Sacramento River Temperature Task Group (SRTTG) Call
Thursday, September 3, 2015 | 1:00 p.m. – 1:30 p.m.

MEETING SUMMARY

Participants:

- Mike Berry, DWR
- Matt Brown, FWS
- Charles Chamberlain, USBR
- Joe Pisciotto, CDFW
- Tom Patton, WAPA
- Dan Kratville, CDFW
- Ken Kundargi, CDFW
- Duane Linander, CDFW
- Diane Riddle, SWRCB
- John Rueth, CDFW
- Jim Smith, FWS
- Brycen Swart, NMFS
- Thuy Washburn, USBR (Facilitator)
- Garwin Yip, NMFS

Note-taking:

- Gia Brazil, Kearns & West

Action Items:

- Thuy Washburn to ensure future meeting agendas and materials are circulated to both email lists.
- Reclamation to release 225 cfs from Whiskeytown Dam into Clear Creek for mid-September through October and hold off on deciding about November.
- Reclamation to consider changing to lower gates at Whiskeytown Dam at the same time as releasing the 200 cfs.
- Reclamation to track which water is which and the percentage of originally intended water transfers that will occur.

Key Discussion Topics with Summary of Outcomes and Agreements:

Fisheries Update

September 4 is the last day for the adult carcass survey. There is no new information on the adult carcass survey or the aerial redds survey since the previous SRTTG meeting on August 27.

More winter-run were observed in the RBDD RST monitoring last week. This number will continue to increase, as expected, but it is too early to know if it will be more or less than last year.

The annual estimate for spring run in Clear Creek is that about 74% of Chinook salmon are downstream of the Igo temperature compliance point. This is not good because it means they will not be as protected by temperature control as they could be above Igo.

Last weekend's gate change at Whiskeytown resulted in a change of 1.1°F , which could be a good sign that next date change might cool temperatures down a bit.

The FWS Livingston Stone National Fish Hatchery presented no new information. Temperatures are looking good (below 57 °F) and inventory is starting.

Shasta TCD Curtain Update

All 5 middle gates have curtains up in front of them. There will be new data in the next few days.

Operation Update

Flows are still at 7,200 cfs. Additional flows are continuing on the Trinity. Delta salinity appears to be okay.

Temperature Summary (see handout)

August monthly average:

- CCR was 56.9°F
- SAC was 56.3°F

The Shasta TCD weighted average is good at 53.5°F. With all of the middle gates closed, cooler TCD temperatures were expected (~51 to 52°F).

Shasta Snap Shot 2015 versus 2014 (see handout)

The TCD configuration for 2015 versus 2014's configuration is looking good. This time last year warmer water was already at two side gates. This year it is at the PRGs with all 5 open. Reclamation will continue to try to blend and keep the 5 PRGs open as long as possible before going to the side gates. The curtains were put on the middle gates to reduce the hot water going into the middle gates and blending with the PRGs.

Fall Flow Proposal – Update (see handout)

Reclamation looked at 3 different scenarios – base case, scenario 1, and scenario 2 – and ran each of these at 50% and 10% L3MTO. The group met on September 2 and has selected scenario 2 with a few real time adjustments. For example, in October flows are supposed to be 7,200 cfs until the 20th, but this will be adjusted if the last winter-run emerge sooner or later than this date. Also in scenario 2, the 4,250 cfs could be lower, around 4,000 cfs. The goal is to hold that flow through January.

Reclamation has been keeping Keswick releases a little higher to accommodate transfers and had a few objectives with the proposal. One is to maintain releases to prevent winter-run dewatering. October 20th is the estimated timing of the last fry emergence. Another objective is to get the flows down as quickly as possible and stabilize them through January.

There has been some talk about moving 3,000 acre-feet from the Snake Creek Pump Plant into Clear Creek until at least November. This is critically different in scenario 2 from the temperature management plan that was approved. Specifically, the management plan calls for 150 cfs in September and 175 cfs in October – January. In scenario 2, the releases are 225 cfs in September – October to 175 cfs in November – January.

The 225 cfs release from Wiskeytown Dam into Clear Creek in September would be good to set by around September 14. Normally this occurs when the water temperature criterion from 60°F to 56°F and a gate change is made at the same time. The period covered by the RPA is for September

15 – October 31, so it is no longer in effect in November (reason for decrease in November). The 50 cfs decrease is about 22% flow and may result in some dewatering of redds. This will be evaluated by location of redd depth during the surveys in September and October. This will inform when the flows should back down in case survey findings demonstrate negative impacts from 22% decrease.

Action: Reclamation to release the 225 cfs from Whiskeytown Dam into Clear Creek for mid-September through October and hold off on deciding about November.

Action: Reclamation to consider changing to lower gates at the same time as releasing the 200 cfs into Clear Creek. Then wait a day or two to see if criteria are being met before making the next change.

Information on the new fall flow proposal will be transmitted to state agencies and the State Water Board. DFW will also weigh in. There will be a request to amend the Sacramento River Temperature Management Plan, which Ron will consider.

Action: Track which water is which and the percentage of originally intended water transfers that will occur.

Next meeting

The next meeting of the SRTTG is scheduled for September 10th at 1:00 p.m.

Sacramento River Temperature Task Group Meeting

September 3, 2015
1:00 pm

Conference Line: 877-718-6527
Pass code: 1954134

Agenda

1. Introductions
2. Fishery update
3. Shasta TCD Curtain Update
4. Operation update
    a. Temperature Summary ***
    b. Shasta snap shot 2015 vs 2014***
5. Fall flow propose – Update ***
6. Next meeting

***handout

Draft 9/1/2015

Temperature and Release Summary for Shasta and Trinity - August 2015

(Updated twice a week November through April)

Day	Sacramento River Water Temperatures in Degrees F Collected from CDEC (California Data Exchange Center) except for TCD, SPP and Control Point														Mean Daily Release in CFS			Mean Daily Air Temp Degrees F			
	TCD Wt. Avg.	SHD minus TCD (Diff)	Shd	SPP Wt. Avg	Kwk	Bsf	Jlf	Bnd	Rdb	Lws	Control Point 4/1 Ccr	Igo	Sac	Dgc	Shasta Generation El 815	Spring Crk Powerplant Release	Keswick Total Release	RDD	BSF	RDB	LWS
Jul																					
Aug																					
1	53.4	(1.8)	51.6	58.6	54.8	58.5	60.4	61.2	63.0	54.5	56.8	58.6	56.1	61.1	5,313	1,330	6,824	88.0	81.8	79.6	78.8
2	53.8	(1.9)	51.9	58.6	54.8	58.3	59.8	60.8	63.1	53.7	56.0	57.8	55.5	60.1	5,472	1,330	6,828	84.5	79.7	77.8	74.4
3	52.6	(1.2)	51.4	58.7	54.5	58.0	59.7	60.4	62.0	54.2	56.3	58.6	55.8	59.4	5,693	1,358	6,837	84.0	78.2	77.3	73.1
4	53.4	(1.2)	52.2	58.7	54.8	58.0	59.3	60.1	61.9	53.4	56.0	57.8	55.8	59.6	5,187	1,565	6,835	78.5	71.5	71.0	70.6
5	55.0	(1.5)	53.5	58.8	54.5	57.5	58.8	59.5	61.2	53.2	55.7	57.8	55.3	57.6	5,313	1,562	6,836	78.0	73.8	73.5	68.3
6	54.7	(1.7)	? 53.0	58.8	55.3	57.6	58.9	59.5	61.1	53.5	56.2	58.1	55.9	57.5	5,409	1,543	6,836	82.5	76.3	76.7	69.8
7	53.9	(1.7)	52.2	58.8	56.0	58.4	60.3	60.8	62.1	53.4	57.4	58.5	#	58.7	5,397	1,516	6,834	84.5	79.2	80.5	72.1
8	53.9	(2.0)	51.9	58.8	55.8	58.9	60.9	61.1	63.3	53.0	57.4	58.2	#	57.2	5,423	1,545	6,834	81.0	74.8	75.1	68.1
9	53.2	(1.7)	51.5	58.8	55.6	58.7	60.5	61.3	63.3	52.8	57.2	58.2	#	56.6	5,333	1,279	6,858	81.5	76.2	77.1	66.0
10	52.4	(1.3)	51.1	58.8	55.3	58.7	60.2	61.0	62.8	52.5	56.8	57.8	#	56.3	5,031	1,350	6,805	80.5	75.2	75.7	66.6
11	53.4	(1.9)	51.5	58.8	54.4	58.4	59.9	60.7	62.6	52.9	56.2	58.2	55.4	57.0	5,347	1,107	6,781	80.0	75.9	74.6	69.7
12	53.5	(1.8)	51.7	58.8	54.0	57.7	59.0	59.8	62.0	53.0	55.6	58.2	55.0	57.9	5,104	1,175	6,676	77.5	72.8	73.4	68.7
13	53.4	(1.4)	52.0	58.8	54.5	57.5	59.1	59.8	61.6	53.2	56.1	58.1	55.6	58.6	5,350	1,004	6,678	78.0	73.6	74.8	68.8
14	54.1	(1.2)	52.9	58.7	54.6	57.9	59.3	60.1	61.8	53.1	55.9	57.7	55.5	58.5	6,369	1,365	6,598	76.5	74.3	73.9	66.1
15	54.0	(1.3)	52.7	58.8	55.0	57.7	59.2	59.8	61.5	53.3	56.4	58.4	56.0	57.9	5,953	1,268	6,900	88.0	76.5	79.1	68.1
16	53.5	(1.4)	52.1	58.8	55.4	58.2	59.9	60.4	61.9	53.1	57.0	58.6	56.5	58.8	5,259	1,226	6,895	84.5	77.1	78.5	72.2
17	54.2	(1.5)	52.7	58.7	55.6	58.5	60.2	60.8	62.5	52.5	57.1	58.4	56.6	55.6	5,388	1,353	6,923	^ 84.5	78.0	80.5	73.0
18	53.7	(1.6)	52.1	58.7	55.5	58.5	60.1	60.9	62.7	52.3	57.0	58.3	56.4	54.2	4,632	1,514	6,919	86.0	78.6	78.9	73.2
19	54.8	(2.1)	52.7	58.7	55.7	58.5	60.0	60.7	62.4	51.9	57.0	58.0	56.4	53.7	5,368	1,247	6,906	81.5	75.4	74.6	69.6
20	54.4	(1.7)	52.7	58.7	55.6	58.4	59.5	60.2	61.9	52.2	56.9	58.2	56.3	54.5	5,149	1,171	6,922	80.0	74.2	73.2	70.5
21	54.7	(1.7)	53.0	58.7	55.8	58.6	59.9	60.5	61.8	52.3	57.3	58.5	56.7	56.5	5,635	1,285	6,897	80.0	74.2	74.4	70.6
22	55.0	(1.8)	53.2	58.7	55.8	58.9	60.4	61.1	62.7	52.2	57.5	58.6	56.9	55.6	5,648	1,237	6,898	81.5	75.9	75.3	73.9
23	56.6	(3.0)	53.6	58.6	56.3	59.1	60.6	61.2	62.9	52.4	57.8	58.4	57.2	55.5	4,695	1,884	6,898	79.5	74.2	74.2	72.3
24	54.2	(1.5)	52.7	58.7	57.1	59.4	61.0	61.6	63.1	52.9	58.5	58.6	58.0	55.9	5,993	1,441	6,870	81.0	75.1	75.1	73.0
25	53.6	(1.4)	52.2	58.7	56.6	59.8	61.3	62.0	63.5	53.1	58.4	58.6	57.7	56.0	5,381	1,375	6,905	80.5	75.1	76.4	71.8
26	53.8	(1.5)	52.3	58.7	56.0	59.6	60.9	61.5	63.2	53.3	57.8	58.5	57.1	56.0	5,276	1,506	6,901	80.0	74.5	76.0	71.0
27	53.6	(1.5)	52.1	58.7	55.7	59.9	60.3	61.2	63.0	53.3	57.2	58.6	56.6	56.1	4,655	1,422	6,903	82.5	77.0	78.3	71.5
28	54.1	(1.7)	52.4	58.7	55.6	58.9	60.1	61.0	62.7	53.2	57.2	58.7	56.5	55.6	5,445	1,426	6,914	85.0	80.0	80.1	73.3
29	53.8	(1.3)	52.5	58.8	55.4	59.6	60.9	61.8	63.2	53.3	57.3	59.4	56.4	56.5	5,494	1,454	6,906	78.0	79.1	77.0	70.3
30	53.9	(1.3)	52.6	58.8	55.7	58.7	59.8	60.7	62.6	53.5	57.2	59.0	56.6	55.7	4,918	1,432	6,908	73.5	71.6	71.5	63.5
31	52.9	(0.9)	52.0	58.9	55.5	58.8	59.8	60.5	62.0	53.7	57.1	59.6	56.5	56.1	5,343	1,318	6,911	80.5	73.0	75.0	66.8
Avg	53.9		52.3	58.7	55.4	58.6	60.0	60.7	62.4	53.1	56.9	58.4	56.3	57.0	5,354	1,374	6,853	81.3	75.9	76.1	70.5
Tot cfs															165,973	42,588	212,436				
Tot af															329,207	84,473	421,367				

? = Average includes 1-9 estimated hourly readings
! = No Average (10-17 hours missing)
& = No Average (18 to 23 hours missing)
# = Station out of service
ND = No hourly readings or incorrect
% = Data will be down loaded from site at later date by NCAO staff.

When available:
^ = Redding Air Temp Record High
* = Redding Air Temp Record Low

Control Point: Clear Creek 4/1/2015 to 4/17/2015 at 56.0 degrees; 4/18/2015 to 5/14/2015 at 58.0 degrees; 5/15/2015 to 6/4/2015 56.0; 6/5/2015 to present 58.0 degrees.

PRELIMINARY

V:\~WATER_res_ops\Sac River Temperature\Tempmodel\~sactemp\2015TempFiles\[08_2015 Monthly Summary.xlsx]Sac Riv Temps

Draft 9/3/2015

Temperature and Release Summary for Shasta and Trinity - September 2015

(Updated twice a week November through April)

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	TCD Wt. Avg.	SHD minus TCD (Diff)	Shd	SPP Wt. Avg	Kwk	Bsf	Jlf	Bnd	Rdb	Lws	Control Point 4/1 Ccr	Igo	Sac	Dgc	Shasta Generation El 815	Spring Crk Powerplant Release	Keswick Total Release	RDD	BSF	RDB	LWS
Aug																					
Sep																					
1	53.5	(1.2)	52.3	58.8	55.2	58.8	59.9	60.6	62.1	53.7	56.9	59.5	56.2	56.5	4,912	1,322	6,904	79.5	73.3	75.0	69.5
2	53.3	(1.0)	52.3	58.8	54.8	58.3	59.5	60.4	62.0	53.6	56.3	59.1	55.7	56.0	5,409	1,250	6,901	77.5	72.3	72.5	64.4
3		0.0																			
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30		0.0																			
		0.0																			
Avg	53.4		52.3	58.8	55.0	58.6	59.7	60.5	62.1	53.7	56.6	59.3	56.0	56.3	5,161	1,286	6,903	78.5	72.8	73.8	67.0
Tot cfs															10,321	2,572	13,805				
Tot af															20,472	5,102	27,382				

? = Average includes 1-9 estimated hourly readings
! = No Average (10-17 hours missing)
& = No Average (18 to 23 hours missing)
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When available:
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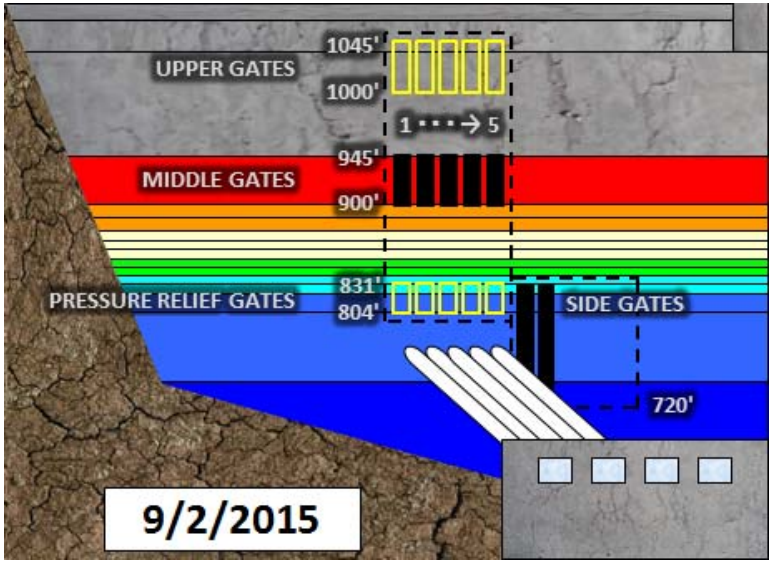
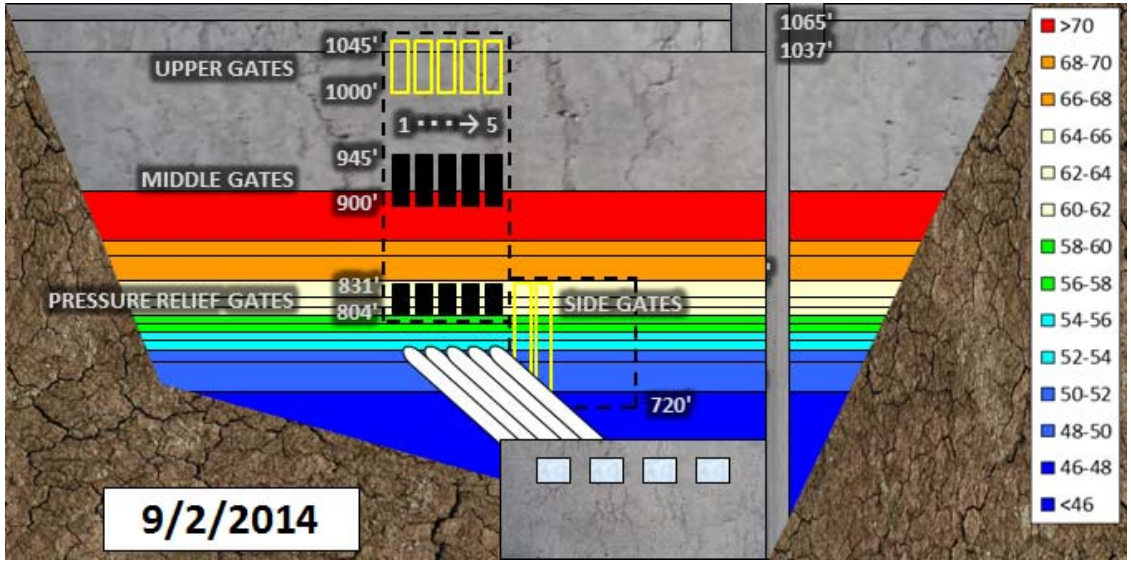
Control Point: Clear Creek 4/1/2015 to 4/17/2015 at 56.0 degrees; 4/18/2015 to 5/14/2015 at 58.0 degrees; 5/15/2015 to 6/4/2015 56.0; 6/5/2015 to present 58.0 degrees.

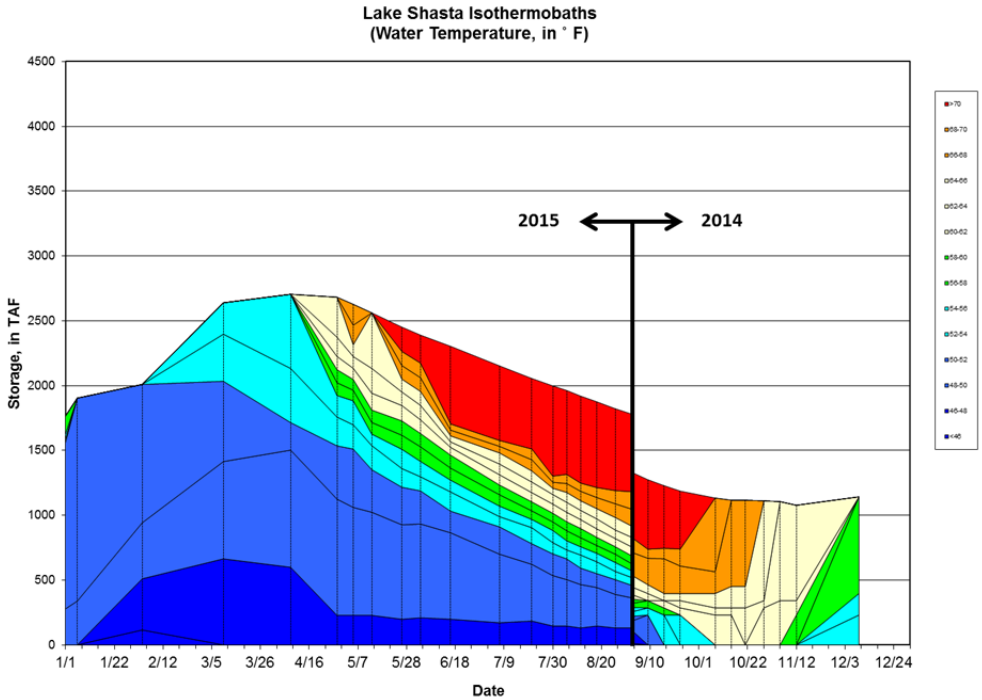
PRELIMINARY

V:\~WATER_res_ops\Sac River Temperature\Tempmodel\~sactemp\2015TempFiles\[09_2015 Monthly Summary.xlsx]Sac Riv Temps





*NOTE: Yellow outline indicates open position, Solid Black indicates closed position.



Summary -- Sacramento River Fall Flows

September 2, 2015

	Temp Plan 50% L3MTO 57 degree at CCR	Temp Plan 10% L3MTO 57 degree at CCR		Sep. 50% L3MTO (Base Case)	Sep. 50% L3MTO (Scenario 1)	Sep. 50% L3MTO (Scenario 2)		Sep. 10% L3MTO (Base Case)	Sep. 10% L3MTO (Scenaro 1)	Sep. 10% L3MTO (Scenaro 2)
Sep. Releases (cfs)	6500	6500		6500	7000	7200		6500	7000	7200
Oct. Releases (cfs)	5000	5000		5000	6000	6150		5000	6000	6150
Nov. Releases (cfs)	4000	4000		4000	5000	4250		4000	5000	4250
Dec. Releases (cfs)	4000	4000		4000	4500	4250		4000	4500	4250
Jan. Releases (cfs)	3250	3250		3250	3250	4250		3250	3250	4250
First Side Gate Used	Aug 31	Aug 31		Sep22	Sep20	Sep20		Sep 23	Sep 20	Sep20
Primary Reliance of Side Gate	Oct 11	Oct 9								Oct 31
End of Sep. Volume < 54 degree	207	207		321	287	291		319	287	291

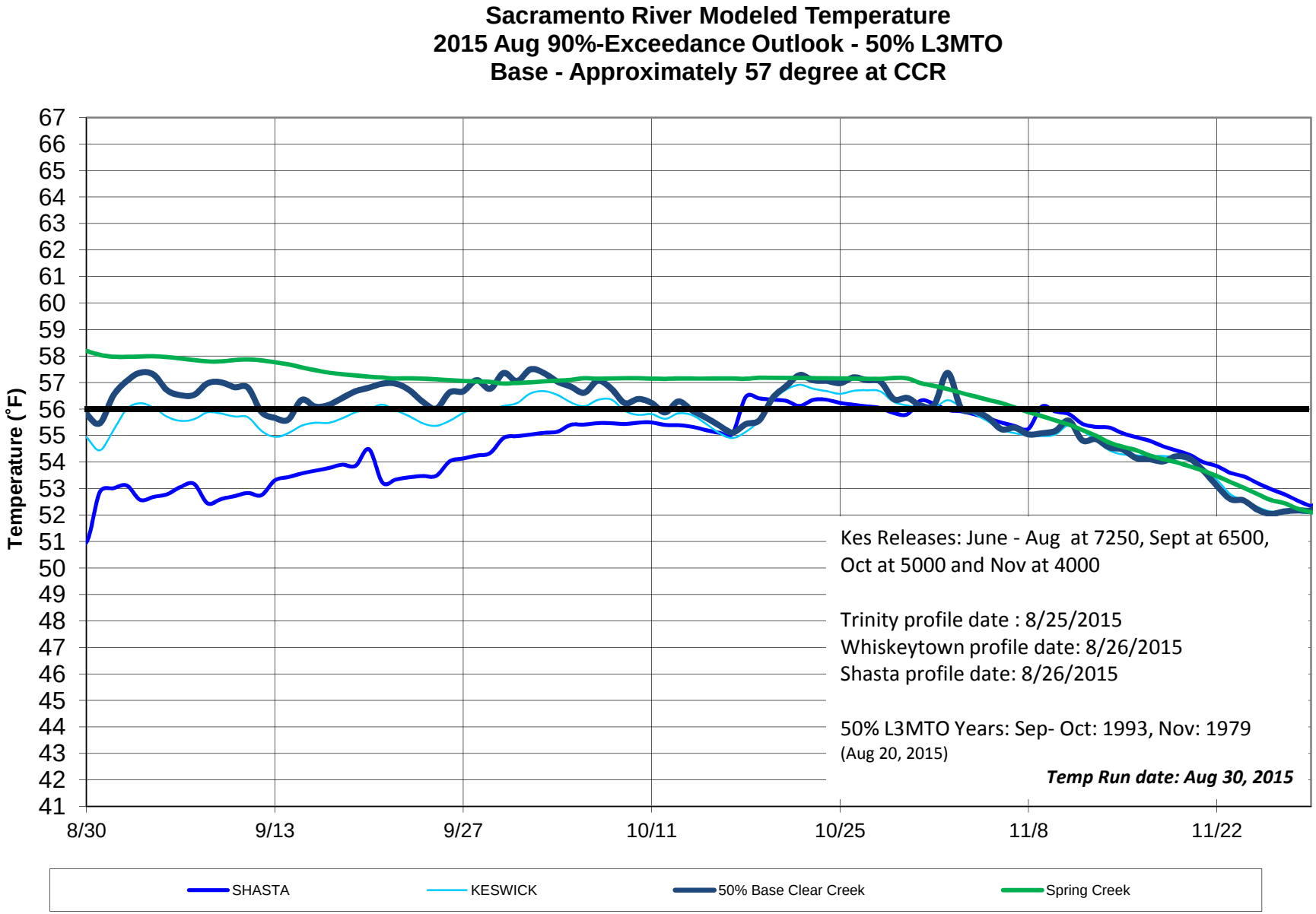
Sacramento River Release Options Summary

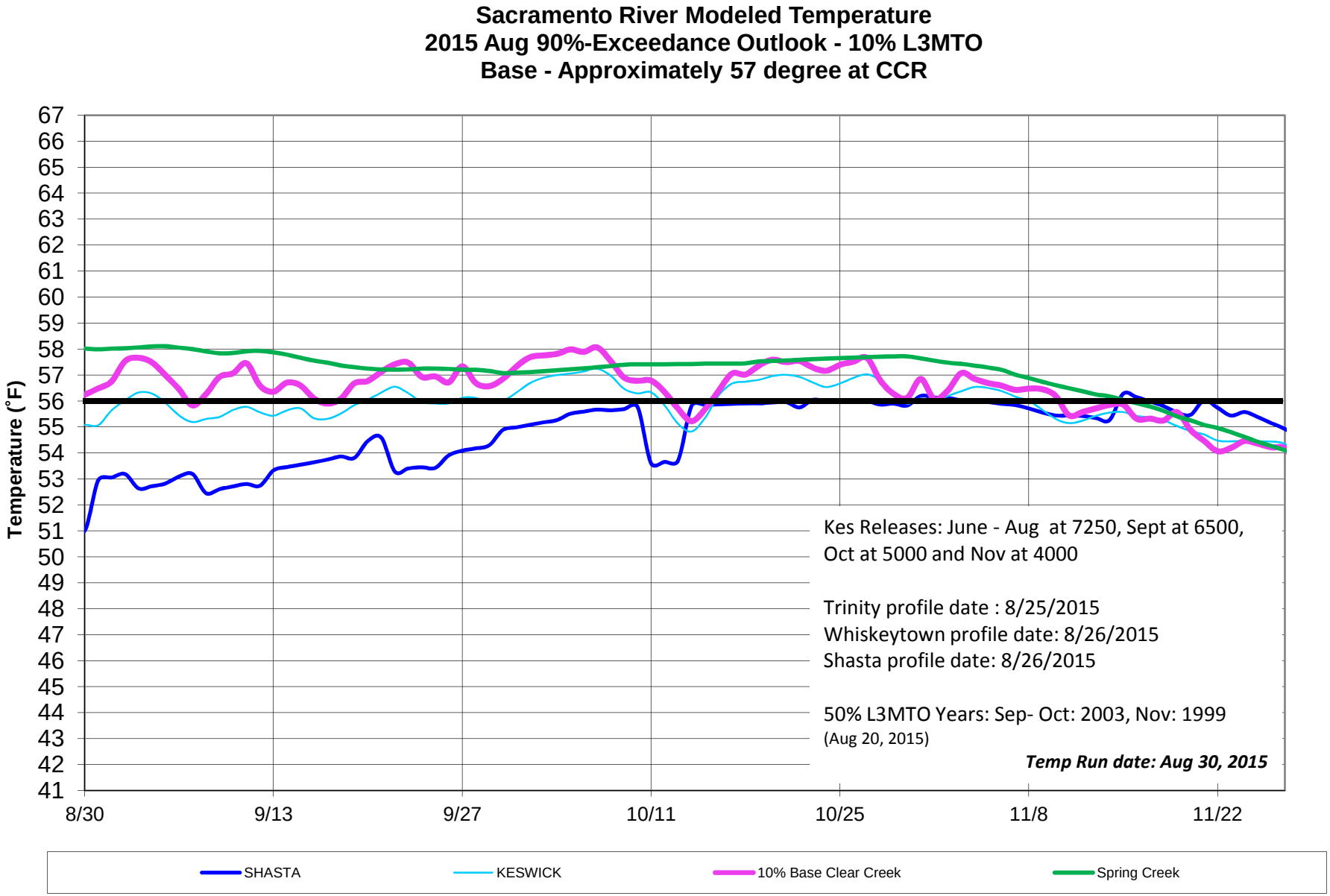
Base Case	Sep	Oct	Nov	Dec	Jan
Trinity Storage	584	553	520	504	512
Shasta Storage	1496	1415	1424	1449	1569
Folsom Storage	164	139	133	155	188
Federal San Luis Storage *	42	67	77	153	249
Trinity River Releases	795	373	300	300	300
Clear Creek Releases	150	175	175	175	175
Sacramento River Releases	6500	5000	4000	4000	3250
Carr Pumping Plant	62	15	28	19	6
Trinity Diversions (Spr Crk PP)	60	30	19	12	3
Delta Summary (TAF)					
	Sep	**Oct**	**Nov**	**Dec**	**Jan**
Tracy	130	125	87	120	114
State Export	35	50	48	139	241
Computed DOI	3009	4197	5093	4994	6003
Old/Middle R. calc.	-2732	-2554	-2212	-3653	-4714

Scenario 1	Sep	Oct	Nov	Dec	Jan
Trinity Storage	582	551	519	503	510
Shasta Storage	1464	1317	1267	1261	1382
Folsom Storage	164	139	134	156	188
Federal San Luis Storage *	72	157	227	334	430
Trinity River Releases	795	373	300	300	300
Clear Creek Releases	225	225	175	175	175
Sacramento River Releases	7000	6000	5000	4500	3250
Carr Pumping Plant	63	15	28	19	6
Trinity Diversions (Spr Crk PP)	57	27	19	12	3
Delta Summary (TAF)					
	Sep	**Oct**	**Nov**	**Dec**	**Jan**
Tracy	160	186	146	151	114
State Export	35	50	48	139	241
Computed DOI	3076	4262	5093	4994	6003
Old/Middle R. calc.	-3121	-3318	-2975	-4042	-4714

Scenario 2	Sep	Oct	Nov	Dec	Jan
Trinity Storage	582	551	519	503	510
Shasta Storage	1452	1296	1291	1300	1360
Folsom Storage	164	139	133	155	188
Federal San Luis Storage *	88	186	212	303	460
Trinity River Releases	795	373	300	300	300
Clear Creek Releases	225	225	175	175	175
Sacramento River Releases	7200	6150	4250	4250	4250
Carr Pumping Plant	63	15	28	19	6
Trinity Diversions (Spr Crk PP)	57	27	19	12	3
Delta Summary (TAF)					
	Sep	**Oct**	**Nov**	**Dec**	**Jan**
Tracy	176	199	102	135	175
State Export	35	50	48	139	241
Computed DOI	3009	4197	5093	4994	6003
Old/Middle R. calc.	-3328	-3481	-2406	-3841	-5478

** Note - repayment to SWP of 80 TAF has NOT been taken out of FSL storage*


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 50% L3MTO
Base - Approximately 57 degree at CCR
Temperature (°F)
67
66
65
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
8/30
9/13
9/27
10/11
10/25
11/8
11/22
Kes Releases: June - Aug at 7250, Sept at 6500, Oct at 5000 and Nov at 4000
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 1993, Nov: 1979
(Aug 20, 2015)
Temp Run date: Aug 30, 2015
SHASTA
KESWICK
50% Base Clear Creek
Spring Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 10% L3MTO
Base - Approximately 57 degree at CCR
Temperature (°F)
67
66
65
64
63
62
61
60
59
58
57
56
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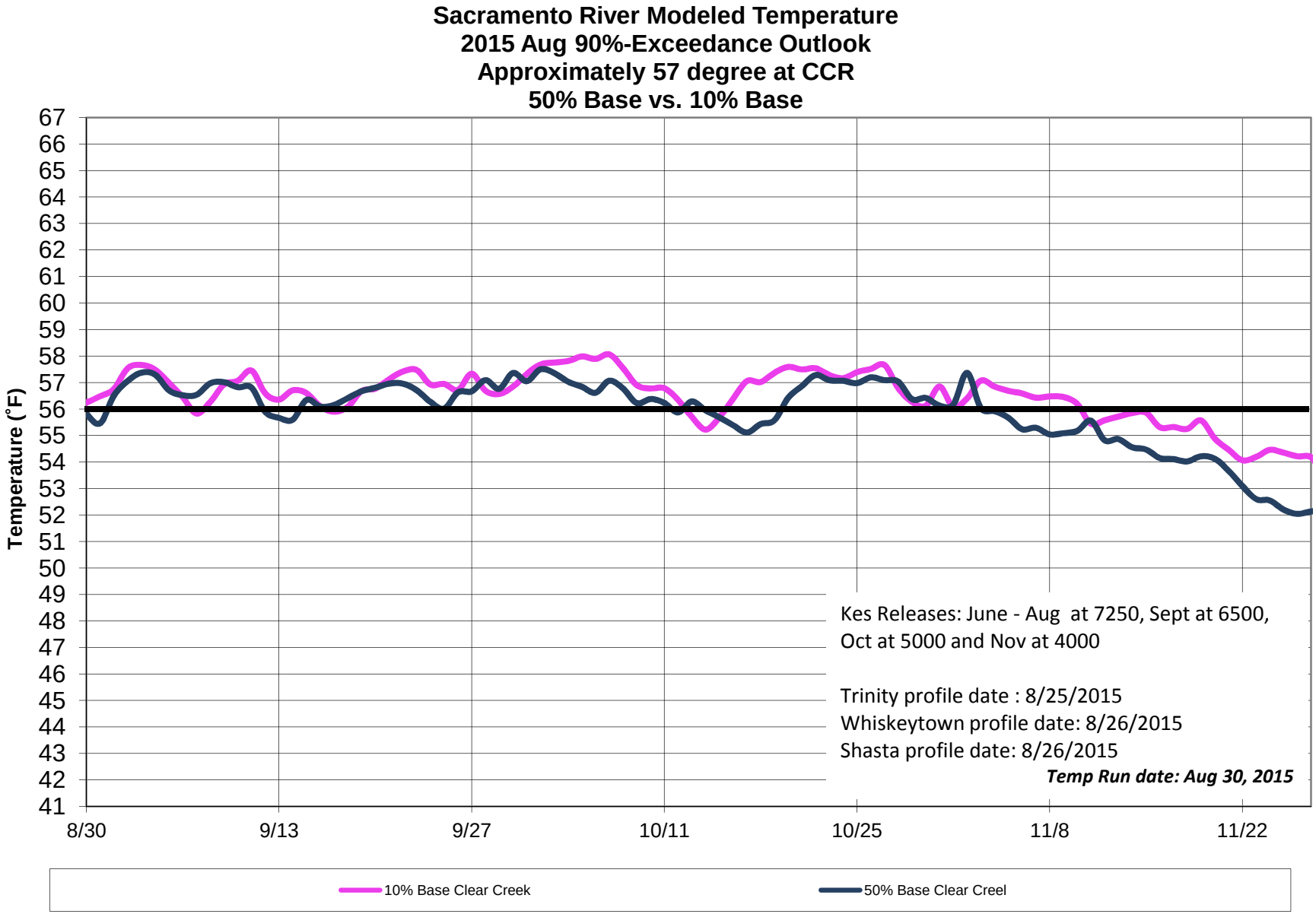
8/30
9/13
9/27
10/11
10/25
11/8
11/22
Kes Releases: June - Aug at 7250, Sept at 6500, Oct at 5000 and Nov at 4000
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 2003, Nov: 1999
(Aug 20, 2015)
Temp Run date: Aug 30, 2015
SHASTA
KESWICK
10% Base Clear Creek
Spring Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook
Approximately 57 degree at CCR
50% Base vs. 10% Base
Temperature (°F)
67
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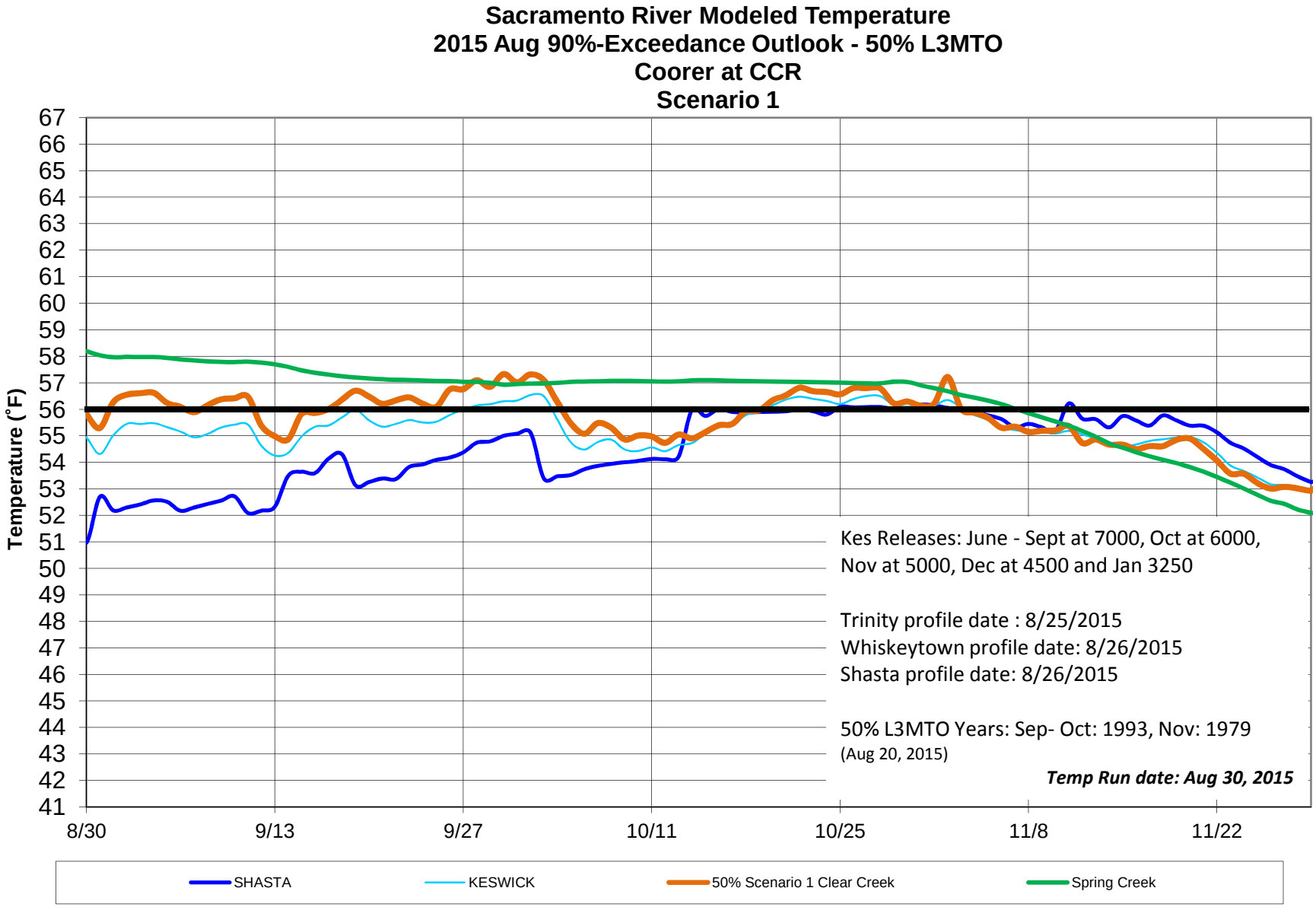
10/25
11/8
11/22
Kes Releases: June - Aug at 7250, Sept at 6500, Oct at 5000 and Nov at 4000
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
Temp Run date: Aug 30, 2015
10% Base Clear Creek
50% Base Clear Creel


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 50% L3MTO
Coorer at CCR
Scenario 1
Temperature (°F)
67
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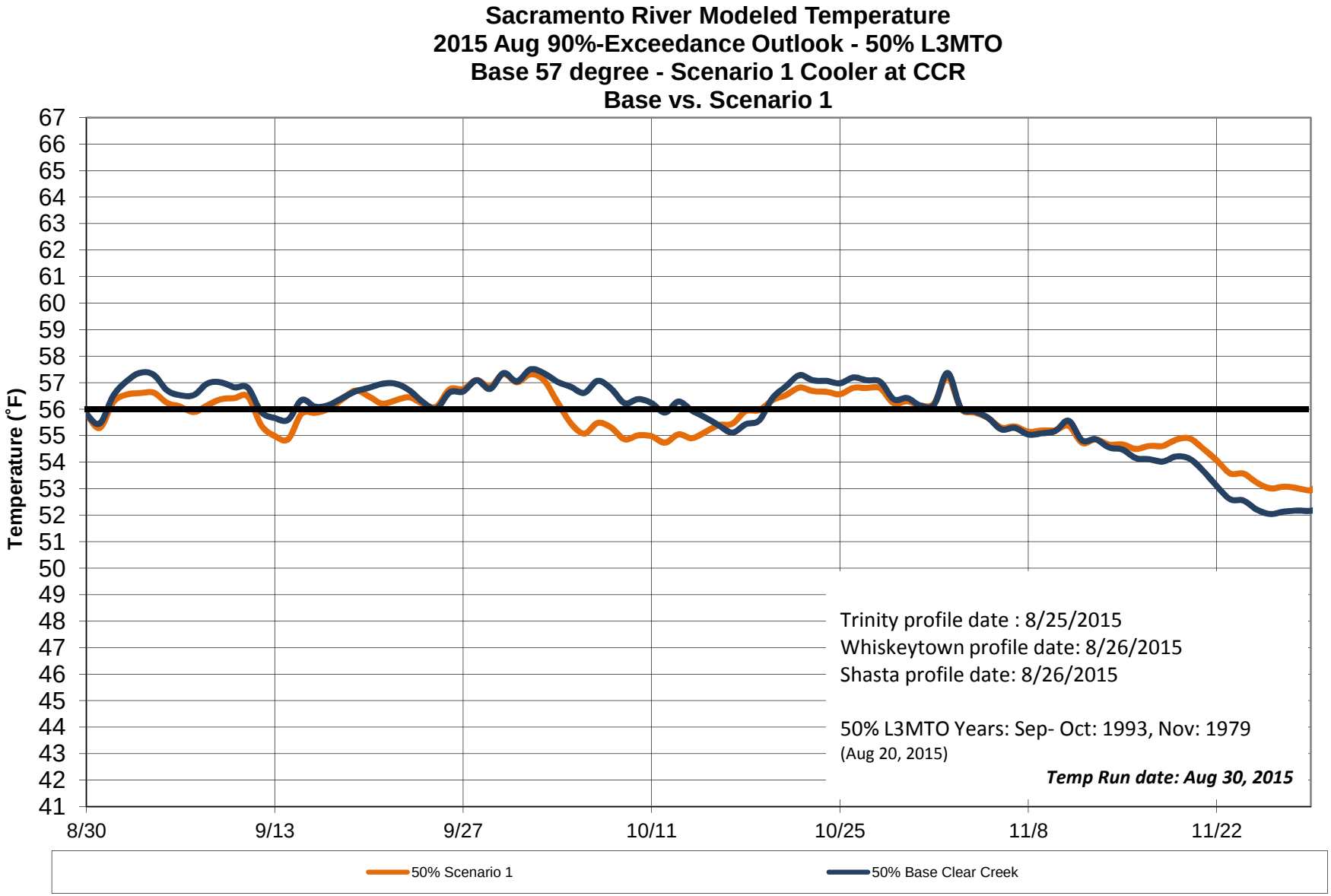
11/8
11/22
Kes Releases: June - Sept at 7000, Oct at 6000, Nov at 5000, Dec at 4500 and Jan 3250
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 1993, Nov: 1979
(Aug 20, 2015)
Temp Run date: Aug 30, 2015
SHASTA
KESWICK
50% Scenario 1 Clear Creek
Spring Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 50% L3MTO
Base 57 degree - Scenario 1 Cooler at CCR
Base vs. Scenario 1
Temperature (°F)
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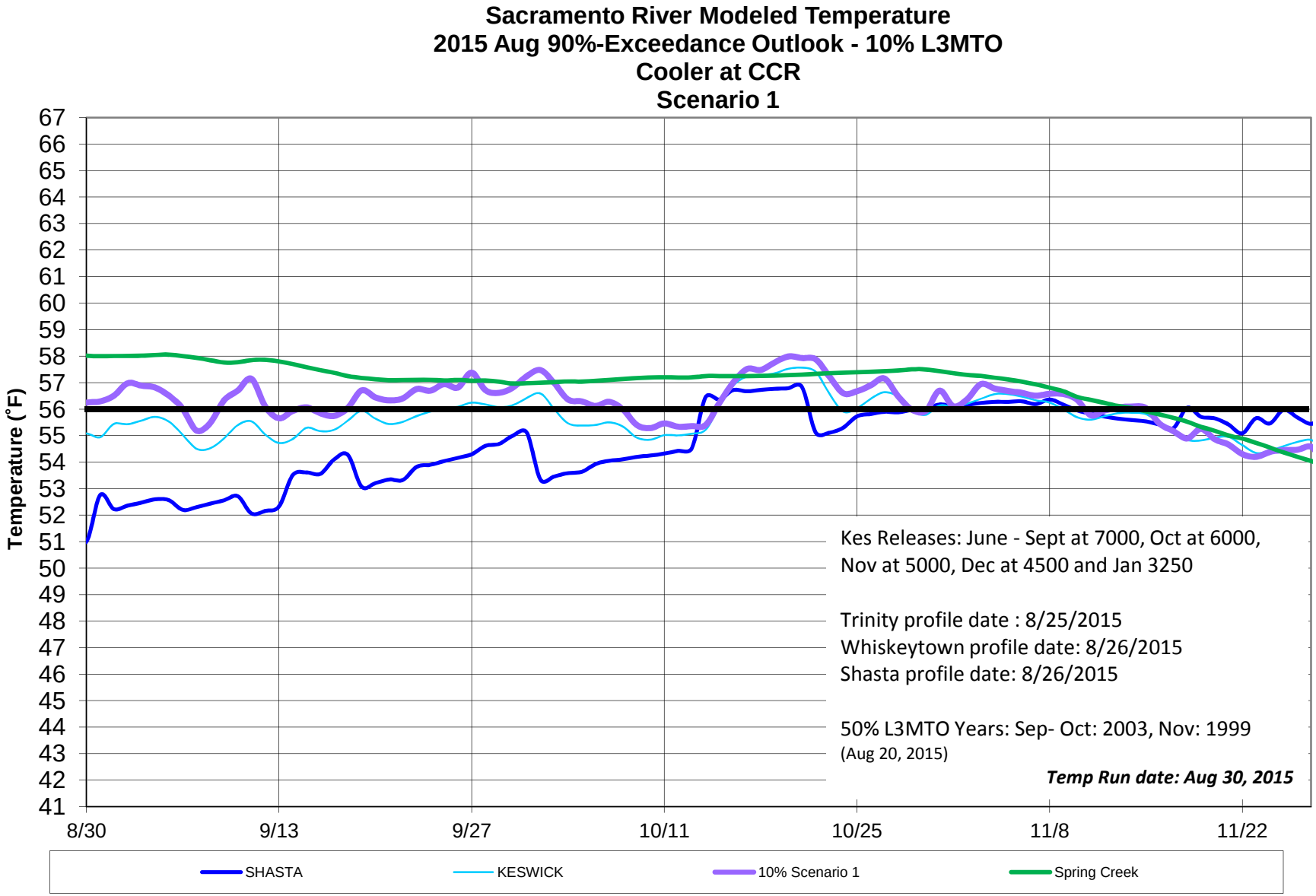
11/22
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 1993, Nov: 1979
(Aug 20, 2015)
Temp Run date: Aug 30, 2015
50% Scenario 1
50% Base Clear Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 10% L3MTO
Cooler at CCR
Scenario 1
Temperature (°F)
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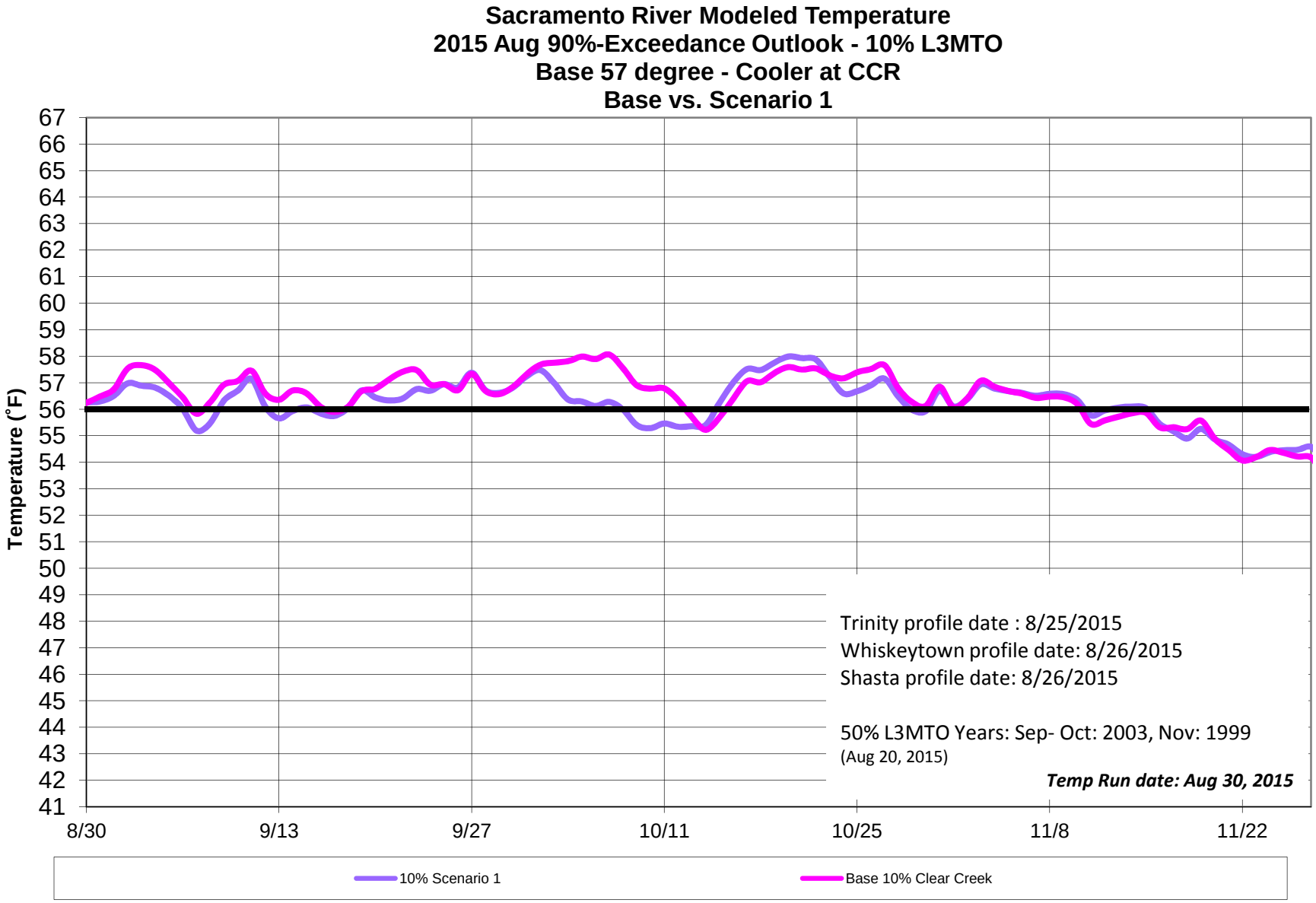
11/22
Kes Releases: June - Sept at 7000, Oct at 6000, Nov at 5000, Dec at 4500 and Jan 3250
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 2003, Nov: 1999
(Aug 20, 2015)
Temp Run date: Aug 30, 2015
SHASTA
KESWICK
10% Scenario 1
Spring Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 10% L3MTO
Base 57 degree - Cooler at CCR
Base vs. Scenario 1
Temperature (°F)
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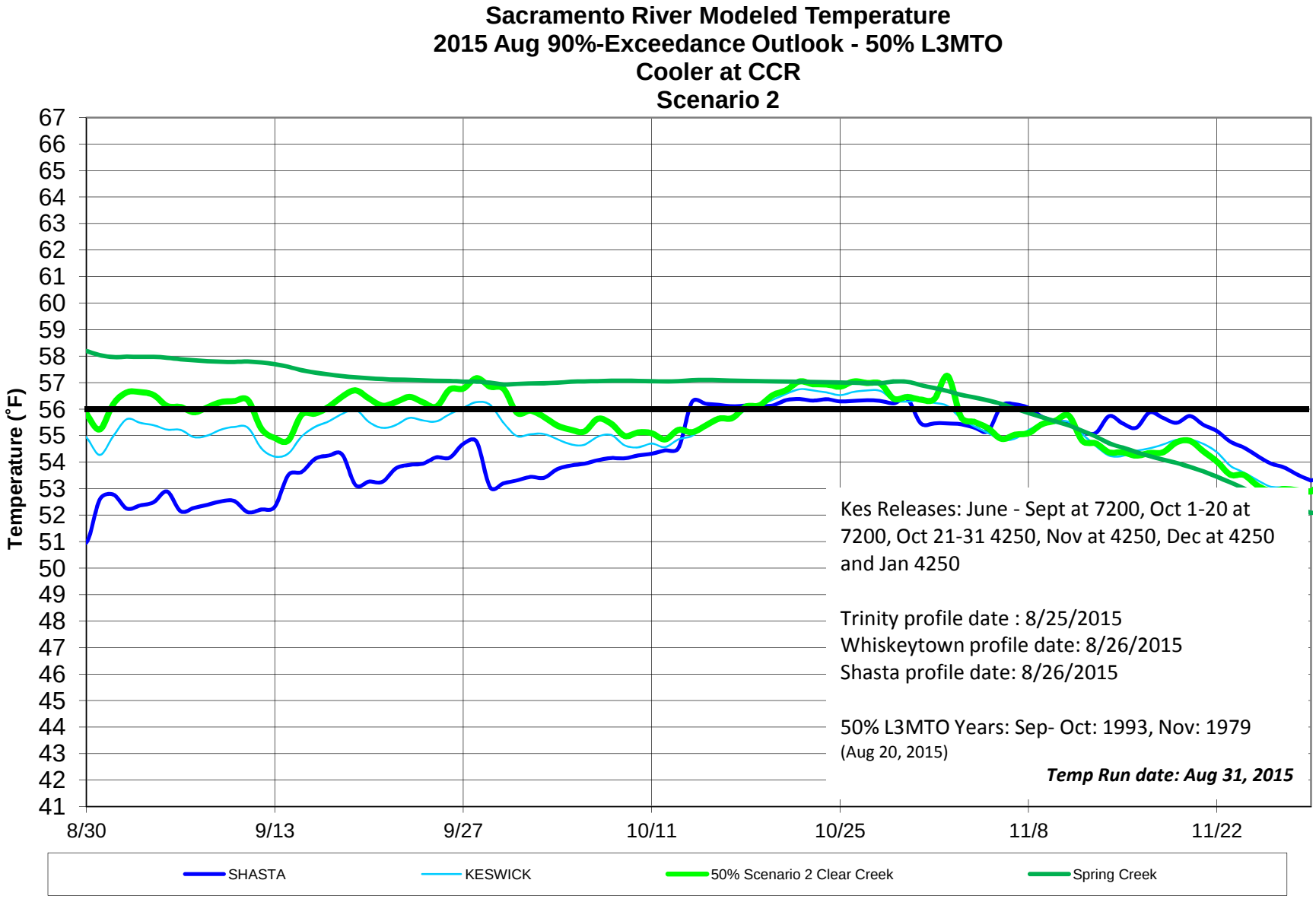
11/22
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 2003, Nov: 1999
(Aug 20, 2015)
Temp Run date: Aug 30, 2015
10% Scenario 1
Base 10% Clear Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 50% L3MTO
Cooler at CCR
Scenario 2
Temperature (°F)
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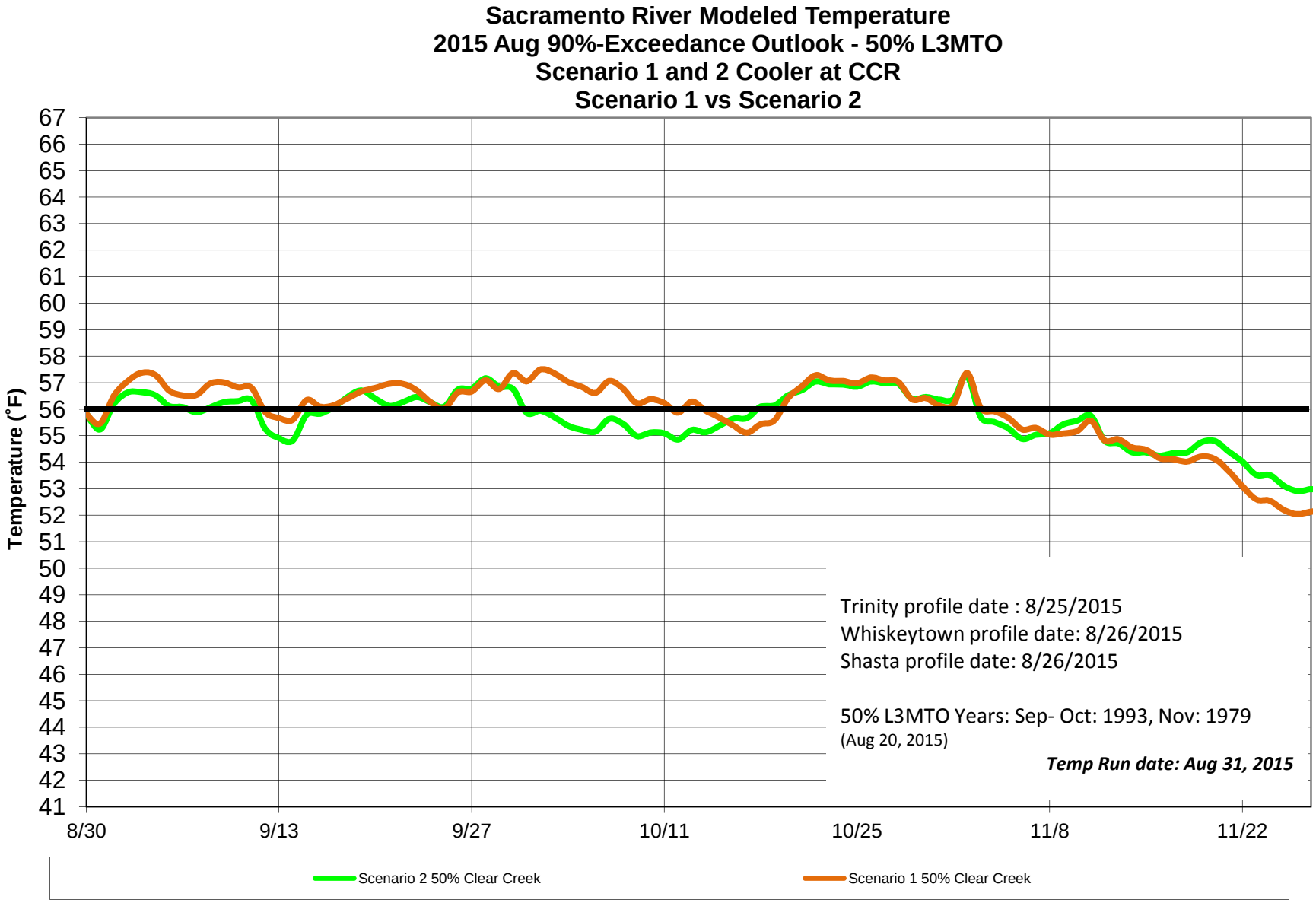
Kes Releases: June - Sept at 7200, Oct 1-20 at 7200, Oct 21-31 4250, Nov at 4250, Dec at 4250 and Jan 4250
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 1993, Nov: 1979
(Aug 20, 2015)
Temp Run date: Aug 31, 2015
SHASTA
KESWICK
50% Scenario 2 Clear Creek
Spring Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 50% L3MTO
Scenario 1 and 2 Cooler at CCR
Scenario 1 vs Scenario 2
Temperature (°F)
67
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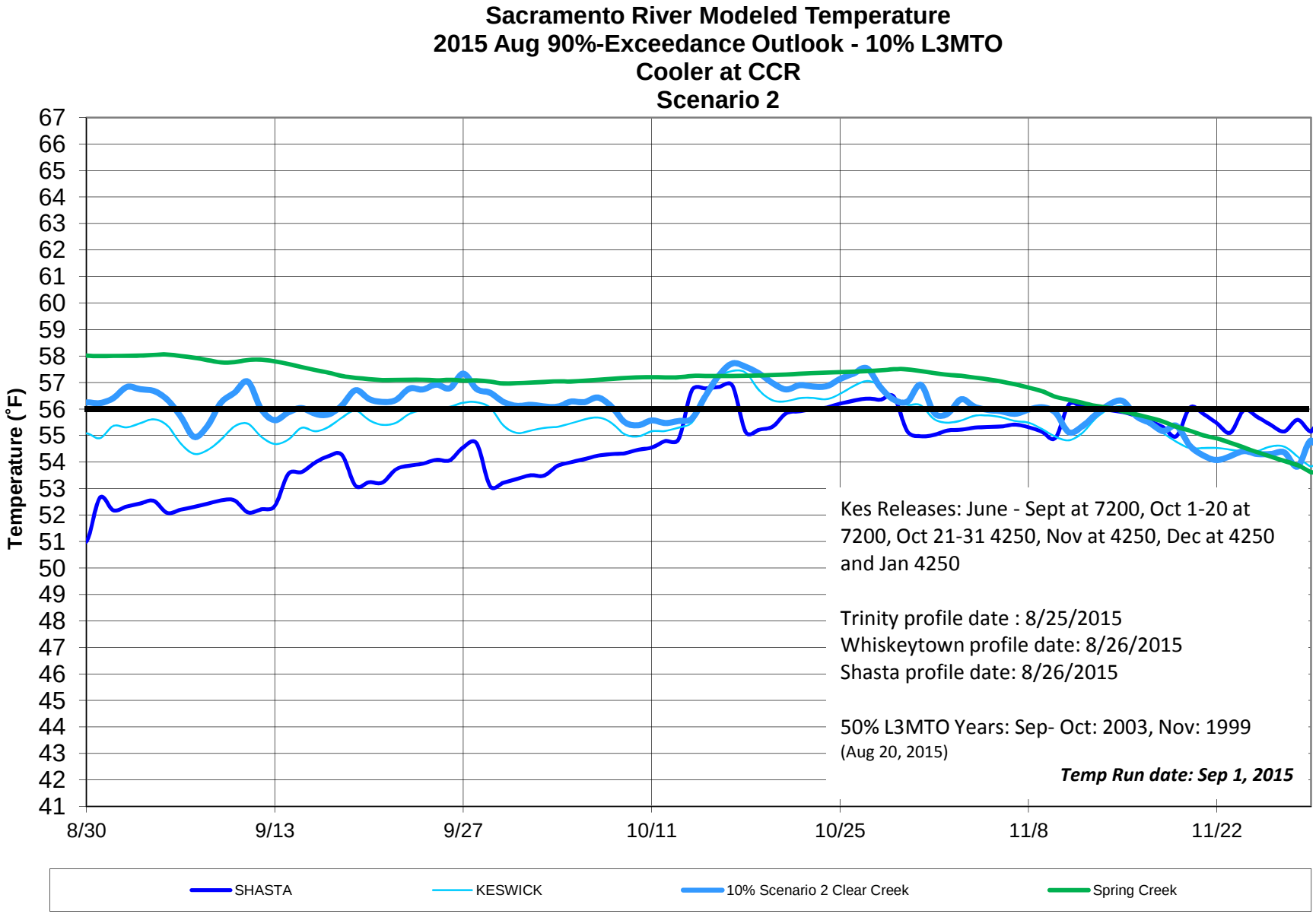
11/22
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 1993, Nov: 1979
(Aug 20, 2015)
Temp Run date: Aug 31, 2015
Scenario 2 50% Clear Creek
Scenario 1 50% Clear Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 10% L3MTO
Cooler at CCR
Scenario 2
Temperature (°F)
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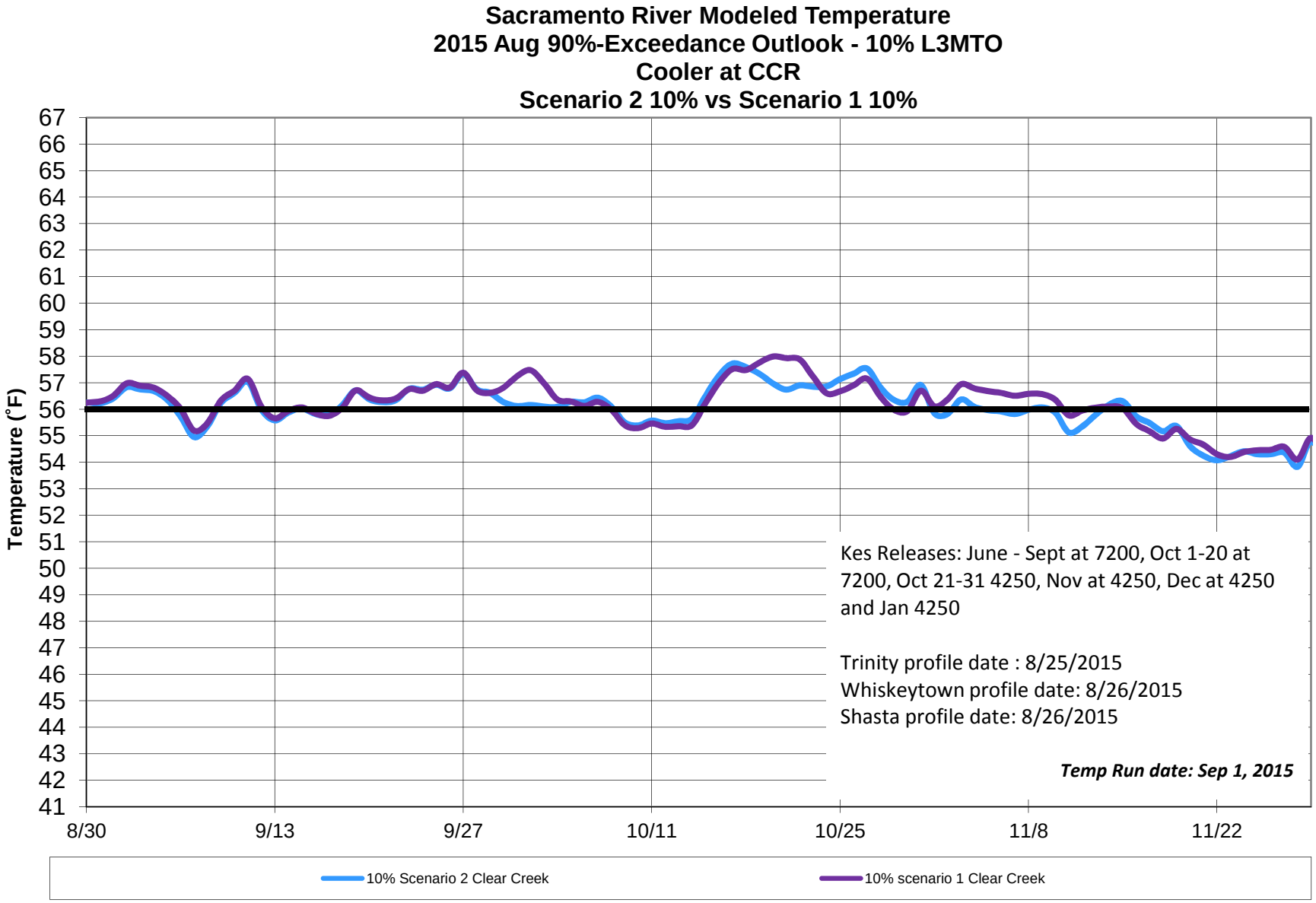
11/22
Kes Releases: June - Sept at 7200, Oct 1-20 at 7200, Oct 21-31 4250, Nov at 4250, Dec at 4250 and Jan 4250
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
50% L3MTO Years: Sep- Oct: 2003, Nov: 1999
(Aug 20, 2015)
Temp Run date: Sep 1, 2015
SHASTA
KESWICK
10% Scenario 2 Clear Creek
Spring Creek


Sacramento River Modeled Temperature
2015 Aug 90%-Exceedance Outlook - 10% L3MTO
Cooler at CCR
Scenario 2 10% vs Scenario 1 10%
Temperature (°F)
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Kes Releases: June - Sept at 7200, Oct 1-20 at 7200, Oct 21-31 4250, Nov at 4250, Dec at 4250 and Jan 4250
Trinity profile date : 8/25/2015
Whiskeytown profile date: 8/26/2015
Shasta profile date: 8/26/2015
Temp Run date: Sep 1, 2015
10% Scenario 2 Clear Creek
10% scenario 1 Clear Creek