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# 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

MAY 15 2014

STATE WATER RESOURCES CONTROL BOARD  
2014 MAY 20 PM 12:01  
DIV OF WATER RIGHTS  
SACRAMENTO, CA

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 April, the temperature control point was set at Clear Creek at 58.0 °F, per the recommendation of the Sacramento River Temperature Task Group (SRTTG). On April 24, 2014, the SRTTG had a meeting and determined that the temperature control point should remain at Clear Creek. The temperature target will be changed from 58.0 °F to 56.0 °F due to the improved conditions indicated in the April temperature studies.

During April 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 April 2014, the average monthly water temperature was 53.1 °F at Clear Creek.

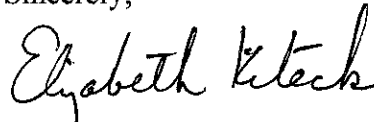
Enclosed is the monitoring report for April 2014, under Order No. 90-5. The report contains the following data:

<b>Station</b>	<b>Description</b>
Shasta Inlets (R-1)	Water Temperature Profile
“	Turbidity, monthly, ntu
Shasta Dam (R-2)	Water Temperature, daily average, degrees F
“	Turbidity, ntu, monthly
<b>Station</b>	<b>Description</b>
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
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,



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**  
**April 2014**

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Control Pt 4/1 to 4/30			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	49.5	50.0	48.7	50.10	49.4							
2	49.9	49.8	48.7	51.20	49.8							
3	50.1	49.9	48.6	50.70	49.0							
4	49.7	50.3	48.7	50.90	49.5							
5	49.1	50.1	48.8	51.80	50.2							
6	49.5	50.7	48.8	52.50	50.3							
7	49.8	50.9	49.0	53.00	51.0							
8	49.9	50.9	49.1	53.10	51.0							
9	49.5	51.0	49.4	53.20	51.3							
10	49.5	51.4	49.6	53.70	51.7							
11	50.5	51.9	49.6	54.00	51.9							
12	50.6	52.0	49.6	54.60	52.0							
13	49.6	52.5	49.9	54.40	51.7							
14	49.7	52.6	49.7	54.80	51.7							
15	49.8	52.3	49.6	54.70	51.8		52.6					
16	49.9	52.1	49.5	54.60	52.0							
17	50.0	52.3	49.7	54.20	51.5							
18	49.7	52.5	50.5	54.40	51.7							
19	49.4	51.9	50.0	54.10	51.8							
20	49.9	52.0	50.7	54.00	52.1							
21	49.9	51.5	50.4	52.80	51.2							
22	49.1	51.4	50.5	52.90	51.2			51.2				
23	49.6	50.9	50.7	52.70	49.5							
24	50.0	51.1	50.6	52.50	49.7							
25	49.9	51.2	50.8	52.40	49.1							
26	49.7	51.0	50.8	51.90	48.7							
27	50.0	51.0	50.3	52.00	48.6							
28	50.4	51.5	51.1	53.10	48.8							
29	50.4	51.8	51.1	53.90	49.4				56.1			
30	50.3	52.0	51.1	54.10	49.8							

**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 04/30/2014.**

**Cross Channel Gate Operation:**  
 April 1-30 Closed

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

<b>TEMPERATURE</b>			
Sampling Frequency			
Every two weeks May 1 through November 30.			
	Sample 1	Sample 2	Sample 3
	4/9/2014		
Lake Elev	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F
(400 Feet Upstream of Dam)			
	<b>Time: 10:50</b>	<b>Time:</b>	<b>Time:</b>
625	45.1		
650	45.1		
675	45.2		
700	45.3		
725	45.4		
750	45.6		
775	45.8		
800	46.2		
825	46.6		
850	47.4		
875	48.1		
900	49.2		
925	51.4		
950	53.5		
975	58.1		
1000			
1025			
1050			
Lake Surface	975.57' 58.3		

<b>TURBIDITY</b>			
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
	4/9/2014		
Lake Elev	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu
(400 Feet Upstream of Dam)			
	<b>Time: 10:50</b>	<b>Time:</b>	<b>Time:</b>
625	0.8		
650	0.8		
675	0.9		
700	0.9		
725	1.0		
750	1.1		
775	1.2		
800	1.2		
825	1.2		
850	1.3		
875	1.8		
900	2.1		
925	1.4		
950	1.3		
975	1.4		
1000			
1025			
1050			
Lake Surface	975.57' 1.4		

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling  
 April 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.

Day	Station						
	R-2	R-3a	R-4	R-5	R-6	R-7	R-8
	Shasta Dam Discharge at Bridge	Keswick Discharge	Spring Creek PP Discharge	Clear Creek Control Point 4/1 to 4/30	Sacramento River (DLT)	McCloud River	Pit River
2			0.4				
3				4.4			
15		2.1			0.8		
17	1.7						
22						1.3	
29							2.1

Dissolved Oxygen, mg/l

Sampling Frequency

Every two weeks from May 1 through September 30; samples to be taken before 1000 hours.

Day	Station			
	R-2	R-3	R-5	Hour
	Shasta Dam Discharge at Bridge	Keswick Discharge	Control Point 4/1 to 4/30 Clear Creek	Time Sample 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 04/30/2014.

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

RUN DATE: May 6, 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					
2	5,514	5,264	3,424	3,230	3,261	2,497	1,854					
3	5,223	4,608	3,402	3,086	3,354	2,762	2,037					
4	5,533	4,848	3,346	2,944	3,331	2,262	1,013					
5	5,227	4,431	3,182	2,641	3,144	2,383	478					
6	5,255	4,615	3,634	2,837	3,312	1,844	1,066					
7	5,505	4,309	3,239	2,603	3,238	2,265	1,235					
8	5,572	4,122	3,032	2,759	3,774	2,582	660					
9	6,048	3,788	3,362	2,777	3,779	1,619	808					
10	5,630	4,109	3,027	3,117	4,079	1,853	1,398					
11	5,380	3,843	3,061	3,138	3,415	1,752	1,567					
12	5,869	3,813	3,083	3,048	3,496	1,112	1,379					
13	5,370	4,238	3,195	2,745	3,152	1,548	2,669					
14	5,483	4,196	3,117	2,729	2,864	1,785	2,150					
15	5,659	3,796	3,008	2,681	2,595	1,915	2,636					
16	5,747	3,741	3,190	2,893	2,466	2,550	2,618					
17	5,431	3,233	3,065	2,914	2,691	2,400	2,559					
18	5,611	3,139	3,033	2,820	2,492	2,983	3,454					
19	5,208	2,998	3,223	2,795	3,762	3,661	3,288					
20	4,947	3,185	3,469	2,671	2,322	2,413	3,657					
21	5,443	3,065	3,209	2,804	2,467	2,533	3,556					
22	5,172	3,016	3,170	2,894	2,569	2,565	3,773					
23	5,530	3,081	3,692	2,802	2,678	2,860	3,147					
24	5,207	3,233	3,393	3,078	2,714	2,988	3,056					
25	4,968	3,412	3,198	2,714	2,794	2,898	3,734					
26	4,879	3,381	3,271	2,506	3,061	3,020	3,157					
27	4,982	3,240	3,363	3,040	2,132	2,410	3,616					
28	4,855	3,264	3,325	3,332	2,336	3,061	3,397					
29	4,560	3,246	3,031	3,162		1,432	3,665					
30	4,961	3,288	3,187	2,999		1,675	3,828					
31	5,015		2,941	3,343		2,098						
<b>TOTAL</b>	<b>165,433</b>	<b>114,700</b>	<b>100,187</b>	<b>90,189</b>	<b>84,628</b>	<b>72,458</b>	<b>72,582</b>					
<b>MEAN</b>	<b>5,337</b>	<b>3,823</b>	<b>3,232</b>	<b>2,909</b>	<b>3,022</b>	<b>2,337</b>	<b>2,419</b>					
<b>MAX</b>	<b>6,048</b>	<b>6,198</b>	<b>3,692</b>	<b>3,343</b>	<b>4,079</b>	<b>3,661</b>	<b>3,828</b>					
<b>MIN</b>	<b>4,560</b>	<b>2,998</b>	<b>2,941</b>	<b>2,506</b>	<b>2,132</b>	<b>1,112</b>	<b>478</b>					

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>700,177</b>
<b>DAILY MEAN</b>	<b>3,303</b>
<b>DAILY MAX</b>	<b>6,198 11/01/2013</b>
<b>DAILY MIN</b>	<b>478 04/05/2014</b>

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

RUN DATE: May 6, 2014

**KESWICK DAM, RESERVOIR, AND POWERPLANT**

**QT**

**TOTAL RELEASE, CFS**

**WATER YEAR OCTOBER 2013 TO SEPTEMBER2014**

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					
2	6,244	5,536	3,996	3,630	3,350	2,687	2,626					
3	6,251	5,146	4,068	3,562	3,340	2,544	2,663					
4	6,252	5,195	4,066	3,280	3,307	2,602	2,692					
5	6,247	4,924	4,064	3,107	3,275	2,608	2,664					
6	6,239	4,786	4,067	3,102	3,258	2,595	2,736					
7	6,239	4,628	4,057	3,098	3,411	2,648	2,730					
8	6,219	4,583	3,967	3,047	3,709	2,633	2,693					
9	6,149	4,722	3,974	2,955	3,453	2,639	2,697					
10	6,169	4,665	3,986	3,042	3,469	2,644	2,688					
11	6,154	4,618	4,047	3,002	3,312	2,641	2,672					
12	6,088	4,478	3,990	2,975	3,174	2,619	2,575					
13	6,168	4,420	3,993	2,979	3,075	2,631	2,500					
14	6,140	4,158	3,995	2,952	2,994	2,629	2,489					
15	6,111	3,920	3,991	2,895	2,890	2,670	2,512					
16	6,111	3,848	3,992	2,887	2,890	2,684	2,952					
17	6,135	3,792	3,990	2,888	2,889	2,692	3,018					
18	6,112	3,962	3,993	2,892	2,894	2,637	3,737					
19	6,117	3,998	3,925	2,898	2,932	2,713	3,741					
20	6,104	3,985	3,834	2,893	2,897	3,321	3,748					
21	6,004	4,006	3,844	2,895	2,751	3,166	3,747					
22	5,950	4,006	3,843	2,894	2,773	3,072	3,684					
23	5,943	3,965	3,838	2,898	2,731	3,095	3,488					
24	5,950	3,909	3,858	2,882	2,708	3,095	3,356					
25	5,957	3,913	3,885	2,846	2,712	3,077	3,372					
26	5,904	3,960	3,821	2,842	2,710	3,068	3,369					
27	5,877	4,039	3,787	3,082	2,618	2,935	3,530					
28	5,879	4,033	3,794	3,352	2,688	2,863	3,755					
29	5,894	4,047	3,651	3,349		2,702	3,797					
30	5,878	3,983	3,628	3,343		2,699	4,142					
31	5,883		3,794	3,348		2,546						
<b>TOTAL</b>	<b>188,618</b>	<b>130,883</b>	<b>121,629</b>	<b>95,594</b>	<b>85,559</b>	<b>85,839</b>	<b>92,875</b>					
<b>MEAN</b>	<b>6,084</b>	<b>4,363</b>	<b>3,924</b>	<b>3,084</b>	<b>3,056</b>	<b>2,769</b>	<b>3,096</b>					
<b>MAX</b>	<b>6,252</b>	<b>5,658</b>	<b>4,068</b>	<b>3,779</b>	<b>3,709</b>	<b>3,321</b>	<b>4,142</b>					
<b>MIN</b>	<b>5,877</b>	<b>3,792</b>	<b>3,628</b>	<b>2,842</b>	<b>2,618</b>	<b>2,544</b>	<b>2,489</b>					

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>800,997</b>	
<b>DAILY MEAN</b>	<b>3,778</b>	
<b>DAILY MAX</b>	<b>6,252</b>	<b>10/04/2013</b>
<b>DAILY MIN</b>	<b>2,489</b>	<b>04/14/2014</b>

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: May 6, 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					
2	466	305	312	315	306	310	303					
3	463	293	313	316	307	311	321					
4	462	302	315	316	307	310	319					
5	461	304	312	317	306	316	316					
6	463	303	314	317	306	316	316					
7	459	303	312	315	306	316	314					
8	461	308	313	318	308	316	317					
9	463	309	317	317	308	319	313					
10	464	308	318	318	302	320	318					
11	461	309	313	318	305	317	315					
12	458	310	312	320	306	301	315					
13	461	311	315	321	306	293	315					
14	447	312	315	320	305	288	314					
15	402	311	314	312	306	290	317					
16	347	311	312	312	306	292	317					
17	312	312	310	310	309	298	318					
18	308	313	312	313	305	296	317					
19	306	316	315	315	298	294	315					
20	307	313	318	313	296	293	313					
21	306	310	315	312	304	293	313					
22	307	310	316	312	316	293	314					
23	308	311	312	313	314	291	749					
24	303	315	314	313	313	289	1,349					
25	300	314	312	315	313	289	1,497					
26	299	314	313	312	313	295	1,526					
27	298	314	314	323	308	299	1,517					
28	301	314	314	298	308	300	1,532					
29	299	315	312	304		303	1,562					
30	302	312	312	305		301	1,541					
31	305		312	305		304						
<b>TOTAL</b>	<b>11,765</b>	<b>9,287</b>	<b>9,722</b>	<b>9,729</b>	<b>8,591</b>	<b>9,361</b>	<b>18,196</b>					
<b>MEAN</b>	<b>380</b>	<b>310</b>	<b>314</b>	<b>314</b>	<b>307</b>	<b>302</b>	<b>607</b>					
<b>MAX</b>	<b>466</b>	<b>316</b>	<b>318</b>	<b>323</b>	<b>316</b>	<b>320</b>	<b>1,562</b>					
<b>MIN</b>	<b>298</b>	<b>293</b>	<b>310</b>	<b>298</b>	<b>296</b>	<b>288</b>	<b>303</b>					

WATER YEAR TOTALS

<b>TOTAL</b>	<b>76,651</b>	
<b>DAILY MEAN</b>	<b>362</b>	
<b>DAILY MAX</b>	<b>1,562</b>	<b>04/29/2014</b>
<b>DAILY MIN</b>	<b>288</b>	<b>03/14/2014</b>



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

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

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>65,730</b>
<b>DAILY MEAN</b>	<b>310</b>
<b>DAILY MAX</b>	<b>2,013 04/07/2014</b>
<b>DAILY MIN</b>	<b>0 03/06/2014</b>