



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

JUN 13 2014

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 May, the temperature control point was set at Clear Creek at 56.0 °F, per the recommendation of the Sacramento River Temperature Task Group (SRTTG). On May 22, 2014, the SRTTG had a meeting and determined that the temperature control point will remain at Clear Creek targeting 56.0 °F.

During May 2014, the average daily water temperature compliance of 56 °F or less was met at the Clear Creek compliance point on the Sacramento.

During the month of May 2014, the average monthly water temperature was 54.4 °F at Clear Creek.

Enclosed is the monitoring report for May 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

AM
LDA
KE
2014 JUN 13 10:00 AM
SACRAMENTO

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

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

Sincerely,



for Elizabeth Kiteck
Chief Water Operations

Enclosures

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
May 2014

Req. Sampling Frequency - Daily Average (Reading indicates daily average)						Control Pt 5/1 to 5/31		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	50.3	52.0	51.1	53.8	50.2					
2	50.5	51.9	51.3	53.7	50.5					
3	50.4	51.9	51.2	53.5	50.6					
4	50.4	51.9	51.3	53.3	51.0					
5	50.6	51.6	51.3	52.9	51.4					
6	51.2	51.5	51.4	52.9	51.1					
7	51.1	52.1	51.5	53.1	50.4					
8	50.8	52.1	51.0	52.9	50.0					
9	51.0	51.6	51.1	53.0	49.8					
10	51.4	51.8	51.9	52.8	49.7					
11	51.9	52.0	51.2	53.1	50.4					
12	51.8	53.1	51.8	54.2	50.2					
13	51.8	53.2	51.1	54.7	50.4				56.2	
14	51.7	53.1	51.2	54.6	50.7					
15	51.8	53.0	51.3	54.3	50.8					
16	51.9	53.0	51.3	54.5	50.8					
17	52.0	53.2	51.4	54.5	50.6					
18	51.8	53.3	52.0	54.6	51.1					
19	52.1	53.1	51.4	54.2	51.6					
20	52.3	53.1	51.4	54.4	51.4			60.4		
21	52.4	53.5	52.1	54.8	50.7					
22	52.7	53.6	51.4	55.0	50.9					
23	52.7	53.8	51.4	55.0	51.1					
24	52.8	53.9	51.5	55.5	51.1					
25	53.0	54.1	51.6	55.6	51.4					
26	53.1	54.1	52.4	55.6	51.6					
27	53.1	54.3	52.3	55.6	51.8					
28	53.6	54.2	52.3	55.3	52.0					61.4
29	54.0	54.3	51.8	55.5	52.1					
30	53.8	54.7	51.9	55.9	51.7					
31	53.9	54.7	51.9	55.9	51.1					

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 05/31/2014.

Cross Channel Gate Operation:
 May 1-22 Closed
 May 23-26 Open
 May 27-31 Closed

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

TEMPERATURE			
Sampling Frequency Every two weeks May 1 through November 30.			
	Sample 1	Sample 2	Sample 3
	5/7/2014	5/19/2014	
Lake Elev	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F
(400 Feet Upstream of Dam)			
	Time: 12:30	Time: 13:30	Time:
625	45.3	45.3	
650	45.3	45.4	
675	45.3	45.4	
700	45.4	45.5	
725	45.5	45.6	
750	45.7	45.9	
775	46.1	46.4	
800	46.6	46.7	
825	47.2	47.3	
850	47.8	48.0	
875	48.9	49.2	
900	49.9	50.5	
925	51.7	54.4	
950	62.0	64.7	
975	62.7		
1000			
1025			
1050			
Lake Surface	978.41' 62.8	973.51' 67.8	

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
	5/7/2014	5/19/2014	
Lake Elev	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu
(400 Feet Upstream of Dam)			
	Time: 12:30	Time: 13:30	Time:
625	1.0	1.1	
650	1.0	1.2	
675	1.1	1.1	
700	1.1	1.1	
725	1.2	1.2	
750	1.2	1.2	
775	1.2	1.2	
800	1.2	1.2	
825	1.2	1.1	
850	1.4	1.3	
875	1.9	1.5	
900	1.5	0.9	
925	0.8	0.7	
950	0.7	0.9	
975	0.7		
1000			
1025			
1050			
Lake Surface	978.41' 0.7	973.51' 1.2	

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling
 May 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	5/1 to 5/31	River (DLT)	River	River
5				2.0			
6			0.7				
13						0.6	
20					0.2		
28		1.4					1.6

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		Control Point	Hour
	Discharge	Keswick	5/1 to 5/31	Time Sample
Day	at Bridge	Discharge	Clear Creek	Taken
5			13.3	15:15
28		11.1		14:15

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 05/31/2014.

** Site visit not accomplished.

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

WATER YEAR TOTALS

TOTAL	913,049
DAILY MEAN	3,757
DAILY MAX	8,139 05/30/2014
DAILY MIN	478 04/05/2014

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

RUN DATE: June 5, 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				
2	6,244	5,536	3,996	3,630	3,350	2,687	2,626	5,068				
3	6,251	5,146	4,068	3,562	3,340	2,544	2,663	5,068				
4	6,252	5,195	4,066	3,280	3,307	2,602	2,692	5,066				
5	6,247	4,924	4,064	3,107	3,275	2,608	2,664	5,094				
6	6,239	4,786	4,067	3,102	3,258	2,595	2,736	5,854				
7	6,239	4,628	4,057	3,098	3,411	2,648	2,730	6,438				
8	6,219	4,583	3,967	3,047	3,709	2,633	2,693	6,421				
9	6,149	4,722	3,974	2,955	3,453	2,639	2,697	6,970				
10	6,169	4,665	3,986	3,042	3,469	2,644	2,688	6,998				
11	6,154	4,618	4,047	3,002	3,312	2,641	2,672	6,997				
12	6,088	4,478	3,990	2,975	3,174	2,619	2,575	7,008				
13	6,168	4,420	3,993	2,979	3,075	2,631	2,500	6,986				
14	6,140	4,158	3,995	2,952	2,994	2,629	2,489	6,989				
15	6,111	3,920	3,991	2,895	2,890	2,670	2,512	6,965				
16	6,111	3,848	3,992	2,887	2,890	2,684	2,952	6,944				
17	6,135	3,792	3,990	2,888	2,889	2,692	3,018	6,996				
18	6,112	3,962	3,993	2,892	2,894	2,637	3,737	7,001				
19	6,117	3,998	3,925	2,898	2,932	2,713	3,741	6,993				
20	6,104	3,985	3,834	2,893	2,897	3,321	3,748	7,009				
21	6,004	4,006	3,844	2,895	2,751	3,166	3,747	7,081				
22	5,950	4,006	3,843	2,894	2,773	3,072	3,684	7,559				
23	5,943	3,965	3,838	2,898	2,731	3,095	3,488	7,564				
24	5,950	3,909	3,858	2,882	2,708	3,095	3,356	7,562				
25	5,957	3,913	3,885	2,846	2,712	3,077	3,372	7,559				
26	5,904	3,960	3,821	2,842	2,710	3,068	3,369	7,558				
27	5,877	4,039	3,787	3,082	2,618	2,935	3,530	7,566				
28	5,879	4,033	3,794	3,352	2,688	2,863	3,755	7,634				
29	5,894	4,047	3,651	3,349		2,702	3,797	7,490				
30	5,878	3,983	3,628	3,343		2,699	4,142	8,555				
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				
MEAN	6,084	4,363	3,924	3,084	3,056	2,769	3,096	6,839				
MAX	6,252	5,658	4,068	3,779	3,709	3,321	4,142	8,555				
MIN	5,877	3,792	3,628	2,842	2,618	2,544	2,489	4,533				

WATER YEAR TOTALS

TOTAL	1,013,021	
DAILY MEAN	4,169	
DAILY MAX	8,555	05/30/2014
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: June 5, 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				
2	466	305	312	315	306	310	303	1,514				
3	463	293	313	316	307	311	321	1,520				
4	462	302	315	316	307	310	319	1,525				
5	461	304	312	317	306	316	316	1,528				
6	463	303	314	317	306	316	316	1,536				
7	459	303	312	315	306	316	314	1,526				
8	461	308	313	318	308	316	317	1,527				
9	463	309	317	317	308	319	313	1,527				
10	464	308	318	318	302	320	318	1,529				
11	461	309	313	318	305	317	315	1,530				
12	458	310	312	320	306	301	315	1,535				
13	461	311	315	321	306	293	315	1,534				
14	447	312	315	320	305	288	314	1,527				
15	402	311	314	312	306	290	317	1,532				
16	347	311	312	312	306	292	317	1,538				
17	312	312	310	310	309	298	318	1,536				
18	308	313	312	313	305	296	317	1,532				
19	306	316	315	315	298	294	315	1,547				
20	307	313	318	313	296	293	313	1,538				
21	306	310	315	312	304	293	313	1,539				
22	307	310	316	312	316	293	314	1,528				
23	308	311	312	313	314	291	749	1,541				
24	303	315	314	313	313	289	1,349	1,536				
25	300	314	312	315	313	289	1,497	1,541				
26	299	314	313	312	313	295	1,526	1,537				
27	298	314	314	323	308	299	1,517	1,539				
28	301	314	314	298	308	300	1,532	1,539				
29	299	315	312	304		303	1,562	1,532				
30	302	312	312	305		301	1,541	1,443				
31	305		312	305		304		1,256				
TOTAL	11,765	9,287	9,722	9,729	8,591	9,361	18,196	47,128				
MEAN	380	310	314	314	307	302	607	1,520				
MAX	466	316	318	323	316	320	1,562	1,547				
MIN	298	293	310	298	296	288	303	1,256				

WATER YEAR TOTALS

TOTAL	123,779
DAILY MEAN	509
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: June 5, 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				
2	794	586	85	74	14	14	501	14				
3	798	565	81	74	14	14	646	14				
4	728	606	80	74	14	14	1,710	14				
5	722	622	80	75	14	8	1,438	14				
6	665	447	80	73	14	0	997	18				
7	641	724	80	73	14	118	2,013	14				
8	799	740	80	73	14	146	1,586	197				
9	380	575	80	73	14	382	1,797	148				
10	738	111	80	73	14	72	888	14				
11	721	107	80	73	14	1,301	894	314				
12	750	125	78	73	14	1,373	873	14				
13	768	88	78	74	14	1,056	18	169				
14	750	115	78	74	14	7	146	305				
15	660	128	78	57	14	7	146	144				
16	725	202	77	14	14	7	145	144				
17	692	90	77	14	14	7	145	98				
18	736	115	77	14	14	88	14	14				
19	939	214	77	14	14	7	42	679				
20	1,017	119	77	14	14	56	14	170				
21	1,030	128	77	14	14	499	14	14				
22	954	121	77	14	14	293	14	235				
23	946	189	77	14	14	381	14	234				
24	953	167	77	14	14	529	14	453				
25	1,320	120	77	14	14	542	14	316				
26	1,283	100	77	14	14	608	14	14				
27	1,280	118	77	14	14	276	136	14				
28	1,595	101	77	14	14	343	14	14				
29	1,726	89	77	14		1,044	14	622				
30	1,150	175	77	14		373	14	717				
31	1,304		77	14		381		931				
TOTAL	28,202	7,670	2,459	1,313	392	9,960	15,734	6,116				
MEAN	910	256	79	42	14	321	524	197				
MAX	1,726	740	109	76	14	1,373	2,013	931				
MIN	380	83	77	14	14	0	14	14				

WATER YEAR TOTALS

TOTAL	71,846
DAILY MEAN	296
DAILY MAX	2,013 04/07/2014
DAILY MIN	0 03/06/2014