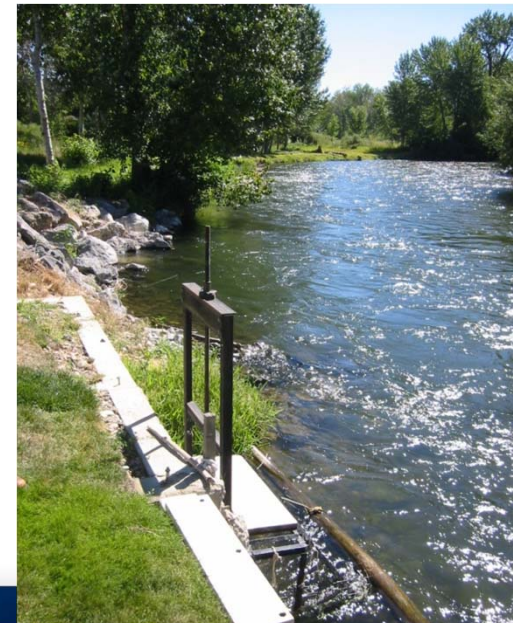


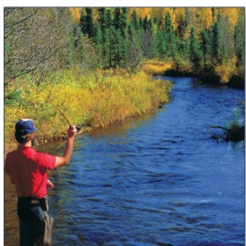
Idaho Reservoir Storage Accounting Procedures

Liz Cresto
Technical Hydrologist
May 20, 2014

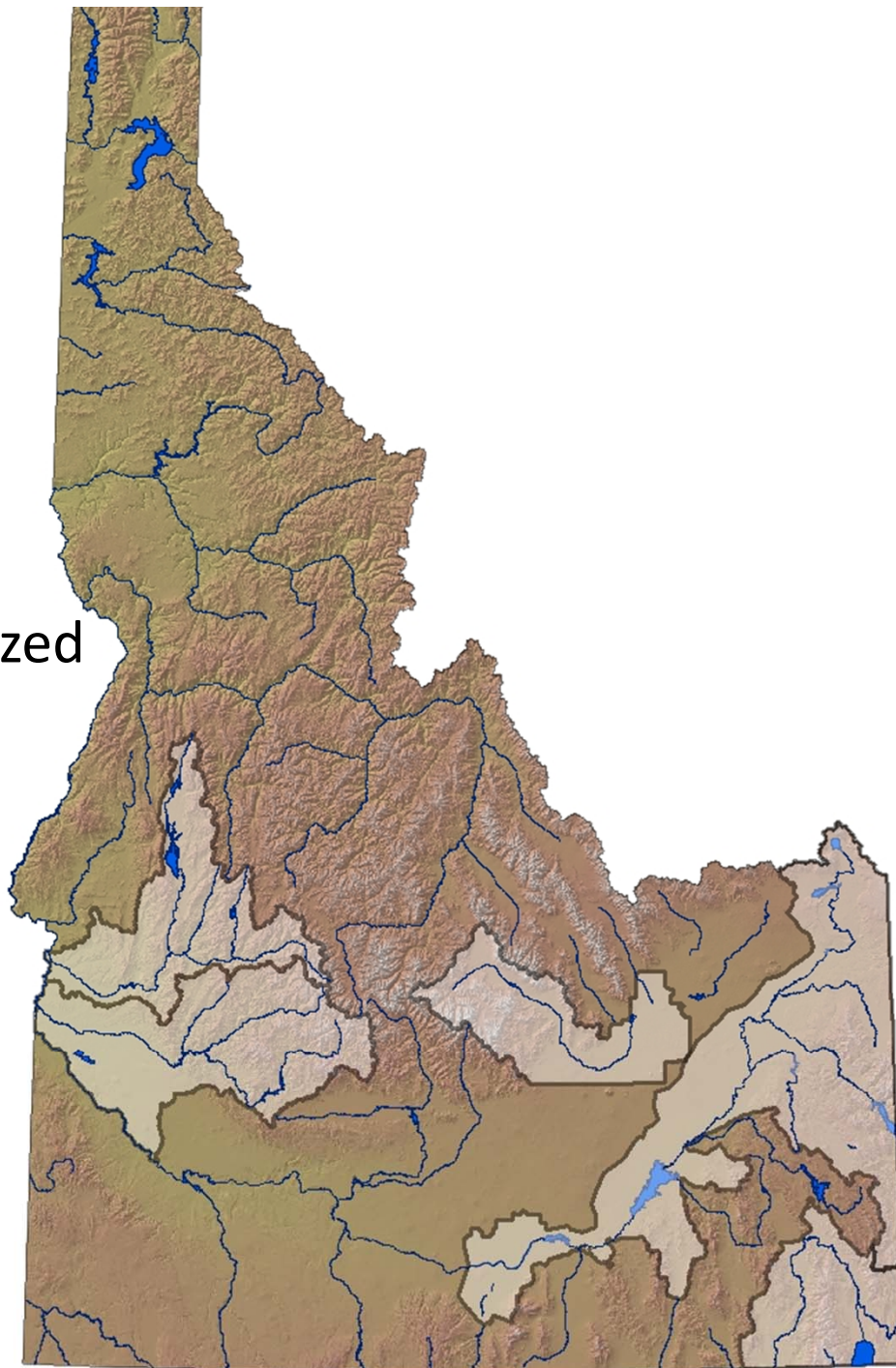
Water Right Accounting Program

- It is a tool developed to help water masters distribute water.
- Calculates Natural Flow
- Distributes available natural flow based on water rights.
- Determines storage use.



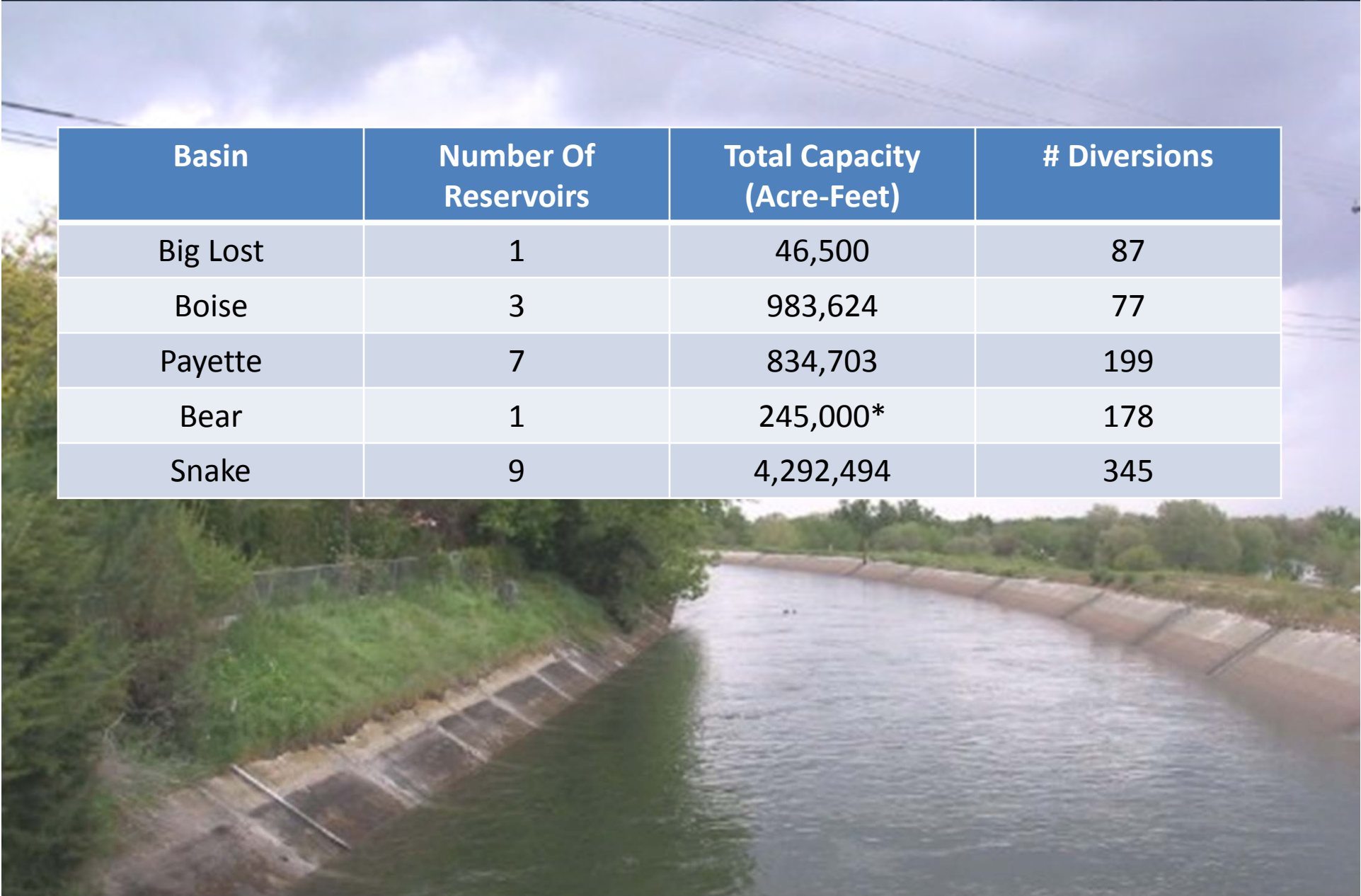


5 Basins with Computerized Accounting

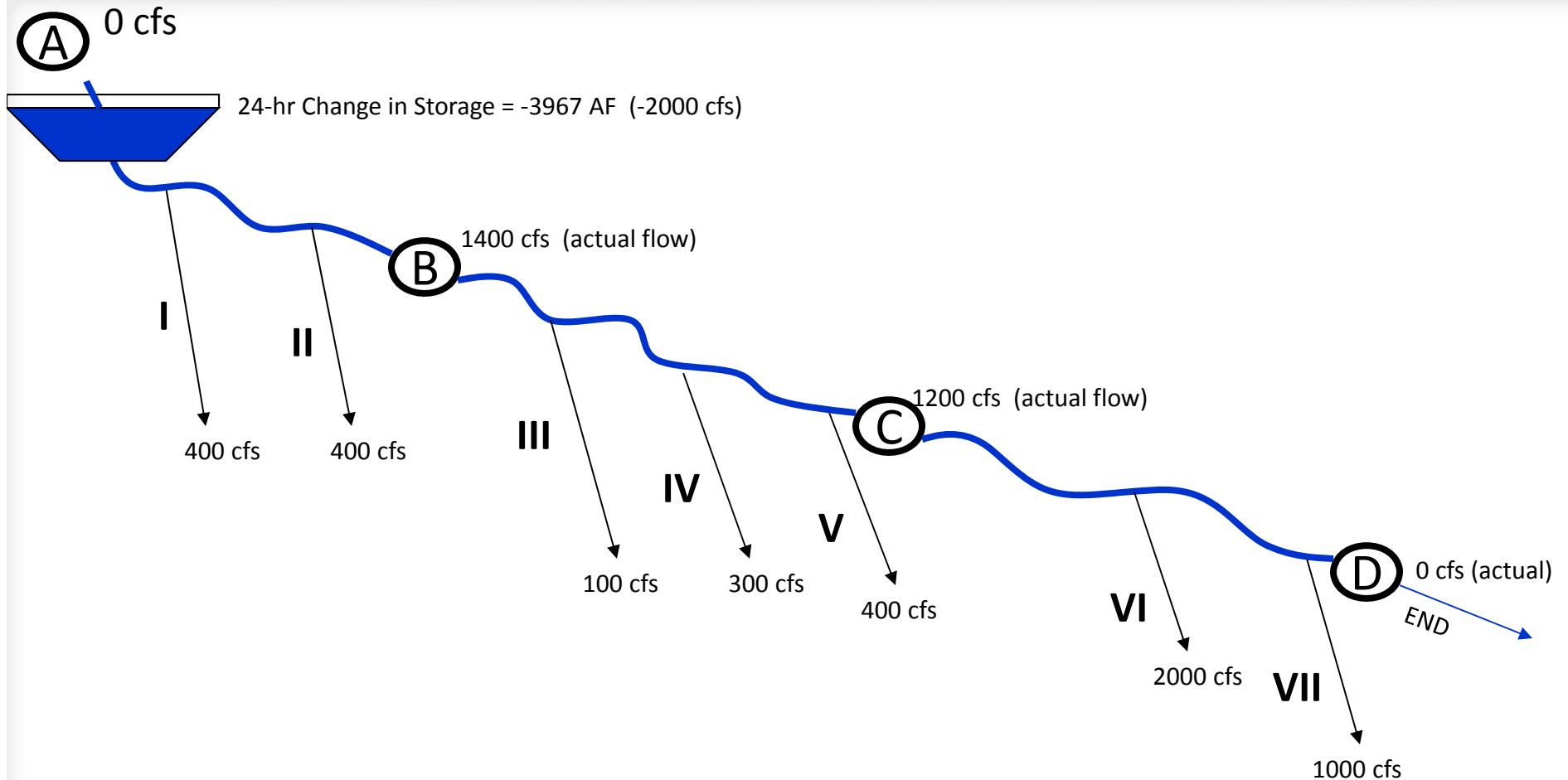


History of Accounting





Basin	Number Of Reservoirs	Total Capacity (Acre-Feet)	# Diversions
Big Lost	1	46,500	87
Boise	3	983,624	77
Payette	7	834,703	199
Bear	1	245,000*	178
Snake	9	4,292,494	345



Reach Gain = Outflow – Inflow + Diversions ± Change in Storage

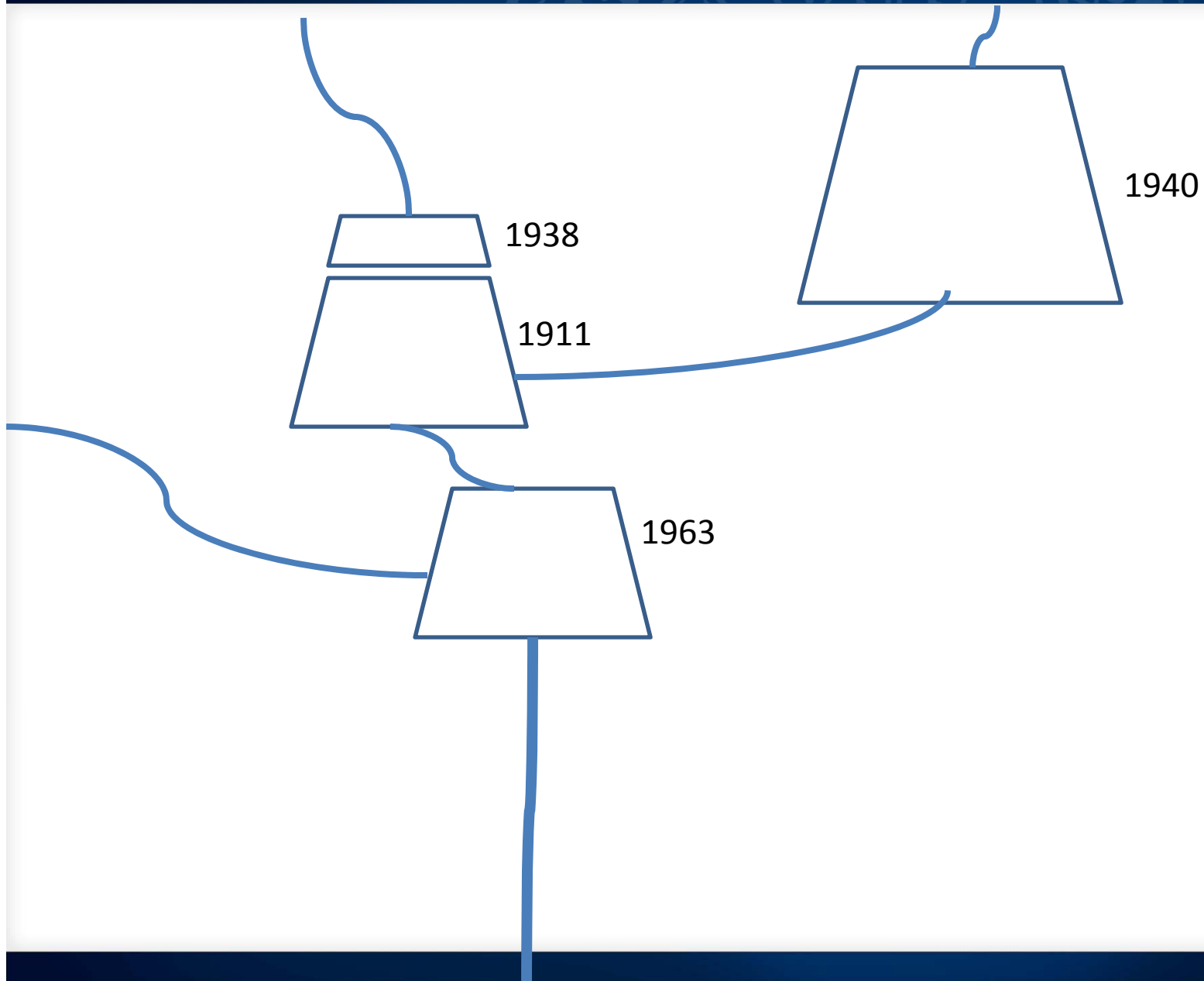
Natural Flow is the sum of the individual reach gains.

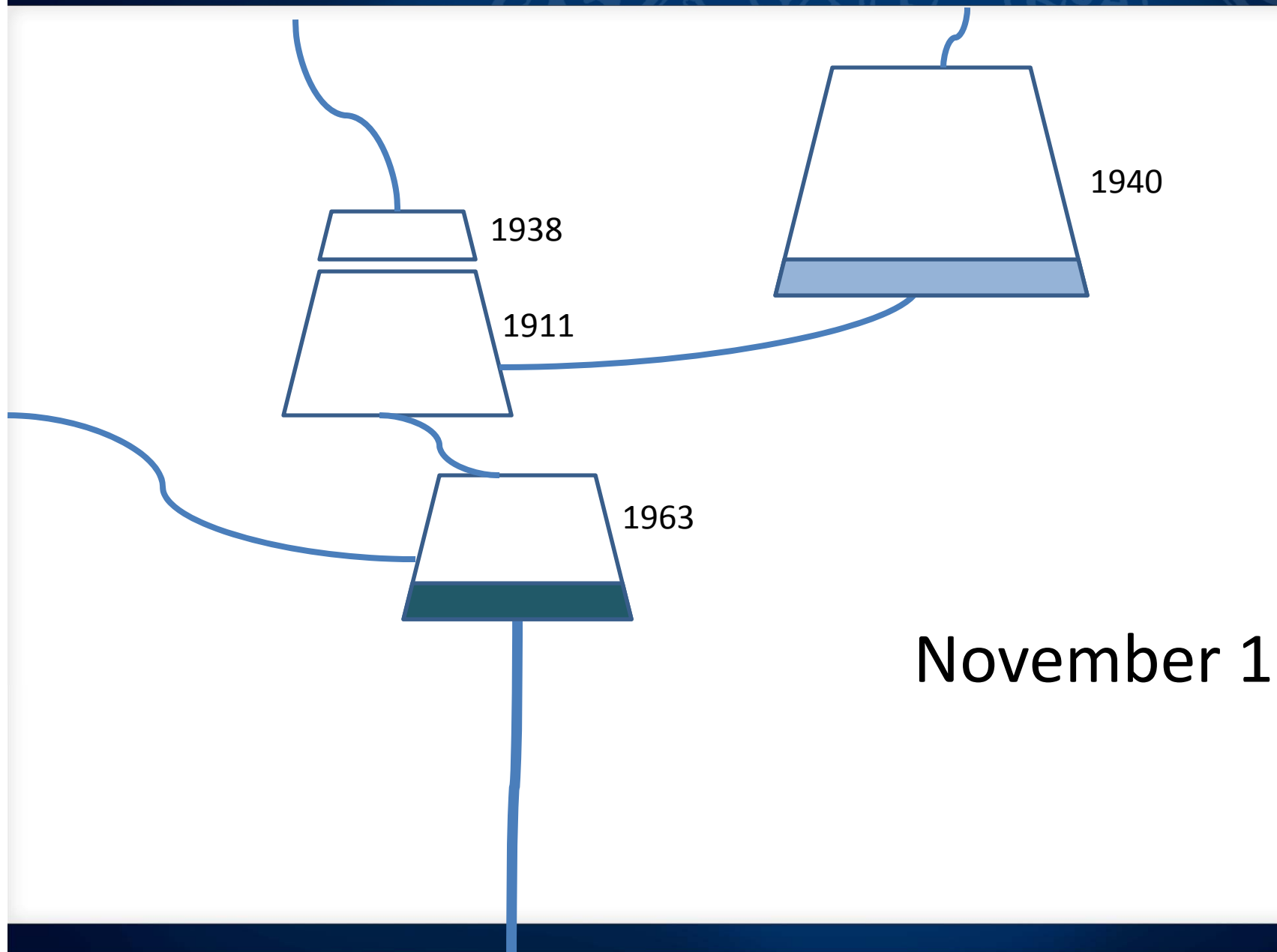
Typical Reservoir Rights

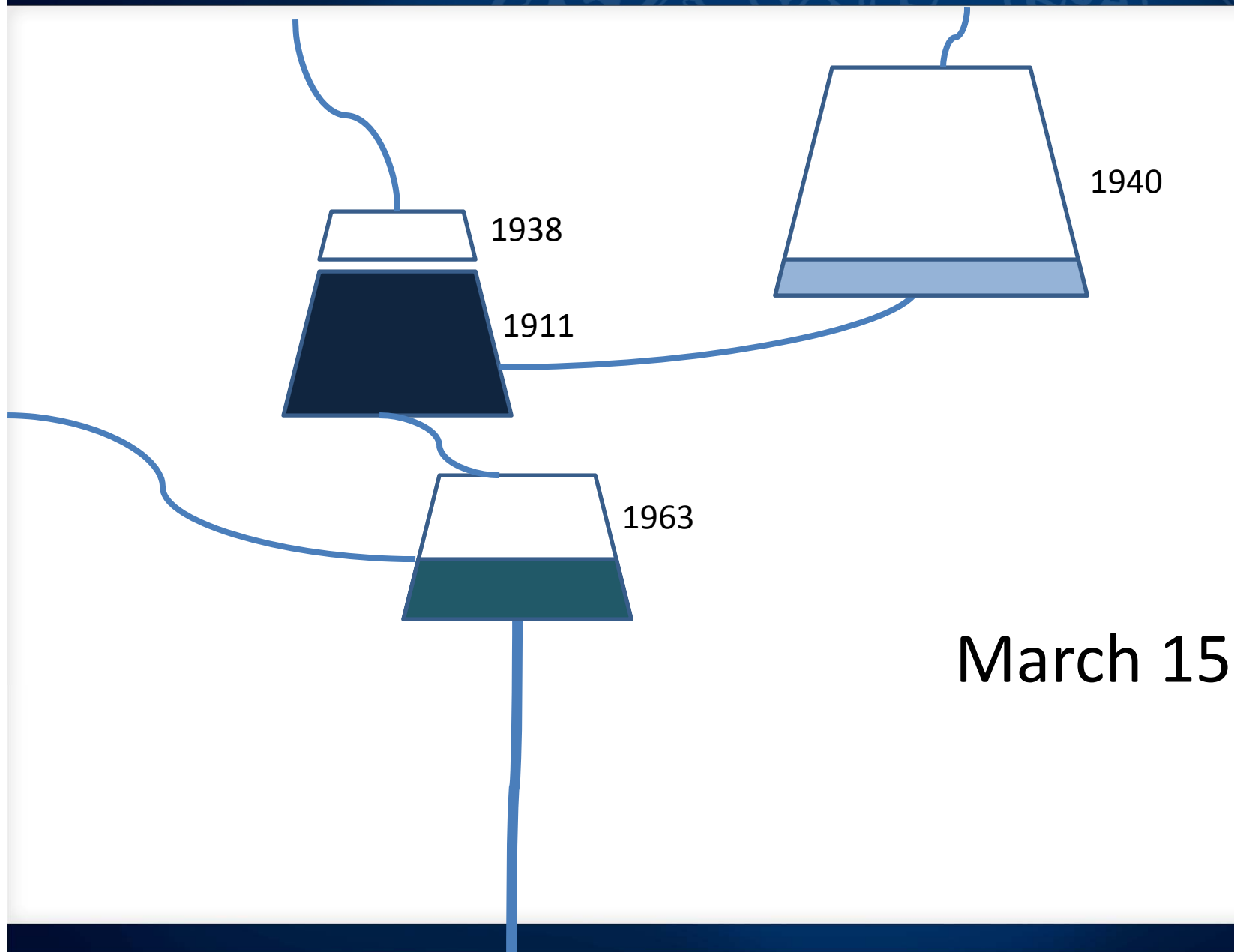
- Priority date
- Volume limits but no diversion limit
- Period of use is typically year-round to divert to storage and diversion from storage for irrigation limited to irrigation season.
- Uses may include:
 - Irrigation Storage
 - Irrigation from Storage
 - Industrial Storage
 - Industrial from Storage
 - Power Storage
 - Power from Storage
 - Municipal Storage
 - Municipal from Storage
 - Recreation Storage
 - Streamflow Maintenance Storage
 - Streamflow Maintenance from Storage

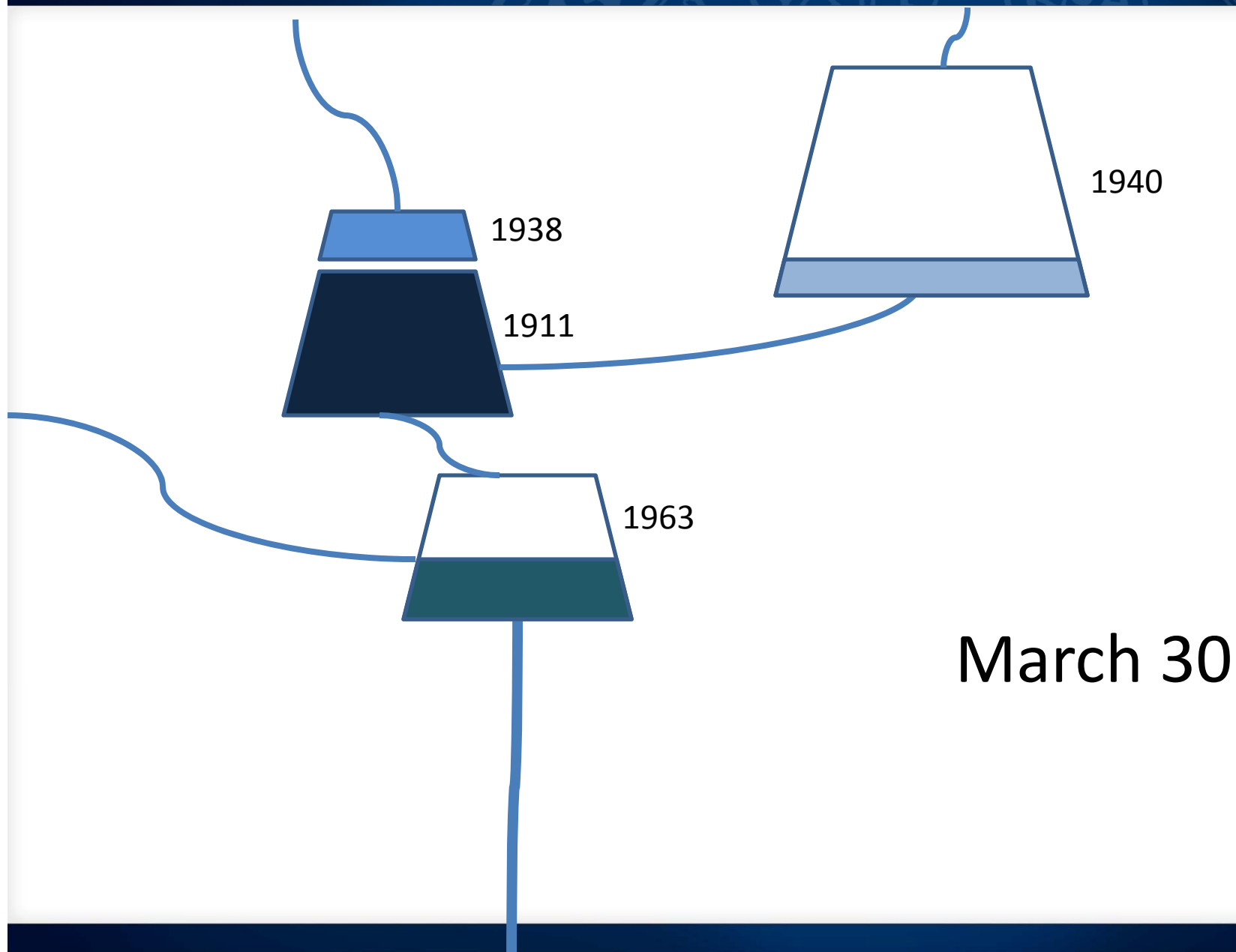
What counts towards the fill of the right in the accounting program?

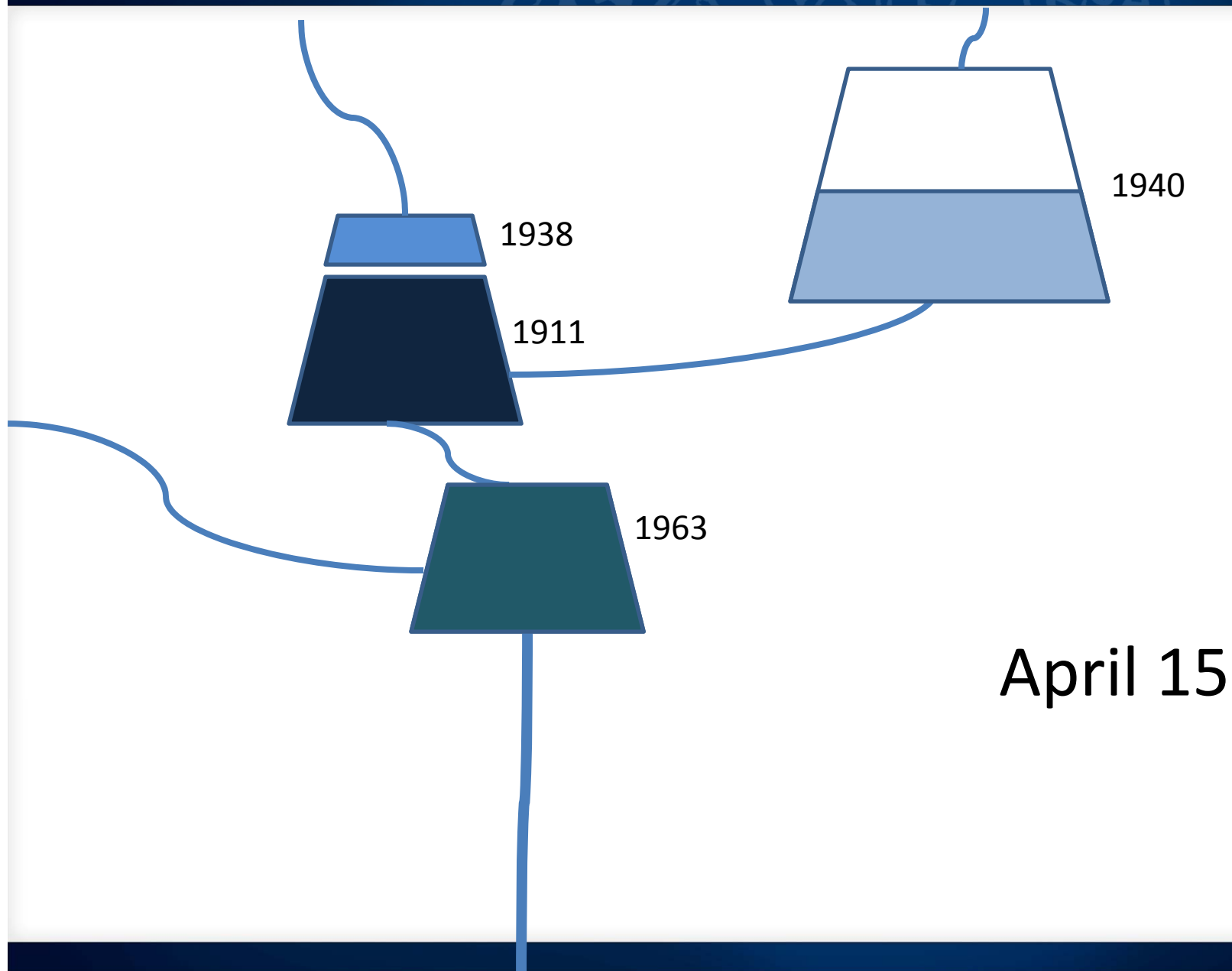
- For an on-stream reservoir any water that hits the face of the dam and is in-priority counts to the fill of the water right.
 - Flexibility in water management in a multi-reservoir system.
 - Does not require “coloring” of water on a daily basis.

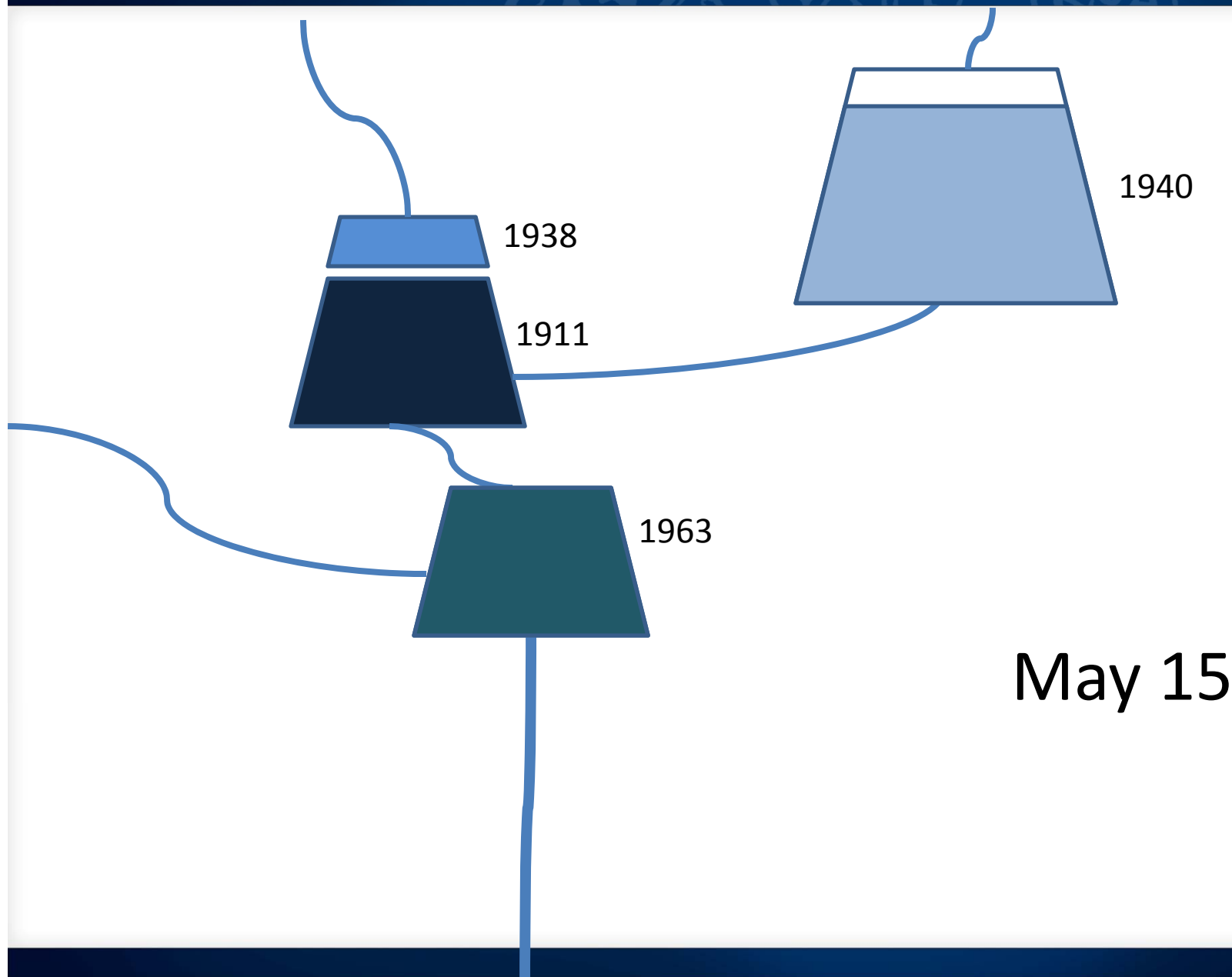


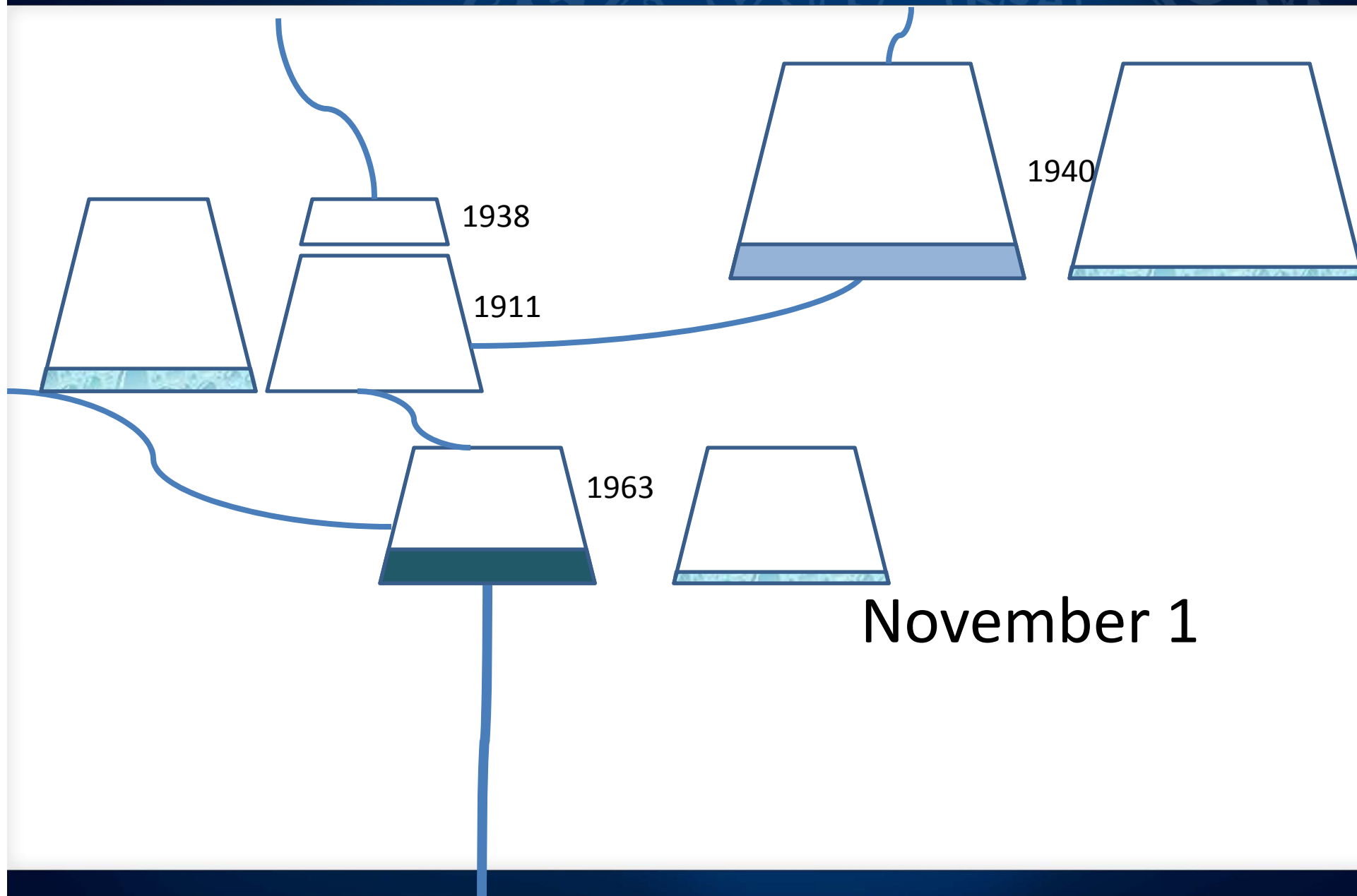


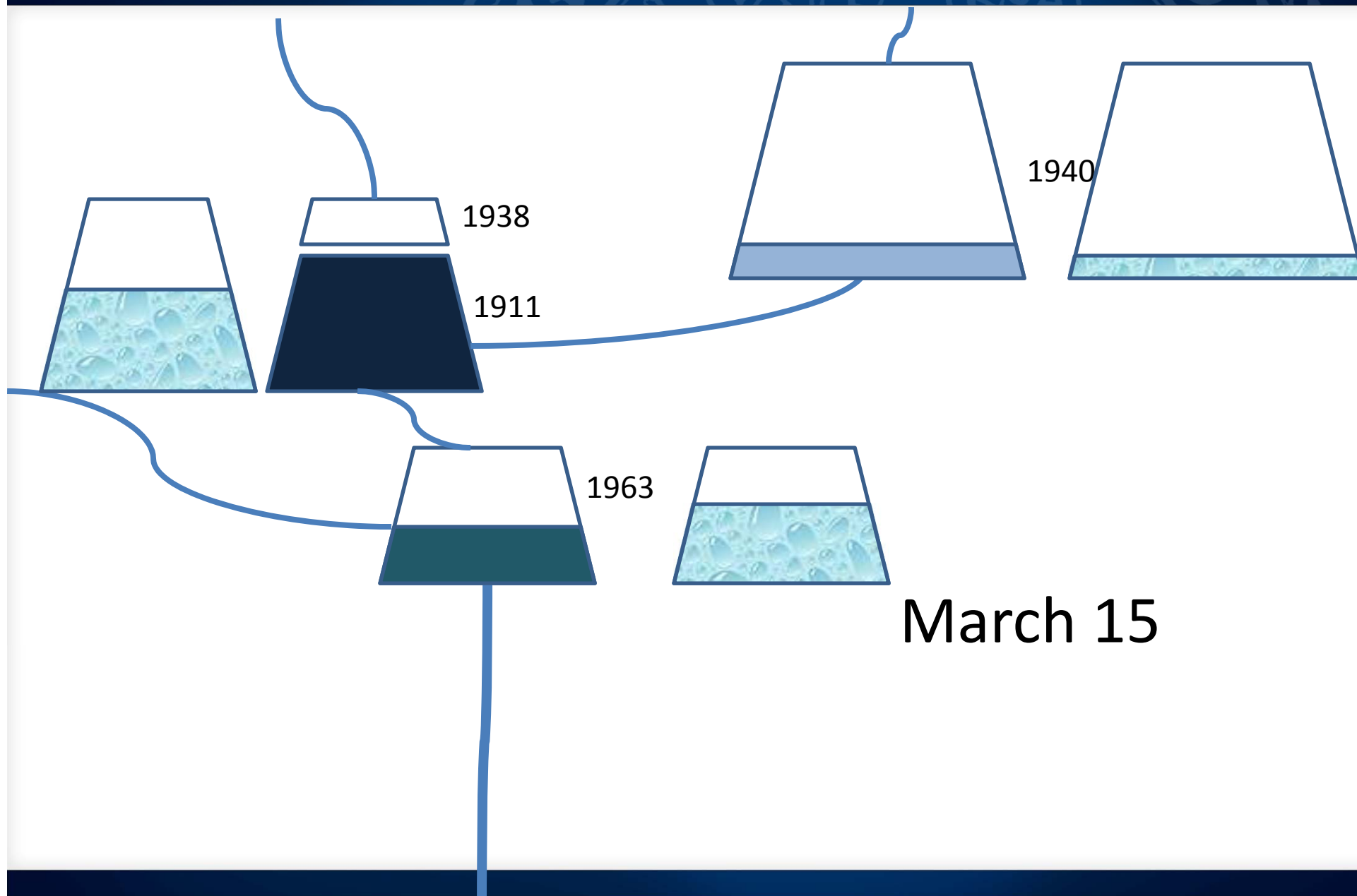


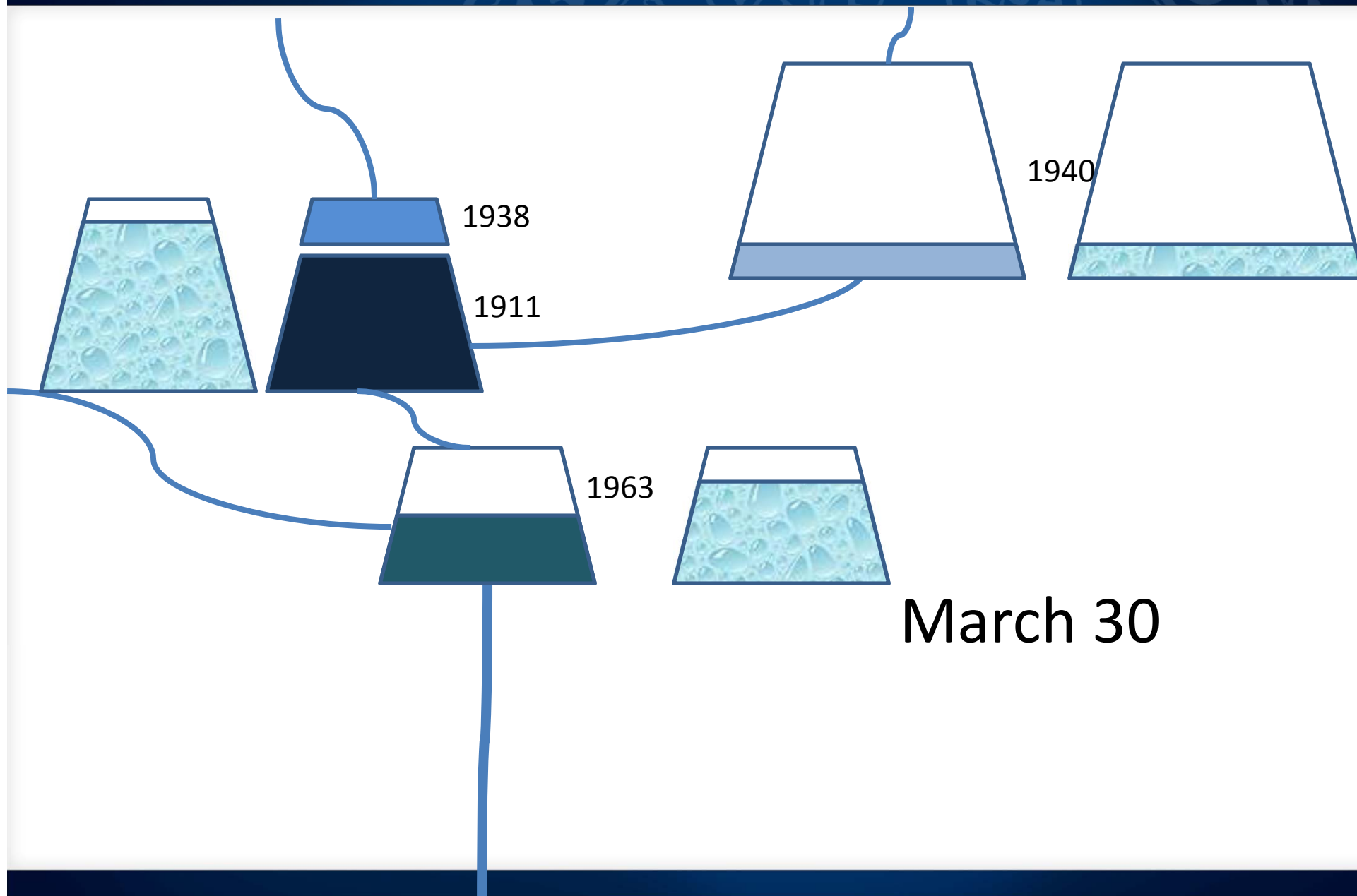


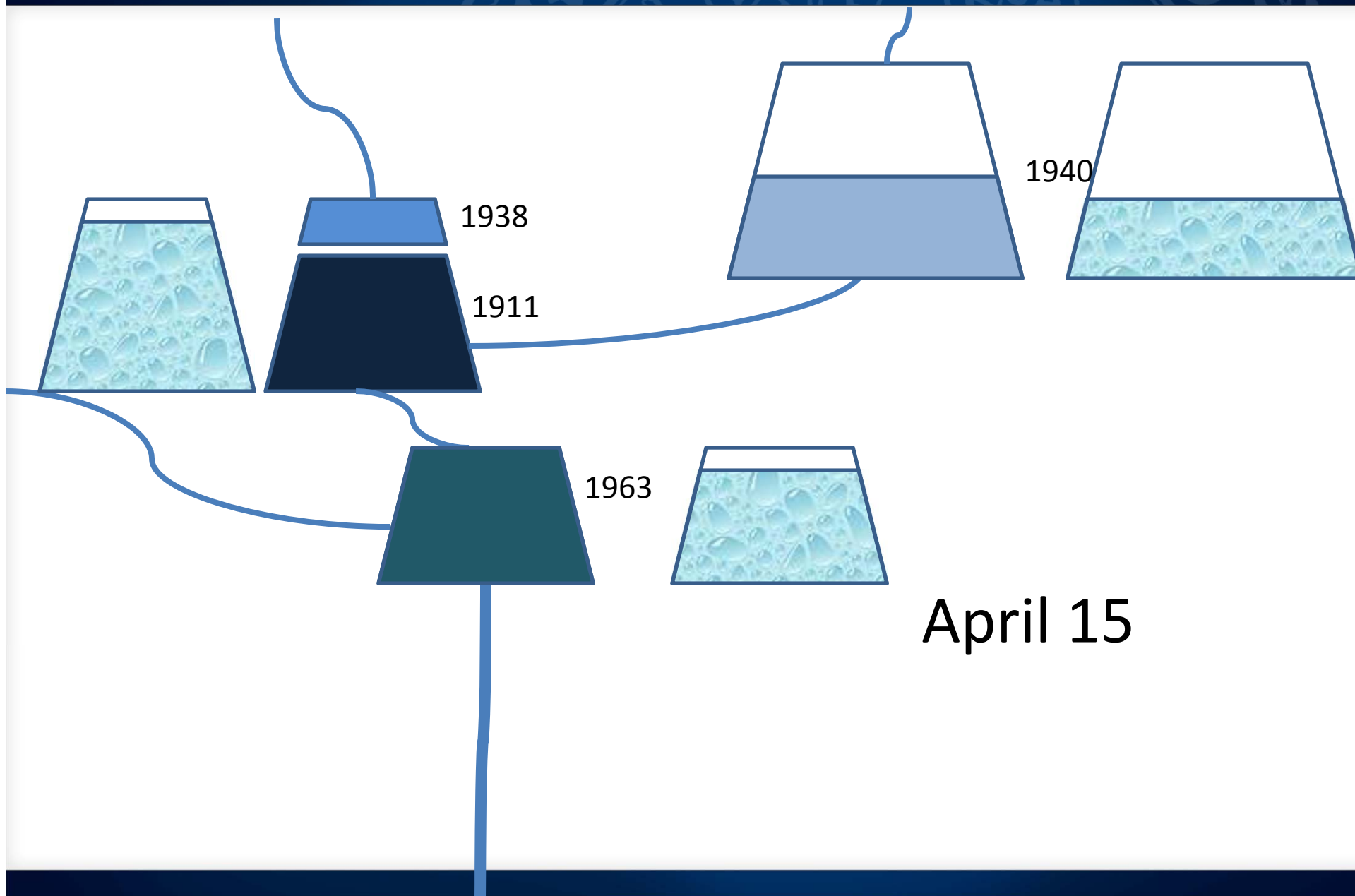


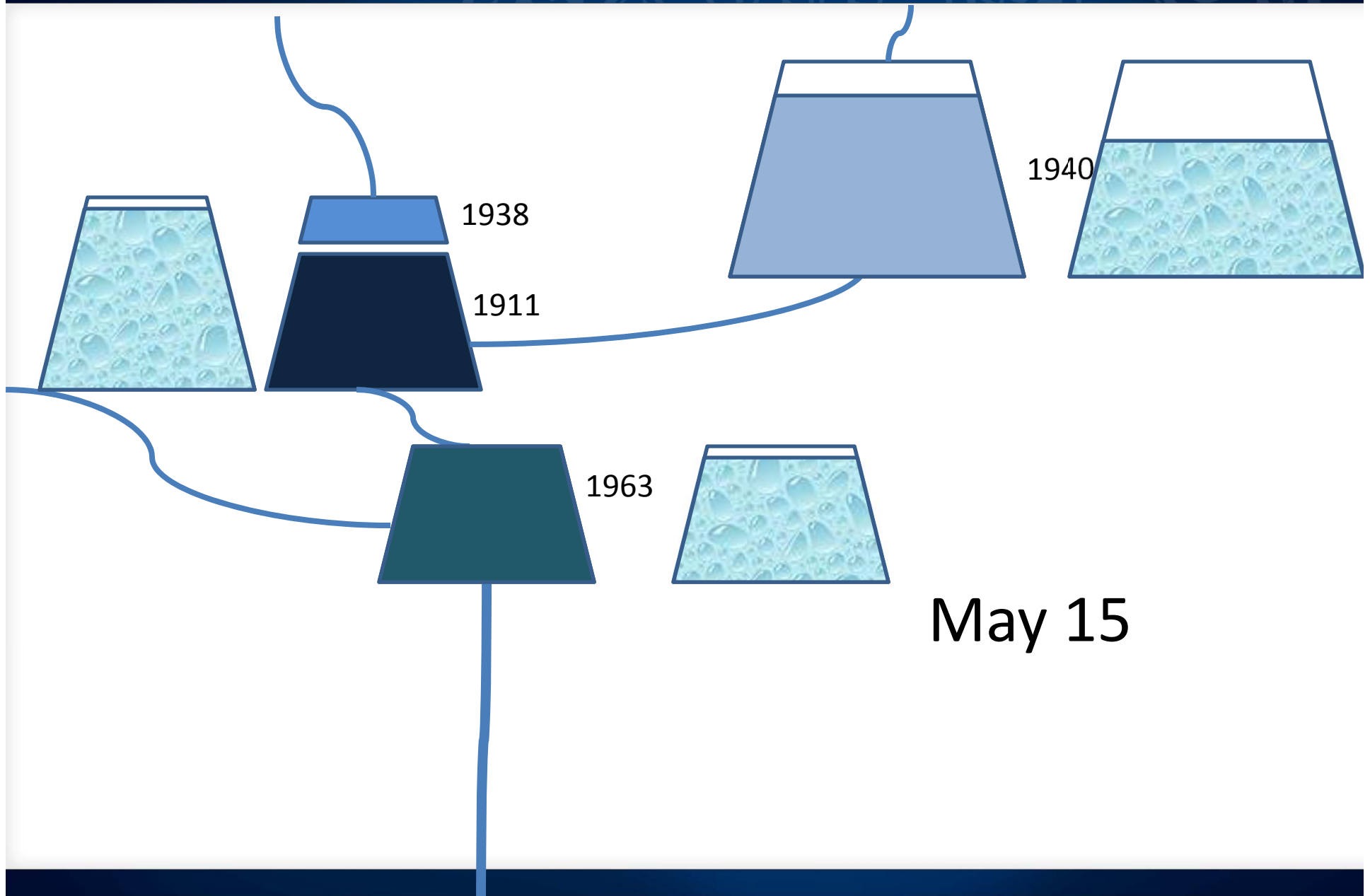




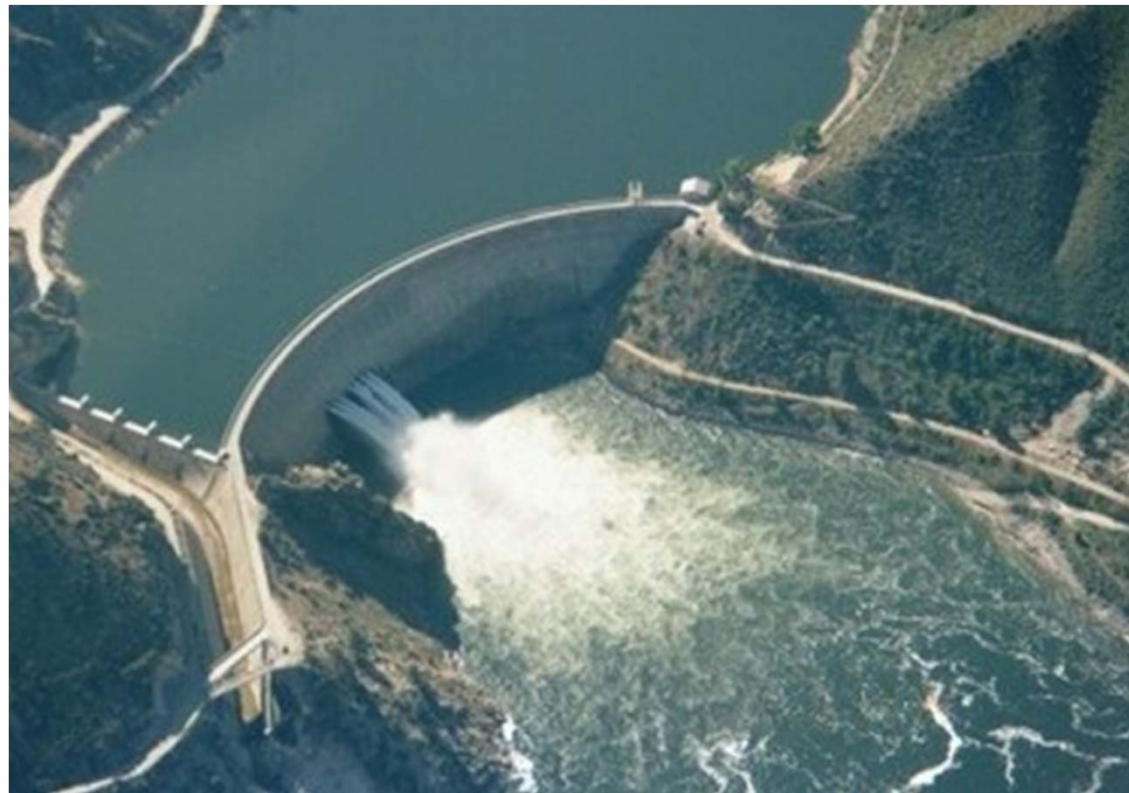




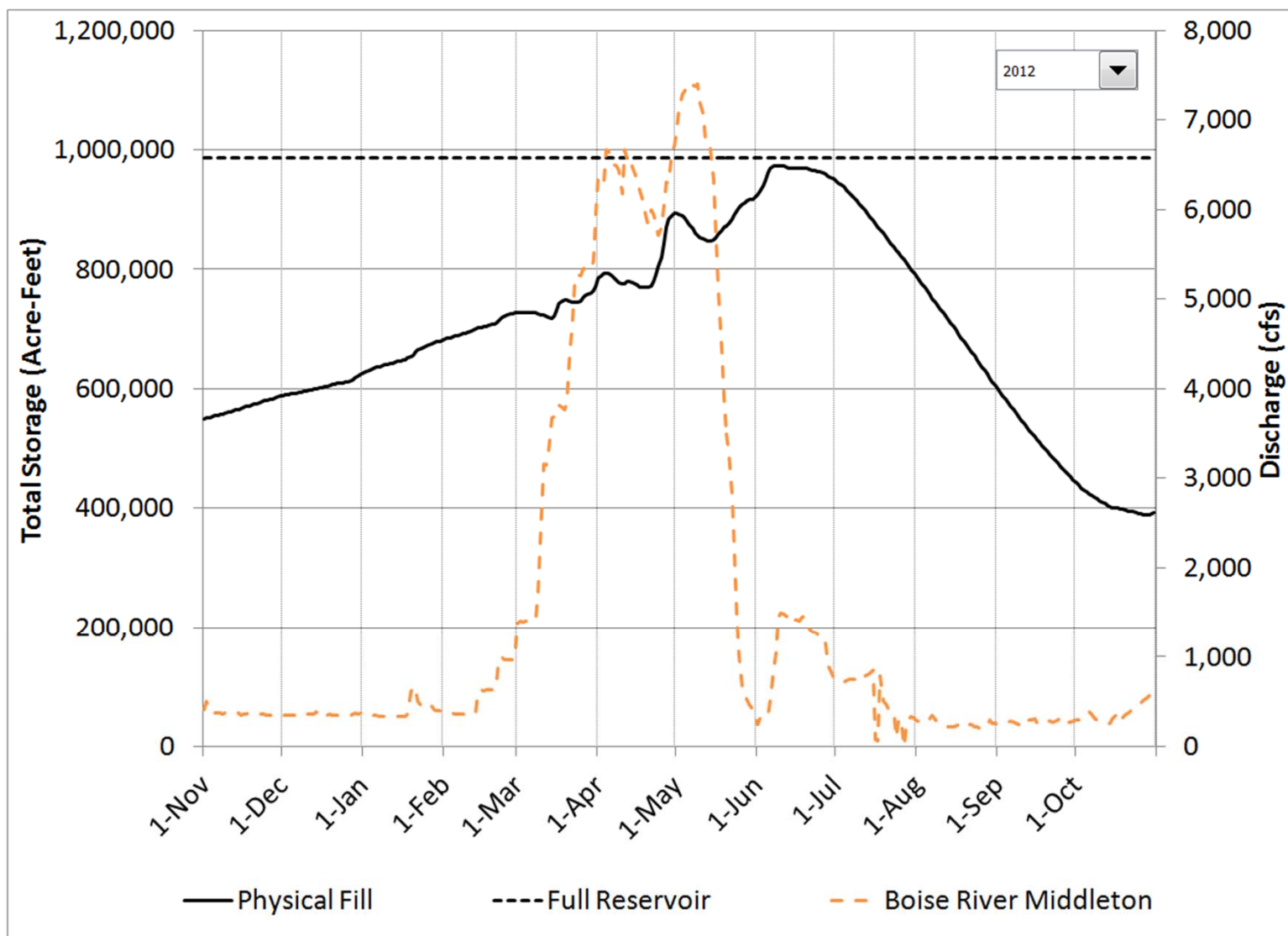




Refill Issue in Idaho

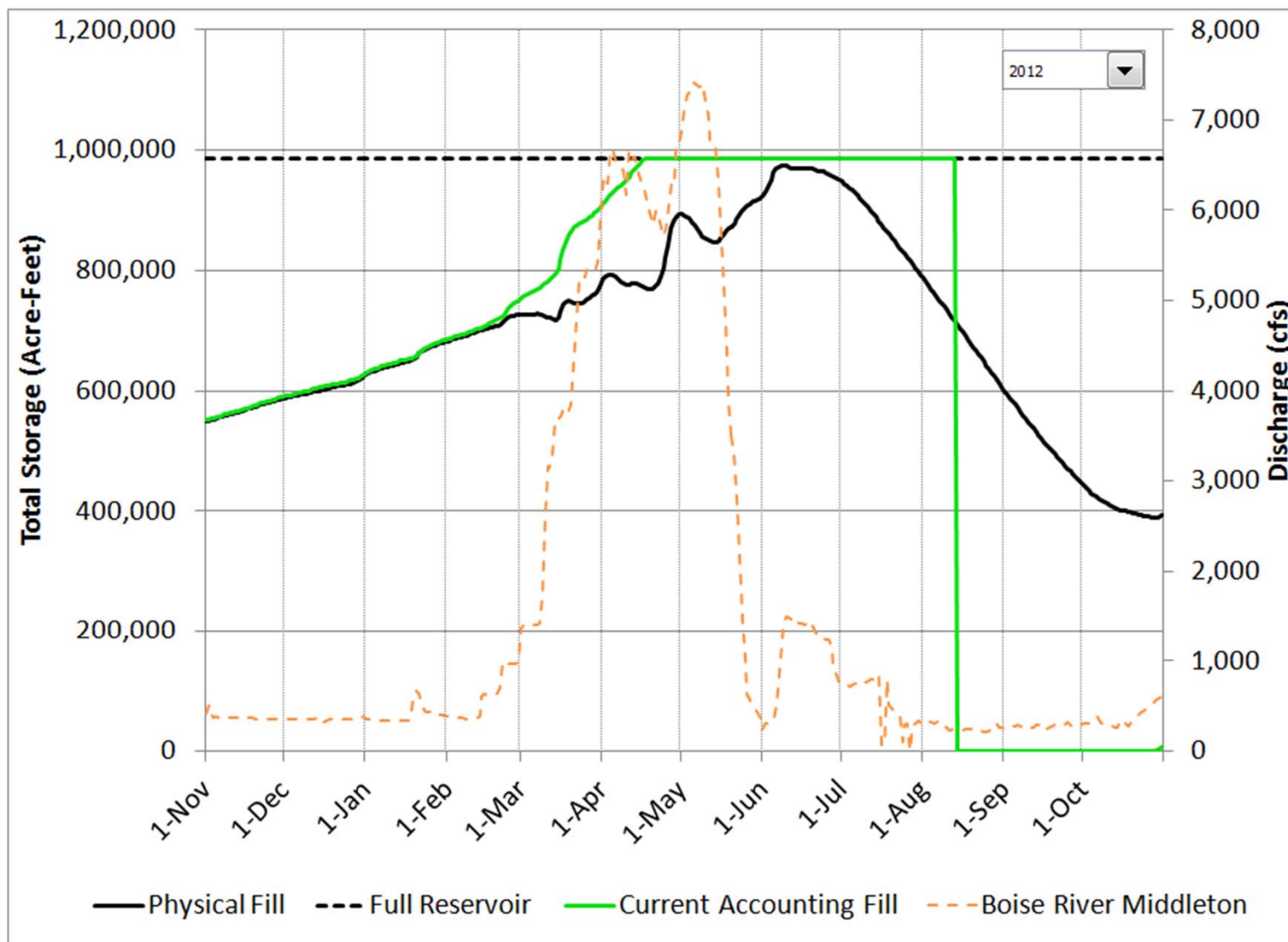


Reservoir Operations – Boise River 2012



* From
Cresto, 2013

Water Right Accounting



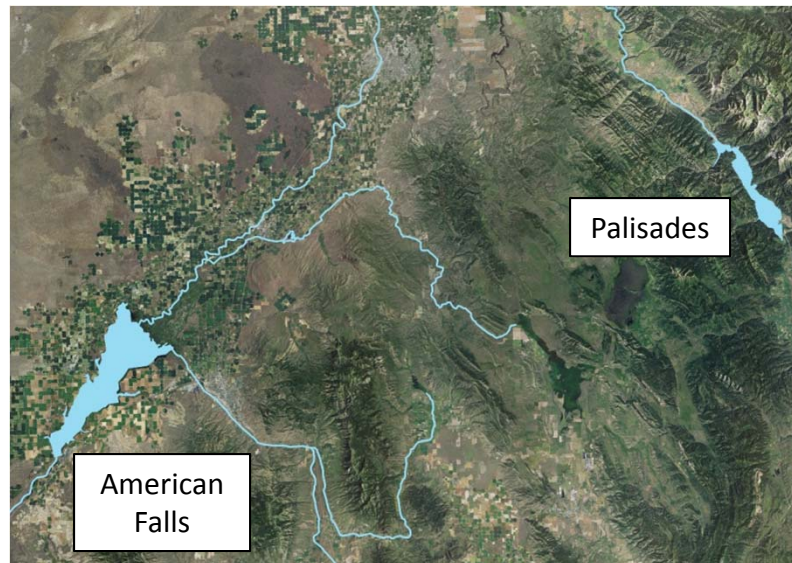
* From
Cresto, 2013

Basin Wide Issue 17

Does Idaho law require a remark authorizing storage rights to “refill” space vacated for flood control?

Yes

- The right to priority refill is inherent in the nature of a storage water right.
- Storage holder is entitled to refill, under priority, space evacuated for flood control.



SRBA Court Decision

- Senior right holder may not “refill” storage water right under priority before junior appropriators satisfy their water rights once.
- Definition of a “fill” was not addressed.
- Appealed to Idaho Supreme Court

No

- Will unlawfully result in an un-quantified water right.
- Constitute an unlawful enlargement of the storage water right.
- Conflict with the requirement of maximizing beneficial use and minimizing waste of water.

Additional Refill Proposed Solutions

- Legislative solutions
- Contested case on the state's accounting
- New beneficial use claims
- Administrative Measures
 - Moratorium on new rights
 - Condition new rights
 - Mitigation
- New water rights

Questions for the other states.

- How do other states account for storage in reservoirs?
- What is counted towards a reservoir right?
- Do other states have priority refill after flood control?

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