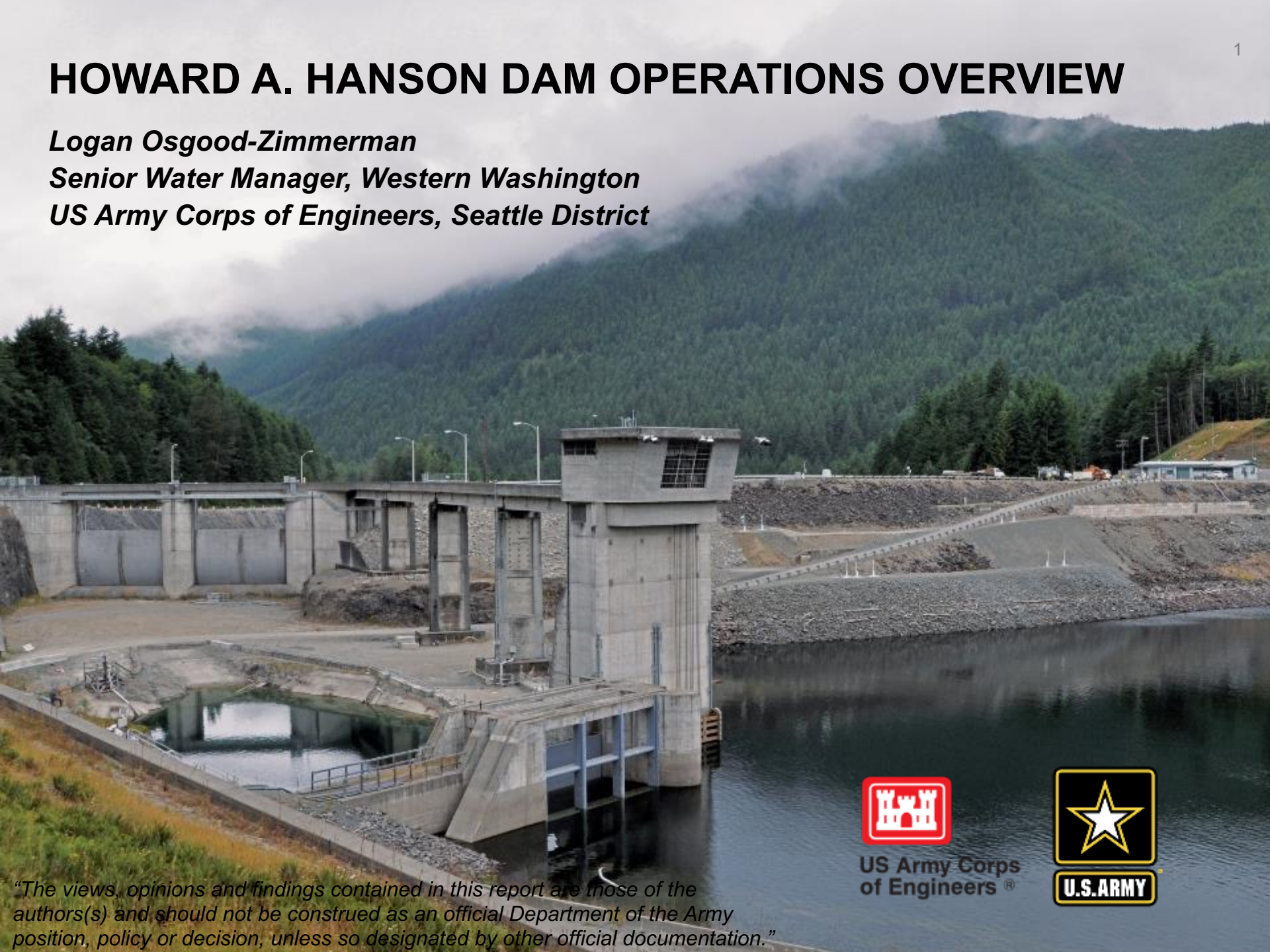


# HOWARD A. HANSON DAM OPERATIONS OVERVIEW

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*“The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.”*

# HOWARD A. HANSON DAM



Wikipedia

- An earthen dam located on the Green River ~35 miles east of Tacoma
- 220 mi<sup>2</sup> (570 km<sup>2</sup>) of drainage above the dam (45% of the total basin)
- Three authorized purposes
  - City of Tacoma water supply (July – October)
  - Fisheries conservation (June – October)
  - Winter flood risk management (October – February)



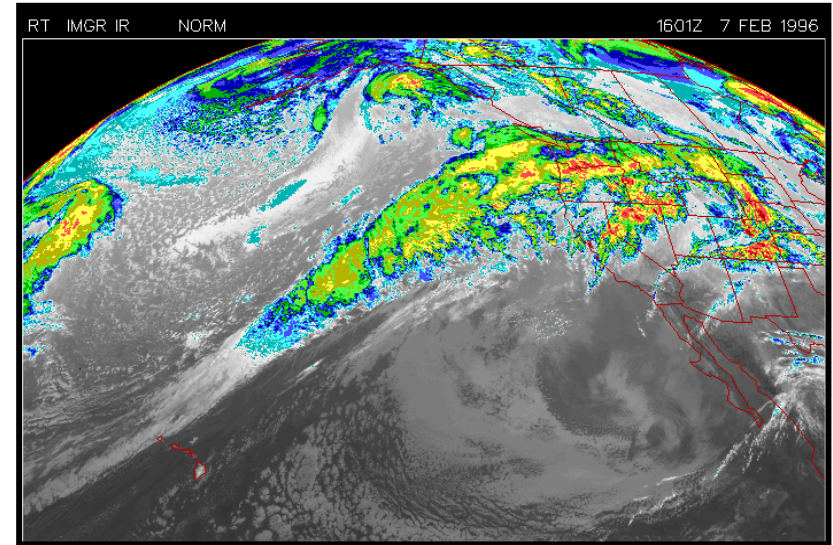
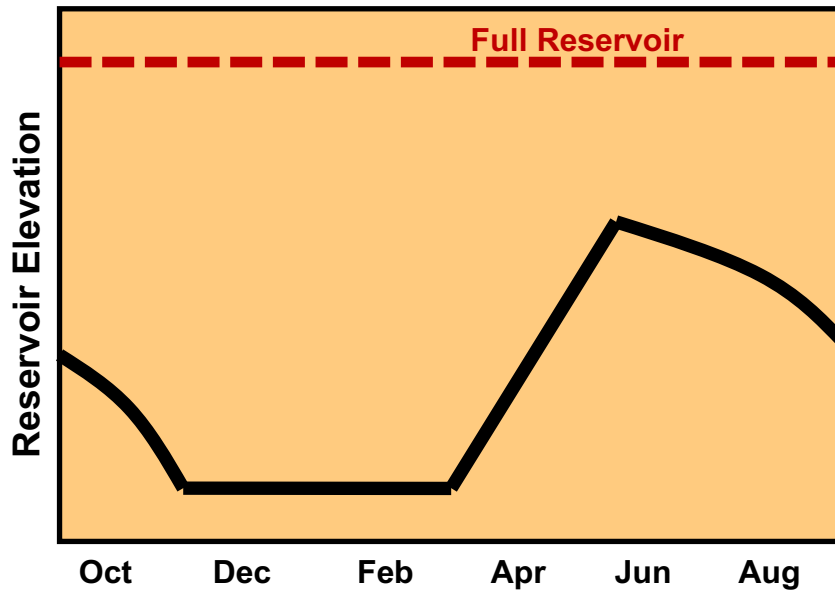
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# WINTER FLOOD SEASON

The reservoir is drawn down to minimum pool in preparation for the winter flooding season

- The primary flooding concern is due to **atmospheric rivers** (ARs)
- Winter snowmelt can contribute to flooding, but is not the primary cause



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# SPRING REFILL

Howard Hanson Reservoir relies on spring **rains** and the previous winter's **snowpack** for refill in the **spring**

- *We don't need both...* if we have either normal spring rains or normal winter snowpack, we can refill the reservoir.
- Usually extends from late February through late May/early June
- Target capture is 50,000 AF
- In a typical year, only need to capture about 20% of spring runoff



Seattle Times

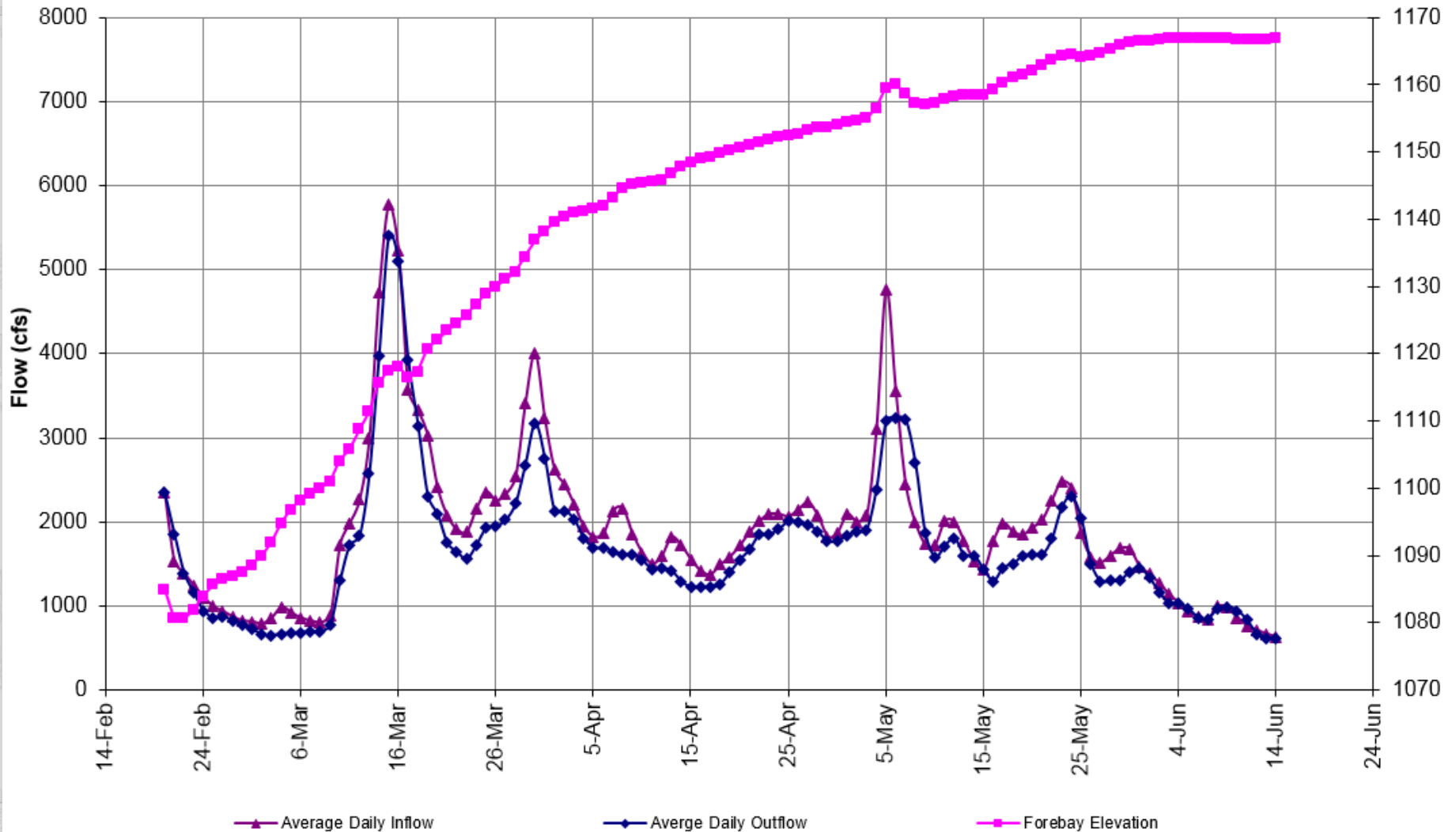


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# SPRING REFILL – WET YEAR

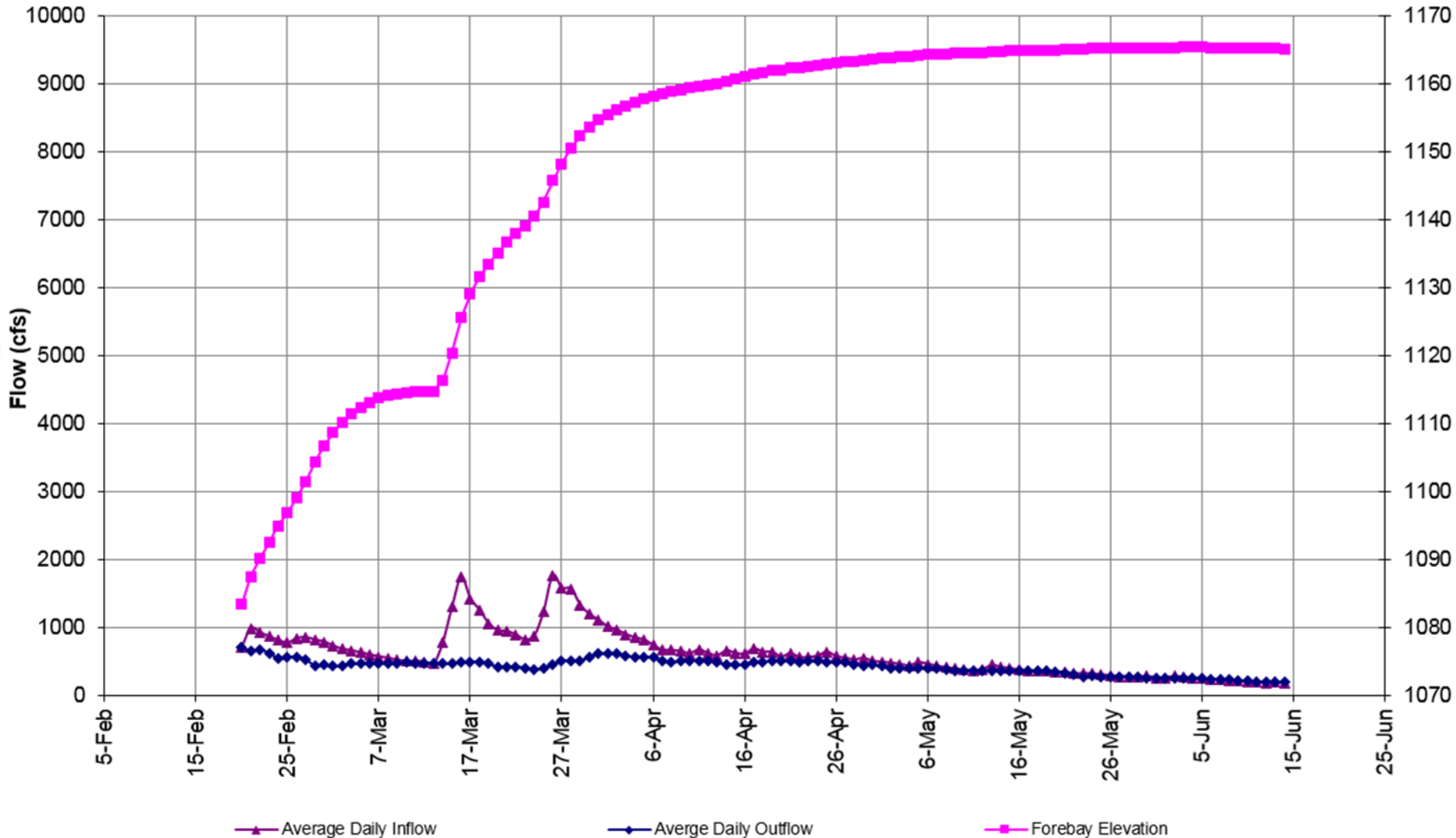
### Howard Hanson Dam Refill WY 2017



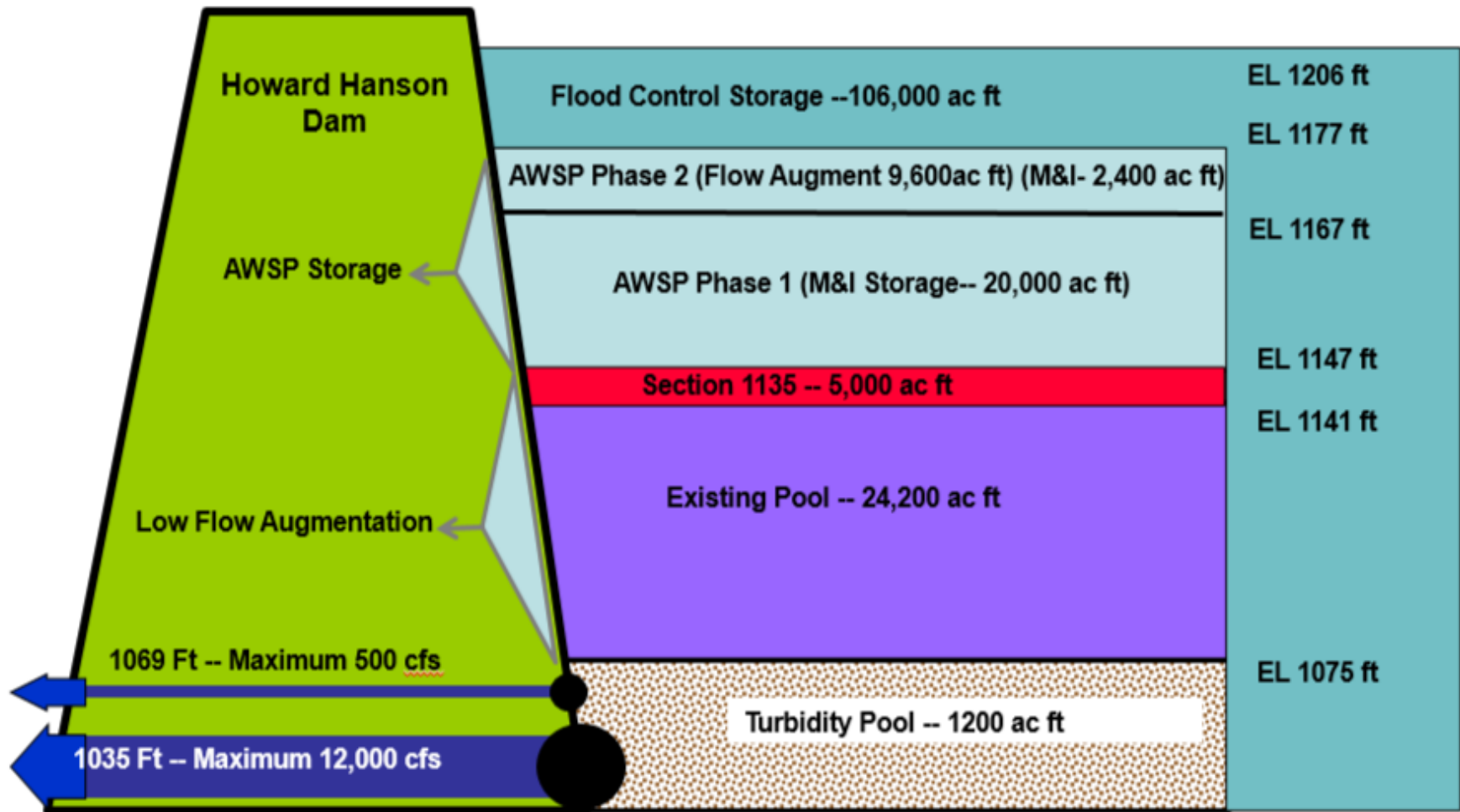
# SPRING REFILL – DRY YEAR

## Howard Hanson Dam Refill WY 2015

	Average (inches)	Lowest Recorded (inches)	WY 2015 (inches)
Oct-Feb. Precipitation	53.5	30	62.7
Mar.-May Precipitation	22.2	14.5	15.6



# WATER SUPPLY ALLOCATION



- Refill and stored water release is coordinated with Tribes, state, and federal agencies

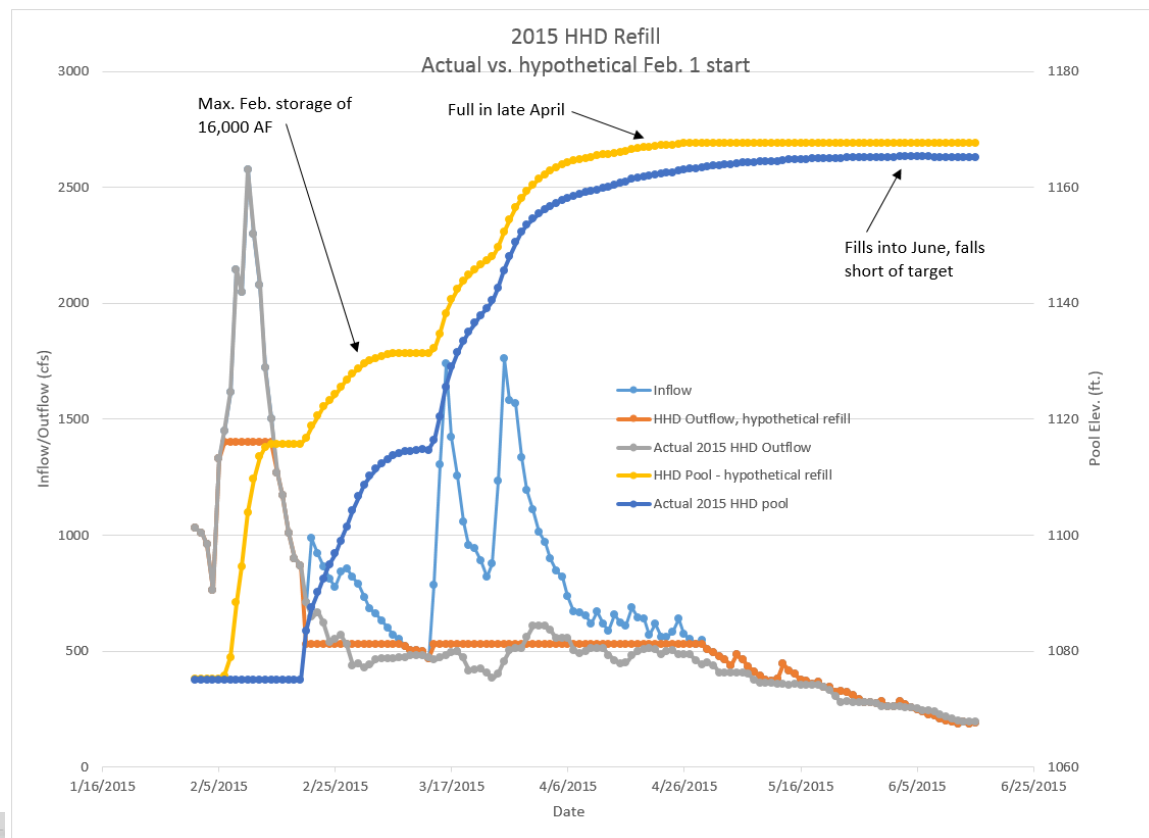


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# POTENTIAL FIRO BENEFITS

- Improved forecasts
- Refill in low snow years
- Refill reliability with climate change
- Spring flows for fisheries conservation



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# QUESTIONS?

