

OFFICIAL FILE COPY		
DATE	SURNAME	CODE
12/1	JW	07-260
Classification		
Project		
Control No.		
Folder I.D.		

CVO-400
WTR-4.10

Ms. Barbara Evoy
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 Ms. Evoy:

During November 2014, average daily water temperature compliance of 56.0 °F or less was not met at the Clear Creek compliance point on the Sacramento River. The following actions were taken to draw the coldest water out of Shasta to attempt to bring temperatures back into compliance.

On November 5, 2014, a reduction was made from 5,000 cfs to 4,750 cfs. Slowly, reductions were made to send less water down to cool off the water further at Clear Creek compliance point. By November 23, 2014, Keswick releases were down to 4,000 cfs. Despite these measures, a temperature compliance of 56.0 °F at Clear Creek was not attainable.

During the month of November 2014, the average monthly water temperature was 58.5 °F at Clear Creek.

Enclosed is the monitoring report for October 2014, under Order No. 90-5. The report contains the following data:

Station	Description
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
Jellys Ferry (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. Thuy Washburn at 916-979-2193, 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 2014**

TEMPERATURE				
Sampling Frequency				
Every two weeks May 1 through November 30.				
	Sample 1	Sample 2	Sample 3	Sample 4
	11/5/2014	11/12/2014		
Lake Elev	Temperature	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F	Degrees F
	(400 Feet Upstream of Dam)			
	Time: 10:30	Time: 14:12		
625	47.1	47.2		
650	48.2	48.5		
675	51.1	52.2		
700	58.8	57.6		
725	59.7	58.3		
750	60.7	59.7		
775	61.6	60.7		
800	63.2	62.2		
825	63.4	62.6		
850	63.5	62.6		
875	63.6	62.6		
900				
925				
950				
975				
1000				
1025				
1050				
Lake Surface	894.84' 63.7	892.38' 62.8		

TURBIDITY				
Sampling Frequency				
Monthly, except weekly May 1 through Sep 30, when turbidity at Station 2 is equal to or greater than 10 NTU				
	Sample 1	Sample 2	Sample 3	Sample 4
	11/5/2014	11/12/2014		
Lake Elev	Turbidity	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu	ntu
	(400 Feet Upstream of Dam)			
	Time: 10:30	Time: 14:12		
625	20.2	22.4		
650	25.6	21.3		
675	37.7	23.7		
700	18.7	9.5		
725	18.3	9.1		
750	12.2	12.7		
775	6.4	16.1		
800	3.7	8.1		
825	3.8	5.2		
850	4.0	5.1		
875	3.7	4.9		
900				
925				
950				
975				
1000				
1025				
1050				
Lake Surface	894.84' 3.6	892.38' 4.3		

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling
 November 2014**

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	Clear Creek				
	Discharge	Keswick	Creek PP	Control Point	Sacramento	McCloud	Pit	
Day	at Bridge	Discharge	Discharge	11/1 to 11/30	River (DLT)	River	River	
17		8.7						
20			0.8					
			Per Northern California Area Office staff					
			Site visit not accomplished at					
			Shasta, Clear Creek, Sac River (Dlt), McCloud, Pit					
			in November 2014					

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			Hour
	Discharge	Keswick		Time Sample
Day	at Bridge	Discharge	Clear Creek	Taken
	No Requirement October through April			

Temperature Control Point:

56.0 degrees at Balls Ferry from 03/01/2014 to 03/27/2014.

58.0 degrees at Clear Creek from 03/28/2014 to 04/24/2014.

56.0 degrees at Clear Creek from 04/25/2014 to 11/30/2014.

SHASTA LAKE, DAM AND POWERPLANT

QG

GENERATION RELEASE, CFS

WATER YEAR OCTOBER 2014 TO SEPTEMBER2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,560	2,718										
2	1,679	2,423										
3	1,082	4,236										
4	1,059	4,576										
5	1,426	4,669										
6	1,647	4,864										
7	1,511	4,950										
8	2,679	4,736										
9	3,874	4,876										
10	4,003	4,855										
11	3,435	4,221										
12	3,015	4,796										
13	3,726	4,469										
14	3,496	4,828										
15	4,156	4,621										
16	3,146	4,289										
17	3,618	4,151										
18	3,358	4,209										
19	3,309	3,526										
20	2,894	3,499										
21	2,876	4,345										
22	3,540	3,900										
23	4,896	4,292										
24	2,343	3,838										
25	2,453	3,537										
26	4,158	3,784										
27	4,106	3,682										
28	4,414	3,803										
29	2,666	3,601										
30	2,337	3,771										
31	4,519											
TOTAL	92,981	124,065										
MEAN	2,999	4,136										
MAX	4,896	4,950										
MIN	1,059	2,423										

WATER YEAR TOTALS

TOTAL	217,046	
DAILY MEAN	3,558	
DAILY MAX	4,950	11/07/2014
DAILY MIN	1,059	10/04/2014

UNITED STATES DEPARTMENT OF THE INTERIOR
 U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

RUN DATE: December 8, 2014

KESWICK DAM, RESERVOIR, AND POWERPLANT

QT

TOTAL RELEASE, CFS

WATER YEAR OCTOBER 2014 TO SEPTEMBER2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,500	4,519										
2	4,647	4,520										
3	4,409	4,549										
4	4,403	4,606										
5	4,395	4,495										
6	4,504	4,454										
7	4,462	4,406										
8	4,542	4,400										
9	4,490	4,394										
10	4,512	4,373										
11	4,545	4,267										
12	4,535	4,162										
13	4,536	4,144										
14	4,544	4,127										
15	4,521	4,177										
16	4,545	4,110										
17	4,533	4,015										
18	4,538	3,992										
19	4,533	3,924										
20	4,535	3,928										
21	4,528	3,958										
22	4,528	3,989										
23	4,540	3,933										
24	4,527	3,959										
25	4,504	3,976										
26	4,420	3,987										
27	4,449	3,981										
28	4,450	3,982										
29	4,443	3,985										
30	4,449	3,982										
31	4,503											
TOTAL	139,570	125,294										
MEAN	4,502	4,176										
MAX	4,647	4,606										
MIN	4,395	3,924										

WATER YEAR TOTALS

TOTAL	264,864	
DAILY MEAN	4,342	
DAILY MAX	4,647	10/02/2014
DAILY MIN	3,924	11/19/2014

UNITED STATES DEPARTMENT OF THE INTERIOR
 U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA
LEWISTON DAM, LAKE, AND JUDGE FRANCIS CARR POWERPLANT

RUN DATE: December 8, 2014

QR **RELEASE TO RIVER, CFS**

WATER YEAR OCTOBER 2014 TO SEPTEMBER2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	315										
2	494	301										
3	512	317										
4	517	312										
5	517	301										
6	498	304										
7	487	305										
8	488	305										
9	488	303										
10	486	303										
11	474	303										
12	454	303										
13	450	304										
14	452	305										
15	399	306										
16	370	307										
17	311	309										
18	303	311										
19	302	310										
20	305	308										
21	298	310										
22	292	309										
23	307	309										
24	320	311										
25	323	307										
26	318	307										
27	318	307										
28	317	310										
29	317	310										
30	315	310										
31	316											
TOTAL	12,238	9,222										
MEAN	395	307										
MAX	517	317										
MIN	292	301										

WATER YEAR TOTALS

TOTAL	21,460	
DAILY MEAN	352	
DAILY MAX	517	10/04/2014
DAILY MIN	292	10/22/2014

UNITED STATES DEPARTMENT OF THE INTERIOR
 U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA
WHISKEYTOWN DAM, LAKE, AND SPRING CREEK POWERPLANT

RUN DATE: December 8, 2014

QG

GENERATION RELEASE, CFS

WATER YEAR OCTOBER 2014 TO SEPTEMBER2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	2,062										
2	510	2,150										
3	654	965										
4	689	19										
5	646	14										
6	704	14										
7	849	14										
8	761	14										
9	660	14										
10	676	14										
11	1,266	14										
12	1,240	14										
13	1,056	14										
14	997	18										
15	585	14										
16	1,185	92										
17	1,106	18										
18	1,154	14										
19	1,012	97										
20	1,570	64										
21	1,620	991										
22	1,662	14										
23	1,235	14										
24	2,019	15										
25	2,068	14										
26	1,018	14										
27	476	14										
28	178	14										
29	1,439	159										
30	2,111	14										
31	718											
TOTAL	32,409	6,902										
MEAN	1,045	230										
MAX	2,111	2,150										
MIN	178	14										

WATER YEAR TOTALS

TOTAL	39,311	
DAILY MEAN	644	
DAILY MAX	2,150	11/02/2014
DAILY MIN	14	11/05/2014