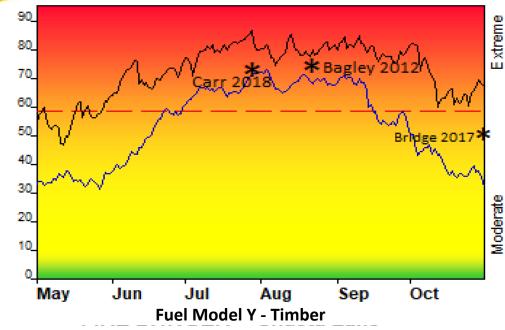


Energy Release Component

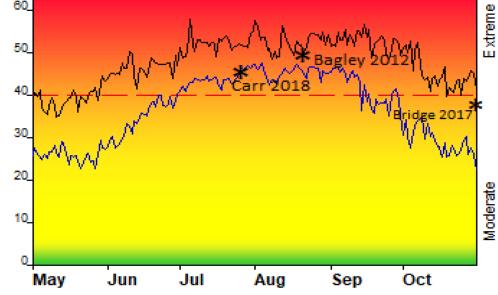
Burning Index

## FIRE DANGER -- Shasta Lake

Maximum, Average, and Critical Value, based on 15 years of data



Maximum, Average, and Critical Value, based on 15 years of data



## Fire Danger Rating Area: s-241 Fire Weather Zone: 213

- All analyses use NFDRS 16 Fuel Model Y (timber litter) and data from May 1<sup>st</sup>-October 31<sup>st</sup>.
- Threshold values determined using 2006-2020 data, cross walked to percentiles from 2010-2019 gap filled data.
- NFDRS Compliant RAWS: Sugarloaf (SHF) and Oak Mountain

## Fire Danger Interpretation

- Extreme Use extreme caution
- High Watch for Change
- Moderate Low Potential, maintain awareness
- Maximum Highest Daily Value 2006-2020
  - Average Shows daily average index values over 15 years, peaks in this line indicate the peak of fire season running from mid-June through late September in an average year.
- 54<sup>th</sup> Percentile ERC (dashed line upper left) 46% of days from 2010-2019 had ERC above 58
- 53<sup>rd</sup> Percentile BI (dashed line lower left) 47% of days from 2010-2019 had BI above 40

## Remember What Fire Danger Tells You:

- ✓ Energy Release Component (ERC) Wind is NOT part of ERC calculation (Upper Left)
  - Represents overall seasonal trend driven by heavy dead & live fuel moistures.
- Burning Index (BI) Wind <u>IS</u> part of BI calculation (Lower Left)
  - Represents day-to-day fluctuations driven by fine dead moisture and wind
- ✓ Fire danger is general Look for local variations in fuels, topography & weather
- Listen to weather forecasts especially wind!



- Past Experience:
  - Human starts along the Interstate 5 corridor, near communities, and from recreation (Shasta Lake) comprise majority of starts in this area nearly 70% of starts over period analyzed were human caused.
  - Alignment of wind & slope contributes to large fire growth, particularly where canyons enhance wind flow, such as along I-5 / Sacramento River Canyon. North to northeast winds in late summer and fall can be very strong and result in large fire growth. Local RAWS do not always capture these offshore winds.
- Bagley fire (2012) resulted from lightning in very rugged, inaccessible north central portion of this area, grew into long campaign fire, started at elevated ERC and BI levels. Carr Fire (2018), human start along Hwy 299 in Whiskeytown during period of elevated ERC, significant loss of life and property. Bridge fire (2017), human start along I-5 demonstrates late season potential in this area and fire potential at lower end of thresholds.
- Problem fires (> 5 ac) become common at these thresholds, problem fire frequency increases beyond these values:

Responsible Agency: USFS Shasta-Trinity NF Updated 6/2/2021

NFDRS	ERC > 58	BI > 40	
Weather	Temp > 90F	Min Rh < 23%	Rh Recovery < 61%

