



# United States Department of the Interior

BUREAU OF RECLAMATION  
Central Valley Operations Office  
3310 El Camino Avenue, Suite 300  
Sacramento, California 95821

IN REPLY  
REFER TO:

CVO-400  
WTR-4.10

**MAR 07 2018**

VIA ELECTRONIC MAIL

Mr. Erik Ekdahl  
Deputy Director, Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812

Subject: Monitoring and Reporting Program on Water Rights Order No. 90-5 (Water Rights)

Dear Mr. Ekdahl:

For the month of February 2018, the temperature control point was set at Balls Ferry, per the June 2017, Sacramento River Temperature Plan.

During the month, the average daily water temperature compliance of 56.0°F or less was met at the Balls Ferry compliance point on the Sacramento River. During the month, the observed average monthly water temperature was 50.1°F at Balls Ferry.

Enclosed is the monitoring report for February 2018, under Order No. 90-5. The report contains the following data as required:

ID #	Station	Temperature*	Turbidity*	Dissolved Oxygen*	Flow*
1	Shasta Inlets	X	X		
2	Shasta Dam	X	X	X	
2a	Shasta Dam				X
3	Sacramento River below Keswick Dam	X		X	
3a	Keswick Dam		X		X
4	Spring Creek Power Plant	X	X		X
5	Temperature Control Point	X	X	X	
6	Sacramento River at Delta	X	X		
7	McCloud River	X	X		
8	Pit River	X	X		
9	Trinity River below Lewiston Dam	X			
9a	Lewiston Dam				X

ID #	Station	Temperature*	Turbidity*	Dissolved Oxygen*	Flow*
10	Trinity River at Douglas City Bridge	X			
11	Trinity River at confluence of North Fork	X			

\*Monitoring frequency, period, and units are specified in enclosures

Please contact Ms. Randi Field at 916-979-2066, should you have any questions regarding this data.

Sincerely,



Elizabeth Kiteck  
Chief, Water Operations

Enclosures

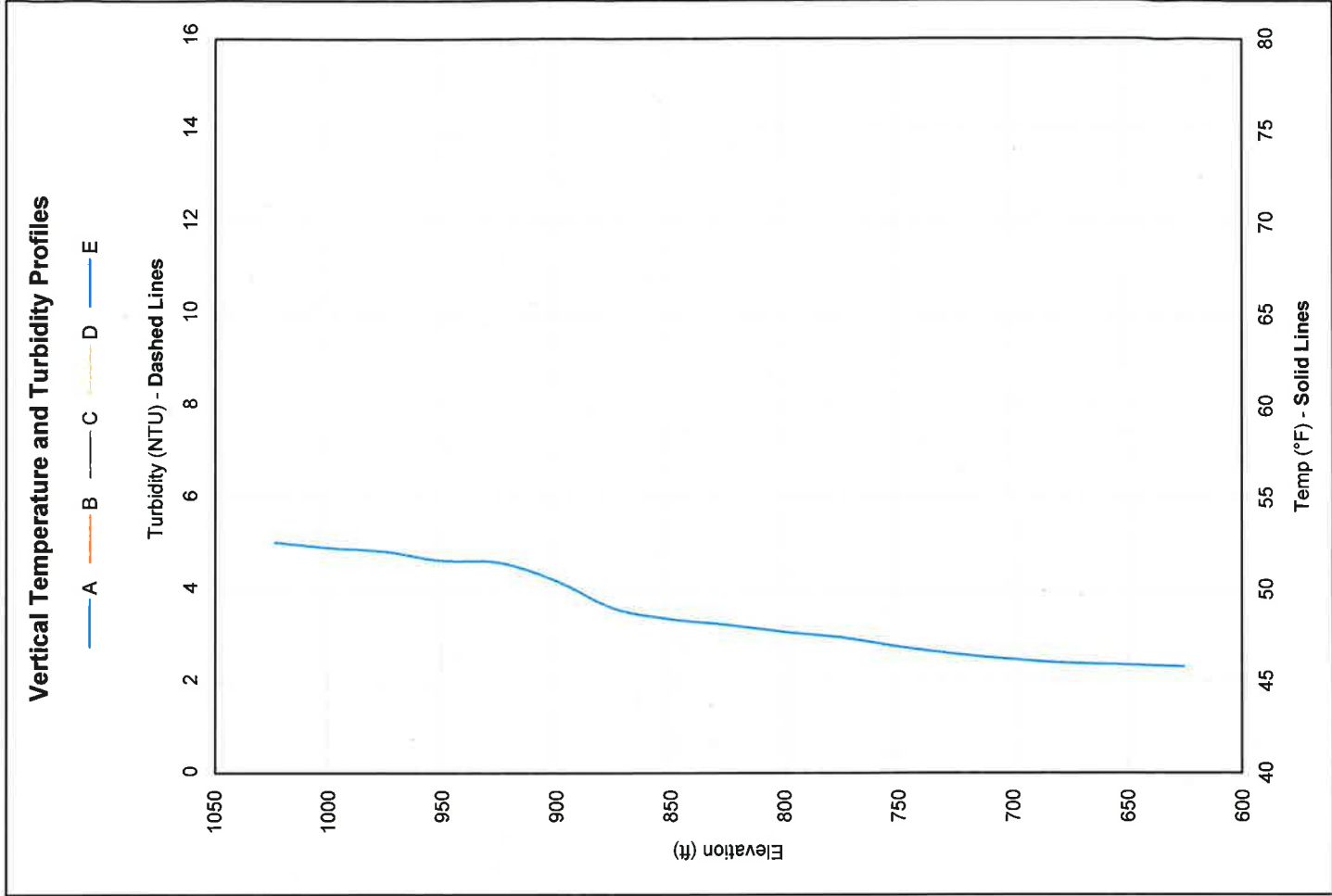
cc: Mr. Chris Kwan  
Division of Water Rights  
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P.O. Box 2000  
Sacramento, CA 95812

Mr. Vadim Demchuk  
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Ms. Diane Riddle  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812  
(w/encl)



Vertical Profiles Taken at Site 1 (Shasta Lake at Dam Inlets)												
Profile	A		B		C		D		E			
Day of Month	6		-		-		-		-			
Lake Elev.	1023.31		-		-		-		-			
Parameter	Temp	Turb	Temp	Turb	Temp	Turb	Temp	Turb	Temp	Turb	Temp	Turb
L.E.	52.6	-	-	-	-	-	-	-	-	-	-	-
1050	-	-	-	-	-	-	-	-	-	-	-	-
1025	-	-	-	-	-	-	-	-	-	-	-	-
1000	52.3	-	-	-	-	-	-	-	-	-	-	-
975	52.1	-	-	-	-	-	-	-	-	-	-	-
950	51.6	-	-	-	-	-	-	-	-	-	-	-
925	51.5	-	-	-	-	-	-	-	-	-	-	-
900	50.5	-	-	-	-	-	-	-	-	-	-	-
875	49.0	-	-	-	-	-	-	-	-	-	-	-
850	48.4	-	-	-	-	-	-	-	-	-	-	-
825	48.1	-	-	-	-	-	-	-	-	-	-	-
800	47.7	-	-	-	-	-	-	-	-	-	-	-
775	47.4	-	-	-	-	-	-	-	-	-	-	-
750	46.9	-	-	-	-	-	-	-	-	-	-	-
725	46.5	-	-	-	-	-	-	-	-	-	-	-
700	46.2	-	-	-	-	-	-	-	-	-	-	-
675	46.0	-	-	-	-	-	-	-	-	-	-	-
650	45.9	-	-	-	-	-	-	-	-	-	-	-
625	45.8	-	-	-	-	-	-	-	-	-	-	-



Monthly Manual Observations												
Parameter	Temp (°F)						Turb (NTU)					
	6	7	8	8	8	8	2	2	2	3	3	3
Site	DLT	MSS	PMN	SHD	SPP	RDB	DLT	MSS	PMN	DLT	MSS	PMN
Value	42.2	39.5	46.5	1.0	1.2	1.9	0.6	1.7	4.3	0.6	1.7	4.3
Day of Month	14	27	13	13	13	14	23	8	14	27	13	13

**Notes**

Turbidity is not being provided for the vertical profile taken on the 6th due to the following reason: Pre data collection calibration of the turbidity sensor was within specifications but post data collection calibration was not.



## 90-5 Required Water Monitoring Details

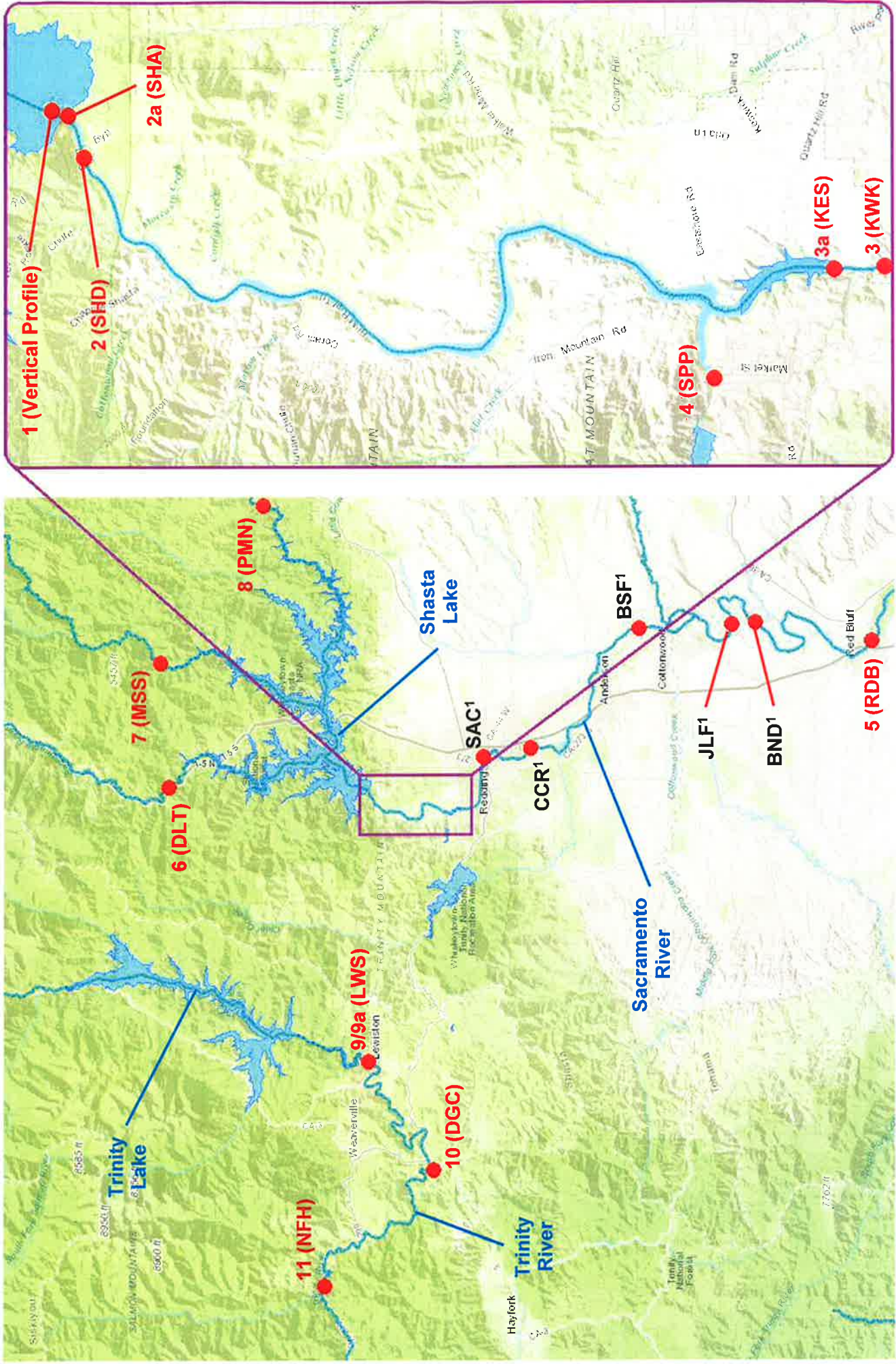
Site	CDEC ID	Description
1	-	Shasta Dam inlets or lake adjacent to the dam face. <sup>1</sup>
2	SHD	Shasta Dam release immediately downstream from the power plant.
2a	SHA	Shasta Dam release.
3	KWK	Sacramento River immediately downstream from Keswick Dam.
3a	KES	Keswick Dam release.
4	SPP	Spring Creek Power Plant release.
5	RDB	Sacramento River downstream from Red Bluff Diversion Dam.
6	DLT <sup>2</sup>	Sacramento River (above Shasta Dam).
7	MSS	McCloud River (above Shasta Dam).
8	PMN	Pit River (above Shasta Dam).
9	LWS	Trinity River immediately downstream from Lewiston Dam.
9a	LWS	Lewiston Dam release.
10	DGC	Trinity River at the Douglas City Bridge.
11	NFH	Trinity River at the confluence of the North Fork Trinity River.

	Temperature		Turbidity <sup>3</sup>		Dissolved Oxygen <sup>4</sup>		Flow	
	Frequency	Period	Frequency	Period	Frequency	Period	Frequency	Period
1	Every 2 weeks	5/1 to 11/30	Monthly	All Year	-	-	-	-
2	Average Daily	All Year	Monthly	All Year	Every 2 weeks	5/1 to 9/30	-	-
2a	-	-	-	-	-	-	Average Daily	All Year
3	Average Daily	All Year	-	-	Every 2 weeks	5/1 to 9/30	-	-
3a	-	-	Monthly	All Year	-	-	Average Daily	All Year
4	Average Daily	All Year	Monthly	All Year	-	-	Average Daily	All Year
5	Average Daily <sup>5</sup>	All Year	Monthly	All Year	Every 2 weeks	5/1 to 9/30	-	-
6	Monthly	All Year	Monthly	All Year	-	-	-	-
7	Monthly	All Year	Monthly	All Year	-	-	-	-
8	Monthly	All Year	Monthly	All Year	-	-	-	-
9	Average Daily	All Year	-	-	-	-	-	-
9a	-	-	-	-	-	-	Average Daily	All Year
10	Average Daily	9/15 to 10/1	-	-	-	-	-	-
11	Average Daily	10/1 to 12/31	-	-	-	-	-	-

### Notes

- <sup>1</sup> Take sufficient collection points to characterize the vertical profile for temperature and turbidity.
- <sup>2</sup> Site 6 (DLT) is not accessible year round making it unsuitable for real-time Dissolved Oxygen monitoring do to calibration requirements.
- <sup>3</sup> From 5/1 to 9/30 if turbidity at site 2 is greater than or equal to 10 ntu's then frequency must be weekly.
- <sup>4</sup> To be taken before 10:00 am.
- <sup>5</sup> If the temperature control point is moved upstream from site 5, then temperature monitoring shall continue at the new site.

# 90-5 Required Water Monitoring Site Map



## Notes

<sup>1</sup> SAC, CCR, BSF, JLF and BND are alternative upstream temperature control points to RDB