

Albeni Falls Dam Downstream Water Temperature Study

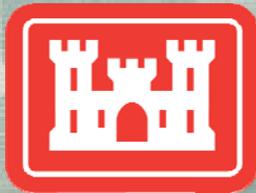
Beth Coffey, Chief, Operations Division

Joel Fenolio, Senior Water Manager

Leah Wickstrom, Project Manager

Seattle District

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Presentation Outline

- Project background
- Project status
- Next Steps
- Communication strategy
- Historical Operations
- Conclusion



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Project Background

- **Objective:** Investigate whether operational releases at AFD can decrease downstream water temperature to support bull trout and other aquatic species during the late summer.
- **Methodology:** Evaluate the relationship between AFD and POR temperatures using the CE-QUAL-W2 model.
 - ▶ Daily Average, daily maximum, & 7 day moving average are calculated for 11 river reaches.



Project Status

- Review of and agreement to use CE-QUAL W2 model
- 4 sets of post-labor day modeling completed
- Draft Temperature Management Operations identified:
 - ▶ During prominent cold weather conditions, decrease river flows to increase exposure time in the POR
 - ▶ During hot weather conditions, increase river flows to reduce exposure time in the POR
 - ▶ When surface water temps in LPO are cooler than POR at AFD, increase flows to introduce cooler water downstream



Next Steps

- Review Lake Pend Oreille and Pend Oreille River temperature data collected in 2013
- Potentially update model to better predict surface temperatures
- Model optimal flow management scenarios based on draft TMO's identified
- Develop monitoring plan for potential Temperature Management Release (TMR)



Communication Strategy

- Maintain open communication with Lakes Commission
- Keep public informed of key project milestones or decision points through news releases
- Spring 2014 Update to Lakes Commission

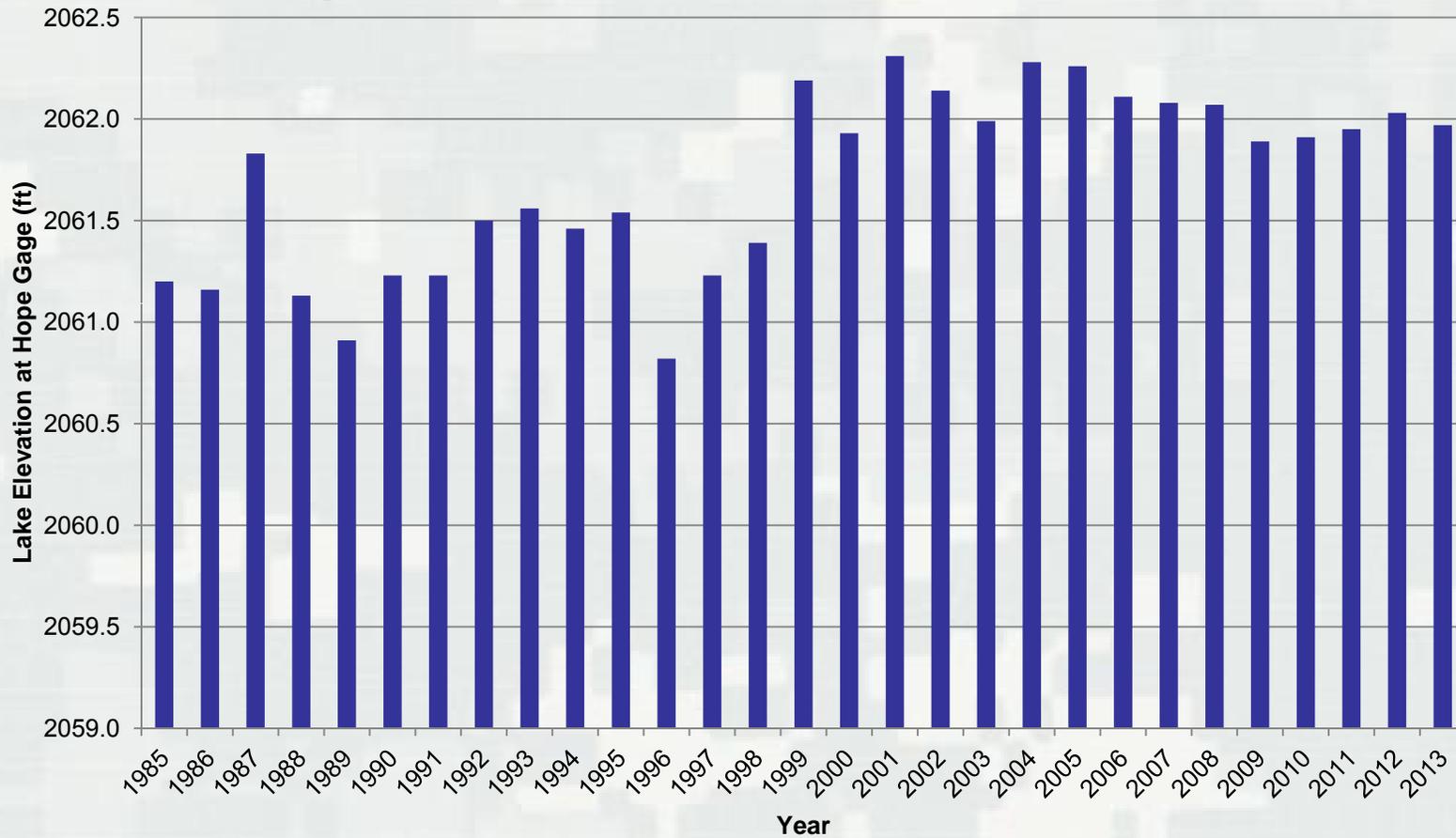


Historical Fall Operations



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15-Sept Elevations of Lake Pend Oreille 1985-2013

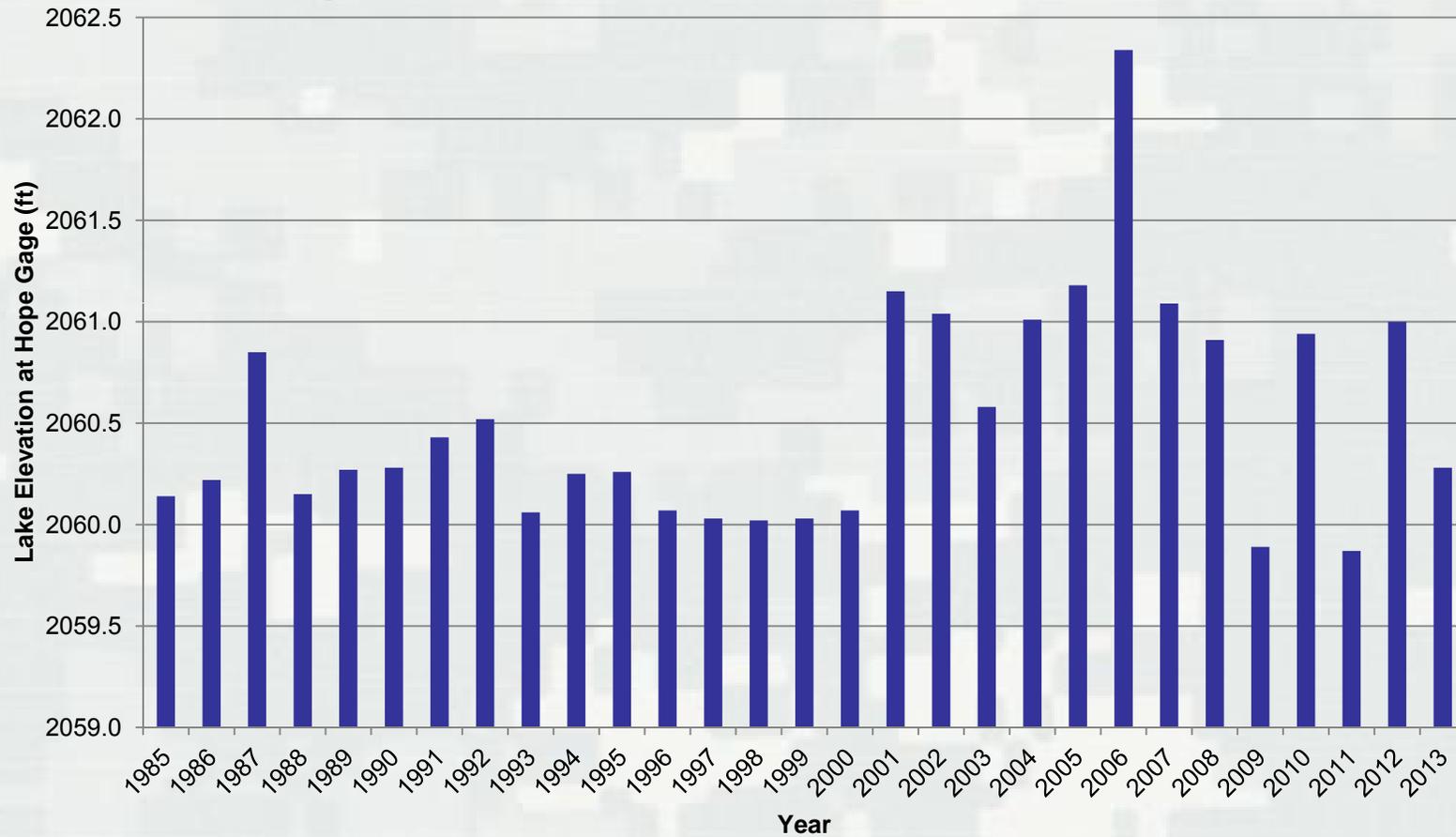


Sept. Operating 2062 to 2062.5 ft



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30-Sept Elevations of Lake Pend Oreille 1985-2013

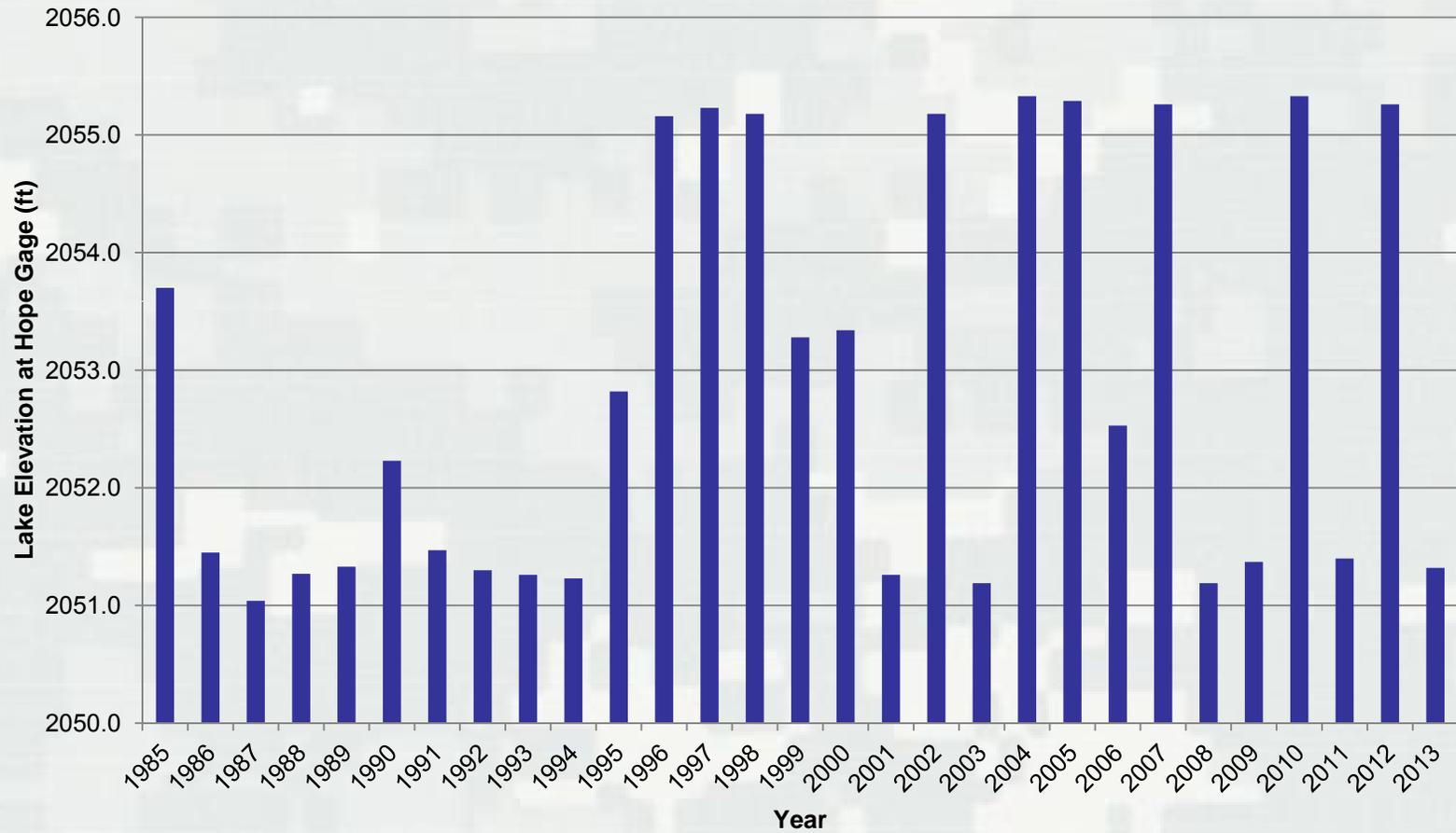


Sept. elevation will not go below 2060 ft



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30-Nov Elevations of Lake Pend Oreille 1985-2013



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Conclusion

- Water Temperature Study
 - ▶ Preliminary assessment of potential TMO's
 - ▶ Will maintain open communication as study progresses
- Future Water Levels
 - ▶ Discussion between Corps, BPA, Tribe, & POBC needed to determine a process moving forward
 - ▶ Check-in with Lakes Commission in March

