



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

DEC 12 2017

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 November 2017, the temperature control point was set at Balls Ferry, per the June 2017, Sacramento River Temperature Plan.

During the current 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 current month, the observed average monthly water temperature was 52.9°F at Balls Ferry.

Enclosed is the monitoring report for November 2017, 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. Kenneth Emanuel
Division of Water Rights
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812
(w/encl)

**Measurements taken by the Northern CA Area Office Personnel
November 2017**

TEMPERATURE						
Sampling Frequency						
Every two weeks May 1 through November 30.						
Lake Elev	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	
MSL	Temperature Degrees F	Temperature Degrees F	Temperature Degrees F	Temperature Degrees F	Temperature Degrees F	Temperature Degrees F
	(400 Feet Upstream of Dam)					
	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:00
625	45.6	45.6				
650	45.6	45.7				
675	45.7	45.7	45.8			
700	45.8	45.8	45.9			
725	46.0	46.1	46.1			
750	46.3	46.6	46.6			
775	47.0	47.6	47.5			
800	49.2	50.4	50.0			
825	52.5	53.6	52.9			
850	55.1	55.6	55.1			
875	56.8	56.4	56.1			
900	58.9	57.9	58.2			
925	61.7	59.5	58.2			
950	61.7	60.4	58.2			
975	61.7	60.4	58.2			
1000	61.7	60.4	58.2			
1025						
1050						
Lake Surface	61.7 @ 1014.10'	60.3 @ 1014.71'	58.2 @ 1017.10'			

TURBIDITY						
Sampling Frequency						
Every two weeks May 1 through November 30.						
Lake Elev	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	
MSL	Turbidity ntu	Turbidity ntu	Turbidity ntu	Turbidity ntu	Turbidity ntu	Turbidity ntu
	(400 Feet Upstream of Dam)					
	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:00	Time: 10:00
625	14.3	13.6				
650	12.6	12.1				
675	11.5	11.4	11.2			
700	10.8	10.6	10.4			
725	9.9	9.4	9.4			
750	8.5	7.9	7.9			
775	6.5	5.3	5.2			
800	2.4	1.7	1.9			
825	0.9	1.0	1.4			
850	0.7	1.0	0.9			
875	0.6	0.7	0.7			
900	0.5	0.7	0.6			
925	0.5	0.7	0.6			
950	0.4	0.7	0.6			
975	0.4	0.7	0.6			
1000	0.5	0.7	0.6			
1025						
1050						
Lake Surface	0.4 @ 1014.10'	0.7 @ 1014.71'	0.6 @ 1017.10'			

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling
 November 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
2				2.7		Site not visited this month, per NCAO staff.	
8	2.1						
9							
14		2.0	3.4				3.0
21					1.6		

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	Hour
	Shasta Dam		Red Bluff	
	Discharge	Keswick	Diversion	Time Sample
Day	at Bridge	Discharge	Dam	Taken
2			10.9	10:50
8	8.6			10:15
14		9.6		13:50

Control Point: 11/1-11/30 BSF @ 56.0 DAT

SHASTA LAKE, DAM AND POWERPLANT

QG GENERATION RELEASE, CFS

WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018

DAY	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,031	6,932	6,876	7,308	7,393	7,199	6,132	5,505	5,091	5,367
2	6,819	7,114	6,697	6,134	5,799	5,091	5,634	5,287	5,144	5,017
3	7,031	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
4	6,819	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
5	7,114	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
6	6,697	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
7	6,134	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
8	5,799	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
9	5,634	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
10	5,287	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
11	5,144	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
12	5,017	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
13	4,447	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
14	4,447	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
15	5,173	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
16	4,827	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
17	4,827	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
18	4,174	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
19	4,181	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
20	4,734	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
21	4,375	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
22	4,375	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
23	4,176	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
24	4,385	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
25	4,705	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
26	4,110	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
27	4,540	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
28	4,013	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
29	4,254	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
30	4,414	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
31	4,366	7,305	7,581	7,305	7,305	7,305	7,305	7,305	7,305	7,305
TOTAL	207,878	149,556	6,706	4,985	7,581	7,393	5,634	7,398	7,398	7,398
MEAN	6,706	4,985	7,581	7,393	5,634	7,398	7,398	7,398	7,398	7,398
MAX	7,581	7,393	5,634	7,398	7,398	7,398	7,398	7,398	7,398	7,398
MIN	5,634	4,013	7,398	7,398	7,398	7,398	7,398	7,398	7,398	7,398

WATER YEAR TOTALS

TOTAL	357,434
DAILY MEAN	5,860
DAILY MAX	7,581
DAILY MIN	4,013

10/12/2017
11/23/2017

KESWICK DAM, RESERVOIR, AND POWERPLANT

TOTAL RELEASE, CFS

QT

WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018

DAY	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										7,435
2										7,404
3										7,709
4										7,402
5										6,087
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										7,440
25										7,435
26										7,483
27										7,452
28										7,455
29										7,448
30										7,498
31										7,496
TOTAL										231,919
MEAN										7,481
MAX										8,103
MIN										7,221

WATER YEAR TOTALS	
TOTAL	385,721
DAILY MEAN	6,323
DAILY MAX	8,103 10/06/2017
DAILY MIN	4,430 11/30/2017

LEWISTON DAM, LAKE, AND JUDGE FRANCIS CARR POWERPLANT

QR
RELEASE TO RIVER, CFS

WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018

DAY	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										301
2										300
3										300
4										299
5										287
6										300
7										303
8										300
9										300
10										300
11										300
12										300
13										300
14										299
15										299
16										300
17										301
18										300
19										306
20										304
21										304
22										300
23										300
24										302
25										302
26										288
27										303
28										324
29										300
30										314
31										300
TOTAL										11,415
MEAN										368
MAX										457
MIN										272

WATER YEAR TOTALS

TOTAL	20,471
DAILY MEAN	336
DAILY MAX	457
DAILY MIN	272
	10/13/2017
	10/20/2017

WHISKEYTOWN DAM, LAKE, AND SPRING CREEK POWERPLANT

GENERATION RELEASE, CFS

QG

WATER YEAR OCTOBER 2017 TO SEPTEMBER 2018

DAY	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										
2										
3										
4										
5										
6										
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28										
29										
30										
31										

TOTAL	18,903	1,789
MEAN	610	60
MAX	1,647	600
MIN	14	14

WATER YEAR TOTALS

TOTAL	20,692
DAILY MEAN	339
DAILY MAX	1,647
DAILY MIN	14

10/06/2017
10/12/2017