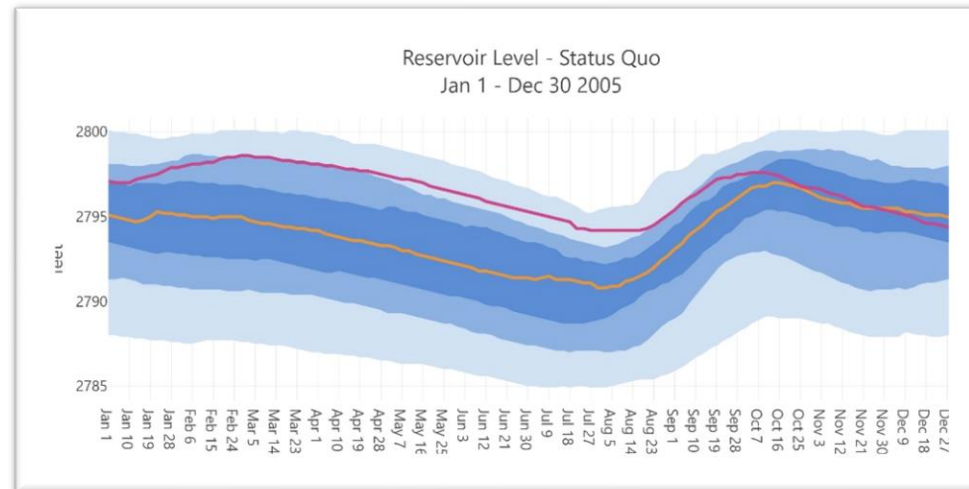
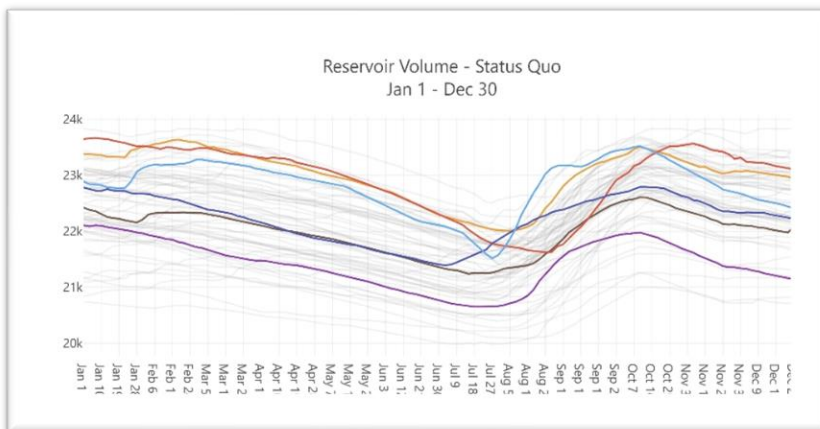
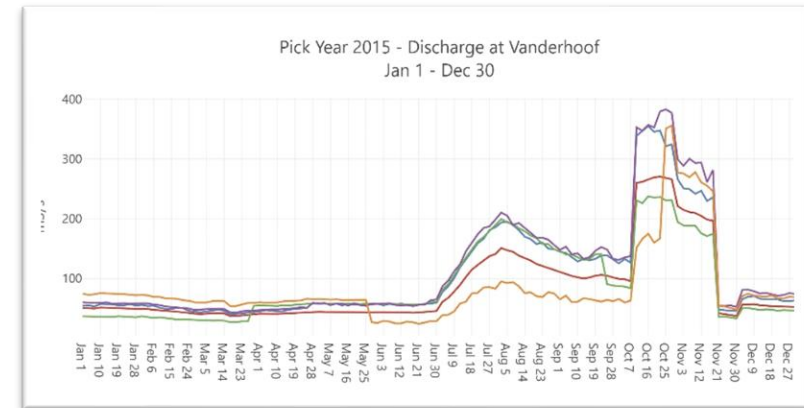
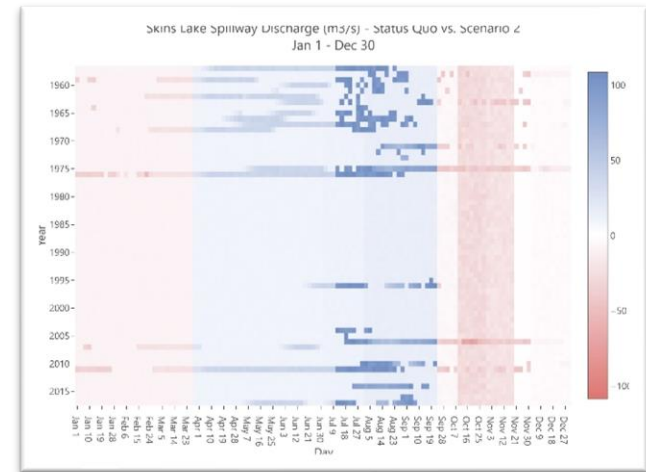


# HydroViz

A web-based tool for exploring outputs from hydrological modelling for the Nechako Reservoir and downstream.



# How it helps

- Visualizing data is helpful, but it misses personal values
- What's more helpful, is when we can add additional information **that matters to you**
- The tool allows you to see for yourself the implications of alternatives
- Facilitates conversation about the areas and times that truly matter
- It's fast
- It's always available
- It's universal
- Easy to use

# Current Features

- Contains 60 years of daily conditions under each of the alternatives (1957-2017)
- Map with key locations
- Four chart types that allow comparisons of any combination of alternatives
- Ability to add personal thresholds, calculate performance automatically
- Provides stats and enables year-by-year analyses
- Easily updated and configured for new alternatives
- Focused date ranges

# Chart Types

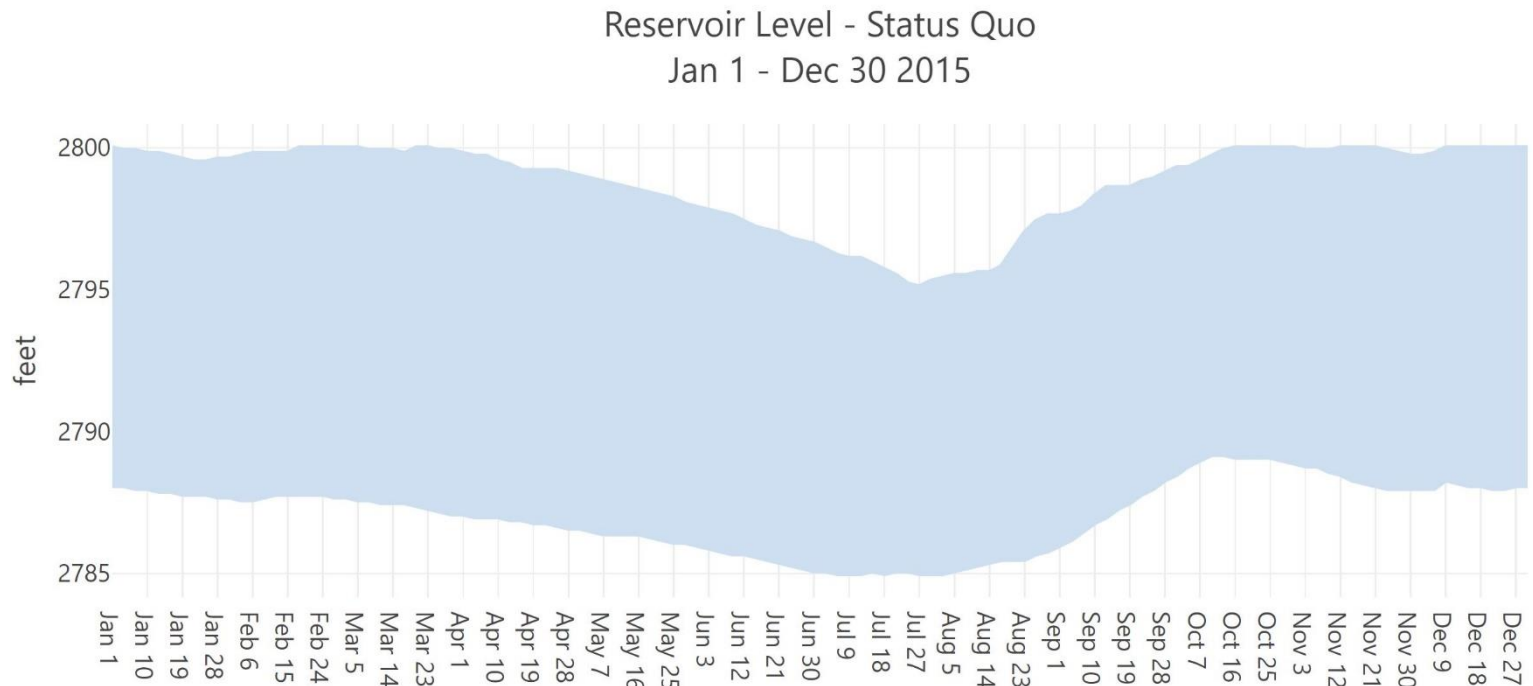
- Single Alternative
- Multiple Alternative
- Period of Record
- Spaghetti

# Single Alternative Chart

- For a specific alternative (scenario) evaluate a specific year relative to its historic statistics.
- Statistics include:
  - Min Max
  - 10<sup>th</sup> % - 90<sup>th</sup> %
  - 25<sup>th</sup> % - 75<sup>th</sup> %
  - Median
- Example on next slides...

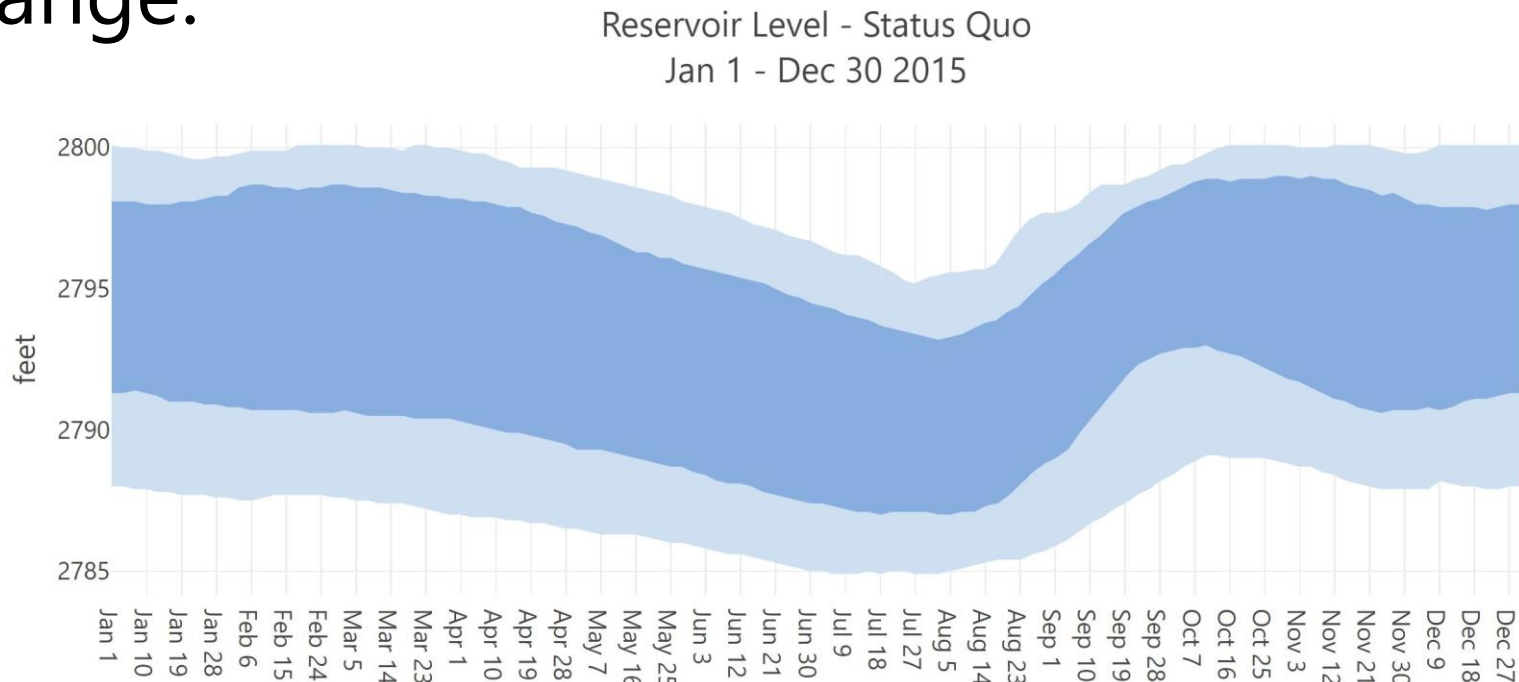
# Min Max

This range represents the minimum and maximum values for each day of the year from historical dataset (1957 - 2017).



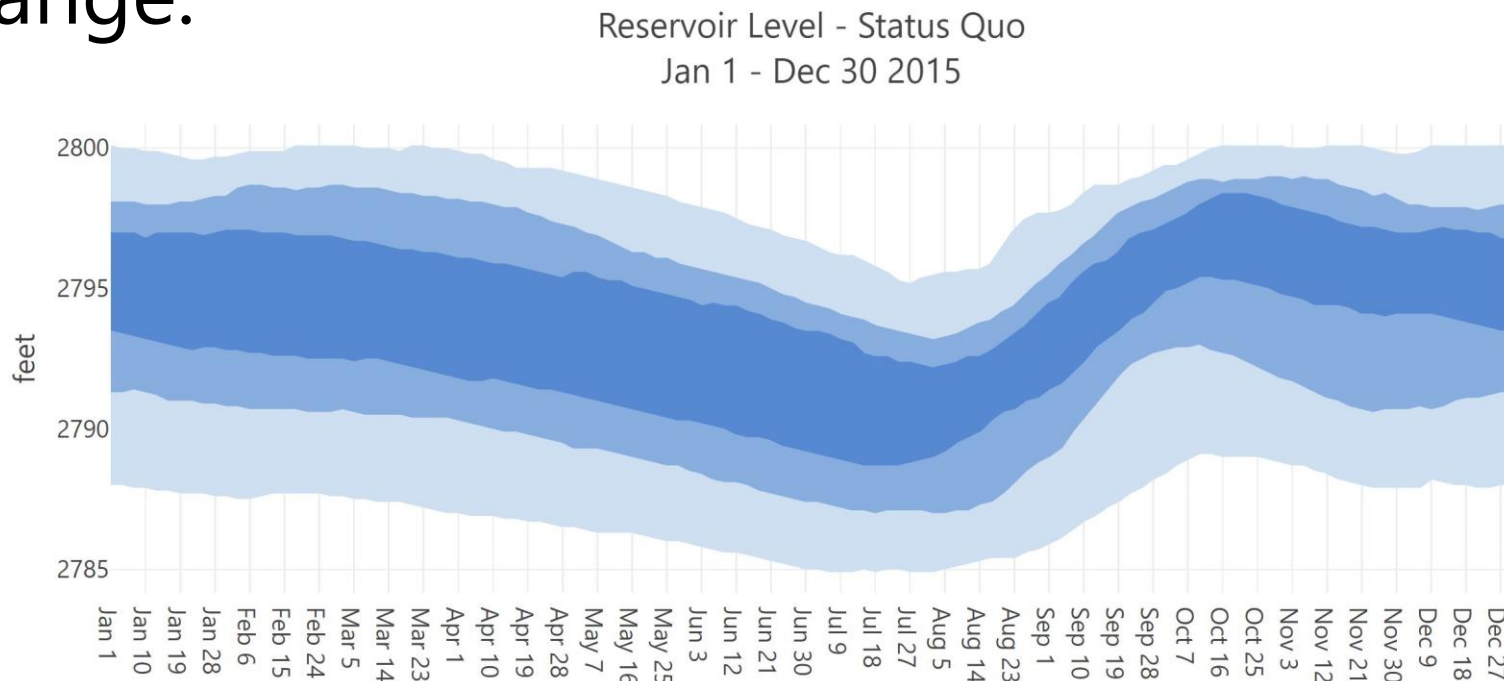
# 10<sup>th</sup> % - 90<sup>th</sup> %

This range represents all the values above the 10th percentile, and below the 90th percentile. 80% of all records fall within this range.



# 25<sup>th</sup> % - 75<sup>th</sup> %

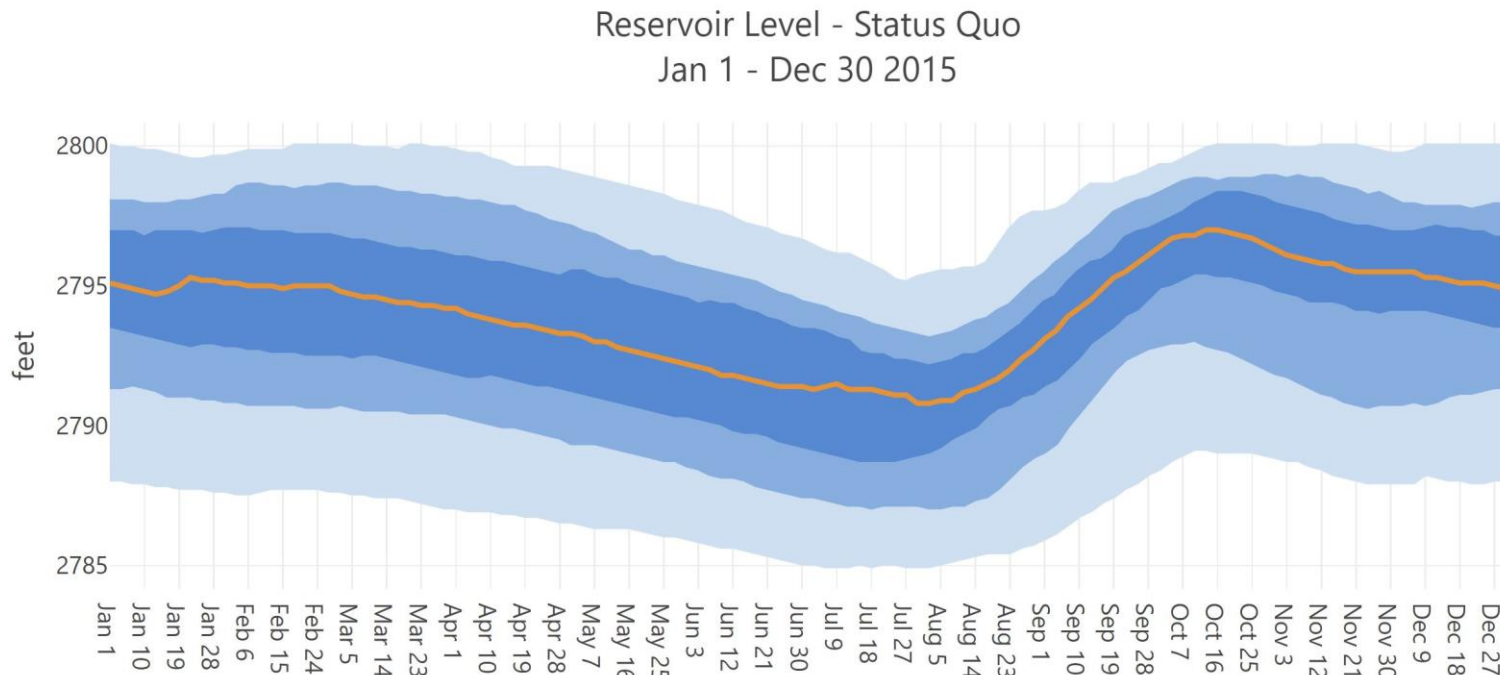
This range represents all the values above the 25th percentile, and below the 75th percentile. 50% of all records fall within this range.





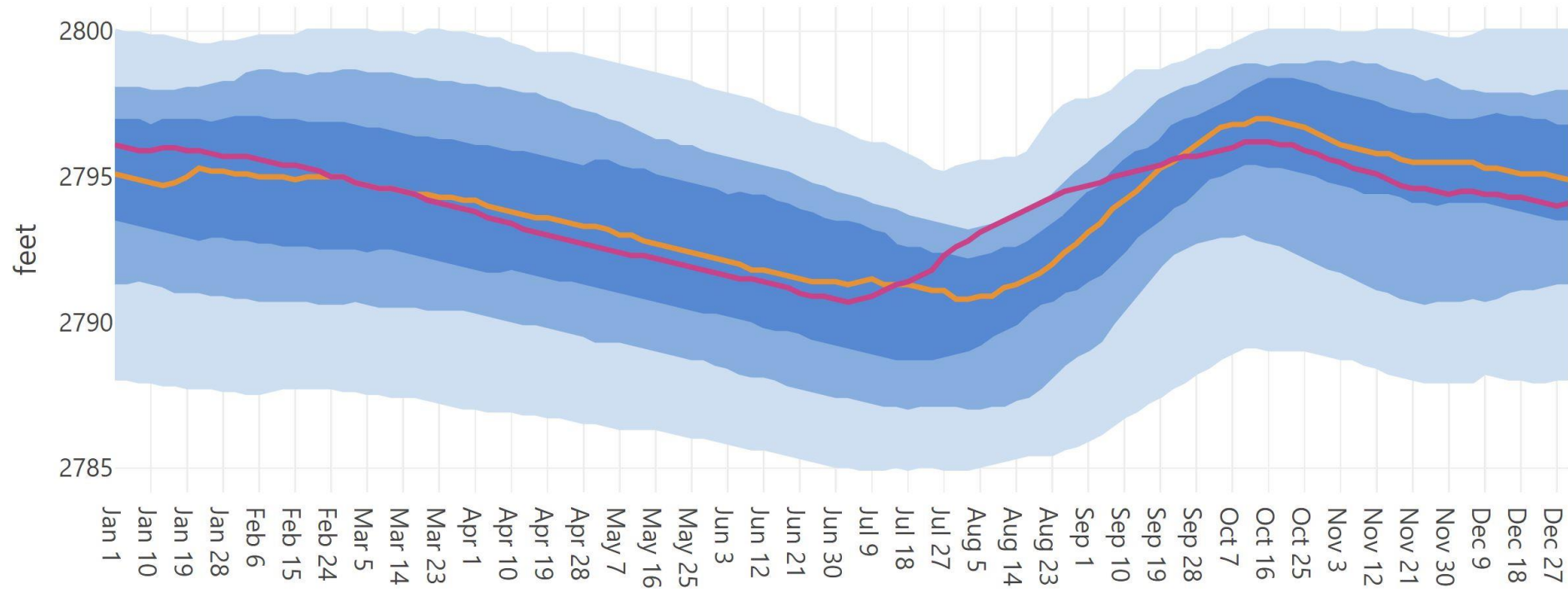
# Median

This line represents the middle point of all recorded values on a given day. 50% of records are above this value, 50% are below.



# Actual Year - 2015

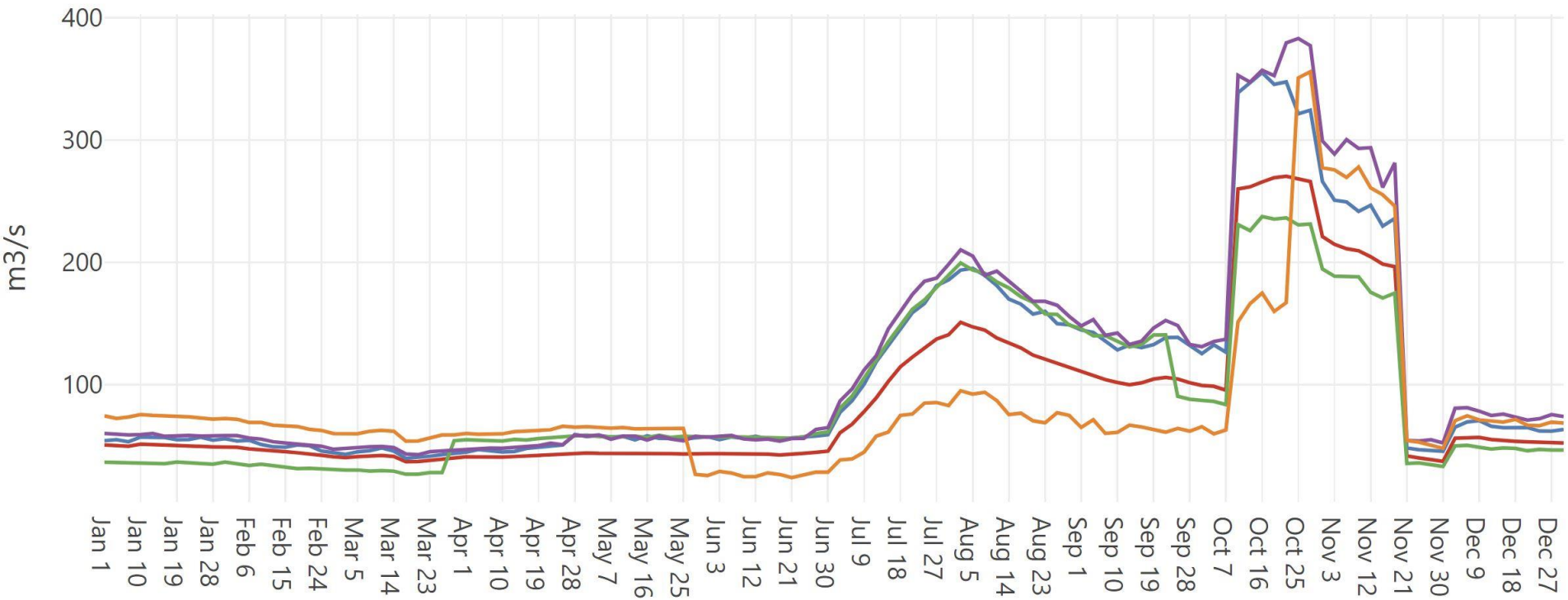
Reservoir Level - Status Quo  
Jan 1 - Dec 30 2015



# Multiple Alternatives

Display all alternatives at the same time. Pick a specific year to evaluate, or a historical statistic

Pick Year 2015 - Discharge at Vanderhoof  
Jan 1 - Dec 30

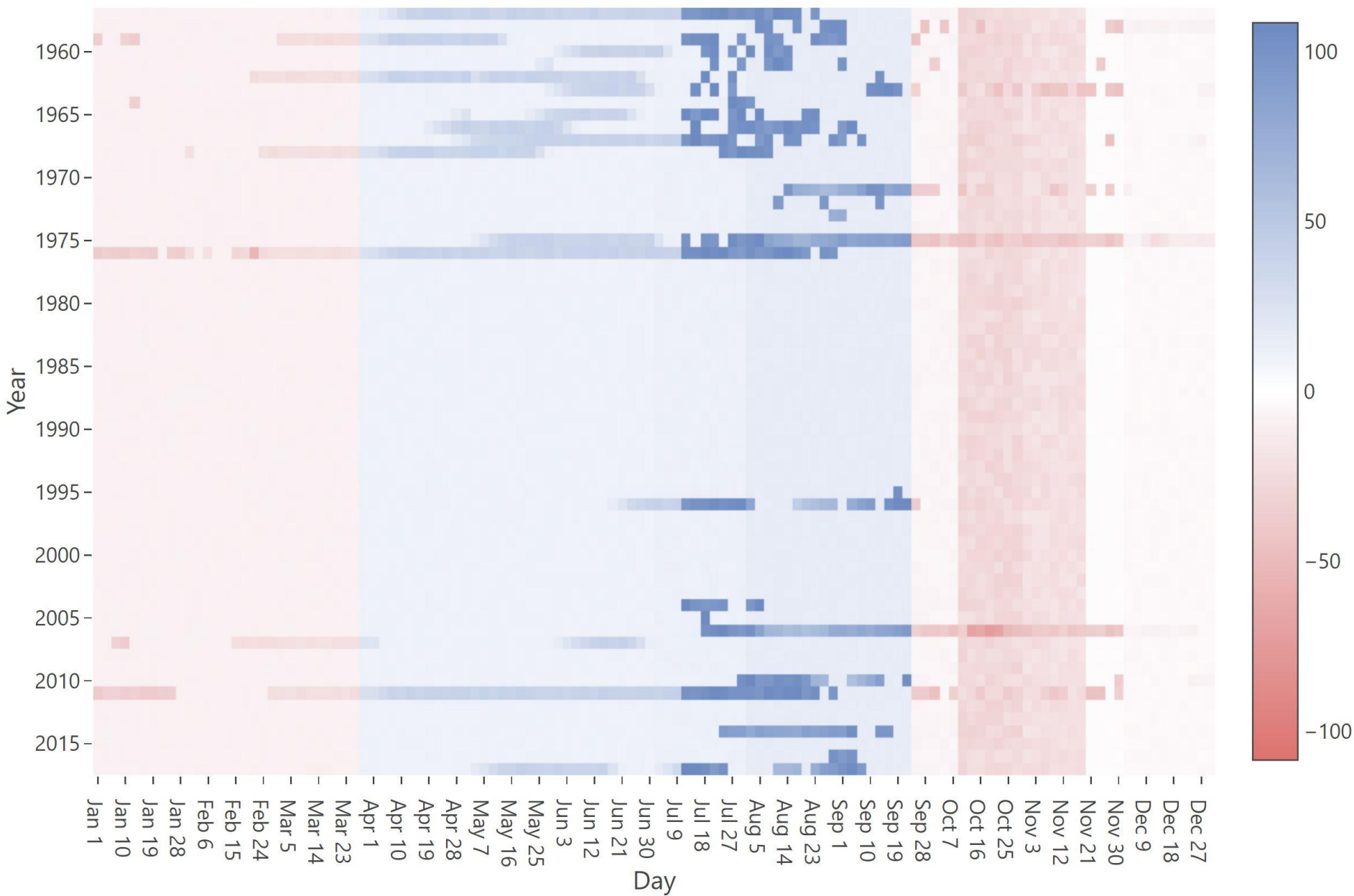


# Period of Record

Compare two alternatives to see the magnitude of change between the base and the compared alternative.

# Skins Lake Spillway Discharge (m3/s) - Status Quo vs. Scenario 2

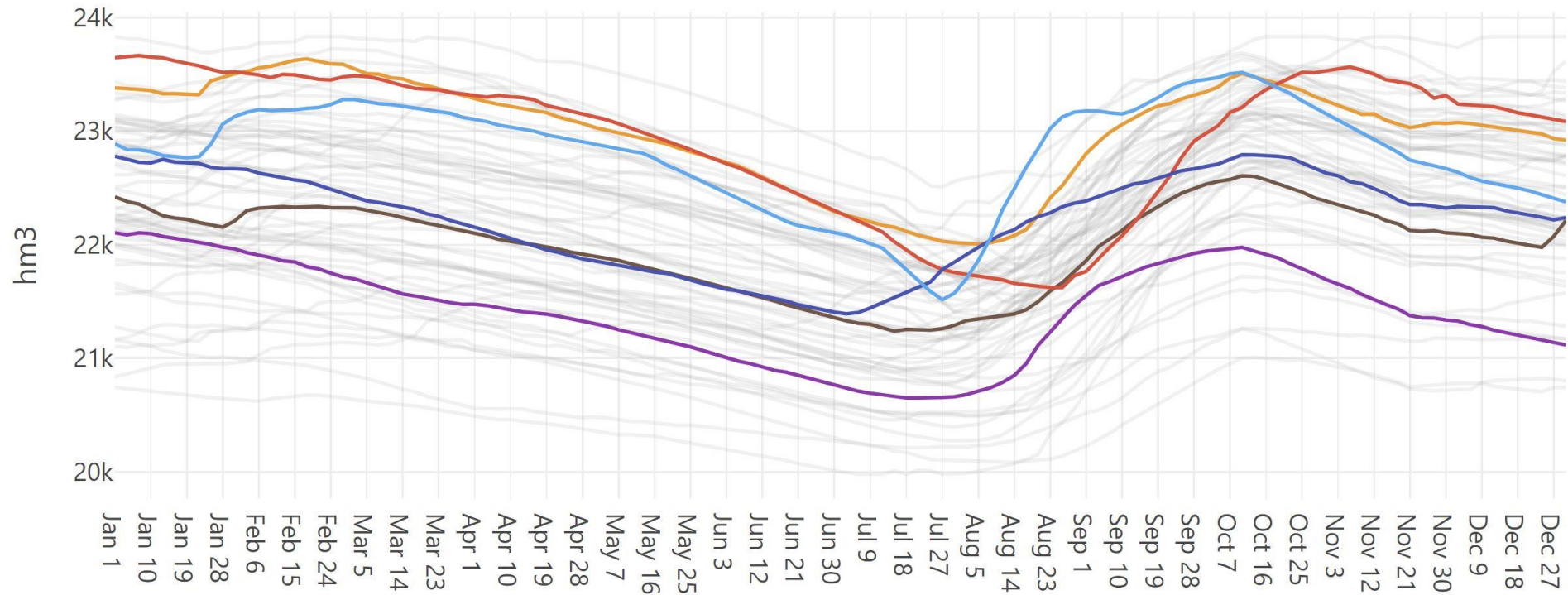
Jan 1 - Dec 30



# Spaghetti

Displays every year of historical data for a specific alternative. You can turn specific years on and off.

## Reservoir Volume - Status Quo Jan 1 - Dec 30





# Thresholds – What Matters to You

- On any chart, we can add our own “thresholds” which represent an important level or range we are trying to achieve or avoid.
- Thresholds can be:
  - A single value (e.g. 300 m<sup>3</sup>/s)
  - A range of values (e.g. 500m<sup>3</sup>/s – 250m<sup>3</sup>/s)
  - Assign different values for specific dates
    - January – May = 400 m<sup>3</sup>/s
    - June – September = 300 m<sup>3</sup>/s
    - October – December = 350 m<sup>3</sup>/s
- Open tool for example...