



— BUREAU OF —
RECLAMATION

Lahontan Basin Area Office WY 2020 Water Supply Lookback

October 2020

Presented by Scott Fennema

Overview

- Definitions and Background
- Comparison of Forecasts to Forecasted Lahontan Storage
- Comparison of Monthly Forecast to Actual Operations
- Summary





Definitions and Background

Definitions

- NRCS A – J Forecast: forecasted volume of flow to past a gage from April 1st through July 31st
- Lahontan Storage Target (LSOCM): operational storage target for the last day of the month, target is variable January through May and fixed July through December; governed by OCAP

Background

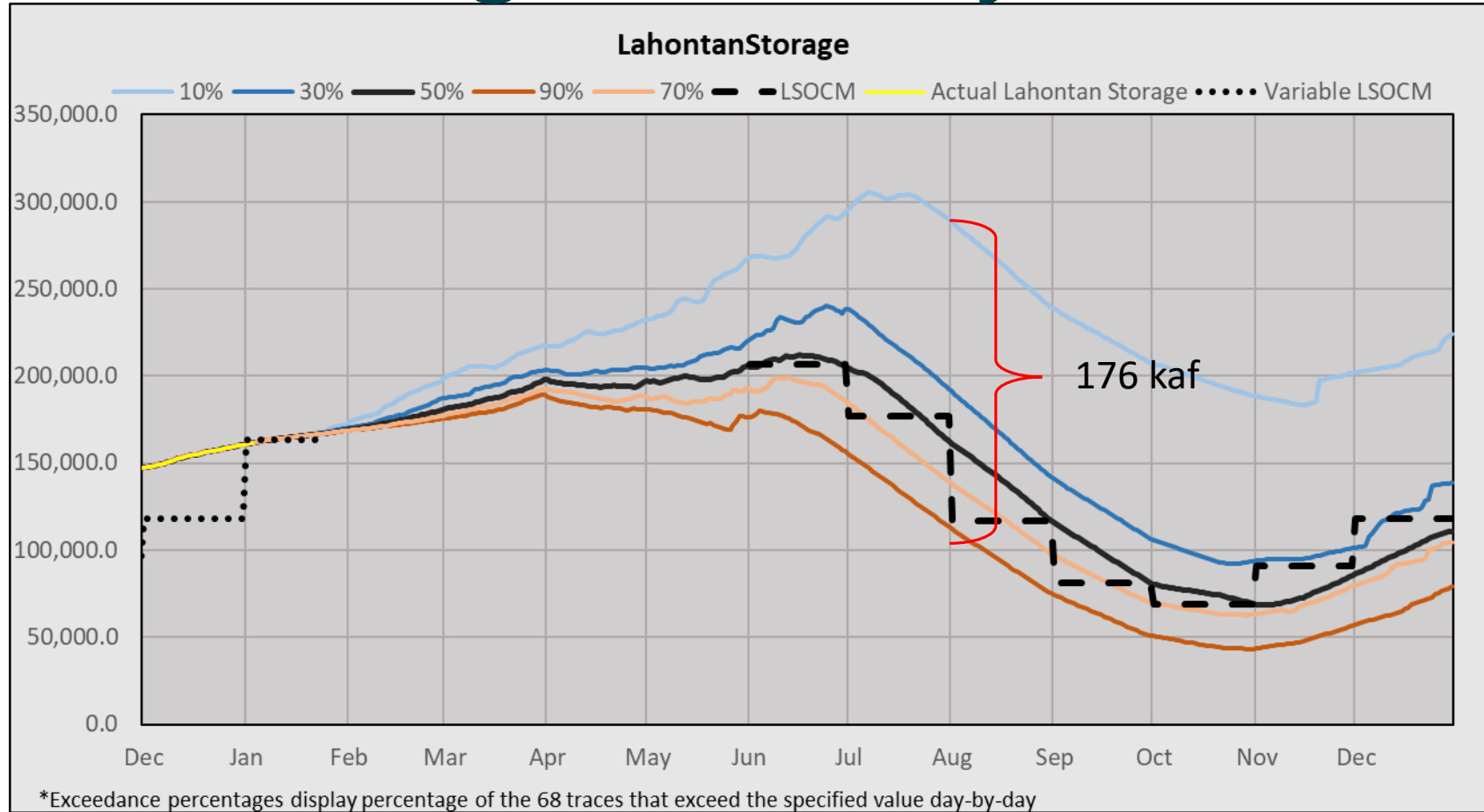
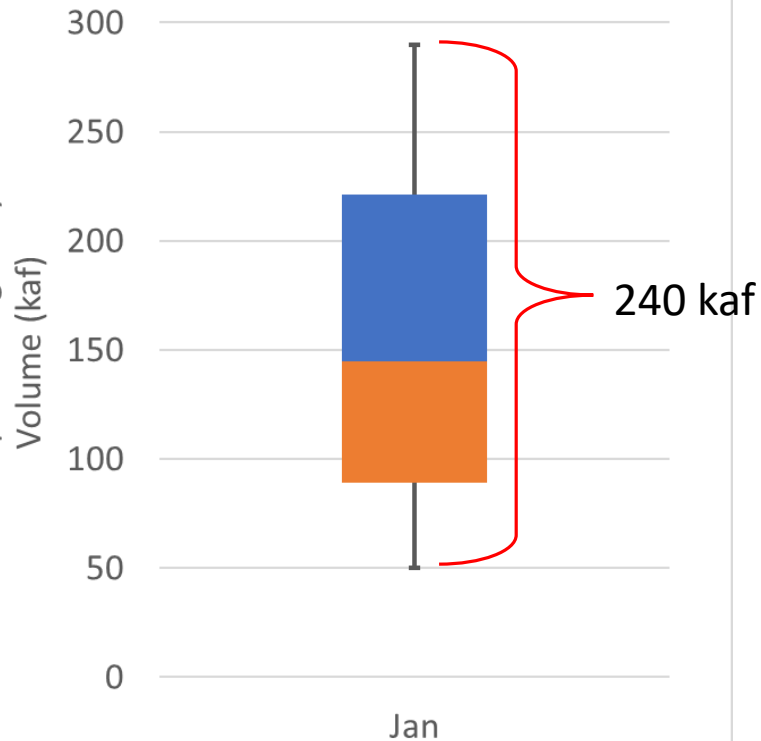
- Forecasts are generated by scaling 68 RFC traces to the NRCS A – J forecasts
- Lahontan storage targets determine the volume of diversion through the Truckee Canal
- Forecasts are used to predict Lahontan storage



Lahontan Predicted Storage: January

NRCS A – J Forecasted Volume

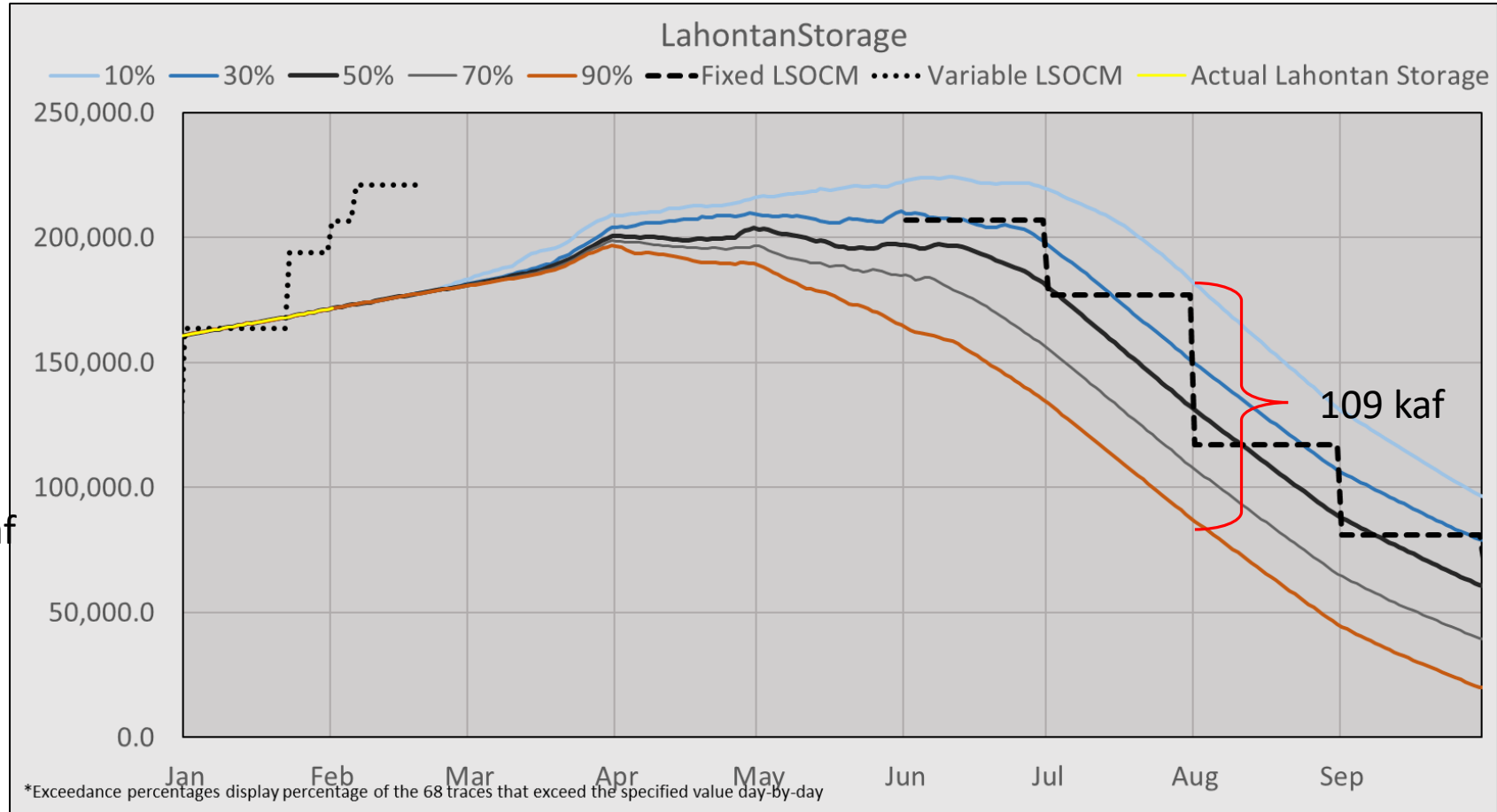
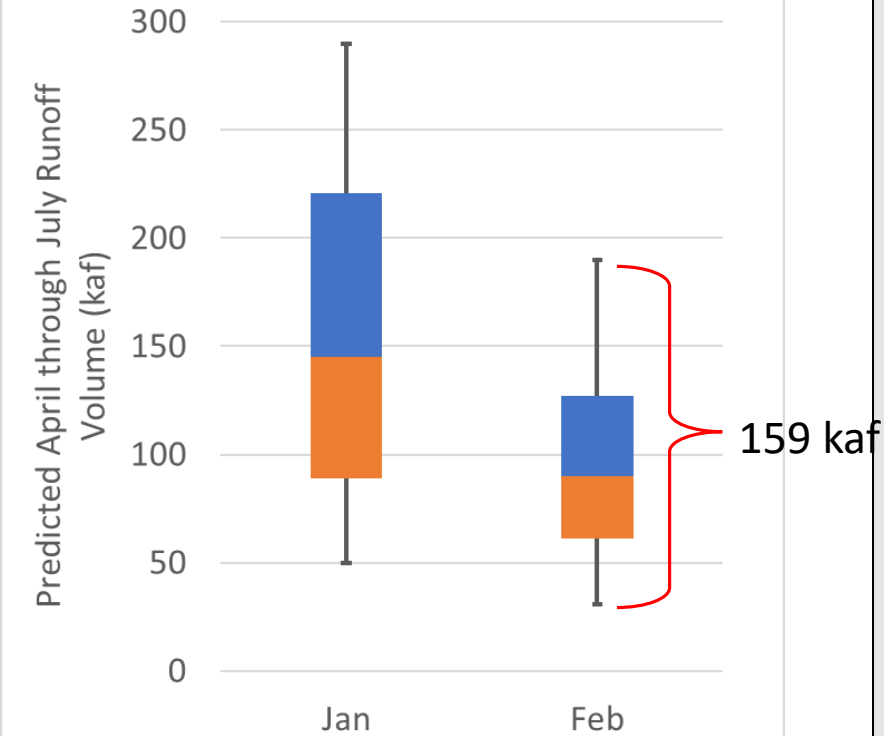
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Lahontan Predicted Storage: February

NRCS A – J Forecasted Volume

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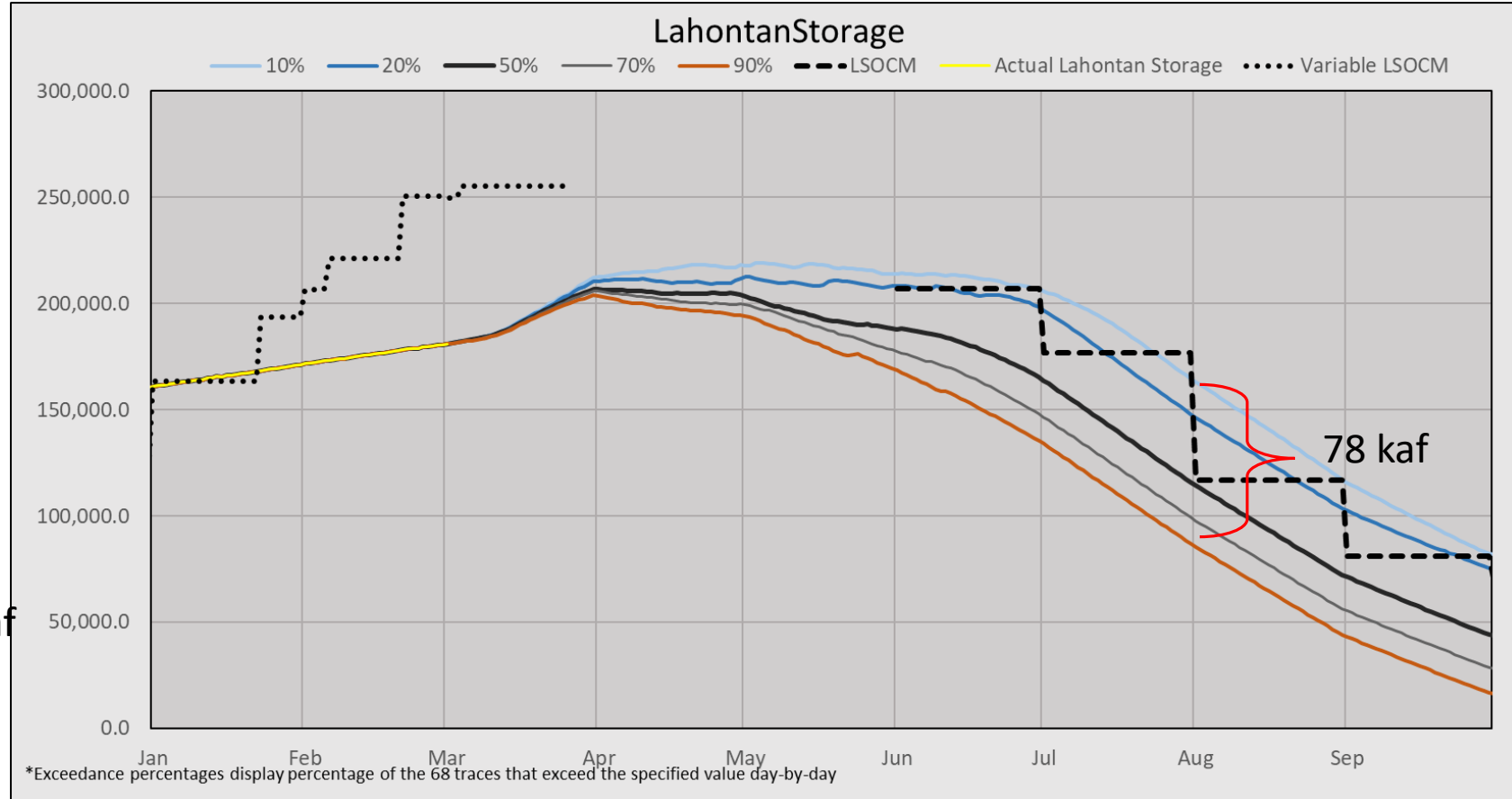
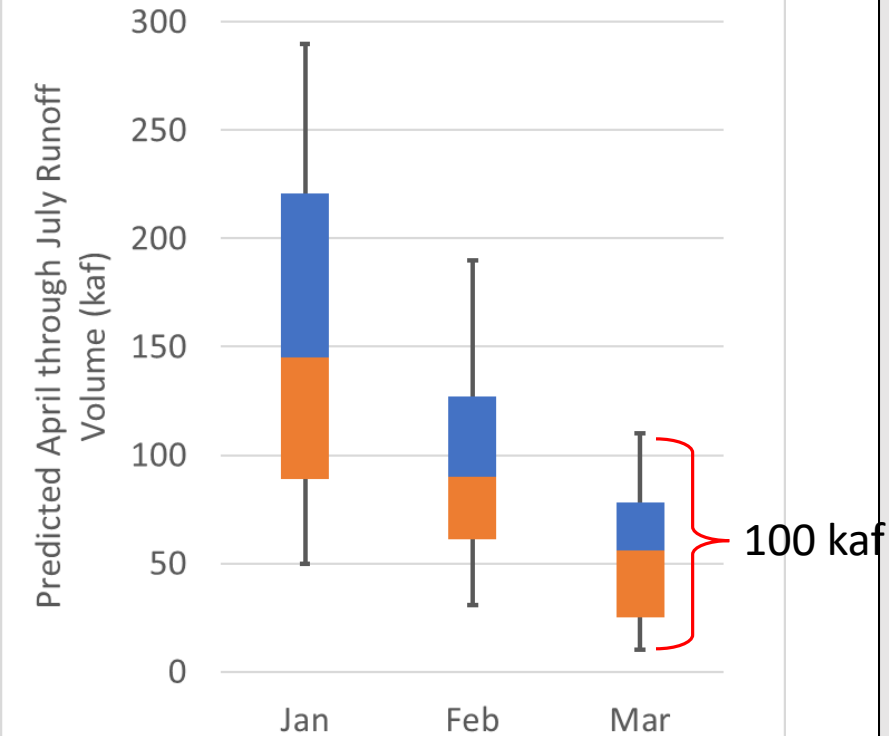
*Exceedance percentages display percentage of the 68 traces that exceed the specified value day-by-day



Lahontan Predicted Storage: March

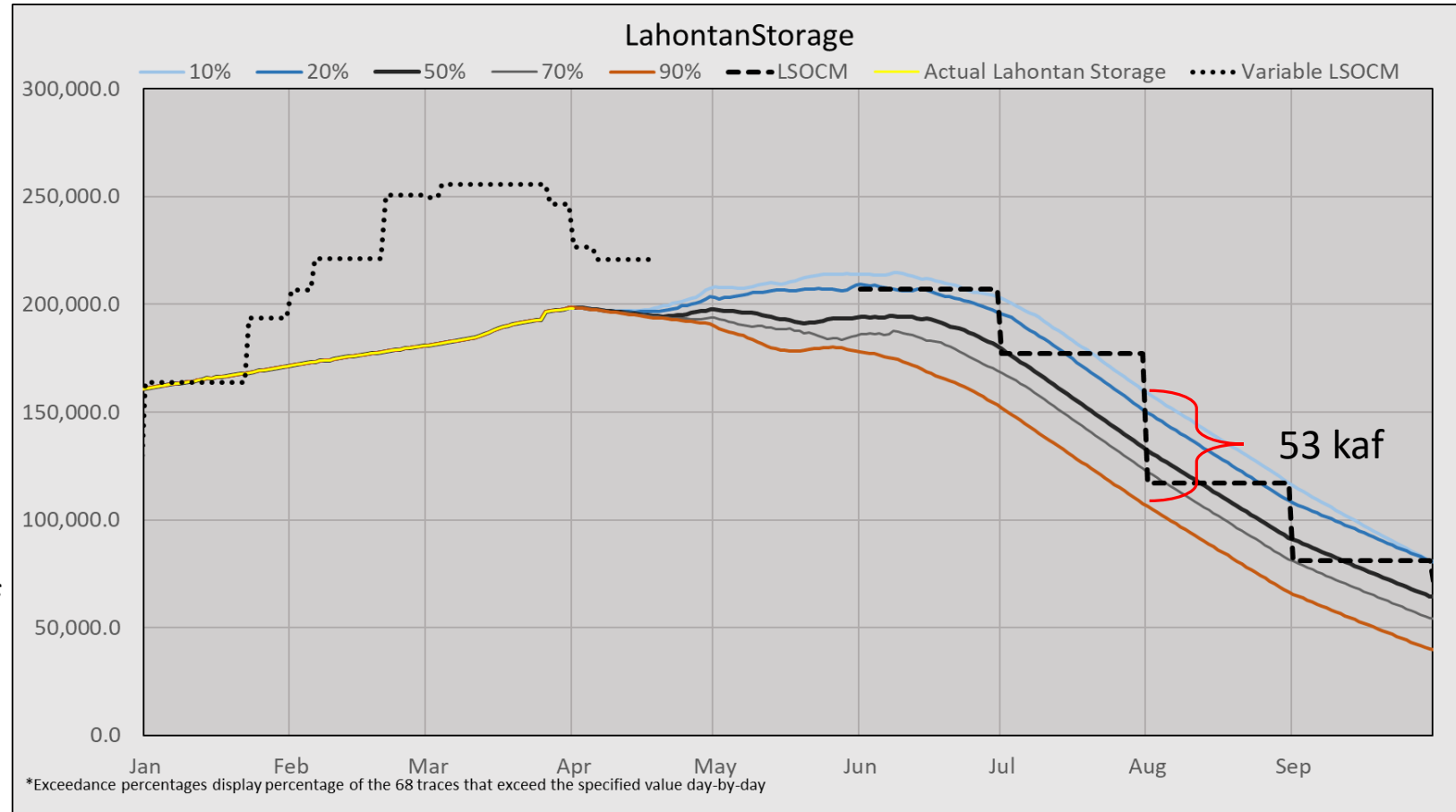
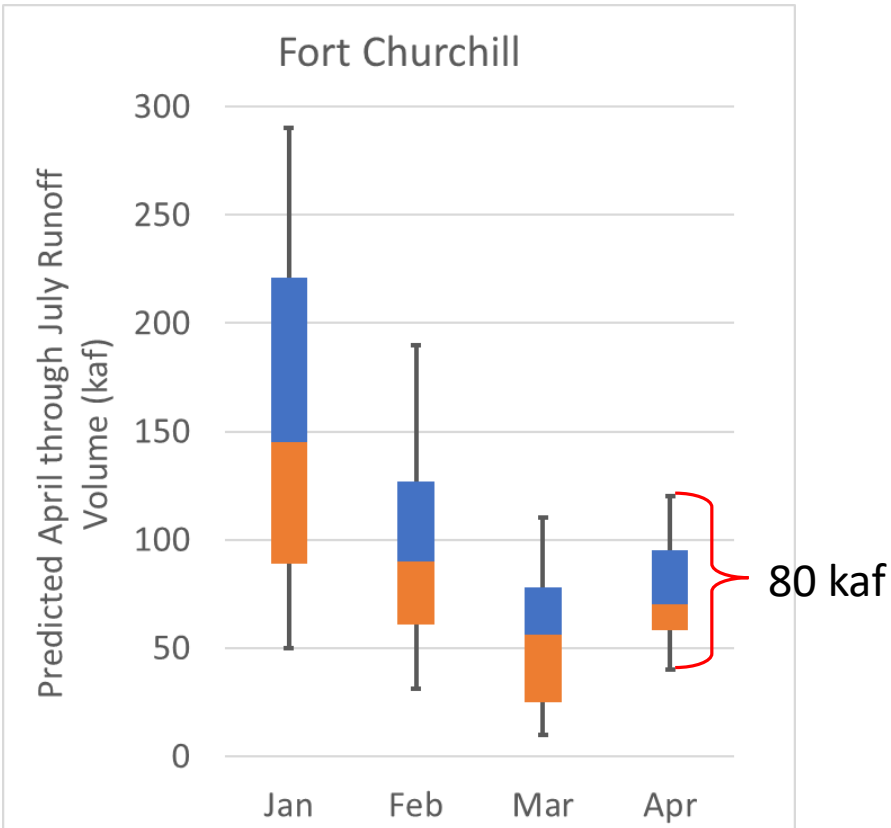
NRCS A – J Forecasted Volume

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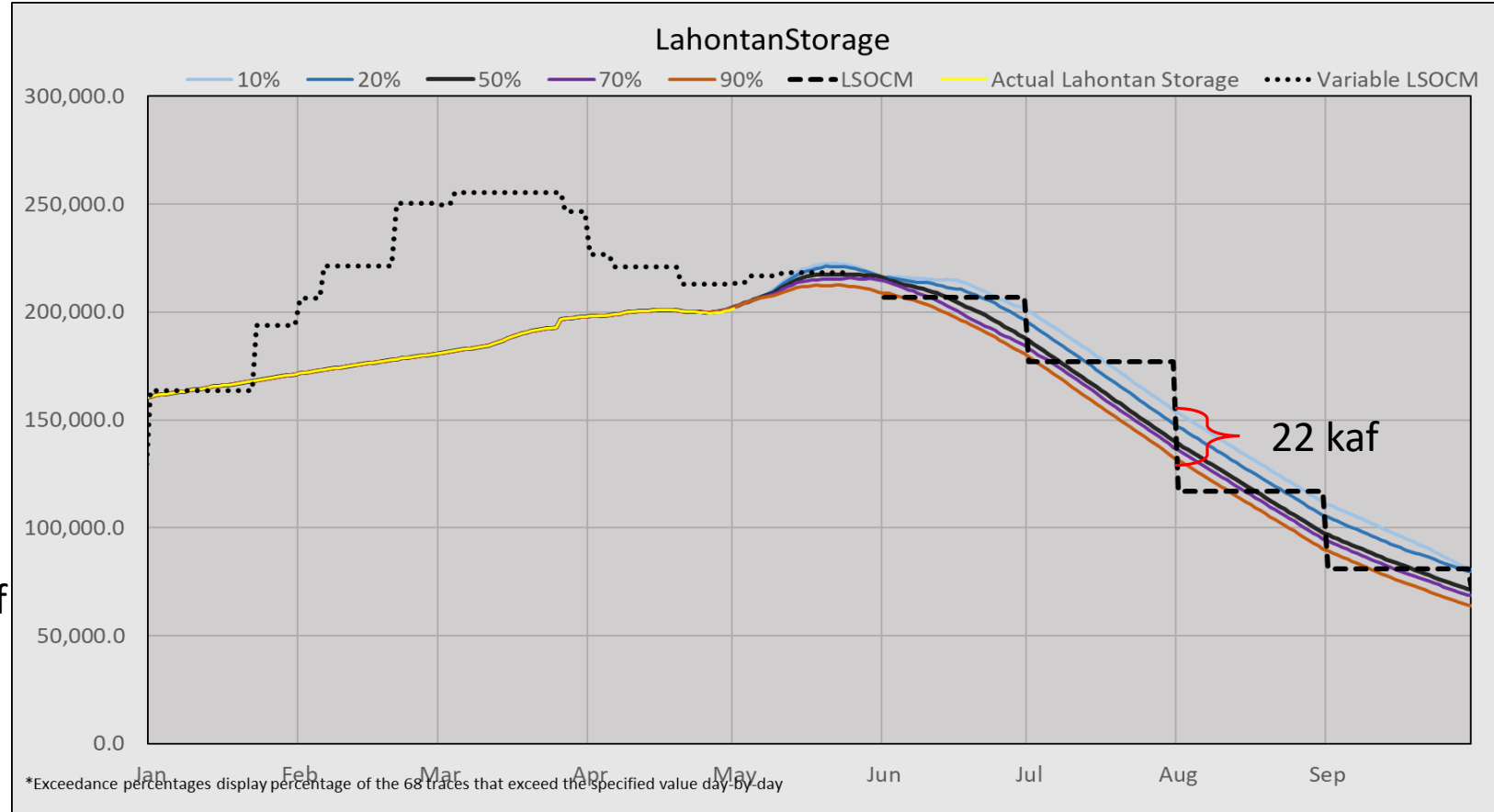
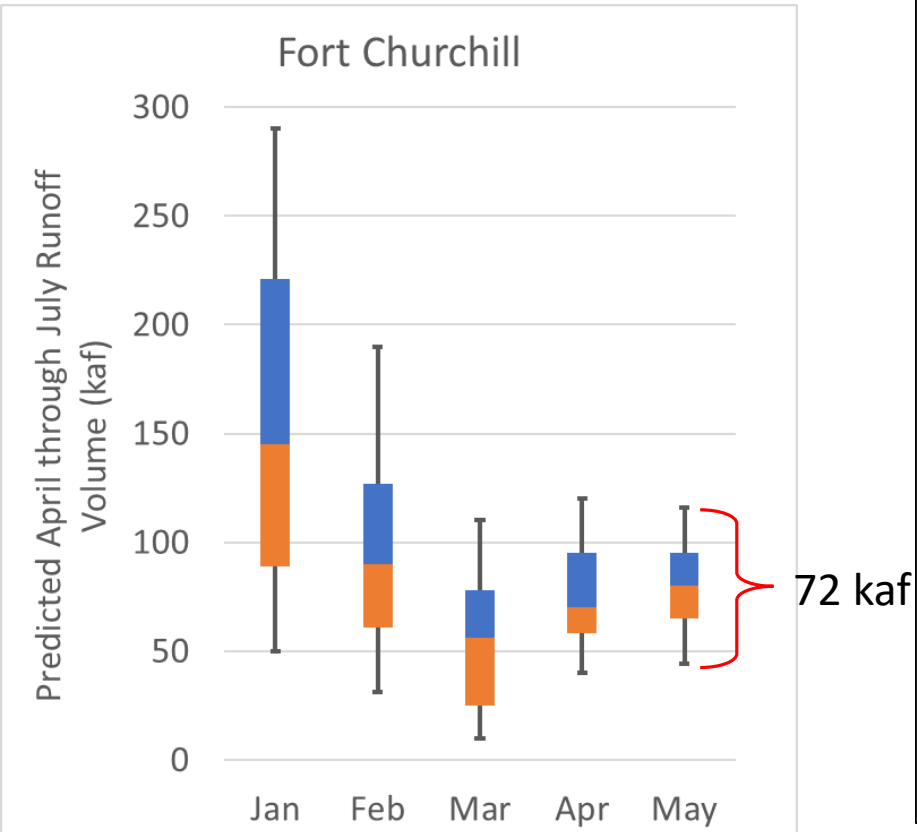
Lahontan Predicted Storage: April

NRCS A – J Forecasted Volume



Lahontan Predicted Storage: May

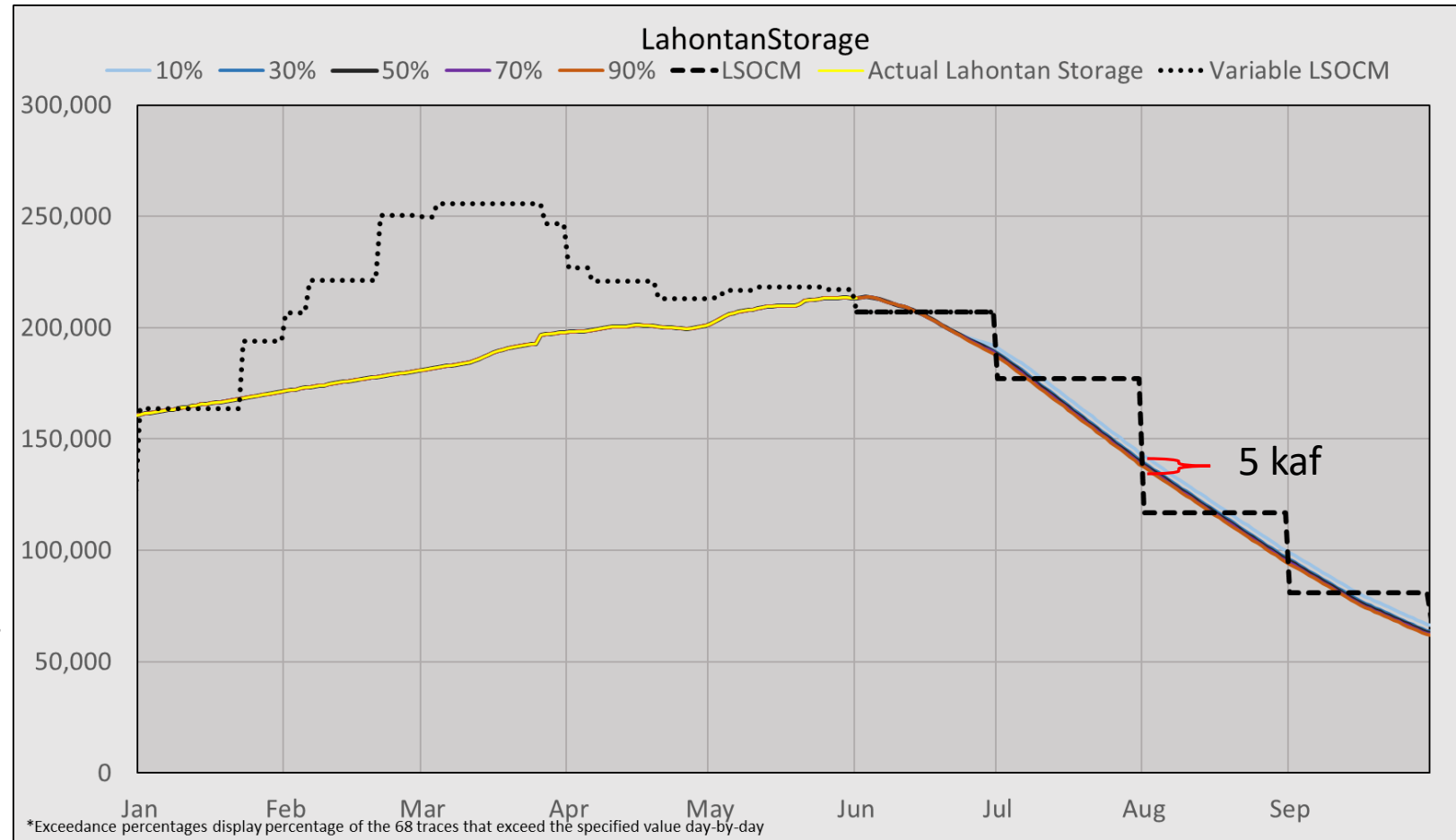
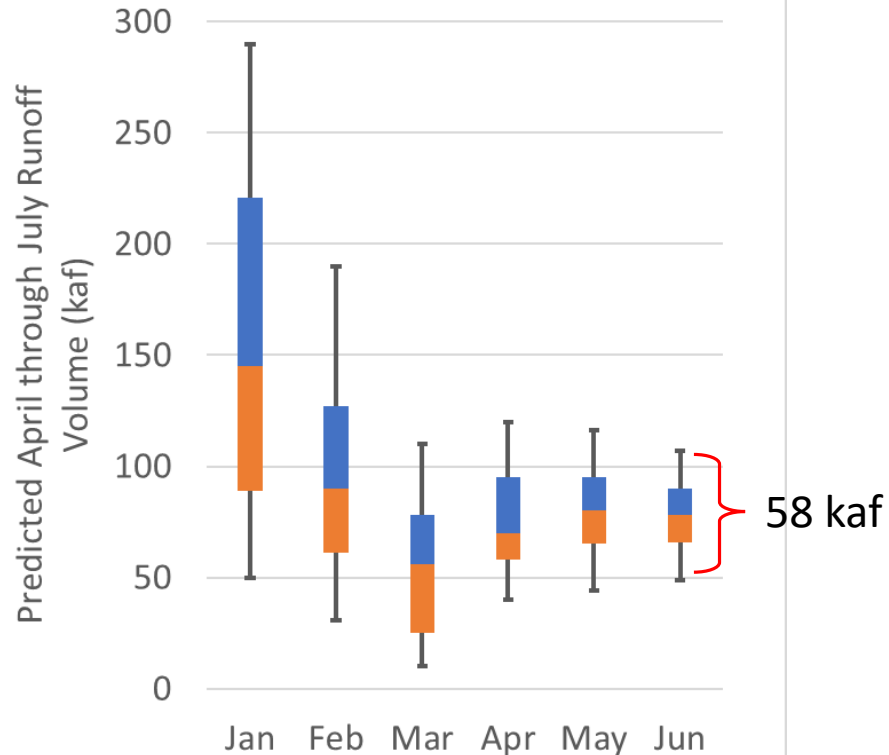
NRCS A – J Forecasted Volume



Lahontan Predicted Storage: June

NRCS A – J Forecasted Volume

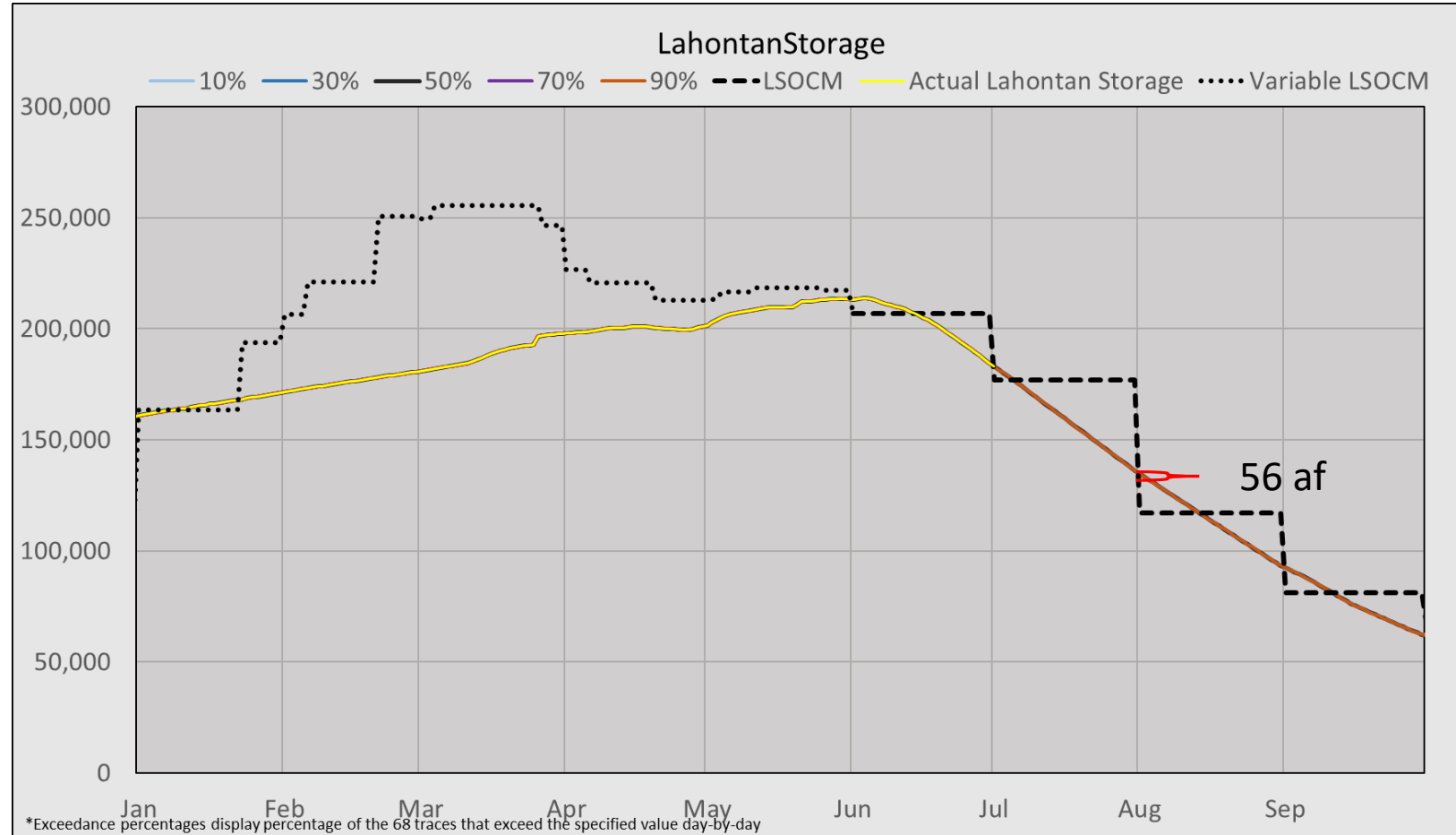
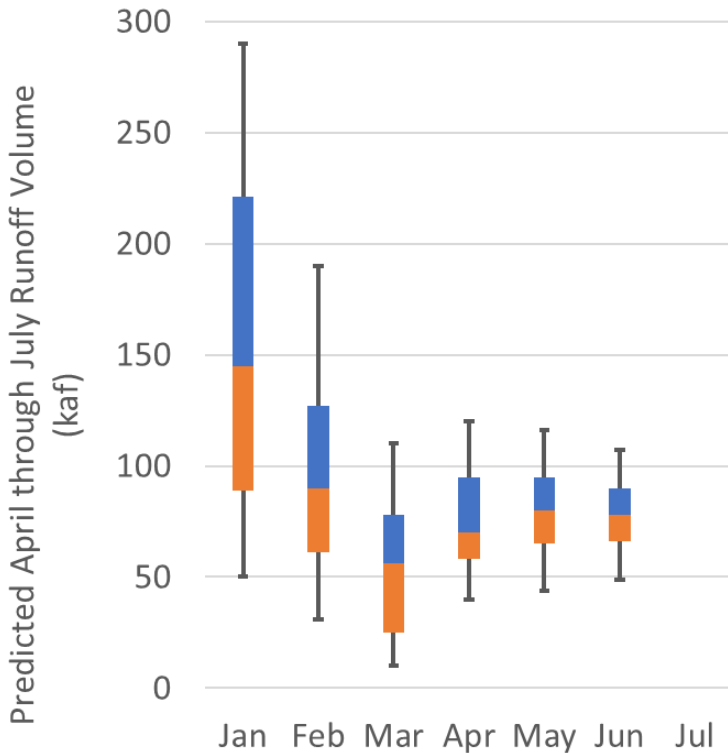
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Lahontan Predicted Storage: July

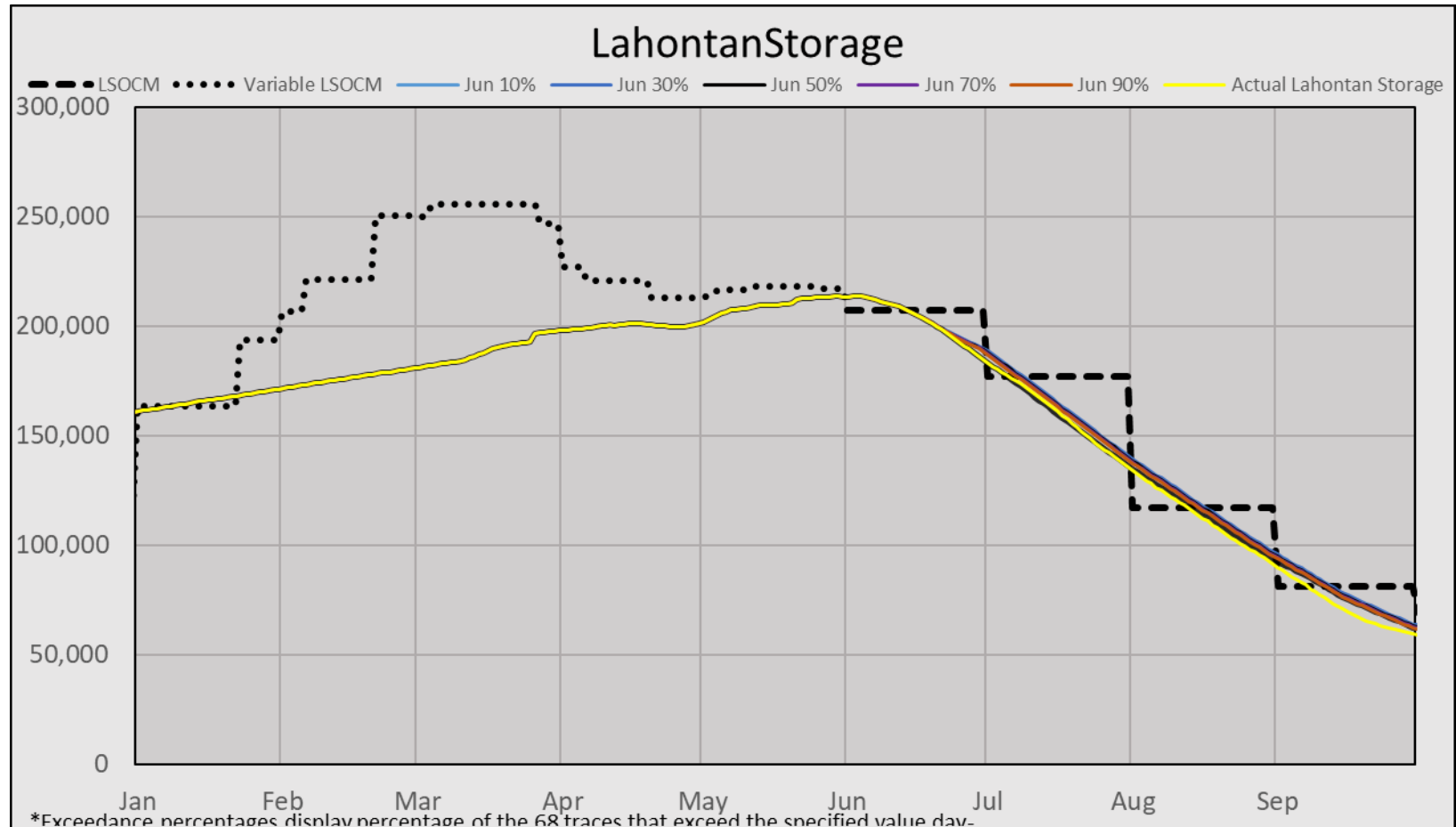
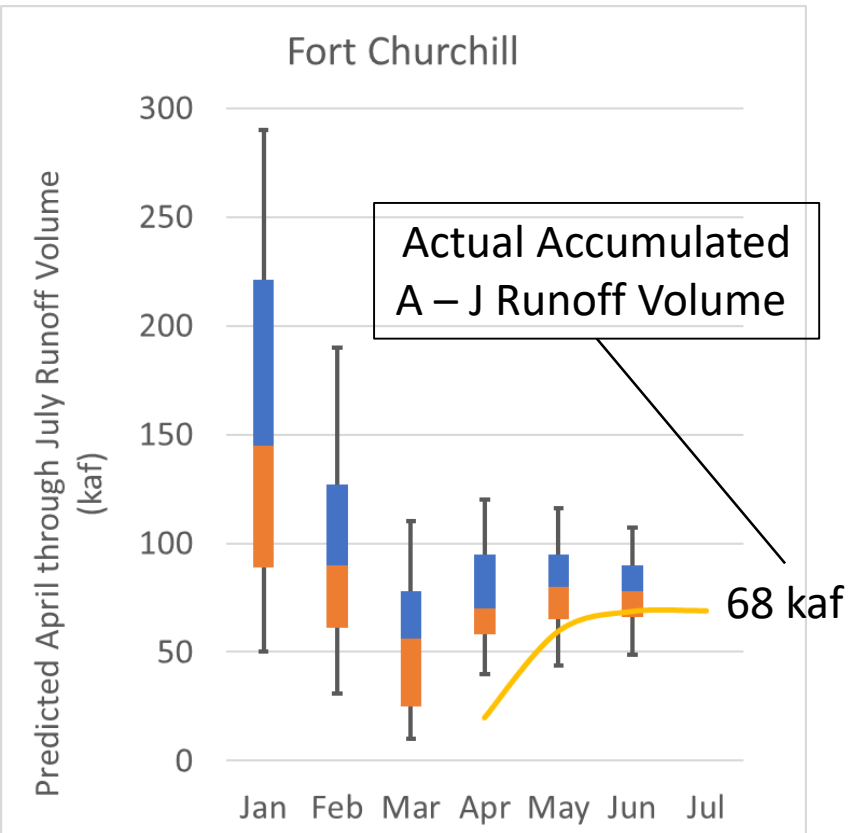
NRCS A – J Forecasted Volume

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Lahontan Predicted Storage: Where Did We End?

NRCS A – J Forecasted Volume



Where was Lahontan storage in the forecast spread?	Jan	Feb	Mar	Apr	May	Jun	Average
Short Term (within the month the forecast was produced)	50%	50%	90%	10%	90%	50%	56%
On July 31 st	70%	50%	30%	50%	90%	90%	64%



Summary

- Short Term Forecast Basis
 - Actual Lahontan Storage fell around 56% Exceedance of Lahontan Storage Predicted Range
- Long Term Forecast Basis
 - Actual Lahontan Storage fell around 64% Exceedance of Predicted Lahontan Storage Range

Take-Away Messages

- Important to look at the whole range of the forecasts for operations
- Forecasting is difficult
- Thank you NRCS, RFC, NWS, and USGS!





Comments or Questions?

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