

KE



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

JUL 17 2014

2014 JUL 21 PM 11:20
DIV OF RECLAMATION
SACRAMENTO

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 June 2014, average daily water temperature compliance of 56.0 degrees Fahrenheit (°F) or less was met at the Clear Creek compliance point on the Sacramento River with the exception of June 02 (56.6 °F), June 06 (56.5 °F), June 23 (56.6 °F), and June 30 (56.5 °F). The following actions were taken to avoid exceedences and bring temperatures back into compliance. On June 02, 2014, PRG #2 gate was opened and on June 06, 2014, PRG #1 gate was open. Another action was needed on June 16, 2014 and PRG #3 gate was opened. On June 23, 2014, middle gate #1 and #2 were closed and on June 25, 2014, middle gate #3 was closed. The last action taken for the month of June was on June 30, 2014, when PRG gate #5 was opened.

During the month of June 2014, the average monthly water temperature was 55.9 °F at Clear Creek.

Enclosed is the monitoring report for June 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

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

Should you have any questions regarding this data, please contact Ms. Thuy Washburn at 916-979-2193.

Sincerely,



Elizabeth Kiteck
Chief, Water Operations

Enclosure

cc: Kari Kyler
Division of Water Rights
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812
(w/encl)

Central Valley Operations Office
 Data available from the California Data Exchange Center
Water Temperature Data in Degrees F
 June 2014

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Control Pt 6/1 to 6/30			Req. Sampling Frequency - Monthly		
Date	Sta 2 Shd	Sta 3 Kwk	Sta 4 Spp	Sta 5 Ccr	Sta9 Lws			Sta 6 Dlt	Sta 7 Mss	Sta 8 Pmn		
1	54.0	54.9	51.9	56.2	51.3							
2	53.3	55.4	51.9	56.6	51.3							
3	53.0	54.8	51.9	56.4	51.4							
4	52.7	54.6	52.0	56.0	51.1							
5	52.7	54.6	52.0	56.1	51.6							
6	52.0	55.0	52.2	56.5	51.4							
7	52.0	54.5	52.6	56.3	51.2							
8	51.7	54.1	52.8	55.8	51.3							
9	51.9	53.9	52.7	55.7	51.6							
10	51.9	54.1	52.9	55.7	51.8							
11	52.0	53.9	52.8	55.6	51.7							
12	51.8	54.1	53.4	55.6	51.5							
13	53.0	53.9	53.9	55.5	51.8							
14	52.6	54.9	53.8	55.4	51.6							
15	52.3	54.5	54.0	56.0	51.5							
16	51.9	54.4	54.3	55.7	51.7							
17	52.1	54.3	54.7	55.7	52.1		62.3	58.5				
18	51.9	53.9	54.5	55.2	51.8							
19	51.7	54.0	54.7	55.4	51.9							
20	52.7	53.8	54.9	55.2	52.3							
21	52.8	54.5	54.9	55.8	52.5							
22	53.6	54.6	55.1	55.8	52.8							
23	52.7	55.4	55.3	56.6	53.4							
24	53.6	54.9	55.6	56.2	53.5					65.4		
25	52.7	55.2	55.5	56.0	53.0							
26	52.6	54.4	55.6	55.5	53.3							
27	52.2	54.5	55.8	55.8	53.6							
28	52.4	54.6	55.9	55.8	53.8							
29	52.5	55.0	55.9	56.2	53.8							
30	51.3	55.2	56.0	56.5	53.4							

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 06/30/2014.

Cross Channel Gate Operation:

June 1-5 Closed
 June 6-8 Open
 June 9-12 Closed
 June 13-30 Open

**Measurements taken by the Northern CA Area Office Personnel
June 2014**

TEMPERATURE			
Sampling Frequency			
Every two weeks May 1 through November 30.			
	Sample 1	Sample 2	Sample 3
	6/2/2014	6/18/2014	6/30/2014
Lake Elev	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F
(400 Feet Upstream of Dam)			
	Time: 13:15	Time: 11:30	Time: 10:30
625	45.4	45.4	45.5
650	45.4	45.4	45.5
675	45.5	45.5	45.6
700	45.5	45.6	45.7
725	45.7	45.7	45.8
750	45.8	46.0	46.0
775	46.4	46.3	46.6
800	46.8	46.8	47.4
825	47.4	47.5	48.1
850	48.1	48.8	49.5
875	49.4	50.1	52.5
900	51.8	55.8	62.3
925	58.8	70.7	75.1
950	70.2	71.0	
975			
1000			
1025			
1050			
Lake Surface	966.55' 72.3	957.88' 71.1	948.95' 76.0

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
	6/2/2014	6/18/2014	6/30/2014
Lake Elev	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu
(400 Feet Upstream of Dam)			
	Time: 13:15	Time: 11:30	Time: 10:30
625	1.3	1.7	1.1
650	1.2	1.7	0.9
675	1.2	1.6	0.9
700	1.1	1.6	0.9
725	1.1	1.7	1.0
750	1.1	1.7	1.1
775	1.1	1.8	1.1
800	1.1	1.9	1.2
825	1.2	2.0	1.3
850	1.4	2.0	1.2
875	1.4	1.7	0.4
900	1.0	1.3	0.4
925	1.1	1.4	1.1
950	1.1	1.5	
975			
1000			
1025			
1050			
Lake Surface	966.55' 1.0	957.88' 1.4	948.95' 0.7

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

RUN DATE: July 3, 2014

SHASTA LAKE, DAM AND POWERPLANT

QG

GENERATION RELEASE, CFS

WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,649	6,198	3,315	3,087	3,350	2,732	1,127	4,514	7,767			
2	5,514	5,264	3,424	3,230	3,261	2,497	1,854	5,187	7,819			
3	5,223	4,608	3,402	3,086	3,354	2,762	2,037	5,061	7,571			
4	5,533	4,848	3,346	2,944	3,331	2,262	1,013	5,197	7,012			
5	5,227	4,431	3,182	2,641	3,144	2,383	478	5,135	7,401			
6	5,255	4,615	3,634	2,837	3,312	1,844	1,066	5,939	7,105			
7	5,505	4,309	3,239	2,603	3,238	2,265	1,235	6,840	7,056			
8	5,572	4,122	3,032	2,759	3,774	2,582	660	6,761	6,764			
9	6,048	3,788	3,362	2,777	3,779	1,619	808	7,424	6,914			
10	5,630	4,109	3,027	3,117	4,079	1,853	1,398	7,237	5,646			
11	5,380	3,843	3,061	3,138	3,415	1,752	1,567	6,893	7,654			
12	5,869	3,813	3,083	3,048	3,496	1,112	1,379	6,928	7,160			
13	5,370	4,238	3,195	2,745	3,152	1,548	2,669	6,568	7,887			
14	5,483	4,196	3,117	2,729	2,864	1,785	2,150	7,189	7,325			
15	5,659	3,796	3,008	2,681	2,595	1,915	2,636	7,239	6,964			
16	5,747	3,741	3,190	2,893	2,466	2,550	2,618	7,367	7,473			
17	5,431	3,233	3,065	2,914	2,691	2,400	2,559	8,072	7,350			
18	5,611	3,139	3,033	2,820	2,492	2,983	3,454	7,401	7,557			
19	5,208	2,998	3,223	2,795	3,762	3,661	3,288	6,422	7,503			
20	4,947	3,185	3,469	2,671	2,322	2,413	3,657	6,884	8,526			
21	5,443	3,065	3,209	2,804	2,467	2,533	3,556	7,058	9,192			
22	5,172	3,016	3,170	2,894	2,569	2,565	3,773	7,499	9,190			
23	5,530	3,081	3,692	2,802	2,678	2,860	3,147	7,174	8,969			
24	5,207	3,233	3,393	3,078	2,714	2,988	3,056	7,300	9,665			
25	4,968	3,412	3,198	2,714	2,794	2,898	3,734	7,585	9,621			
26	4,879	3,381	3,271	2,506	3,061	3,020	3,157	7,862	9,080			
27	4,982	3,240	3,363	3,040	2,132	2,410	3,616	7,585	8,739			
28	4,855	3,264	3,325	3,332	2,336	3,061	3,397	7,761	8,447			
29	4,560	3,246	3,031	3,162		1,432	3,665	6,673	8,731			
30	4,961	3,288	3,187	2,999		1,675	3,828	8,139	8,558			
31	5,015		2,941	3,343		2,098		7,978				
TOTAL	165,433	114,700	100,187	90,189	84,628	72,458	72,582	212,872	236,646			
MEAN	5,337	3,823	3,232	2,909	3,022	2,337	2,419	6,867	7,888			
MAX	6,048	6,198	3,692	3,343	4,079	3,661	3,828	8,139	9,665			
MIN	4,560	2,998	2,941	2,506	2,132	1,112	478	4,514	5,646			

WATER YEAR TOTALS

TOTAL	1,149,695	
DAILY MEAN	4,211	
DAILY MAX	9,665	06/24/2014
DAILY MIN	478	04/05/2014

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

RUN DATE: July 3, 2014

KESWICK DAM, RESERVOIR, AND POWERPLANT

QT

TOTAL RELEASE, CFS

WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,250	5,658	3,891	3,779	3,349	2,684	2,502	4,533	8,494			
2	6,244	5,536	3,996	3,630	3,350	2,687	2,626	5,068	8,467			
3	6,251	5,146	4,068	3,562	3,340	2,544	2,663	5,068	8,217			
4	6,252	5,195	4,066	3,280	3,307	2,602	2,692	5,066	8,245			
5	6,247	4,924	4,064	3,107	3,275	2,608	2,664	5,094	8,244			
6	6,239	4,786	4,067	3,102	3,258	2,595	2,736	5,854	8,254			
7	6,239	4,628	4,057	3,098	3,411	2,648	2,730	6,438	8,200			
8	6,219	4,583	3,967	3,047	3,709	2,633	2,693	6,421	8,188			
9	6,149	4,722	3,974	2,955	3,453	2,639	2,697	6,970	8,184			
10	6,169	4,665	3,986	3,042	3,469	2,644	2,688	6,998	8,186			
11	6,154	4,618	4,047	3,002	3,312	2,641	2,672	6,997	8,162			
12	6,088	4,478	3,990	2,975	3,174	2,619	2,575	7,008	8,582			
13	6,168	4,420	3,993	2,979	3,075	2,631	2,500	6,986	8,563			
14	6,140	4,158	3,995	2,952	2,994	2,629	2,489	6,989	8,589			
15	6,111	3,920	3,991	2,895	2,890	2,670	2,512	6,965	8,624			
16	6,111	3,848	3,992	2,887	2,890	2,684	2,952	6,944	8,628			
17	6,135	3,792	3,990	2,888	2,889	2,692	3,018	6,996	8,656			
18	6,112	3,962	3,993	2,892	2,894	2,637	3,737	7,001	9,165			
19	6,117	3,998	3,925	2,898	2,932	2,713	3,741	6,993	9,150			
20	6,104	3,985	3,834	2,893	2,897	3,321	3,748	7,009	10,256			
21	6,004	4,006	3,844	2,895	2,751	3,166	3,747	7,081	9,933			
22	5,950	4,006	3,843	2,894	2,773	3,072	3,684	7,559	9,839			
23	5,943	3,965	3,838	2,898	2,731	3,095	3,488	7,564	9,873			
24	5,950	3,909	3,858	2,882	2,708	3,095	3,356	7,562	9,925			
25	5,957	3,913	3,885	2,846	2,712	3,077	3,372	7,559	9,942			
26	5,904	3,960	3,821	2,842	2,710	3,068	3,369	7,558	10,143			
27	5,877	4,039	3,787	3,082	2,618	2,935	3,530	7,566	9,696			
28	5,879	4,033	3,794	3,352	2,688	2,863	3,755	7,634	9,671			
29	5,894	4,047	3,651	3,349		2,702	3,797	7,490	9,650			
30	5,878	3,983	3,628	3,343		2,699	4,142	8,555	9,441			
31	5,883		3,794	3,348		2,546		8,498				
TOTAL	188,618	130,883	121,629	95,594	85,559	85,839	92,875	212,024	269,167			
MEAN	6,084	4,363	3,924	3,084	3,056	2,769	3,096	6,839	8,972			
MAX	6,252	5,658	4,068	3,779	3,709	3,321	4,142	8,555	10,256			
MIN	5,877	3,792	3,628	2,842	2,618	2,544	2,489	4,533	8,162			

WATER YEAR TOTALS

TOTAL	1,282,188
DAILY MEAN	4,697
DAILY MAX	10,256 06/20/2014
DAILY MIN	2,489 04/14/2014

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: July 3, 2014

QR RELEASE TO RIVER, CFS

WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	305	314	314	304	308	303	1,516	1,211			
2	466	305	312	315	306	310	303	1,514	1,210			
3	463	293	313	316	307	311	321	1,520	1,204			
4	462	302	315	316	307	310	319	1,525	1,208			
5	461	304	312	317	306	316	316	1,528	1,207			
6	463	303	314	317	306	316	316	1,536	1,183			
7	459	303	312	315	306	316	314	1,526	1,136			
8	461	308	313	318	308	316	317	1,527	1,098			
9	463	309	317	317	308	319	313	1,527	1,059			
10	464	308	318	318	302	320	318	1,529	1,011			
11	461	309	313	318	305	317	315	1,530	922			
12	458	310	312	320	306	301	315	1,535	833			
13	461	311	315	321	306	293	315	1,534	783			
14	447	312	315	320	305	288	314	1,527	738			
15	402	311	314	312	306	290	317	1,532	700			
16	347	311	312	312	306	292	317	1,538	697			
17	312	312	310	310	309	298	318	1,536	709			
18	308	313	312	313	305	296	317	1,532	709			
19	306	316	315	315	298	294	315	1,547	664			
20	307	313	318	313	296	293	313	1,538	605			
21	306	310	315	312	304	293	313	1,539	613			
22	307	310	316	312	316	293	314	1,528	601			
23	308	311	312	313	314	291	749	1,541	515			
24	303	315	314	313	313	289	1,349	1,536	497			
25	300	314	312	315	313	289	1,497	1,541	478			
26	299	314	313	312	313	295	1,526	1,537	466			
27	298	314	314	323	308	299	1,517	1,539	469			
28	301	314	314	298	308	300	1,532	1,539	469			
29	299	315	312	304		303	1,562	1,532	470			
30	302	312	312	305		301	1,541	1,443	468			
31	305		312	305		304		1,256				
TOTAL	11,765	9,287	9,722	9,729	8,591	9,361	18,196	47,128	23,933			
MEAN	380	310	314	314	307	302	607	1,520	798			
MAX	466	316	318	323	316	320	1,562	1,547	1,211			
MIN	298	293	310	298	296	288	303	1,256	466			

WATER YEAR TOTALS

TOTAL	147,712
DAILY MEAN	541
DAILY MAX	1,562 04/29/2014
DAILY MIN	288 03/14/2014

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

RUN DATE: July 3, 2014

QG

GENERATION RELEASE, CFS

WATER YEAR OCTOBER 2013 TO SEPTEMBER 2014

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	638	83	109	76	14	14	1,459	54	699			
2	794	586	85	74	14	14	501	14	793			
3	798	565	81	74	14	14	646	14	698			
4	728	606	80	74	14	14	1,710	14	890			
5	722	622	80	75	14	8	1,438	14	1,245			
6	665	447	80	73	14	0	997	18	1,423			
7	641	724	80	73	14	118	2,013	14	1,543			
8	799	740	80	73	14	146	1,586	197	1,293			
9	380	575	80	73	14	382	1,797	148	1,299			
10	738	111	80	73	14	72	888	14	1,451			
11	721	107	80	73	14	1,301	894	314	950			
12	750	125	78	73	14	1,373	873	14	1,530			
13	768	88	78	74	14	1,056	18	169	1,543			
14	750	115	78	74	14	7	146	305	1,567			
15	660	128	78	57	14	7	146	144	1,589			
16	725	202	77	14	14	7	145	144	1,476			
17	692	90	77	14	14	7	145	98	1,394			
18	736	115	77	14	14	88	14	14	1,375			
19	939	214	77	14	14	7	42	679	1,374			
20	1,017	119	77	14	14	56	14	170	1,256			
21	1,030	128	77	14	14	499	14	14	977			
22	954	121	77	14	14	293	14	235	980			
23	946	189	77	14	14	381	14	234	961			
24	953	167	77	14	14	529	14	453	988			
25	1,320	120	77	14	14	542	14	316	641			
26	1,283	100	77	14	14	608	14	14	982			
27	1,280	118	77	14	14	276	136	14	1,068			
28	1,595	101	77	14	14	343	14	14	1,240			
29	1,726	89	77	14		1,044	14	622	1,171			
30	1,150	175	77	14		373	14	717	1,361			
31	1,304		77	14		381		931				
TOTAL	28,202	7,670	2,459	1,313	392	9,960	15,734	6,116	35,757			
MEAN	910	256	79	42	14	321	524	197	1,192			
MAX	1,726	740	109	76	14	1,373	2,013	931	1,589			
MIN	380	83	77	14	14	0	14	14	641			

WATER YEAR TOTALS

TOTAL	107,603
DAILY MEAN	394
DAILY MAX	2,013 04/07/2014
DAILY MIN	0 03/06/2014