



# 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

**NOV 06 2017**

VIA ELECTRONIC MAIL

Mr. Les Grober  
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. Grober:

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

During October 2017, 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 of October 2017, the average monthly water temperature was 53.3°F at Balls Ferry.

Enclosed is the monitoring report for October 2017, under Order No. 90-5. The report contains the following data:

<b>Station</b>	<b>Description</b>
Shasta Inlets (R-1) “	Water Temperature Profile Turbidity, monthly, ntu
Shasta Dam (R-2) “	Water Temperature, daily average, degrees F Turbidity, ntu, monthly
Shasta Dam (R-2a)	Flow, average daily, cfs
Keswick (R-3) “	Water Temperature, daily average, degrees F Turbidity, ntu, monthly
Keswick (R-3a)	Flow, average daily, cfs
Spring Creek Power plant (R-4) “	Water Temperature, daily average, degrees F Turbidity, ntu, monthly Flow, average daily cfs

<b>Station</b>	<b>Description</b>
Control Point (R-5) Control Point	Water Temperature, daily average, degrees F Turbidity, ntu, monthly
Sacramento at Delta (R-6)	Water Temperature, monthly, degrees F Turbidity, ntu, monthly
McCloud (R-7) “	Water Temperature, monthly, degrees F Turbidity, ntu, monthly
Pit River (R-8) “	Water Temperature, monthly, degrees F Turbidity, ntu, monthly
Lewiston (R-9)	Water Temperature, daily average, degrees F
Lewiston (R-9a)	Flow, average daily, cfs

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. Kenneth Emanuel  
Division of Water Rights  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812  
(w/encl)

Central Valley Operations Office  
 \*Data obtained from the California Data Exchange Center  
 \*\*Data calculated by the Central Valley Operations Office  
 \*\*\*Measurements taken by the Northern CA Area Office Personnel  
**Water Temperature Data in Degrees F**  
**October 2017**

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Req. Sampling Frequency - Monthly		
Date	Sta 2 Shd*	Sta 3 Kwk*	Sta 4 Spp**	Sta 5 Bsf**	Sta9 Lws*	Sta11 NFH	Sta 6 Dlt***	Sta 7 Mss***	Sta 8 Pmn***
1	50.0	51.4	54.6	53.2	49.6	55.4			
2	49.9	51.2	54.6	52.9	49.5	53.4			
3	50.3	51.2	54.7	52.9	49.7	53.6			
4	49.7	51.3	54.6	52.7	49.6	53.1			
5	50.3	51.8	54.6	53.2	49.5	52.6			
6	50.1	51.9	54.6	53.3	49.3	52.8			
7	50.2	52.1	54.7	53.9	49.2	53.4			
8	50.2	52.2	54.6	53.6	49.1	53.4			
9	50.2	51.8	54.7	53.3	49.2	52.5			
10	50.1	51.6	54.7	52.8	49.2	51.3			
11	50.7	51.4	55.3	52.8	49.0	51.2			54.9
12	50.7	51.3	55.1	52.2	48.6	50.4			
13	50.7	51.6	55.1	52.8	48.5	50.4			
14	51.0	51.6	54.9	52.8	48.4	50.7			
15	50.7	51.9	54.9	52.8	48.3	50.1			
16	51.0	51.8	55.0	52.9	48.1	50.3			
17	51.0	52.0	55.0	52.9	48.2	51.2		46.7	
18	51.2	52.2	55.0	53.2	48.0	51.4			
19	51.1	52.2	55.0	53.1	48.1	50.9	52.0		
20	51.3	52.3	55.3	53.2	48.1	51.3			
21	51.4	52.3	55.3	52.6	47.9	49.6			
22	51.1	52.3	55.3	53.2	48.8	51.3			
23	51.3	52.6	55.5	54.2	49.3	53.1			
24	51.0	52.7	54.9	54.6	48.7	54.1			
25	51.3	52.3	55.2	54.2	48.6	53.8			
26	51.4	52.3	55.3	53.7	49.1	53.3			
27	51.3	52.4	55.3	53.7	48.9	52.3			
28	51.4	52.4	55.3	53.7	49.1	51.8			
29	51.5	52.4	55.2	53.6	49.0	51.5			
30	51.6	52.4	55.2	53.6	48.8	51.2			
	51.7	52.5	55.8	53.5	48.3	50.8			

Control Point: 10/1-10/31 BSF @ 56.0 DAT



Central Valley Operations Office  
 Measurements taken by the Northern CA Area Office Personnel

**Summary of Turbidity and Dissolved Oxygen Water Sampling  
 October 2017**

Turbidity Measurements, NTU

Sampling Frequency

Monthly, except weekly from May 1 through September 30, when turbidity at Station 2 is equal to or greater than 10 NTU.

**Station**

	R-2	R-3a	R-4	R-5	R-6	R-7	R-8	
	Shasta Dam		Spring	Red Bluff				
	Discharge	Keswick	Creek PP	Diversion	Sacramento	McCloud	Pit	
Day	at Bridge	Discharge	Discharge	Dam	River (DLT)	River	River	
4				2.9				
11							2.2	
13	3.1							
17						1.1		
19					1.3			
24			2.3					
26		2.3						

Dissolved Oxygen, mg/l

Sampling Frequency

Every two weeks from May 1 through September 30; samples to be taken before 1000 hours.

**Station**

	R-2	R-3	R-5	
	Shasta Dam		Red Bluff	Hour
	Discharge	Keswick	Diversion	Time Sample
Day	at Bridge	Discharge	Dam	Taken
4			12.0	10:08
13	9.6			10:20
26		10.2		10:37

Control Point: 10/1-10/31 BSF @ 56.0 DAT

**SHASTA LAKE, DAM AND POWERPLANT**

**GENERATION RELEASE, CFS**

**QG**

**WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,031											
2	6,876											
3	6,819											
4	5,714											
5	6,697											
6	6,134											
7	5,799											
8	5,634											
9	6,287											
10	6,192											
11	7,305											
12	7,581											
13	7,215											
14	6,785											
15	6,851											
16	6,704											
17	6,541											
18	6,512											
19	6,727											
20	6,599											
21	6,336											
22	6,431											
23	6,998											
24	7,044											
25	7,205											
26	6,903											
27	6,823											
28	6,945											
29	6,841											
30	6,951											
31	7,398											

<b>TOTAL</b>	<b>207,878</b>
<b>MEAN</b>	<b>6,706</b>
<b>MAX</b>	<b>7,581</b>
<b>MIN</b>	<b>5,634</b>

WATER YEAR TOTALS	
TOTAL	207,878
DAILY MEAN	6,706
DAILY MAX	7,581 10/12/2017
DAILY MIN	5,634 10/08/2017

**KESWICK DAM, RESERVOIR, AND POWERPLANT**

**TOTAL RELEASE, CFS**

**QT**

**WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,509											
2	7,357											
3	7,709											
4	7,221											
5	7,705											
6	8,103											
7	8,042											
8	7,414											
9	7,401											
10	7,400											
11	7,403											
12	7,408											
13	7,394											
14	7,394											
15	7,397											
16	7,405											
17	7,396											
18	7,404											
19	7,393											
20	7,443											
21	7,436											
22	7,441											
23	7,437											
24	7,442											
25	7,435											
26	7,483											
27	7,452											
28	7,455											
29	7,448											
30	7,498											
31	7,496											

**TOTAL 231,921**  
**MEAN 7,481**  
**MAX 8,103**  
**MIN 7,221**

**WATER YEAR TOTALS**

**TOTAL 231,921**  
**DAILY MEAN 7,481**  
**DAILY MAX 8,103 10/06/2017**  
**DAILY MIN 7,221 10/04/2017**

**WHISKEYTOWN DAM, LAKE, AND SPRING CREEK POWERPLANT**

**GENERATION RELEASE, CFS**

**QG**

**WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669											
2	548											
3	550											
4	1,066											
5	744											
6	1,647											
7	1,496											
8	1,203											
9	1,224											
10	630											
11	17											
12	14											
13	14											
14	507											
15	485											
16	574											
17	632											
18	526											
19	720											
20	691											
21	657											
22	553											
23	595											
24	267											
25	485											
26	432											
27	486											
28	487											
29	491											
30	479											
31	14											
<b>TOTAL</b>	<b>18,903</b>											
<b>MEAN</b>	<b>610</b>											
<b>MAX</b>	<b>1,647</b>											
<b>MIN</b>	<b>14</b>											

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>18,903</b>
<b>DAILY MEAN</b>	<b>610</b>
<b>DAILY MAX</b>	<b>1,647</b>
<b>DAILY MIN</b>	<b>14</b>

10/06/2017  
10/12/2017



**LEWISTON DAM, LAKE, AND JUDGE FRANCIS CARR POWERPLANT**

**RELEASE TO RIVER, CFS**

**QR**

**WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	452											
2	452											
3	448											
4	450											
5	452											
6	452											
7	454											
8	453											
9	453											
10	454											
11	452											
12	456											
13	457											
14	419											
15	368											
16	318											
17	302											
18	300											
19	276											
20	272											
21	303											
22	297											
23	296											
24	290											
25	288											
26	303											
27	300											
28	300											
29	299											
30	299											
31	300											
<b>TOTAL</b>	<b>11,415</b>											
<b>MEAN</b>	<b>368</b>											
<b>MAX</b>	<b>457</b>											
<b>MIN</b>	<b>272</b>											

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>11,415</b>
<b>DAILY MEAN</b>	<b>368</b>
<b>DAILY MAX</b>	<b>457</b>
<b>DAILY MIN</b>	<b>272</b>

10/13/2017  
10/20/2017