



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 13 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 February 2015, the temperature control point was set at Clear Creek, per the recommendation of the Sacramento River Temperature Task Group.

During February 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 February 2015, the average monthly water temperature was 51.4° F at Clear Creek.

Enclosed is the monitoring report for February 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
February 2015

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Req. Sampling Frequency - Monthly		
	Sta 2	Sta 3	Sta 4	Sta 5	Sta 9		Sta 6	Sta 7	Sta 8
Date	Shd*	Kwk*	Spp**	Ccr**	Lws*		Dit***	Mss***	Pmn***
1	50.4	50.5	50.1	50.7	47.1				
2	50.5	50.7	50.1	50.9	47.8				
3	50.4	50.7	49.9	51.0	48.1				
4	50.3	50.7	49.8	50.8	48.2				
5	50.2	50.7	49.9	50.8	47.8				
6	50.2	50.7	49.5	51.0	48.1				
7	51.3	50.8	49.5	51.9	48.4				
8	52.9	50.9	49.6	51.6	48.4				
9	50.1	51.4	49.6	52.0	48.5				
10	49.9	51.6	49.8	52.0	48.1				
11	50.0	51.2	50.0	51.8	48.4				
12	50.1	51.2	50.1	51.7	48.6		47.8		
13	49.9	51.0	50.0	51.7	48.8				
14	49.9	51.0	50.0	51.9	48.9				
15	50.1	51.2	50.0	51.8	48.9				
16	50.9	50.9	50.0	51.8	48.7				
17	50.2	50.6	50.0	51.4	49.0				
18	50.0	50.7	50.1	51.5	49.1				
19	49.1	50.8	50.1	51.6	49.3				
20	49.9	50.9	50.2	51.5	49.3				
21	50.3	50.8	50.2	51.6	48.9				
22	50.7	50.7	50.2	50.9	48.3				
23	50.7	50.3	50.2	50.4	48.0				
24	50.4	50.3	50.3	50.6	48.3			42.7	
25	50.1	50.6	50.3	50.9	48.9				48.4
26	50.1	50.9	50.3	51.7	48.6				
27	50.1	51.0	50.4	51.6	48.2				
28	50.1	50.9	51.0	51.4	47.9				

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 2/28/2015.

Cross Channel Gate Operation:
 February 1-28 closed

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

TEMPERATURE				
Sampling Frequency				
Every two weeks May 1 through November 30.				
	Sample 1	Sample 2	Sample 3	Sample 4
	2/3/2015			
Lake Elev	Temperature	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F	Degrees F
(400 Feet Upstream of Dam)				
	Time: 10:00			
625	45.8			
650	45.8			
675	45.8			
700	45.9			
725	45.9			
750	46.1			
775	46.3			
800	47.1			
825	47.9			
850	48.5			
875	49.9			
900	50.4			
925	50.8			
950	51.1			
975				
1000				
1025				
1050				
Lake Surface	957.86'	51.2		

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
	2/3/2015			
Lake Elev	Turbidity	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu	ntu
(400 Feet Upstream of Dam)				
	Time: 10:00			
625	8.9			
650	9.0			
675	8.9			
700	8.9			
725	8.2			
750	8.0			
775	7.9			
800	7.7			
825	8.1			
850	9.1			
875	15.7			
900	16.1			
925	15.0			
950	14.9			
975				
1000				
1025				
1050				
Lake Surface	957.86'	14.3		

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling
 February 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	2/1 to 2/28	River (DLT)	River	River
11			1.2	11.7			
12					9.0		
18	10.7						
24						1.9	
25		7.2					15.5

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			Time Sample
Day	Discharge	Keswick	Clear Creek	Taken
	at Bridge	Discharge		
	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 2/28/2015.

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

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

WATER YEAR TOTALS

TOTAL	417,976		
DAILY MEAN	2,768		
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: March 5, 2015

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

WATER YEAR TOTALS

TOTAL	549,924		
DAILY MEAN	3,642		
DAILY MAX	4,733	02/07/2015	
DAILY MIN	2,812	01/27/2015	

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: March 5, 2015

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

WATER YEAR TOTALS

TOTAL	49,087	
DAILY MEAN	325	
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: March 5, 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							
2	510	2,150	15	349	14							
3	654	965	1,016	14	14							
4	689	19	18	27	14							
5	646	14	14	86	16							
6	704	14	746	309	899							
7	849	14	665	14	1,529							
8	761	14	228	14	1,794							
9	660	14	727	15	943							
10	676	14	1,586	14	2,015							
11	1,266	14	699	17	1,900							
12	1,240	14	1,981	14	1,906							
13	1,056	14	1,536	15	1,969							
14	997	18	2,067	378	705							
15	585	14	2,132	17	795							
16	1,185	92	1,723	23	1,898							
17	1,106	18	28	16	1,940							
18	1,154	14	1,849	14	825							
19	1,012	97	1,374	16	1,675							
20	1,570	64	1,254	93	1,297							
21	1,620	991	299	14	1,342							
22	1,662	14	572	14	695							
23	1,235	14	805	373	619							
24	2,019	15	1,938	288	523							
25	2,068	14	2,143	14	560							
26	1,018	14	770	14	351							
27	476	14	1,321	14	112							
28	178	14	2,069	14	14							
29	1,439	159	685	19								
30	2,111	14	17	16								
31	718		14	15								
TOTAL	32,409	6,902	30,509	2,254	26,378							
MEAN	1,045	230	984	73	942							
MAX	2,111	2,150	2,143	378	2,015							
MIN	178	14	14	14	14							

WATER YEAR TOTALS

TOTAL	98,452		
DAILY MEAN	652		
DAILY MAX	2,150	11/02/2014	
DAILY MIN	14	11/05/2014	