



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

FEB 12 2015

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

Dear Ms. Evoy:

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

During January 2015, the average daily water temperature compliance of 56.0° F or less was met at the Clear Creek compliance point on the Sacramento, and the average monthly water temperature at Fat Clear Creek was maintained at 50.8°F.

Enclosed is the monitoring report for January 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
Spring Creek Power plant (R-4) “	Water Temperature, daily average, degrees F Turbidity, ntu, monthly Flow, average daily cfs

Station	Description
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
January 2015

Req. Sampling Frequency - Daily Average (Reading indicates daily average)						Control Pt 1/1 to 1/31			Req. Sampling Frequency - Monthly		
	Sta 2	Sta 3	Sta 4	Sta 5	Sta9			Sta 6	Sta 7	Sta 8	
Date	Shd*	Kwk*	Spp**	Ccr**	Lws*			Dlt***	Mss***	Pmn***	
1	51.8	50.6	52.2	49.9	45.4						
2	51.5	50.8	51.0	49.9	44.9						
3	51.2	50.8	51.5	50.2	44.4						
4	51.0	50.9	51.0	50.6	44.6						
5	51.0	50.9	50.3	50.7	44.7						
6	51.2	50.9	50.2	50.9	44.8						
7	51.1	50.8	No Data	50.9	44.6				43.3		
8	51.1	51.0	50.3	50.7	44.9						
9	51.0	51.1	50.1	51.1	45.1						
10	50.9	51.1	50.1	51.1	45.3						
11	50.7	51.2	49.9	51.1	45.3						
12	50.7	51.1	No Data	51.4	45.5						
13	50.7	51.0	No Data	51.2	45.2					42.4	
14	50.6	50.8	No Data	50.6	44.9						
15	50.7	50.6	50.4	50.4	45.5						
16	50.8	50.6	49.8	50.6	46.0						
17	50.7	50.6	49.6	51.0	46.4						
18	50.8	50.7	49.7	51.1	46.5						
19	50.7	50.7	49.7	51.1	46.1						
20	50.7	50.6	49.5	50.8	45.9						
21	50.6	50.5	50.5	50.8	45.8						
22	50.5	50.4	50.4	50.8	45.9						
23	50.6	50.4	49.8	50.8	46.1						
24	50.6	50.5	49.7	51.3	46.4						
25	50.6	50.5	50.5	51.1	46.6						
26	50.4	50.7	50.4	51.0	46.9						
27	50.5	50.8	50.0	51.0	47.2			46.4			
28	50.4	50.8	49.7	51.1	46.9						
29	50.5	50.6	49.8	51.0	46.9						
30	50.5	50.6	50.1	51.1	47.0						
31	50.5	50.6	50.1	50.8	46.9						

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 1/31/2015.

Cross Channel Gate Operation:
 January 1-31 closed

Note: Spring Creek Powerplant (SPP) stopped transmitting on 12-28-2014. Data logger is being downloaded.
 Several data gaps exist. Site transmitting again on 1/27/2015.

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

TEMPERATURE				
Sampling Frequency Every two weeks May 1 through November 30.				
	Sample 1	Sample 2	Sample 3	Sample 4
	1/6/2015			
Lake Elev	Temperature	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F	Degrees F
(400 Feet Upstream of Dam)				
	Time: 11:30			
625	48.5			
650	48.6			
675	48.6			
700	48.7			
725	48.8			
750	49.1			
775	49.7			
800	50.0			
825	50.4			
850	50.9			
875	51.2			
900	51.2			
925	51.2			
950	51.3			
975				
1000				
1025				
1050				
Lake Surface	951.69' 51.3			

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
	1/6/2015			
Lake Elev	Turbidity	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu	ntu
(400 Feet Upstream of Dam)				
	Time: 11:30			
625	12.6			
650	12.4			
675	12.4			
700	12.0			
725	12.0			
750	11.6			
775	12.8			
800	13.3			
825	16.1			
850	26.2			
875	28.6			
900	28.1			
925	28.3			
950	27.2			
975				
1000				
1025				
1050				
Lake Surface	951.69' 27.06			

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling
 January 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	1/1 to 1/31	River (DLT)	River	River	
7						1.4		
8				22.4				
13							5.7	
15	21.3		1.7					
26		17.3						
27					0.5			

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	
	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 1/31/2015.

SHASTA LAKE, DAM AND POWERPLANT

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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								
2	1,679	2,423	3,348	2,079								
3	1,082	4,236	2,346	3,469								
4	1,059	4,576	3,089	2,624								
5	1,426	4,669	3,132	2,979								
6	1,647	4,864	2,135	2,181								
7	1,511	4,950	1,989	2,654								
8	2,679	4,736	2,685	2,828								
9	3,874	4,876	2,767	3,081								
10	4,003	4,855	763	3,047								
11	3,435	4,221	296	3,068								
12	3,015	4,796	710	3,064								
13	3,726	4,469	1,719	4,159								
14	3,496	4,828	765	3,504								
15	4,156	4,621	1,510	2,374								
16	3,146	4,289	1,887	2,705								
17	3,618	4,151	2,167	2,413								
18	3,358	4,209	712	2,676								
19	3,309	3,526	214	4,264								
20	2,894	3,499	1,252	3,002								
21	2,876	4,345	1,780	2,849								
22	3,540	3,900	2,119	1,750								
23	4,896	4,292	1,739	3,308								
24	2,343	3,838	531	3,517								
25	2,453	3,537	833	1,984								
26	4,158	3,784	1,638	2,219								
27	4,106	3,682	1,345	4,244								
28	4,414	3,803	1,384	2,099								
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								
MEAN	2,999	4,136	1,801	2,961								
MAX	4,896	4,950	3,566	4,264								
MIN	1,059	2,423	214	1,750								

WATER YEAR TOTALS

TOTAL	364,651		
DAILY MEAN	2,965		
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: February 5, 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								
2	4,647	4,520	3,450	2,966								
3	4,409	4,549	3,375	2,963								
4	4,403	4,606	3,308	2,985								
5	4,395	4,495	3,326	2,967								
6	4,504	4,454	3,310	2,967								
7	4,462	4,406	3,306	2,940								
8	4,542	4,400	3,196	2,940								
9	4,490	4,394	3,190	3,003								
10	4,512	4,373	3,066	3,179								
11	4,545	4,267	4,723	3,168								
12	4,535	4,162	4,178	3,180								
13	4,536	4,144	3,909	3,179								
14	4,544	4,127	3,862	3,172								
15	4,521	4,177	3,854	3,066								
16	4,545	4,110	3,054	2,911								
17	4,533	4,015	3,062	2,910								
18	4,538	3,992	3,281	2,914								
19	4,533	3,924	3,558	2,911								
20	4,535	3,928	3,467	2,912								
21	4,528	3,958	3,305	2,868								
22	4,528	3,989	3,072	2,866								
23	4,540	3,933	3,125	2,865								
24	4,527	3,959	3,067	2,815								
25	4,504	3,976	3,024	2,815								
26	4,420	3,987	3,040	2,815								
27	4,449	3,981	3,038	2,812								
28	4,450	3,982	3,042	2,816								
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								
MEAN	4,502	4,176	3,358	2,961								
MAX	4,647	4,606	4,723	3,180								
MIN	4,395	3,924	2,991	2,812								

WATER YEAR TOTALS

TOTAL	460,743	
DAILY MEAN	3,746	
DAILY MAX	4,723	12/11/2014
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: February 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								
2	494	301	312	302								
3	512	317	312	300								
4	517	312	309	301								
5	517	301	310	303								
6	498	304	310	302								
7	487	305	310	299								
8	488	305	310	302								
9	488	303	311	300								
10	486	303	311	302								
11	474	303	310	302								
12	454	303	312	301								
13	450	304	310	301								
14	452	305	305	304								
15	399	306	308	304								
16	370	307	312	304								
17	311	309	314	304								
18	303	311	313	304								
19	302	310	317	304								
20	305	308	315	304								
21	298	310	304	305								
22	292	309	302	305								
23	307	309	301	306								
24	320	311	301	307								
25	323	307	302	309								
26	318	307	302	309								
27	318	307	302	308								
28	317	310	301	307								
29	317	310	301	305								
30	315	310	298	307								
31	316		301	308								
TOTAL	12,238	9,222	9,538	9,418								
MEAN	395	307	308	304								
MAX	517	317	317	309								
MIN	292	301	298	299								

WATER YEAR TOTALS

TOTAL	40,416	
DAILY MEAN	329	
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: February 5, 2015

QG

GENERATION RELEASE, CFS

WATER YEAR OCTOBER 2014 TO SEPTEMBER 2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	2,062	218	14								
2	510	2,150	15	349								
3	654	965	1,016	14								
4	689	19	18	27								
5	646	14	14	86								
6	704	14	746	309								
7	849	14	665	14								
8	761	14	228	14								
9	660	14	727	15								
10	676	14	1,586	14								
11	1,266	14	699	17								
12	1,240	14	1,981	14								
13	1,056	14	1,536	15								
14	997	18	2,067	378								
15	585	14	2,132	17								
16	1,185	92	1,723	23								
17	1,106	18	28	16								
18	1,154	14	1,849	14								
19	1,012	97	1,374	16								
20	1,570	64	1,254	93								
21	1,620	991	299	14								
22	1,662	14	572	14								
23	1,235	14	805	373								
24	2,019	15	1,938	288								
25	2,068	14	2,143	14								
26	1,018	14	770	14								
27	476	14	1,321	14								
28	178	14	2,069	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								
MEAN	1,045	230	984	73								
MAX	2,111	2,150	2,143	378								
MIN	178	14	14	14								

WATER YEAR TOTALS

TOTAL	72,074	
DAILY MEAN	586	
DAILY MAX	2,150	11/02/2014
DAILY MIN	14	11/05/2014