

RECLAMATION

Managing Water in the West

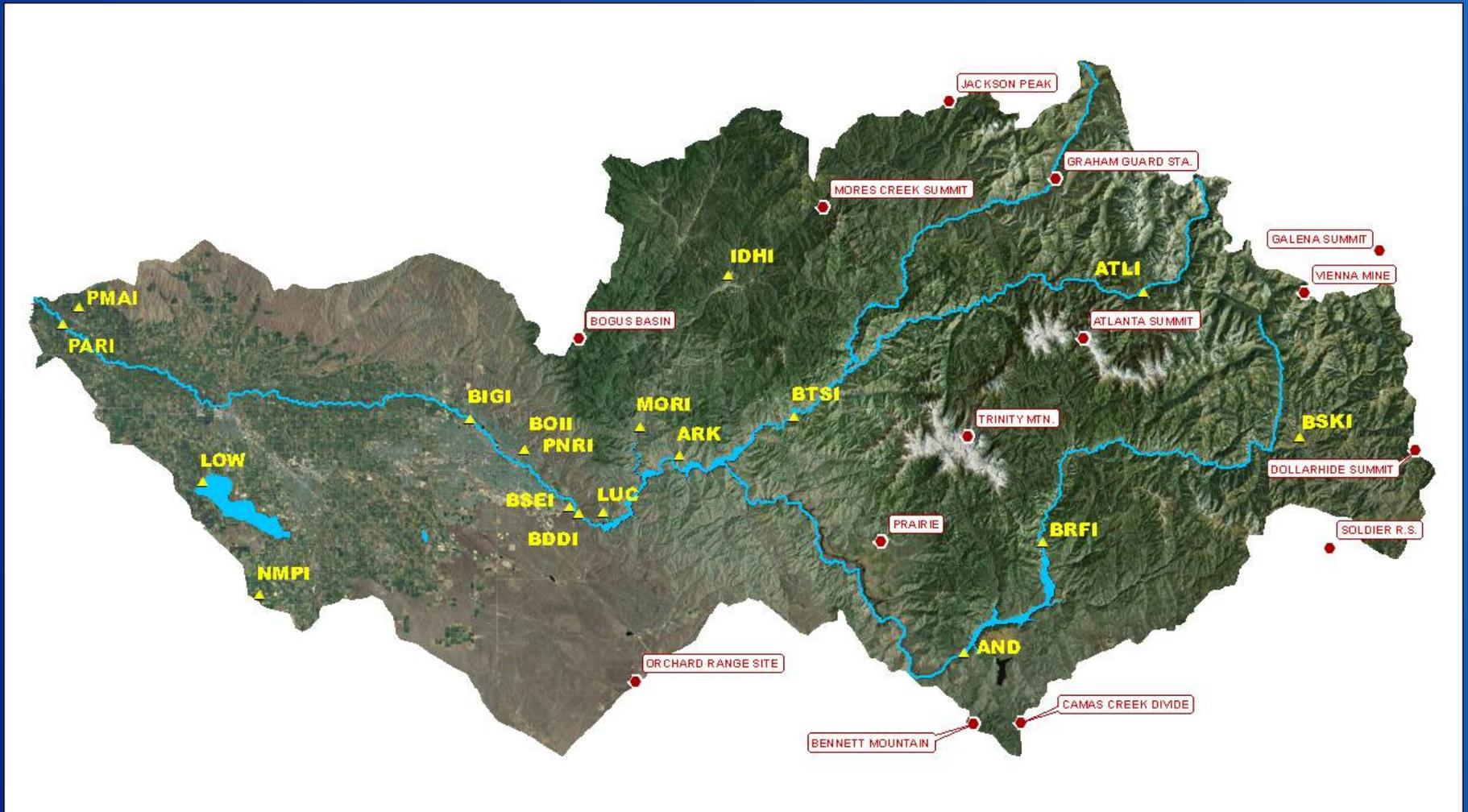
Boise River Flood Operations

Mary Mellema



U.S. Department of the Interior
Bureau of Reclamation

Boise River Basin



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Boise System Storage

Conflicting Uses?

- **Flood Control**
 - Coordinated with the U.S. Army Corps of Engineers
- **Storage**
 - Irrigation – Coordinated with the State of Idaho
 - Streamflow maintenance and municipal and industrial uses.

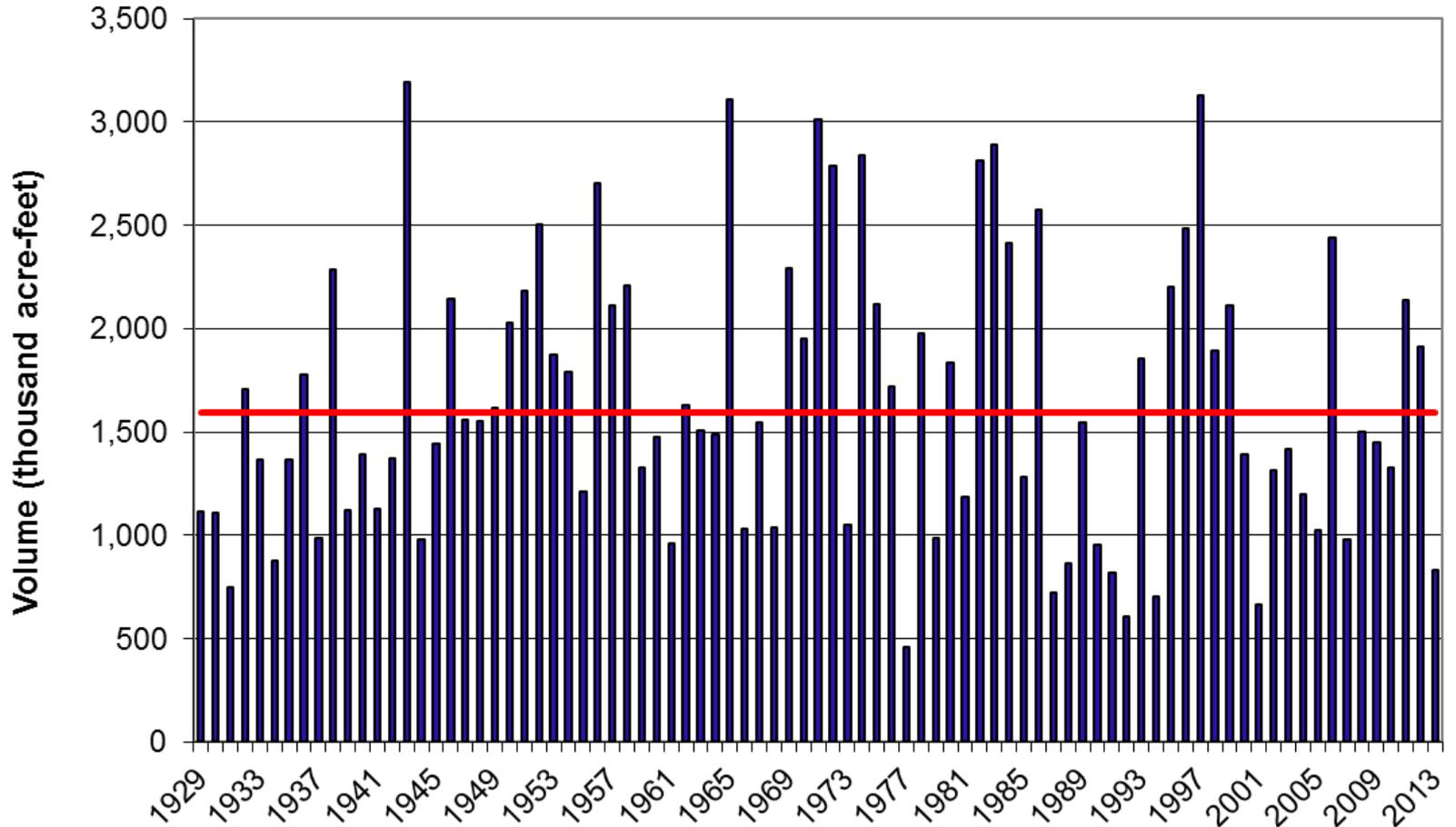


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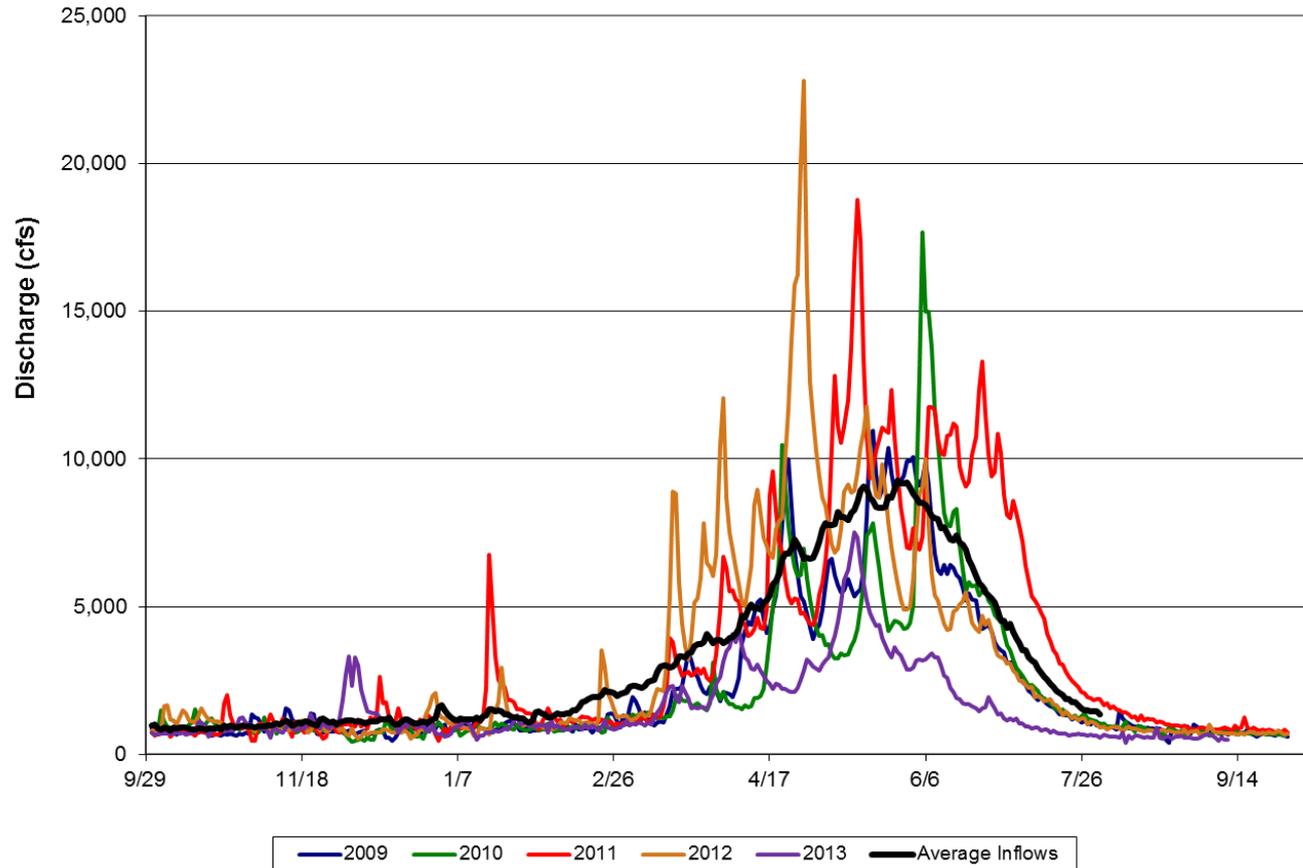
ESA Requirements for the Boise System

- Arrowrock and Anderson Ranch Reservoirs have required operations for ESA listed bull trout.
- When available, approximately 41,000 acre-feet is released from Boise system storage as flow augmentation for endangered species in lower Snake and Columbia Rivers.

Boise River Volumes Jan 1 through Jul 31, 1929 - 2013



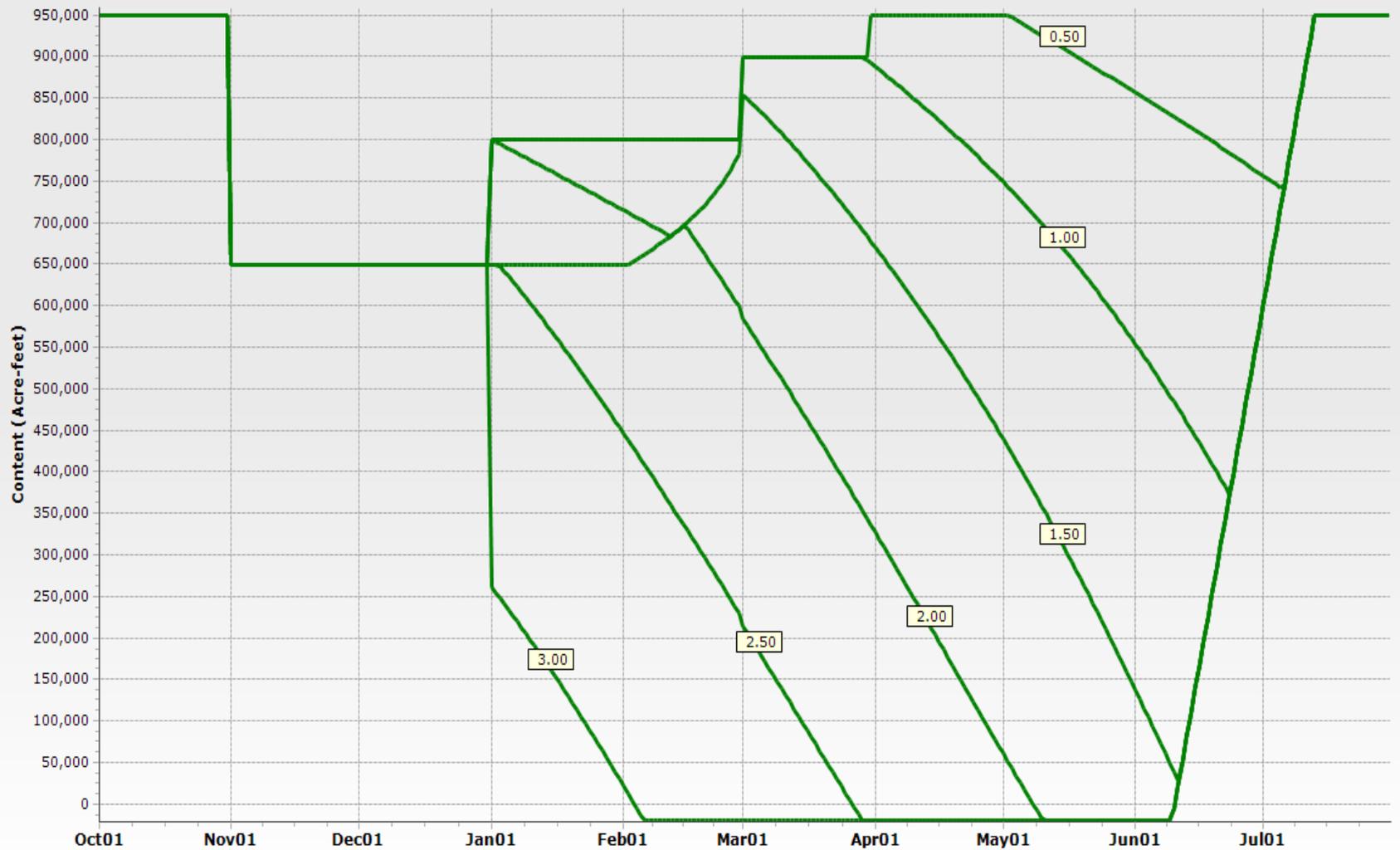
Boise River Natural Inflows



Boise River Natural River Flows

- Volume of water from January through July ranges from 460 thousand acre-feet to about 3 million acre-ft.
- Annual Peak Natural Flows Range from 3,000 to 35,000 cfs (Flow in 1872 was estimated at 50,000 cfs).

Boise System Flood Control Rule Curves



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Runoff Forecasting

Answering the question of how much water to expect

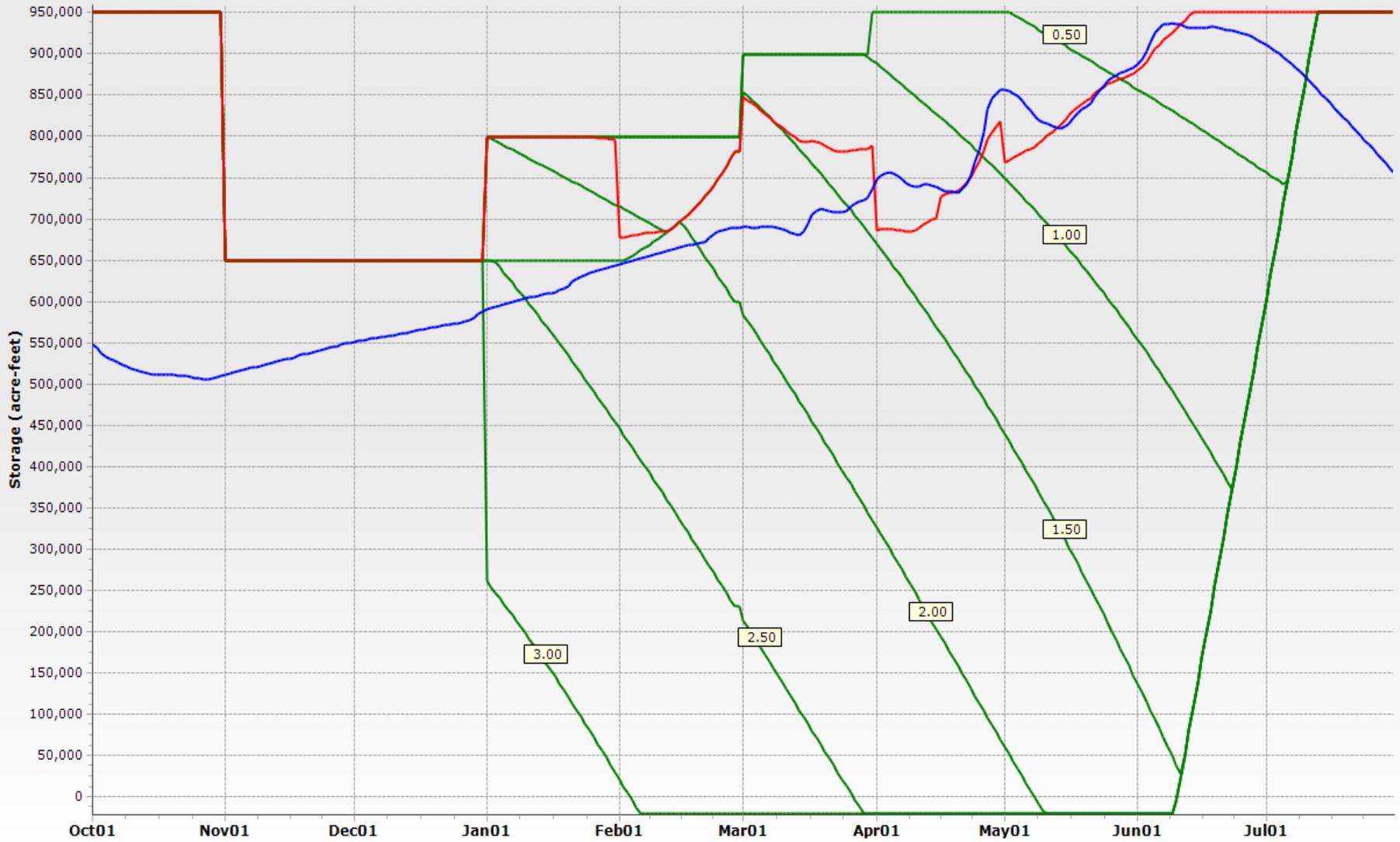


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Boise River System Required Storage Water Year 22012

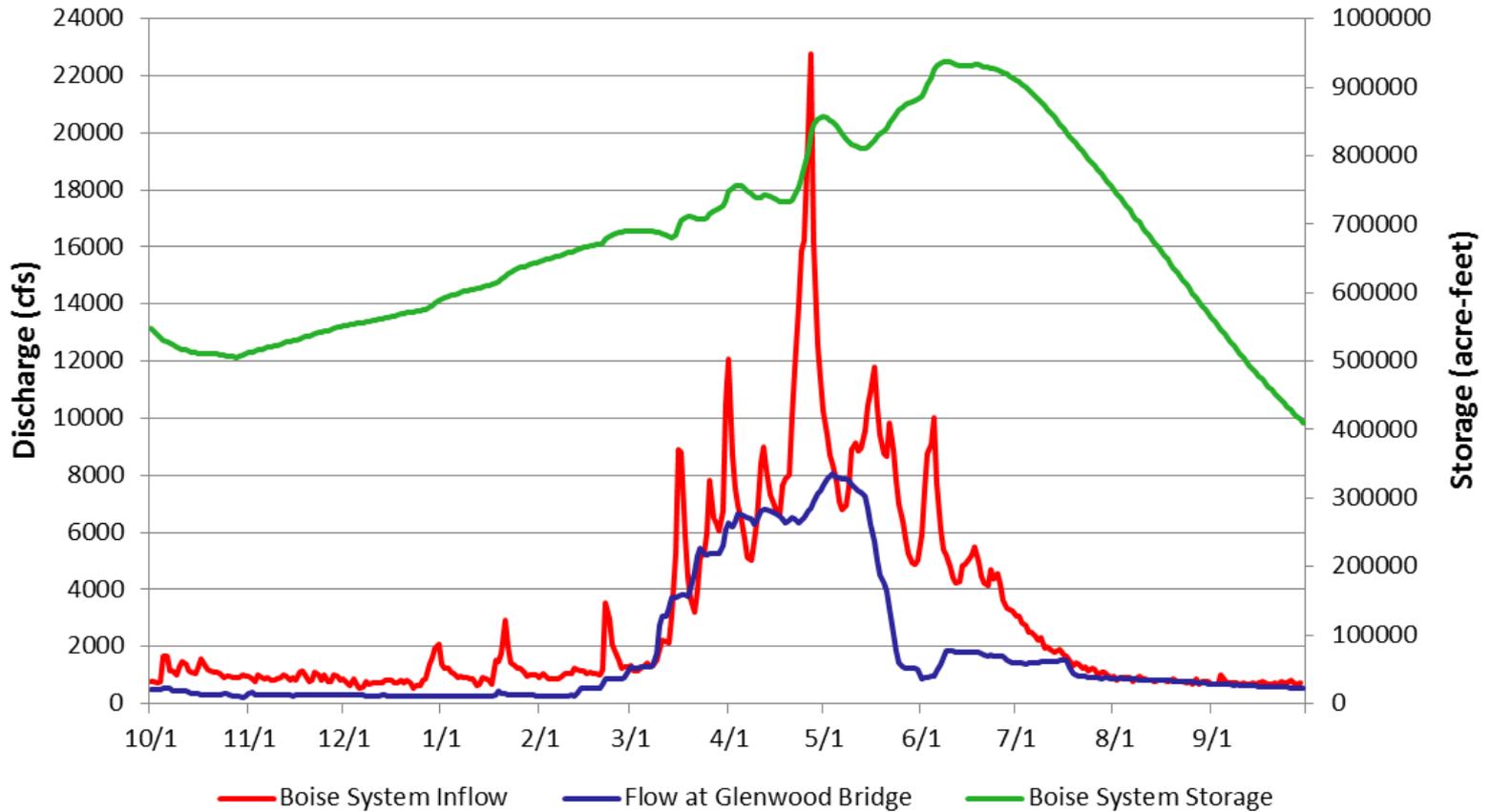


Boise River System Required and Actual Storage Water Year 22012

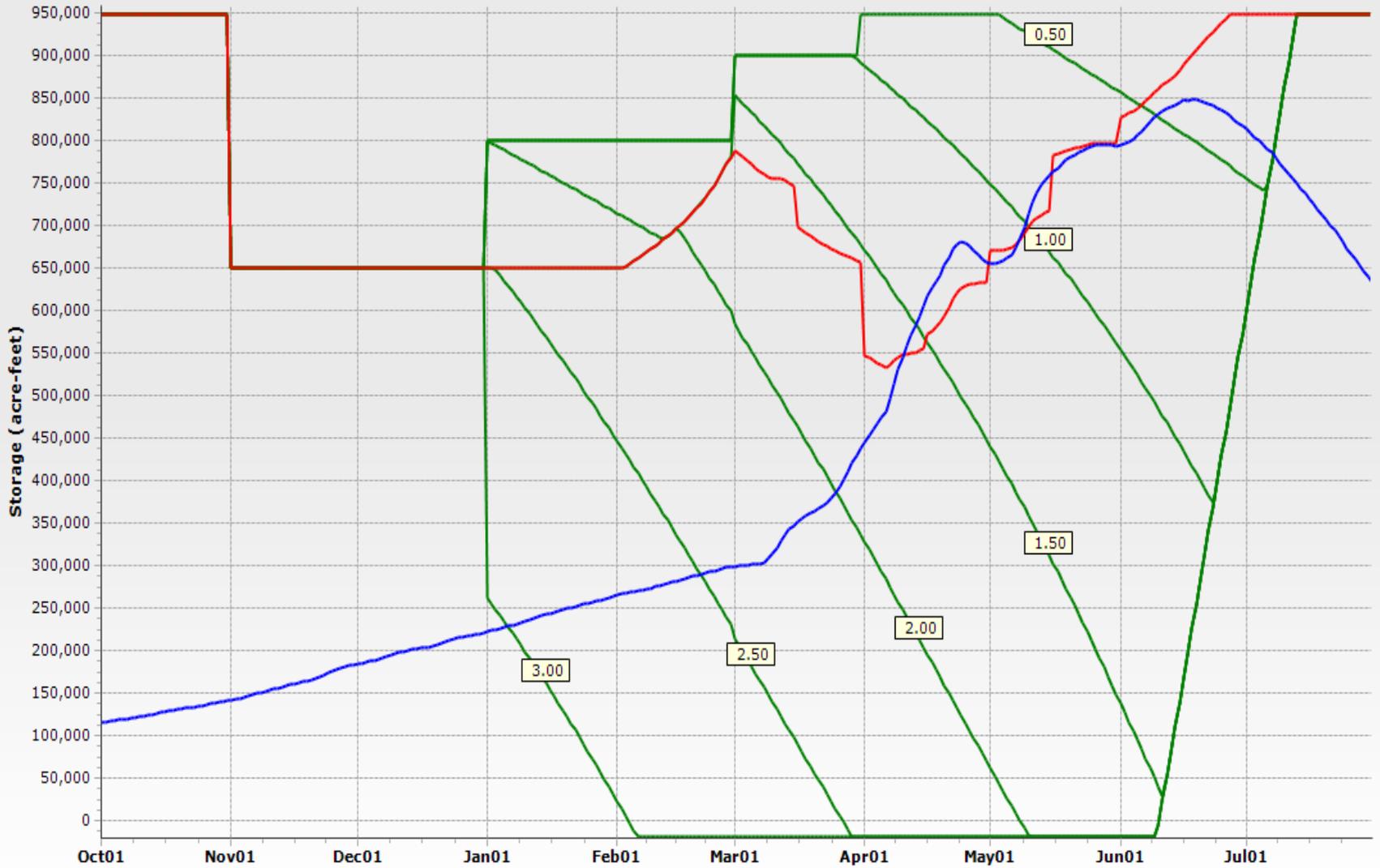


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Boise River Flows and Storage Water Year 2012

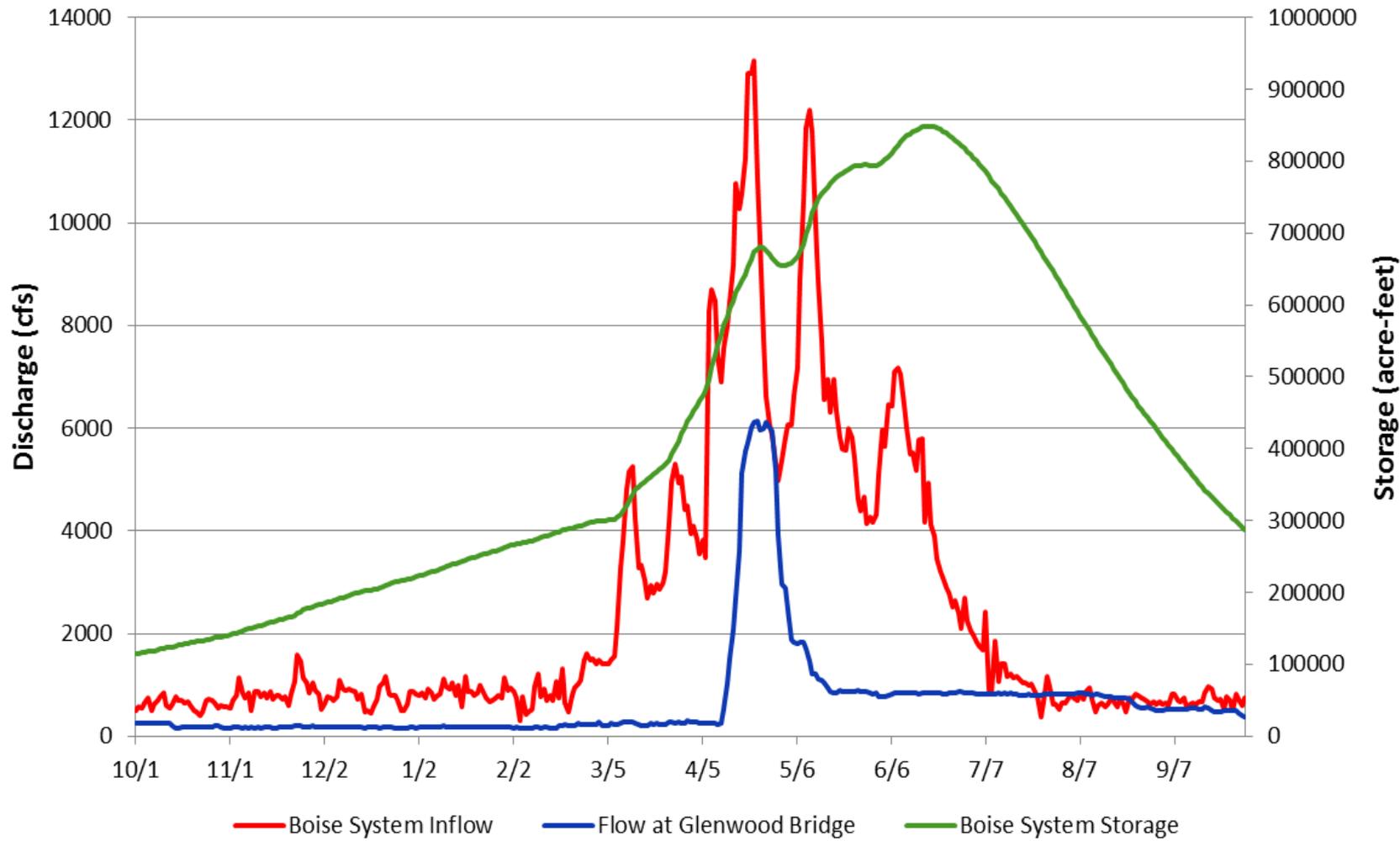


Boise River System Required and Actual Storage - Water Year 1989



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Boise River Flows and Storage Water Year 1989



Summary

- **In the Boise system during flood control years: in most years the storage will fill; but in some years it won't.**
- **Greater variability with climate change means greater uncertainty in future.**

Refill Issue In Context of Flood Control:

When attempting to physically fill the reservoir system, who “ought” to be in priority: storage rights or junior/future water rights?