



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

APR 15 2015

VIA ELECTRONIC MAIL

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:

For the month of March, the temperature control point was set at Clear Creek, per the recommendation of the Sacramento River Temperature Task Group.

During March 2015, the average daily water temperature compliance of 56.0° F or less was met at the Clear Creek compliance point on the Sacramento.

During the month of March 2015, the average monthly water temperature was 52.2° F at Clear Creek.

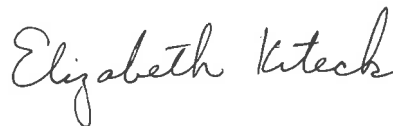
Enclosed is the monitoring report for March 2015, under Order No. 90-5. The report contains the following data:

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

Station	Description
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)

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
March 2015

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Control Pt 3/1 to 3/31			Req. Sampling Frequency - Monthly		
Date	Sta 2 Shd*	Sta 3 Kwk*	Sta 4 Spp**	Sta 5 Ccr**	Sta 9 Lws*		Sta 6 Dlt***	Sta 7 Mss***	Sta 8 Pmn***			
1	50.3	50.8	51.0	51.4	48.1							
2	49.0	50.5	50.9	50.9	48.9							
3	48.3	50.6	50.8	51.0	48.7							
4	50.1	50.7	50.8	51.3	48.6							
5	49.9	50.5	50.9	51.3	48.3							
6	49.9	50.7	50.9	51.6	48.6							
7	50.1	50.8	50.9	51.9	49.0							
8	49.8	50.9	50.4	51.9	49.1							
9	49.8	51.1	50.9	52.2	49.4							
10	49.8	51.0	50.9	51.8	49.0							
11	49.6	50.8	50.7	51.5	49.5							
12	49.8	50.8	50.7	52.2	50.4							
13	49.6	50.5	50.9	52.3	50.6							
14	49.6	50.8	51.0	51.8	50.4							
15	49.5	50.7	50.9	51.6	50.2							
16	49.5	50.5	50.9	51.6	50.9							
17	49.5	50.4	51.0	52.2	51.5							
18	49.6	50.9	50.6	52.2	50.9		50.6	48.7				
19	50.1	50.8	51.5	52.6	50.9							
20	49.6	50.8	51.2	52.1	50.6							
21	49.7	50.8	51.1	52.6	51.6							
22	49.5	50.9	51.1	52.2	51.5							
23	49.3	50.8	51.1	52.1	51.1							
24	49.6	50.5	51.2	52.0	51.8							
25	50.1	50.8	51.2	52.5	52.7				52.7			
26	50.0	50.7	51.4	53.1	53.2							
27	49.8	51.0	51.4	53.1	53.0							
28	49.7	51.9	51.4	53.6	52.8							
29	49.8	51.6	51.6	53.9	52.7							
30	49.9	51.4	51.7	53.6	53.0							
31	49.7	51.8	51.7	53.4	53.1							

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 3/31/2015.

Cross Channel Gate Operation:
 March 1-31 closed

**Measurements taken by the Northern CA Area Office Personnel
March 2015**

TEMPERATURE				
Sampling Frequency				
Every two weeks May 1 through November 30.				
	Sample 1	Sample 2	Sample 3	Sample 4
	3/10/2015			
Lake Elev	Temperature	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F	Degrees F
	(400 Feet Upstream of Dam)			
	Time: 11:10			
625	46.0			
650	46.0			
675	46.1			
700	46.1			
725	46.3			
750	46.5			
775	46.8			
800	47.2			
825	47.7			
850	48.0			
875	48.2			
900	49.0			
925	50.3			
950	51.0			
975	53.7			
1000				
1025				
1050				
Lake Surface	991.19' 54.9			

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
	3/10/2015			
Lake Elev	Turbidity	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu	ntu
	(400 Feet Upstream of Dam)			
	Time: 11:10			
625	4.5			
650	4.2			
675	4.0			
700	4.1			
725	4.0			
750	3.9			
775	3.9			
800	4.2			
825	4.4			
850	5.0			
875	5.5			
900	6.3			
925	5.4			
950	5.3			
975	4.8			
1000				
1025				
1050				
Lake Surface	991.19' 4.8			

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling
 March 2015**

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	3/1 to 3/31	River (DLT)	River	River	
4	7.7		1.2					
5				6.8				
12		5.6						
18					0.8	1.0		
25							2.5	

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			
	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 3/31/2015.

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

RUN DATE: April 7, 2015

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	3,566	2,892	1,946	1,961						
2	1,679	2,423	3,348	2,079	2,006	2,637						
3	1,082	4,236	2,346	3,469	4,376	3,292						
4	1,059	4,576	3,089	2,624	2,040	3,153						
5	1,426	4,669	3,132	2,979	3,571	3,371						
6	1,647	4,864	2,135	2,181	1,649	2,804						
7	1,511	4,950	1,989	2,654	357	2,947						
8	2,679	4,736	2,685	2,828	523	1,936						
9	3,874	4,876	2,767	3,081	2,433	3,270						
10	4,003	4,855	763	3,047	376	2,581						
11	3,435	4,221	296	3,068	1,779	3,489						
12	3,015	4,796	710	3,064	1,109	3,321						
13	3,726	4,469	1,719	4,159	1,187	3,126						
14	3,496	4,828	765	3,504	1,026	3,253						
15	4,156	4,621	1,510	2,374	1,213	3,332						
16	3,146	4,289	1,887	2,705	1,956	1,985						
17	3,618	4,151	2,167	2,413	1,504	3,281						
18	3,358	4,209	712	2,676	974	3,103						
19	3,309	3,526	214	4,264	1,802	2,936						
20	2,894	3,499	1,252	3,002	2,015	3,266						
21	2,876	4,345	1,780	2,849	1,783	2,986						
22	3,540	3,900	2,119	1,750	2,152	2,582						
23	4,896	4,292	1,739	3,308	2,181	3,094						
24	2,343	3,838	531	3,517	2,214	3,216						
25	2,453	3,537	833	1,984	2,659	2,866						
26	4,158	3,784	1,638	2,219	2,774	3,285						
27	4,106	3,682	1,345	4,244	2,869	2,877						
28	4,414	3,803	1,384	2,099	2,851	3,161						
29	2,666	3,601	2,135	3,614		2,013						
30	2,337	3,771	2,568	3,519		3,244						
31	4,519		2,705	3,610		2,729						
TOTAL	92,981	124,065	55,829	91,776	53,325	91,097						
MEAN	2,999	4,136	1,801	2,961	1,904	2,939						
MAX	4,896	4,950	3,566	4,264	4,376	3,489						
MIN	1,059	2,423	214	1,750	357	1,936						

WATER YEAR TOTALS

TOTAL	509,073	
DAILY MEAN	2,797	
DAILY MAX	4,950	11/07/2014
DAILY MIN	214	12/19/2014

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

RUN DATE: April 7, 2015

KESWICK DAM, RESERVOIR, AND POWERPLANT

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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	3,849	2,991	3,090	3,063						
2	4,647	4,520	3,450	2,966	3,090	3,064						
3	4,409	4,549	3,375	2,963	3,088	3,093						
4	4,403	4,606	3,308	2,985	3,088	3,059						
5	4,395	4,495	3,326	2,967	3,090	3,061						
6	4,504	4,454	3,310	2,967	3,104	3,063						
7	4,462	4,406	3,306	2,940	4,733	3,062						
8	4,542	4,400	3,196	2,940	4,479	3,062						
9	4,490	4,394	3,190	3,003	3,634	3,063						
10	4,512	4,373	3,066	3,179	3,121	3,052						
11	4,545	4,267	4,723	3,168	3,041	3,093						
12	4,535	4,162	4,178	3,180	3,039	3,121						
13	4,536	4,144	3,909	3,179	3,043	3,119						
14	4,544	4,127	3,862	3,172	3,038	3,120						
15	4,521	4,177	3,854	3,066	3,041	3,118						
16	4,545	4,110	3,054	2,911	3,038	3,105						
17	4,533	4,015	3,062	2,910	3,039	3,099						
18	4,538	3,992	3,281	2,914	3,041	3,105						
19	4,533	3,924	3,558	2,911	3,039	3,101						
20	4,535	3,928	3,467	2,912	3,040	3,013						
21	4,528	3,958	3,305	2,868	3,038	3,017						
22	4,528	3,989	3,072	2,866	2,996	3,016						
23	4,540	3,933	3,125	2,865	2,975	3,016						
24	4,527	3,959	3,067	2,815	2,988	2,930						
25	4,504	3,976	3,024	2,815	3,036	2,750						
26	4,420	3,987	3,040	2,815	3,105	2,738						
27	4,449	3,981	3,038	2,812	3,064	2,733						
28	4,450	3,982	3,042	2,816	3,063	2,732						
29	4,443	3,985	3,040	2,828		2,734						
30	4,449	3,982	3,016	2,981		2,732						
31	4,503		2,991	3,090		2,732						
TOTAL	139,570	125,294	104,084	91,795	89,181	92,766						
MEAN	4,502	4,176	3,358	2,961	3,185	2,992						
MAX	4,647	4,606	4,723	3,180	4,733	3,121						
MIN	4,395	3,924	2,991	2,812	2,975	2,732						

WATER YEAR TOTALS

TOTAL	642,690	
DAILY MEAN	3,531	
DAILY MAX	4,733	02/07/2015
DAILY MIN	2,732	03/28/2015

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

RUN DATE: April 7, 2015

LEWISTON DAM, LAKE, AND JUDGE FRANCIS CARR POWERPLANT

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	312	299	311	310						
2	494	301	312	302	301	310						
3	512	317	312	300	311	311						
4	517	312	309	301	313	312						
5	517	301	310	303	314	313						
6	498	304	310	302	315	313						
7	487	305	310	299	316	314						
8	488	305	310	302	310	315						
9	488	303	311	300	309	311						
10	486	303	311	302	308	306						
11	474	303	310	302	307	297						
12	454	303	312	301	309	296						
13	450	304	310	301	307	297						
14	452	305	305	304	308	297						
15	399	306	308	304	308	297						
16	370	307	312	304	308	298						
17	311	309	314	304	310	295						
18	303	311	313	304	311	296						
19	302	310	317	304	311	295						
20	305	308	315	304	310	295						
21	298	310	304	305	309	294						
22	292	309	302	305	309	296						
23	307	309	301	306	307	307						
24	320	311	301	307	309	314						
25	323	307	302	309	311	314						
26	318	307	302	309	310	313						
27	318	307	302	308	310	313						
28	317	310	301	307	309	312						
29	317	310	301	305		310						
30	315	310	298	307		311						
31	316		301	308		311						
TOTAL	12,238	9,222	9,538	9,418	8,671	9,473						
MEAN	395	307	308	304	310	306						
MAX	517	317	317	309	316	315						
MIN	292	301	298	299	301	294						

WATER YEAR TOTALS

TOTAL	58,560	
DAILY MEAN	322	
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: April 7, 2015

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	218	14	14	14						
2	510	2,150	15	349	14	14						
3	654	965	1,016	14	14	14						
4	689	19	18	27	14	23						
5	646	14	14	86	16	14						
6	704	14	746	309	899	14						
7	849	14	665	14	1,529	18						
8	761	14	228	14	1,794	551						
9	660	14	727	15	943	22						
10	676	14	1,586	14	2,015	15						
11	1,266	14	699	17	1,900	49						
12	1,240	14	1,981	14	1,906	46						
13	1,056	14	1,536	15	1,969	24						
14	997	18	2,067	378	705	14						
15	585	14	2,132	17	795	14						
16	1,185	92	1,723	23	1,898	27						
17	1,106	18	28	16	1,940	14						
18	1,154	14	1,849	14	825	112						
19	1,012	97	1,374	16	1,675	14						
20	1,570	64	1,254	93	1,297	14						
21	1,620	991	299	14	1,342	14						
22	1,662	14	572	14	695	17						
23	1,235	14	805	373	619	15						
24	2,019	15	1,938	288	523	17						
25	2,068	14	2,143	14	560	20						
26	1,018	14	770	14	351	14						
27	476	14	1,321	14	112	14						
28	178	14	2,069	14	14	36						
29	1,439	159	685	19		21						
30	2,111	14	17	16		17						
31	718		14	15		17						
TOTAL	32,409	6,902	30,509	2,254	26,378	1,229						
MEAN	1,045	230	984	73	942	40						
MAX	2,111	2,150	2,143	378	2,015	551						
MIN	178	14	14	14	14	14						

WATER YEAR TOTALS

TOTAL	99,681		
DAILY MEAN	548		
DAILY MAX	2,150	11/02/2014	
DAILY MIN	14	11/05/2014	