1 MAF (9-Year) Targets

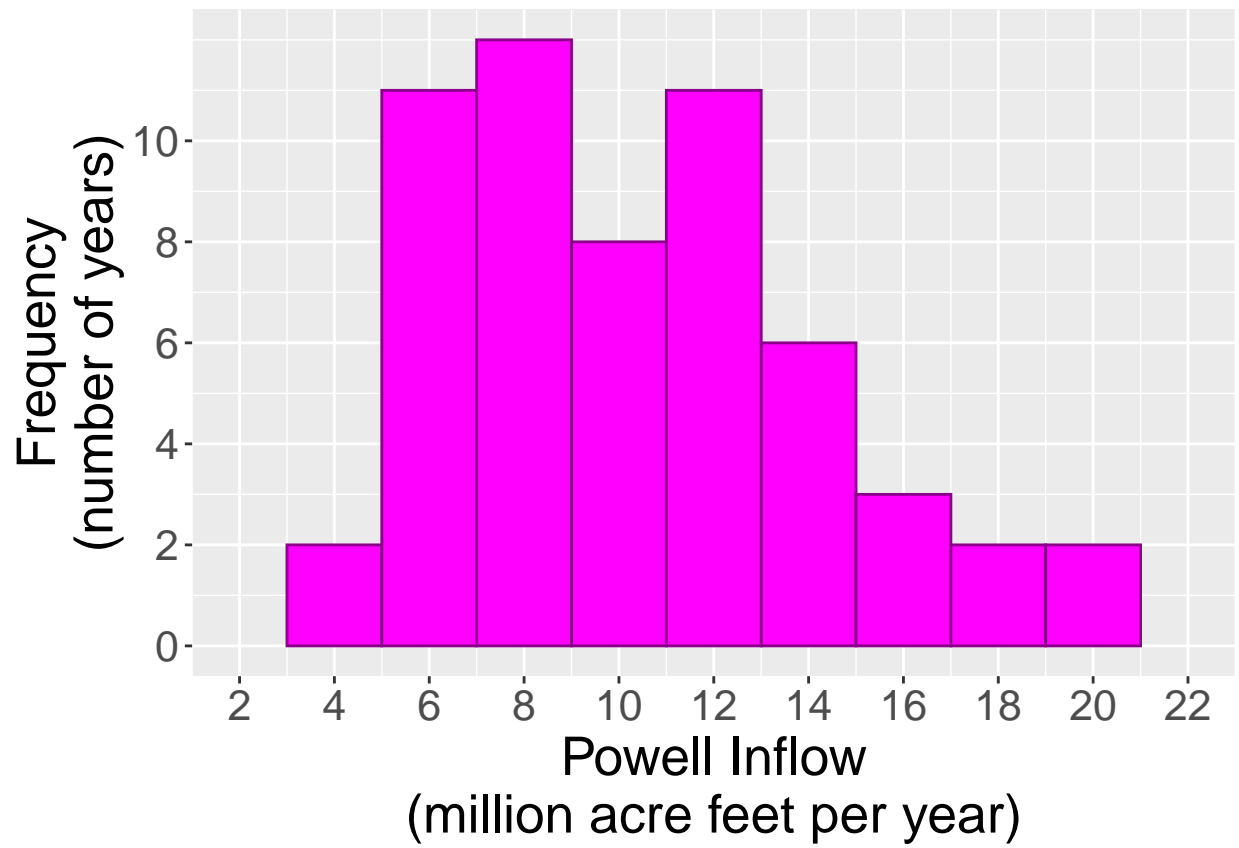


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## [1] "Nine year Lake Powell release of 78.1 maf (2012 to 2020) is 4.1 maf above 74.1 maf requirement"
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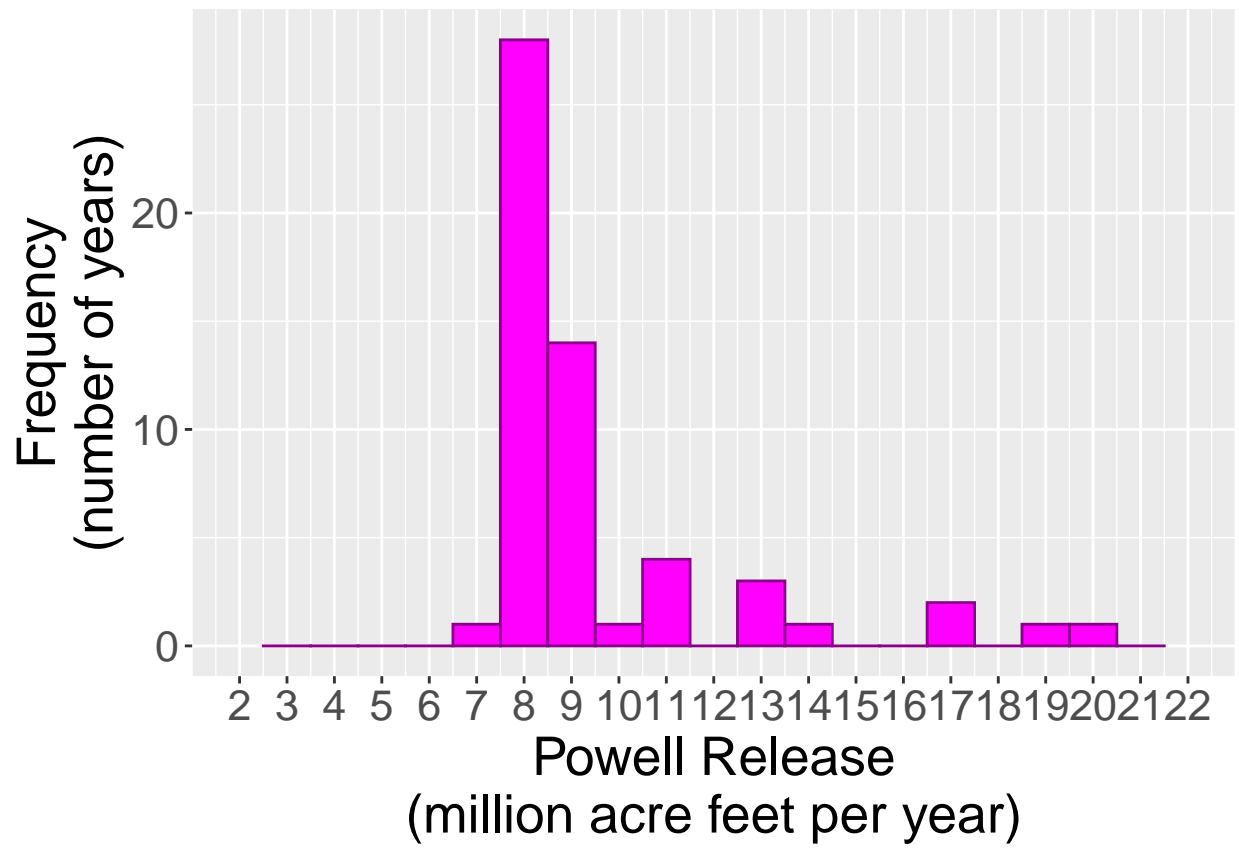
## Powell Annual Regulated Inflow and Release



Histogram of Powell Regulated Inflows

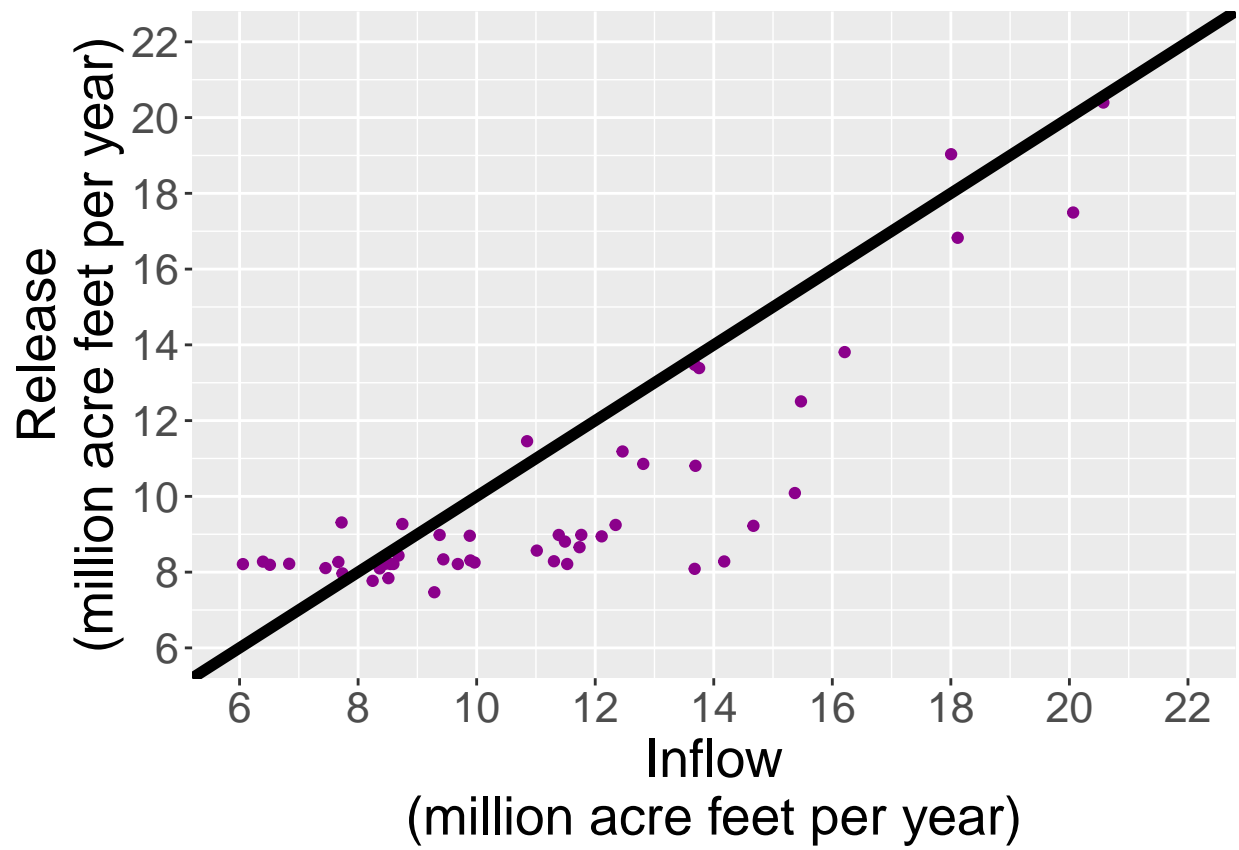


## Histogram of Powell Releases



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## [1] "Number of Years of Powell releases = 58"
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## Compare Powell Releases and Inflows



## Powell Evaporation

