

# Sacramento River Temperature Task Group Meeting

August 25, 2016 -- 1:00 pm

Conference Line: 877-718-6527

Pass code: 1954134

## Agenda

1. Introductions
2. Fishery update
3. Hydrology & Operations update (information is available on CVO's web-page)
  - a. Mean Daily Water Temperatures
  - b. Sac River Gage temp plot and air temp plot
  - c. 7DADM Tracking
  - d. Lake Shasta Isothermobaths Plot
  - e. Lake Shasta Current TCD Configuration
4. Aug Temperature studies
  - a. Latest model run from Aug 22 Shasta profile
5. Trinity Update
  - a. NCAO update preventative flows
6. Next meeting -- Sep 22, 2016

DATE	Mean Daily Water Temperatures (°F)													Mean Daily Release (CFS)			Mean Daily Air Temperatures (°F)			
	TCD <sup>1</sup>	SHD	SPP <sup>1</sup>	KWK	SAC	CCR	BSF <sup>2</sup>	JLF	BND	RDB	IGO	LWS	----- <sup>3</sup>	Shasta Generation	Spring Creek P.P.	Keswick Total	RDD	BSF	RDB	LWS
Jul	50.6	49.8	54.7	51.6	52.2	52.8	54.7	56.2	56.9	58.9	59.0	50.9	-	8681	1039	9937	82.7	78.1	78.2	72.5
08/01	50.9	50.2	56.1	52.0	52.6	53.1	54.8	56.2	56.9	58.8	58.4	54.0	-	9008	1019	10189	82.5	77.3	77.1	75.9
08/02	51.0	50.2	56.2	52.1	52.6	53.1	54.7	56.1	56.7	58.7	58.3	53.8	-	8975	944	10190	82.0	76.9	77.7	73.1
08/03	51.0	50.3	56.2	52.1	52.6	53.2	54.7	56.2	56.8	58.7	58.4	53.8	-	9065	790	10193	84.0	81.5	81.9	73.8
08/04	51.1	50.3	56.3	52.0	52.5	53.1	54.7	56.2	56.9	58.8	58.2	54.1	-	8937	767	10187	82.5	77.6	76.8	74.3
08/05	51.3	50.6	56.4	52.0	52.5	53.0	54.7	56.1	56.7	58.6	58.2	53.9	-	9250	709	10189	77.5	72.3	70.5	72.5
08/06	51.2	50.6	56.4	52.2	52.7	53.2	54.8	56.0	56.6	58.3	58.1	54.2	-	9070	712	10190	78.0	73.5	74.0	70.8
08/07	51.3	50.6	56.5	52.2	52.7	53.3	55.0	56.2	56.8	58.6	58.1	54.2	-	8876	943	10156	78.5	74.6	75.3	68.6
08/08	51.5	50.6	56.5	52.2	52.8	53.3	55.0	56.2	56.8	58.5	58.2	54.5	-	9138	789	10071	79.0	75.0	75.3	69.0
08/09	51.4	50.6	56.6	52.6	53.1	53.7	55.4	56.6	57.1	58.9	58.4	54.9	-	9175	814	10083	85.5	77.6	78.4	70.2
08/10	51.0	50.2	56.6	52.3	52.9	53.4	55.3	56.5	57.1	59.0	58.4	55.2	-	9158	740	9963	81.5	76.2	76.3	72.5
08/11	51.4	50.4	56.7	52.0	52.6	53.2	55.0	56.3	56.9	58.8	58.4	55.4	-	8818	634	10048	85.0	78.7	78.0	74.8
08/12	51.2	50.4	56.6	52.3	52.8	53.3	55.0	56.3	56.9	58.8	58.7	55.4	-	9132	676	10187	85.0	79.0	79.0	76.2
08/13	50.9	50.2	56.8	52.1	52.7	53.4	55.2	56.4	57.0	58.8	58.6	55.5	-	9505	792	10188	85.5	79.3	79.7	76.5
08/14	51.0	50.1	56.9	52.0	52.6	53.1	54.9	56.2	56.8	58.7	58.5	55.6	-	8892	878	10159	84.0	78.5	80.1	75.2
08/15	51.1	50.2	56.9	52.1	52.6	53.2	54.8	56.1	56.6	58.5	58.6	56.0	-	8472	941	10074	86.5	79.5	80.6	76.2
08/16	51.4	50.4	57.0	52.1	52.7	53.3	55.1	56.3	56.8	58.6	58.5	55.9	-	9157	790	10137	86.5	79.8	79.3	77.2
08/17	50.8	50.0	56.9	52.3	52.9	53.4	55.3	56.5	57.1	59.0	59.0	56.4	-	9084	789	10159	↑ 87.5	80.3	80.9	79.8
08/18	50.9	50.0	56.8	52.2	52.9	53.5	55.3	56.7	57.3	59.3	59.1	56.6	-	8942	1100	10188	88.5	80.8	82.5	80.5
08/19	50.5	49.6	56.9	52.0	52.6	53.2	55.1	56.5	57.1	59.0	59.0	56.5	-	9026	791	10187	86.0	79.7	79.4	79.5
08/20	50.5	49.6	57.0	51.6	52.3	52.9	54.7	56.0	56.7	58.5	58.9	56.8	-	8560	1104	10137	86.0	79.5	78.9	79.6
08/21	50.4	49.5	57.0	51.6	52.1	52.8	54.5	55.7	56.3	58.1	58.9	56.7	-	9050	894	10138	84.0	78.0	77.4	77.7
08/22	50.6	49.6	57.1	51.6	52.1	52.7	54.4	55.7	56.2	58.0	58.8	56.5	-	8699	1074	10170	82.5	77.9	77.2	76.8
08/23	50.5	49.6	57.1	51.9	52.4	52.9	54.5	55.7	56.2	57.9	58.6	56.2	-	8367	1407	10140	79.0	75.1	74.2	72.4
08/24																				
08/25																				
08/26																				
08/27																				
08/28																				
08/29																				
08/30																				
08/31																				
Aug	51.0	50.2	56.7	52.1	52.6	53.2	54.9	56.2	56.8	58.6	58.5	55.3	-	8972	874	10144	83.3	77.8	77.8	74.9

Total CFS	206356	20097	233323
Total AF	409299	39862	462787

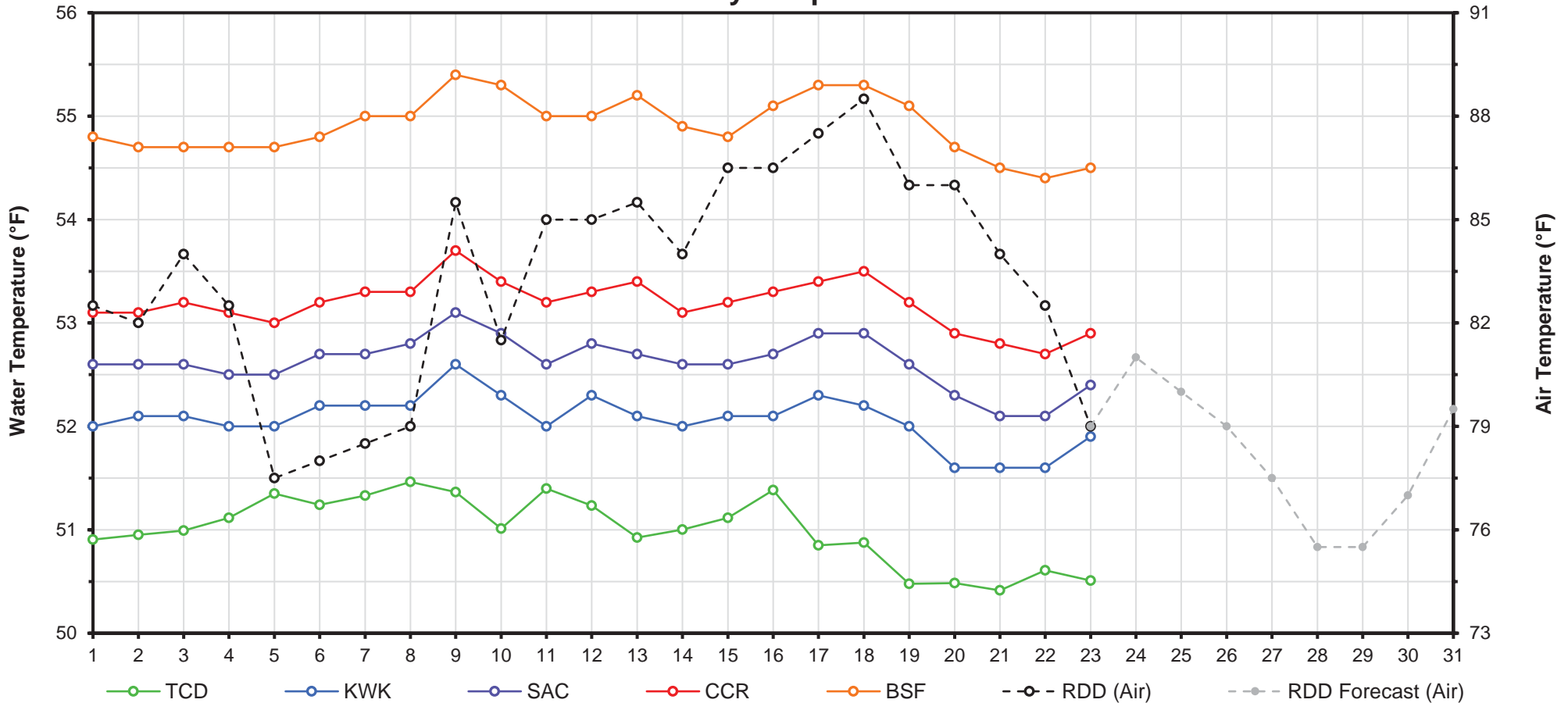
Legend

Notes

- ? = 1-9 hours of data missing (Average includes estimations)
- ! = 10 or more hours of data missing (Average not calculated)
- # = Station out of service
- ↑ = Record high air temperature
- ↓ = Record low air temperature
- = Monthly Averages

- <sup>1</sup> Temperatures are weighted averages based on individual penstock flow and temperature
- Highlighted cells in the TCD column indicate a TCD change was made on that day
- <sup>2</sup> Current control point (see page 3 for more details)
- <sup>3</sup> Column not used this month

# Mean Daily Temperatures



Station Details			
Code	Body of Water	Location <sup>1</sup>	CDEC Link
TCD	N/A	Shasta Power Plant	N/A
SHD	Sacramento River	0.3 miles downstream of Shasta Power Plant	<a href="#">Click Here</a>
SPP	N/A	Spring Creek Power Plant	N/A
KWK	Sacramento River	0.8 miles downstream of Keswick Dam	<a href="#">Click Here</a>
SAC	Sacramento River	4.8 miles downstream of Keswick Dam	<a href="#">Click Here</a>
CCR	Sacramento River	9.7 miles downstream of Keswick Dam	<a href="#">Click Here</a>
BSF	Sacramento River	25 miles downstream of Keswick Dam	<a href="#">Click Here</a>
JLF	Sacramento River	34 miles downstream of Keswick Dam	<a href="#">Click Here</a>
BND	Sacramento River	41 miles downstream of Keswick Dam	<a href="#">Click Here</a>
RDB	Sacramento River	58 miles downstream of Keswick Dam	<a href="#">Click Here</a>
IGO	Clear Creek	7.3 miles downstream of Whiskeytown Dam	<a href="#">Click Here</a>
LWS	Trinity River	1.1 miles downstream of Lewiston Dam	<a href="#">Click Here</a>
DGC <sup>2</sup>	Trinity River	19 miles downstream of Lewiston Dam	<a href="#">Click Here</a>
NFH <sup>3</sup>	Trinity River	38 miles downstream of Lewiston Dam	<a href="#">Click Here</a>

Temperature Control Point		
Point	Temp. (°F)	Date Range
<b>BSF</b>	<b>56.0</b>	<b>6/17 - Current</b>

## Notes

<sup>1</sup> Distances are approximate

<sup>2</sup> DGC is only reported in September

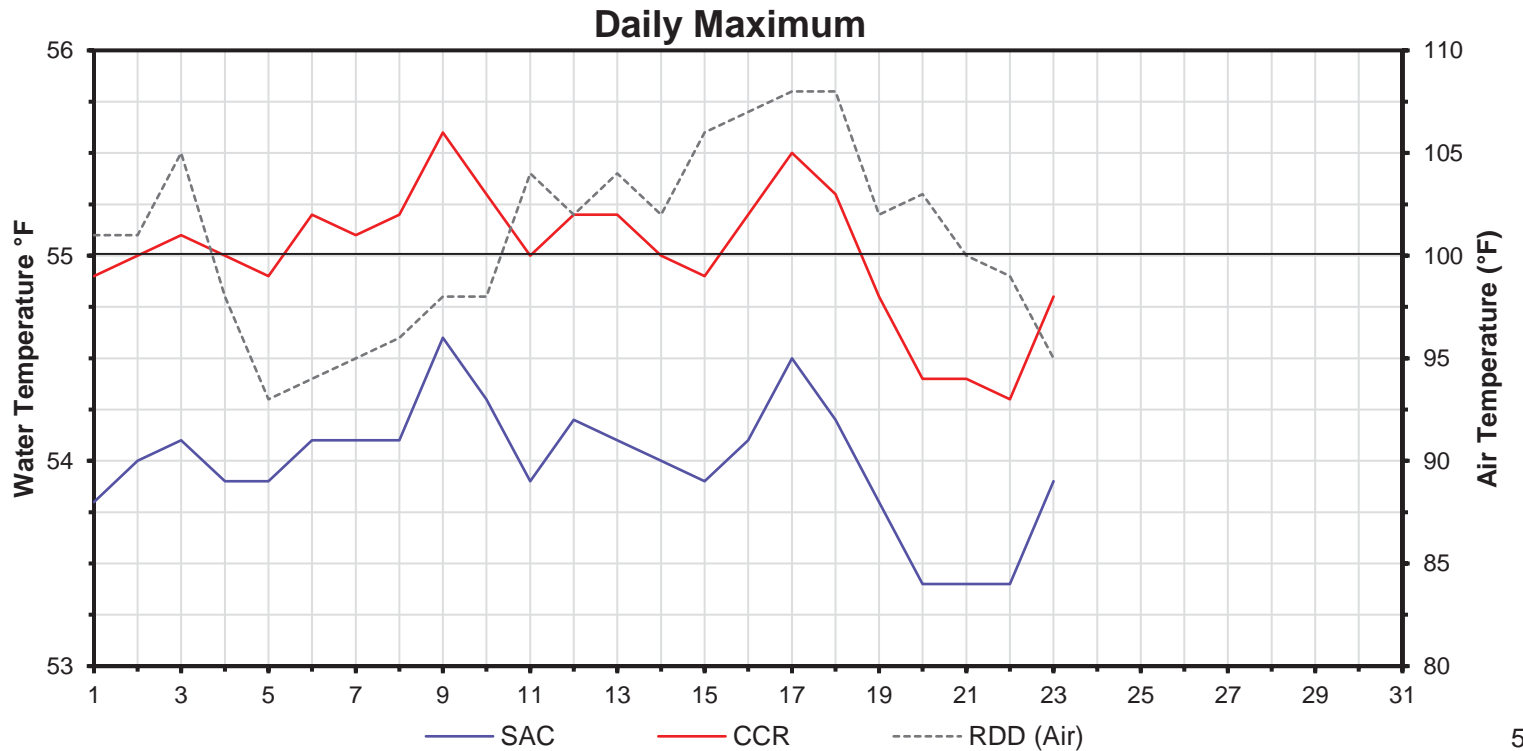
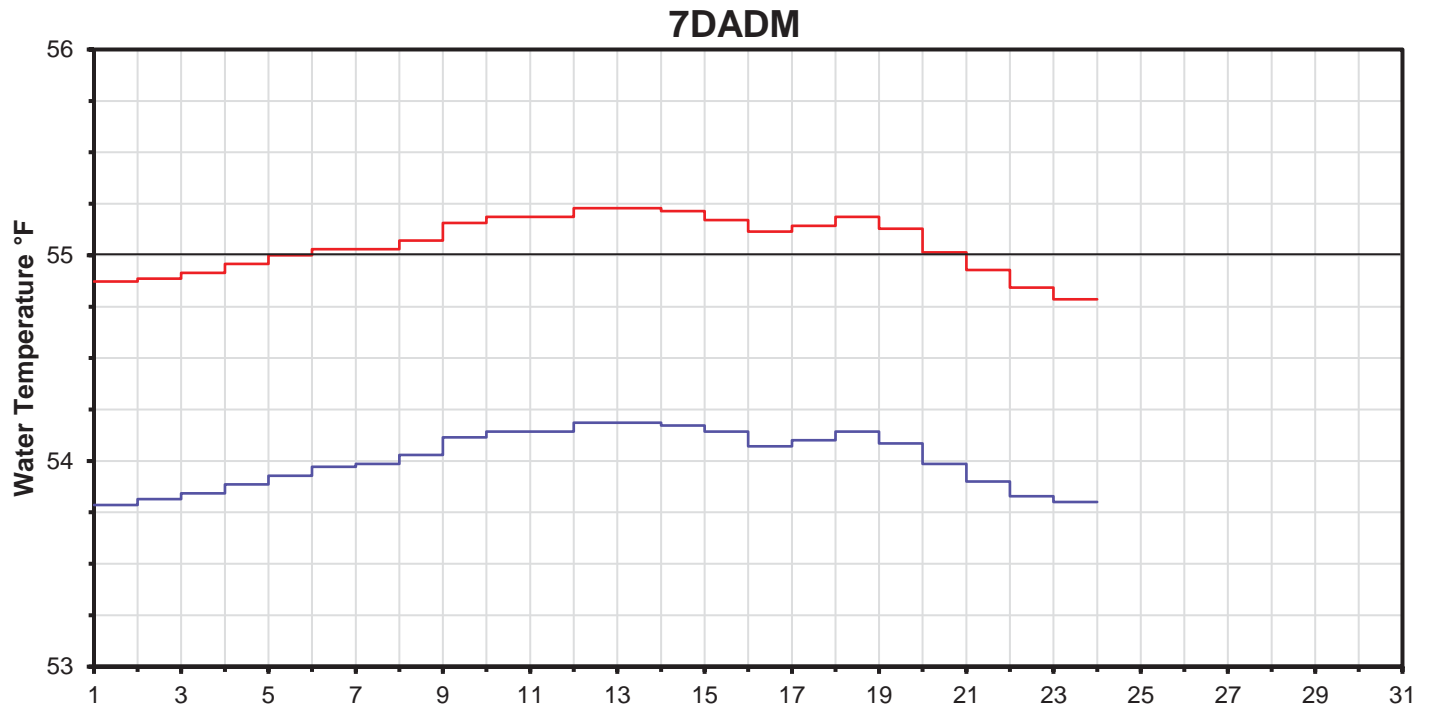
<sup>3</sup> NFH is only reported in October, November and December

DATE	Daily Max		7DADM <sup>1</sup>		DAT <sup>2</sup>
	SAC	CCR	SAC	CCR	BSF
08/01	53.8	54.9	53.8	54.9	54.8
08/02	54.0	55.0	53.8	54.9	54.7
08/03	54.1	55.1	53.8	54.9	54.7
08/04	53.9	55.0	53.9	55.0	54.7
08/05	53.9	54.9	53.9	55.0	54.7
08/06	54.1	55.2	54.0	55.0	54.8
08/07	54.1	55.1	54.0	55.0	55.0
08/08	54.1	55.2	54.0	55.1	55.0
08/09	54.6	55.6	54.1	55.2	55.4
08/10	54.3	55.3	54.1	55.2	55.3
08/11	53.9	55.0	54.1	55.2	55.0
08/12	54.2	55.2	54.2	55.2	55.0
08/13	54.1	55.2	54.2	55.2	55.2
08/14	54.0	55.0	54.2	55.2	54.9
08/15	53.9	54.9	54.1	55.2	54.8
08/16	54.1	55.2	54.1	55.1	55.1
08/17	54.5	55.5	54.1	55.1	55.3
08/18	54.2	55.3	54.1	55.2	55.3
08/19	53.8	54.8	54.1	55.1	55.1
08/20	53.4	54.4	54.0	55.0	54.7
08/21	53.4	54.4	53.9	54.9	54.5
08/22	53.4	54.3	53.8	54.8	54.4
08/23	53.9	54.8	53.8	54.8	54.5
08/24					
08/25					
08/26					
08/27					
08/28					
08/29					
08/30					
08/31					

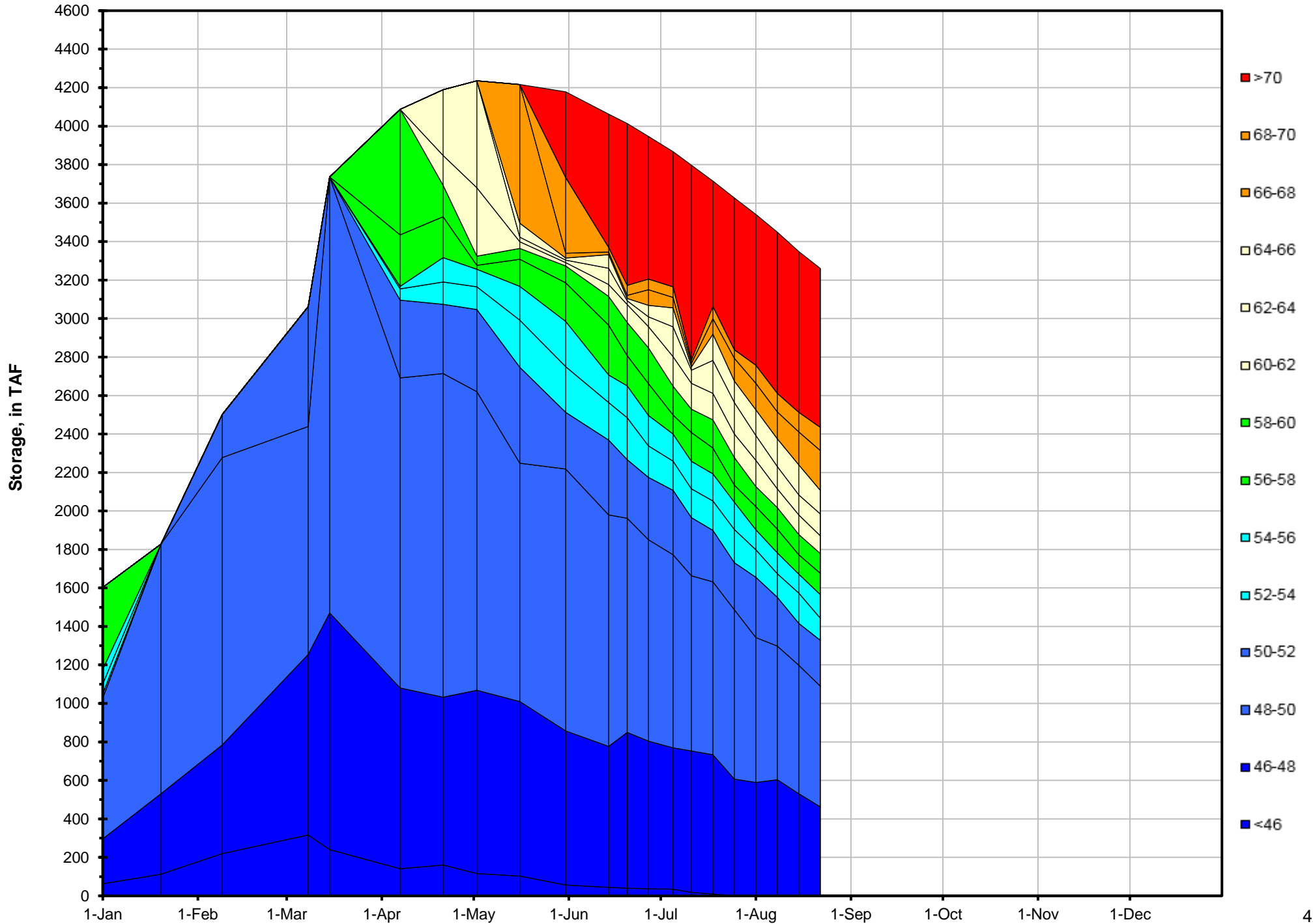
**Notes**

<sup>1</sup> 7DADM = 7-Day Average  
Daily Maximum

<sup>2</sup> DAT = Daily Average  
Temperature



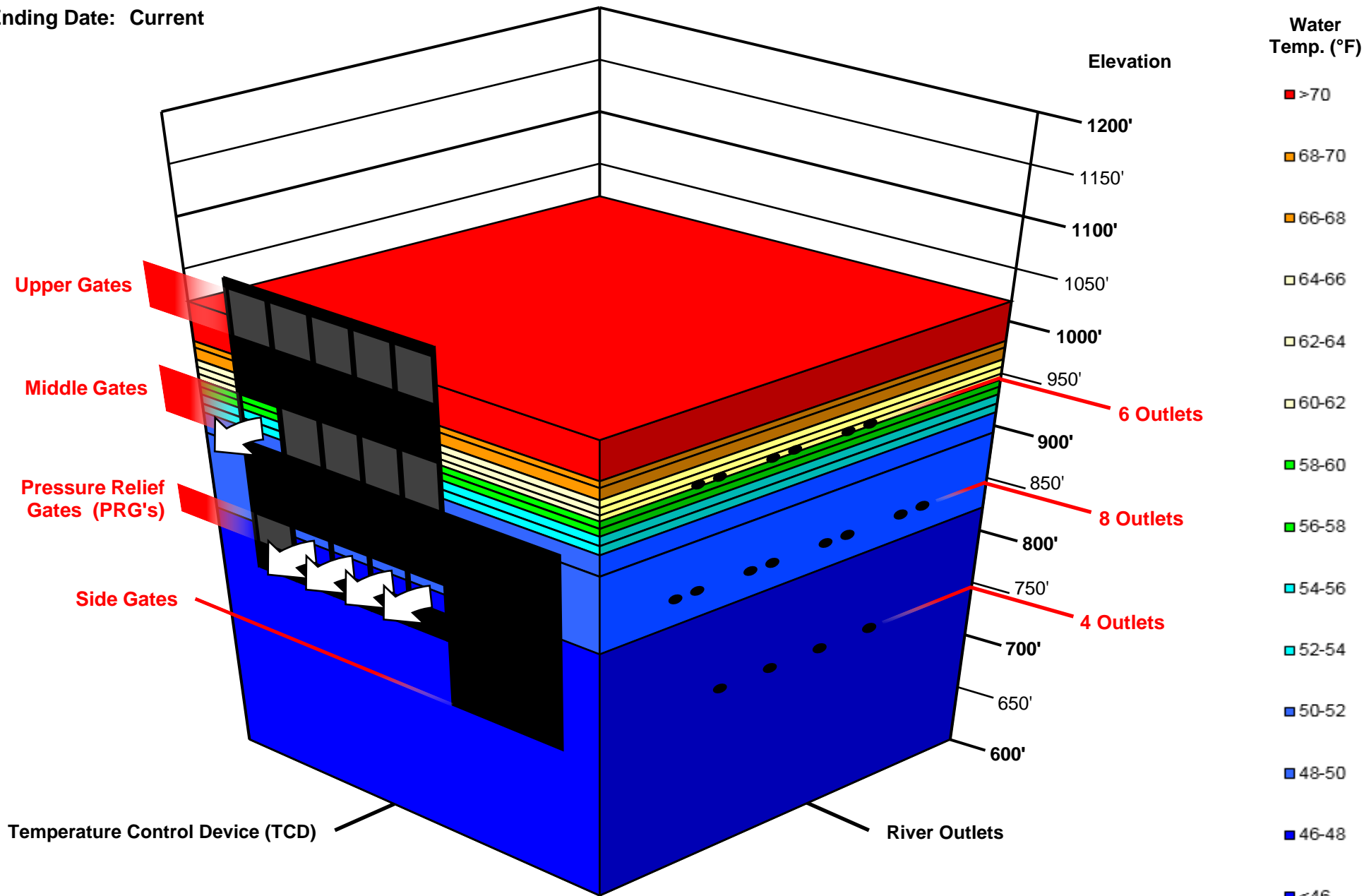
# Lake Shasta Isothermalbaths - 2016 (Water Temperature, in °F)



# Shasta TCD Configuration

Starting Date: 08/19/2016

Ending Date: Current



Temperature Control Device (TCD)

River Outlets

Arrows indicate open Gate or Outlet (i.e. Water flowing from this location)

### Sacramento River Modeled Temperature 2016 Aug 90%- Hydrology Aug 22 Profile

