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Truckee Basin Water Management Options Pilot

FIRO Workshop

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Agenda

- Project Description
- Problems and Opportunities
- WaterSMART Pilot Project
- Post-Project Activities



Project Description



Problems

- Drought and flooding are becoming more common in the Truckee Basin.



Looking upstream at Lake Tahoe during the drought in 2015.



Reno during the January 1997 flood.

- Significant challenge to adapt due to how federally-owned storage reservoirs must be operated for flood risk reduction.

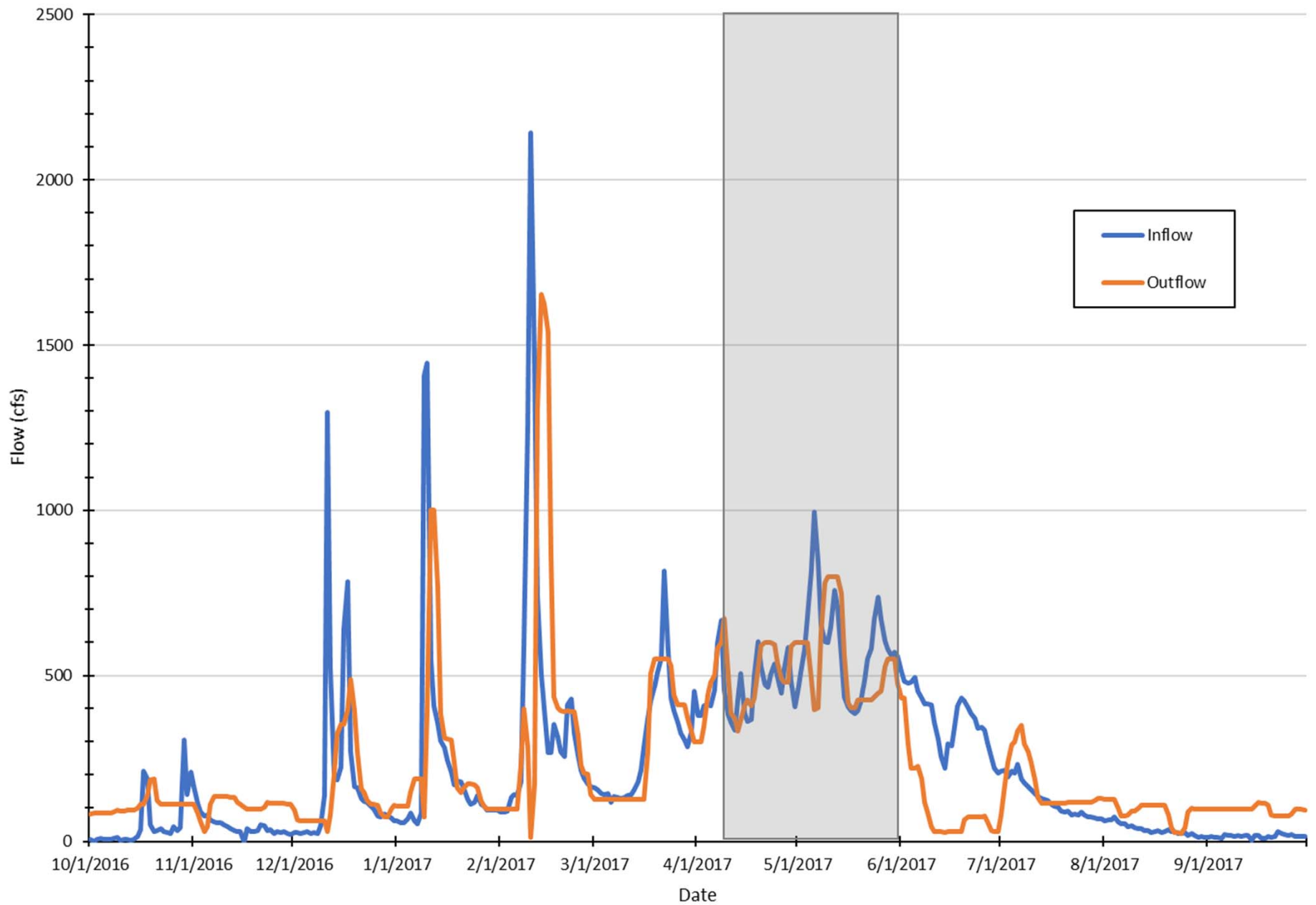


Problems

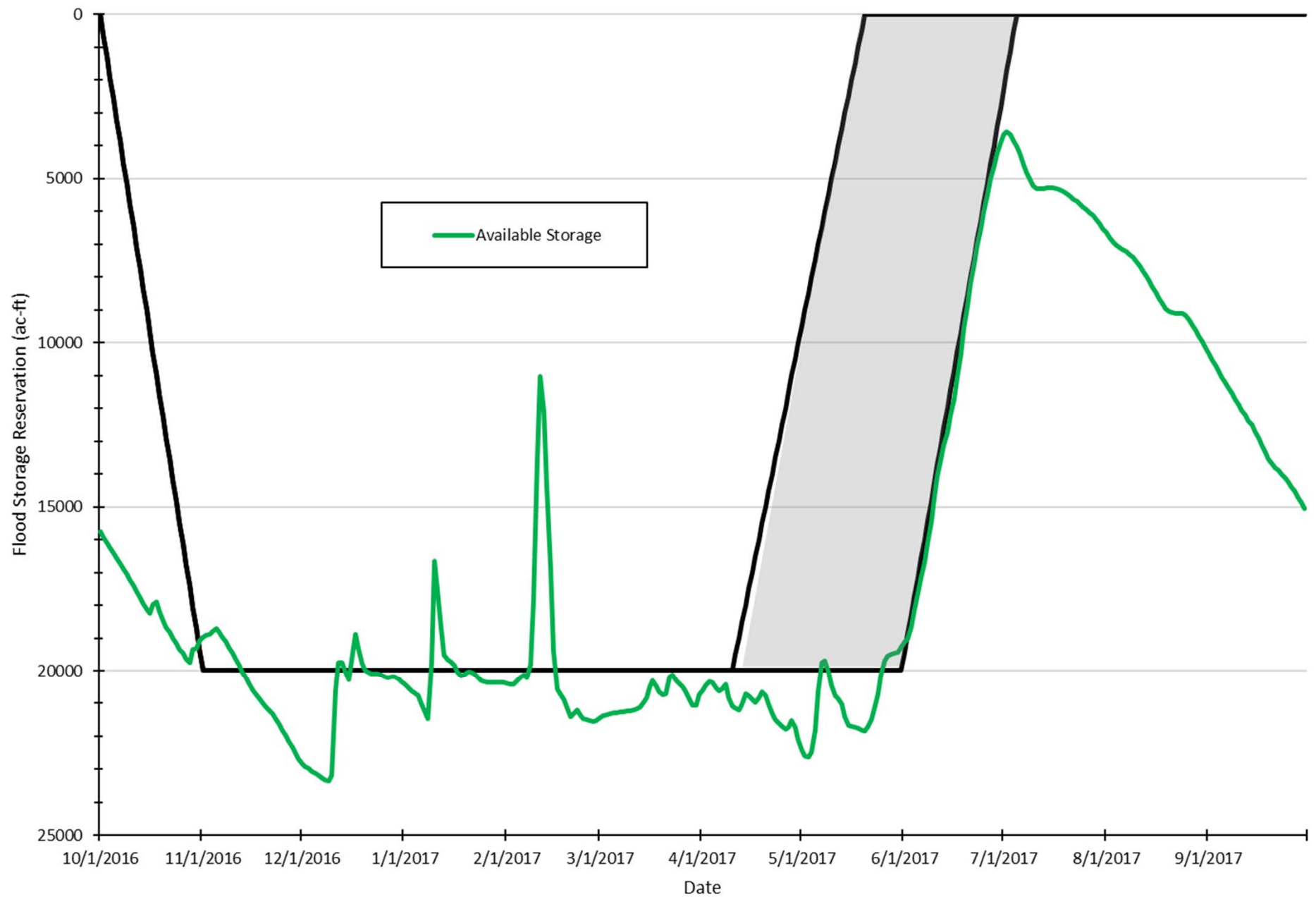
- Flood and reservoir refill operations are governed by the Water Control Manual (1985). The manual suffers from:
 - outdated rule curves;
 - inflexible storage requirements;
 - constrained reservoir release thresholds;
 - constrained regulation objective at Reno; and
 - does not reflect the Truckee River Operating Agreement (TRAO).
- It's becoming more difficult to capture runoff when it occurs earlier in the spring.
 - Rule curves don't adjust with runoff timing.



2017 Prosser Reservoir Operations



2017 Prosser Reservoir Operations



Opportunities

- Improvements have been made since the WCM was completed.
 - Stampede Dam crest raised
 - Parapet wall added to Prosser Dam
 - Flood mitigation projects through Reno and Sparks

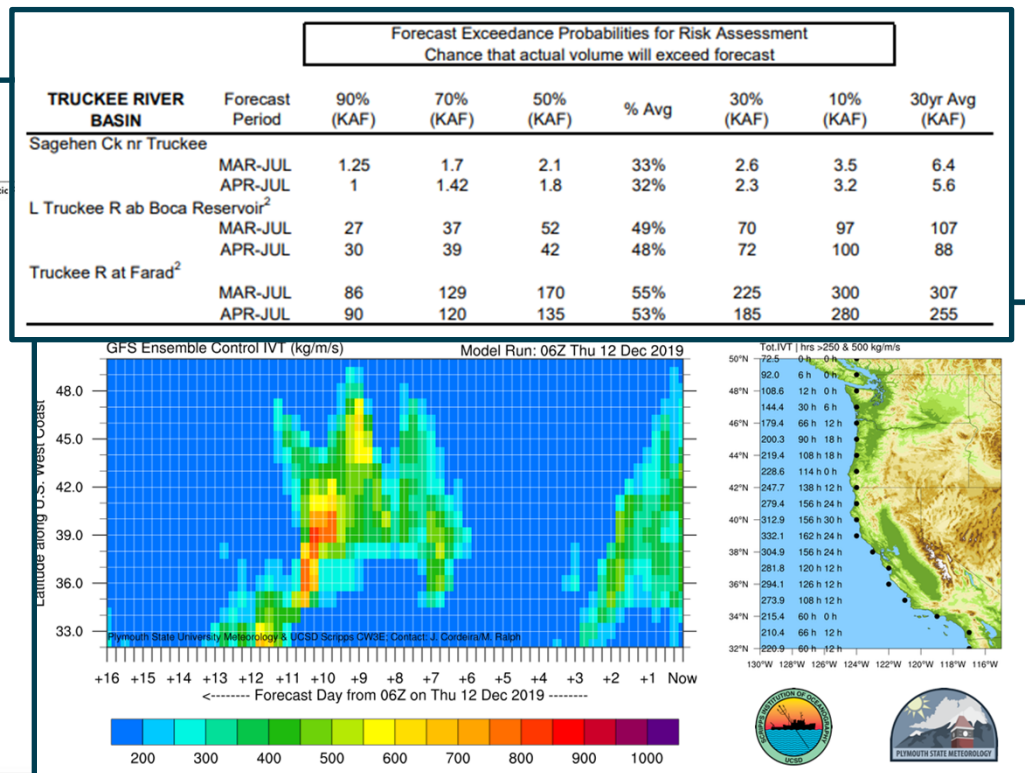
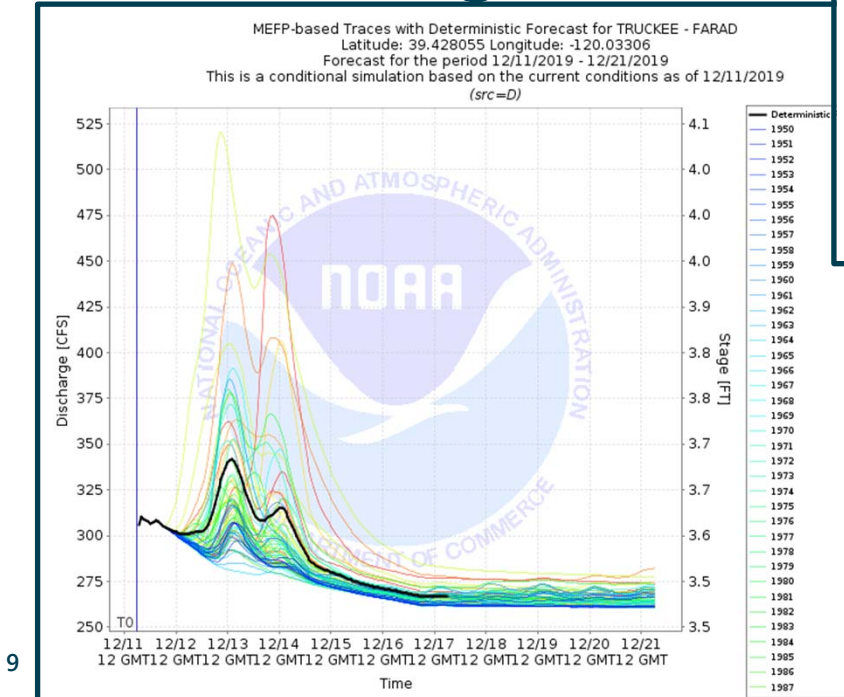


Construction of a Mechanically Stabilized Earth (MSE) wall at Stampede.



Opportunities

- Significant advances in forecasting technology since 1985
- Improved operational and forecasting tools (e.g., RiverWare model of the Truckee)
- Other basins are investigating and implementing similar changes



WaterSMART Pilot Project

- Study purpose is to develop more flexible flood risk reduction criteria *without increasing downstream flood risk*.
 - Forecast Informed Reservoir Operations
 - Flexible rule curves
 - Updated regulation goals
- Cost share project – 50/50 federal/non-federal
 - Truckee Meadows Water Authority
 - TROA Administrator/Federal Water Master
 - California Department of Water Resources
 - Pyramid Lake Paiute Tribe
- 3-year study



Post-Study Activities

- Corps may use the study report to update the WCM.
- Corps will lead the National Environmental Policy Act (NEPA) compliance and other biological/environmental compliance efforts required to update the WCM.



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