



# 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 16 2013

File: S625  
STATE WATER RESOURCES  
CONTROL BOARD  
2013 AUG 21 PM 1:07  
DIV OF WATER RIGHTS  
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:

For the month of June, the temperature control point was set at Airport Road, per the recommendation of the Sacramento River Temperature Task Group (SRTTG). There is no temperature monitoring station at Airport Road Bridge. USBR will operate to a surrogate target temperature of 56.75 °F at Balls Ferry, with the intention of achieving 56.0 °F at Airport Road Bridge. The surrogate temperature objective at Balls Ferry may change during the summer as needed to ensure meeting 56 °F at Airport Road Bridge. The group will continue to assess the cold water pool condition throughout the summer operations

During June 2013, the average daily water temperature compliance of 56.75 °F or less was met at the Balls Ferry compliance point on the Sacramento.

During the month of June 2013, the average monthly water temperature was 54.7 °F at Balls Ferry.

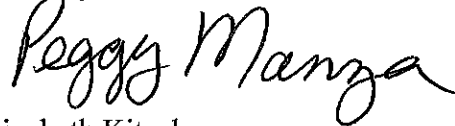
Enclosed is the monitoring report for June 2013, under Order No. 90-5. The report contains the following data:

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

<b>Station</b>	<b>Description</b>
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,



*Acting 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**  
**June 2013**

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Control Pt 6/1 to 6/30			Req. Sampling Frequency - Monthly		
	Sta 2	Sta 3	Sta 4	Sta 5	Sta9		Sta 6	Sta 7	Sta 8			
Date	Shd	Kwk	Spp	Bsf	Lws		Dlt	Mss	Pmn			
1	51.2	52.8	51.9	55.53	48.4							
2	51.2	53.0	51.9	55.98	48.5							
3	51.2	53.1	52.2	56.12	48.6							
4	51.0	53.0	52.2	55.85	48.5							
5	51.4	53.1	52.4	56.19	48.8							
6	50.2	53.4	52.6	56.21	48.8							
7	50.4	52.1	52.6	55.72	49.0							
8	50.4	52.2	52.6	55.47	49.2							
9	50.3	52.4	52.7	55.23	49.3							
10	50.3	52.2	52.9	54.79	49.7							
11	50.5	51.9	53.1	54.55	49.9			61.3				
12	50.2	52.2	53.2	54.75	49.3							
13	50.5	51.9	53.2	54.58	49.3							
14	50.5	52.0	53.1	54.40	49.3		61.5					
15	49.7	52.0	53.1	54.56	49.0							
16	49.9	51.2	53.3	53.87	48.9							
17	50.2	51.6	53.4	54.05	49.4							
18	50.1	51.8	53.5	54.17	49.7							
19	50.3	51.5	53.6	53.93	49.8							
20	50.5	51.7	53.5	53.95	49.7							
21	50.1	52.1	53.5	54.34	49.6							
22	49.6	52.0	53.5	54.62	49.9							
23	49.9	51.3	53.3	53.78	49.1							
24	50.0	51.3	53.4	53.26	48.3							
25	50.3	51.2	53.4	52.89	47.9							
26	50.4	51.3	53.4	53.97	48.4							
27	50.6	51.9	53.4	54.19	49.6							
28	50.6	52.2	53.4	54.98	50.4							
29	50.8	52.2	53.4	55.08	50.8							
30	50.9	52.3	53.4	54.98	51.2							

**Control Point: Balls Ferry 56.0 from 03/01/2013 to 05/16/2013.**  
**Balls Ferry 56.75 for compliance of 56.0 at Airport Road from 05/17/2013 to 6/30/2013**

**Cross Channel Gate Operation:**

- June 1-2 Open
- June 3 Closed at approximately 1105
- June 4-6 Closed
- June 7 Opened at approximately 0932
- June 8-9 Open
- June 10 Closed at approximately 1045
- June 11-13 Closed
- June 14 Opened at approximately 1018
- June 15-30 Open

**Measurements taken by the Northern CA Area Office Personnel  
June 2013**

<b>TEMPERATURE</b>			
Sampling Frequency			
Every two weeks May 1 through November 30.			
	Sample 1	Sample 2	Sample 3
	6/4/2013	6/18/2013	
Lake Elev	Temperature	Temperature	Temperature
MSL	Degrees F	Degrees F	Degrees F
(400 Feet Upstream of Dam)			
	<b>Time: 9:15</b>	<b>Time: 12:00</b>	<b>Time:</b>
625	44.5	44.6	
650	44.6	44.6	
675	44.6	44.6	
700	44.6	44.7	
725	44.7	44.8	
750	44.8	44.9	
775	45.0	45.0	
800	45.3	45.4	
825	45.6	45.7	
850	46.2	46.4	
875	46.8	47.2	
900	47.7	48.4	
925	48.7	50.1	
950	51.1	56.2	
975	57.2	61.5	
1000	69.8	71.9	
1025			
1050			
Lake Surface	1021.65' 69.9	1012.92' 72.9	

<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
	6/4/2013	6/18/2013	
Lake Elev	Turbidity	Turbidity	Turbidity
MSL	ntu	ntu	ntu
(400 Feet Upstream of Dam)			
	<b>Time: 9:15</b>	<b>Time: 12:00</b>	<b>Time:</b>
625	2.2	2.0	
650	2.0	1.8	
675	1.9	1.8	
700	1.9	1.7	
725	1.8	1.6	
750	1.8	1.6	
775	1.7	1.5	
800	1.6	1.3	
825	1.5	1.2	
850	1.3	1.1	
875	1.2	1.1	
900	1.2	0.9	
925	1.0	0.7	
950	0.9	0.5	
975	0.9	0.4	
1000	0.8	0.3	
1025			
1050			
Lake Surface	1021.65' 0.8	1012.92 0.3	

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

**Summary of Turbidity and Dissolved Oxygen Water Sampling  
 June 2013**

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	See Note	Spring	Balls Ferry			
	Discharge	Keswick	Creek PP	Control Point	Sacramento	McCloud	Pit
Day	at Bridge	Discharge	Discharge	6/1 to 6/30	River (DLT)	River	River
3			5.8				
5	1.2						
11						0.7	
14					0.9		
19							1.3
26				2.0			

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	See Note	Control Point	
	Discharge	Keswick	6/1 to 6/30	Time Sample
Day	at Bridge	Discharge	Balls Ferry	Taken

**Temperature Control Point:**

Balls Ferry 56.0 from 03/01/2013 to 05/16/2013.

Balls Ferry 56.75 for compliance of 56.0 at Airport Road from 05/17/2013 to 6/30/2013.

**Note:** Northern California Area Office reported no site visit for Keswick this month.

**SHASTA LAKE, DAM AND POWERPLANT**

**QG**

**GENERATION RELEASE, CFS**

**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,124	5,563	1,867	1,942	4,140	3,723	5,522	10,745	9,222			
2	4,133	5,470	1,003	2,470	4,377	3,316	4,008	10,681	8,569			
3	4,663	5,396	2,124	2,013	3,455	3,276	4,867	10,245	9,108			
4	3,944	5,340	3,234	2,568	4,491	3,437	4,338	10,189	8,512			
5	4,155	5,858	1,246	2,762	3,151	3,744	4,688	9,710	8,960			
6	4,148	5,477	3,050	2,606	4,354	3,427	4,692	10,582	9,814			
7	4,239	4,960	2,102	3,614	4,052	3,498	4,593	11,064	11,138			
8	4,529	5,187	2,219	3,090	3,806	4,508	5,301	11,505	11,152			
9	4,087	5,361	3,961	3,129	3,810	3,153	5,489	11,716	10,335			
10	4,984	5,161	4,699	5,621	3,389	4,649	5,217	11,619	10,300			
11	4,553	5,074	3,196	4,070	3,725	4,895	4,744	11,344	10,461			
12	4,420	5,261	4,034	3,254	3,593	4,214	5,063	10,483	10,203			
13	4,329	5,182	3,912	3,422	3,596	4,466	4,593	11,497	10,476			
14	4,532	5,238	3,988	3,929	4,139	4,440	4,441	11,034	10,624			
15	4,515	6,045	4,106	3,424	4,071	4,460	4,760	10,715	10,813			
16	4,580	6,036	4,095	4,416	3,343	4,802	4,718	10,714	10,496			
17	4,463	5,274	4,147	4,367	2,808	3,804	5,704	11,052	10,702			
18	4,922	5,314	2,944	4,570	3,372	4,248	4,795	10,815	11,020			
19	4,872	5,412	2,366	4,122	3,319	4,934	6,667	9,991	10,916			
20	5,262	4,907	2,265	3,428	3,437	3,750	6,004	10,116	10,621			
21	5,150	4,343	2,745	2,901	3,480	3,554	6,377	10,233	9,944			
22	4,953	4,417	1,534	4,867	3,203	3,219	7,254	10,642	9,548			
23	5,082	4,855	1,502	3,933	3,535	3,476	7,000	12,312	10,982			
24	5,013	3,944	2,007	4,321	3,385	2,942	8,691	11,652	9,774			
25	4,649	4,179	2,224	3,495	3,835	3,602	9,066	10,705	10,621			
26	5,074	4,596	2,265	3,544	3,036	3,568	11,226	10,312	11,746			
27	4,985	3,871	2,313	3,707	3,804	3,776	9,651	9,591	11,031			
28	4,813	3,806	2,266	4,461	3,324	4,474	10,500	10,270	11,356			
29	4,874	2,771	2,131	3,830		5,782	10,170	10,226	11,939			
30	5,508	1,387	2,499	3,461		5,147	10,893	8,893	11,635			
31	5,498		2,434	4,059		5,008		9,177				
<b>TOTAL</b>	<b>145,053</b>	<b>145,685</b>	<b>84,478</b>	<b>111,396</b>	<b>102,030</b>	<b>125,292</b>	<b>191,032</b>	<b>329,830</b>	<b>312,018</b>			
<b>MEAN</b>	<b>4,679</b>	<b>4,856</b>	<b>2,725</b>	<b>3,593</b>	<b>3,644</b>	<b>4,042</b>	<b>6,368</b>	<b>10,640</b>	<b>10,401</b>			
<b>MAX</b>	<b>5,508</b>	<b>6,045</b>	<b>4,699</b>	<b>5,621</b>	<b>4,491</b>	<b>5,782</b>	<b>11,226</b>	<b>12,312</b>	<b>11,939</b>			
<b>MIN</b>	<b>3,944</b>	<b>1,387</b>	<b>1,003</b>	<b>1,942</b>	<b>2,808</b>	<b>2,942</b>	<b>4,008</b>	<b>8,893</b>	<b>8,512</b>			

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>1,546,814</b>	
<b>DAILY MEAN</b>	<b>5,666</b>	
<b>DAILY MAX</b>	<b>12,312</b>	<b>05/23/2013</b>
<b>DAILY MIN</b>	<b>1,003</b>	<b>12/02/2012</b>

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

RUN DATE: July 10, 2013

**KESWICK DAM, RESERVOIR, AND POWERPLANT**

QT

**TOTAL RELEASE, CFS**

**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,008	6,506	4,719	4,665	4,565	3,676	5,634	10,555	11,686			
2	7,017	6,507	4,977	4,656	4,557	3,882	5,723	10,566	11,693			
3	7,007	6,509	4,888	4,572	4,453	3,904	5,790	10,563	11,681			
4	6,770	6,770	4,744	4,558	4,389	3,872	5,780	10,558	11,686			
5	6,746	6,491	4,738	4,563	4,487	3,890	5,793	10,566	11,678			
6	6,758	6,433	4,743	4,570	4,494	3,877	5,791	10,565	13,214			
7	6,754	6,057	4,754	4,579	4,575	3,871	5,782	12,204	13,507			
8	6,527	6,009	4,752	4,523	4,472	4,926	5,794	12,158	13,500			
9	6,501	6,024	4,616	4,438	4,315	5,121	5,795	12,108	13,492			
10	6,511	6,026	4,699	4,465	4,139	5,142	5,790	12,108	13,500			
11	6,516	6,006	4,568	4,572	4,172	5,115	5,794	12,100	13,487			
12	6,502	6,013	4,562	4,582	4,089	5,013	5,745	11,370	13,497			
13	6,499	6,127	4,550	4,574	4,000	5,099	5,389	11,383	13,491			
14	6,504	6,317	4,553	4,471	3,892	5,118	5,494	11,372	13,710			
15	6,502	6,092	4,575	4,455	3,893	5,036	5,539	11,415	13,719			
16	6,498	6,304	4,552	4,423	3,890	4,912	5,526	11,489	13,737			
17	6,512	6,322	4,552	4,406	3,887	4,778	5,522	11,352	13,732			
18	6,509	6,136	4,558	4,410	3,894	4,601	5,826	11,388	13,738			
19	6,753	5,927	4,569	4,443	3,903	4,562	6,244	11,404	13,756			
20	6,767	5,913	4,569	4,496	3,898	4,450	6,600	11,568	13,759			
21	6,768	5,740	4,367	4,541	3,898	4,257	6,617	12,713	13,757			
22	6,719	5,471	4,669	4,559	3,901	4,043	7,043	12,458	13,740			
23	6,757	5,255	4,733	4,551	3,900	4,035	8,044	12,463	13,756			
24	6,768	5,220	4,756	4,566	3,892	4,037	8,771	12,480	13,753			
25	6,760	5,213	4,756	4,542	3,905	4,047	9,985	12,492	14,224			
26	6,758	5,212	4,750	4,551	3,905	3,867	10,469	12,192	14,221			
27	6,753	5,117	4,728	4,571	3,917	3,760	10,524	12,251	13,976			
28	6,515	5,017	4,659	4,551	3,904	3,985	10,564	12,245	13,955			
29	6,513	4,919	4,671	4,567		5,675	10,548	12,213	14,149			
30	6,515	4,817	4,646	4,557		5,806	10,567	11,759	14,164			
31	6,509		4,669	4,553		5,806		11,777				
<b>TOTAL</b>	<b>206,496</b>	<b>176,470</b>	<b>144,642</b>	<b>140,530</b>	<b>115,186</b>	<b>140,163</b>	<b>208,483</b>	<b>361,835</b>	<b>401,958</b>			
<b>MEAN</b>	<b>6,661</b>	<b>5,882</b>	<b>4,666</b>	<b>4,533</b>	<b>4,114</b>	<b>4,521</b>	<b>6,949</b>	<b>11,672</b>	<b>13,399</b>			
<b>MAX</b>	<b>7,017</b>	<b>6,770</b>	<b>4,977</b>	<b>4,665</b>	<b>4,575</b>	<b>5,806</b>	<b>10,567</b>	<b>12,713</b>	<b>14,224</b>			
<b>MIN</b>	<b>6,498</b>	<b>4,817</b>	<b>4,367</b>	<b>4,406</b>	<b>3,887</b>	<b>3,676</b>	<b>5,389</b>	<b>10,555</b>	<b>11,678</b>			

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>1,895,763</b>	
<b>DAILY MEAN</b>	<b>6,944</b>	
<b>DAILY MAX</b>	<b>14,224</b>	<b>06/25/2013</b>
<b>DAILY MIN</b>	<b>3,676</b>	<b>03/01/2013</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: July 10, 2013

**QR** **RELEASE TO RIVER, CFS**

**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	310	315	292	296	309	271	2,840	1,354			
2	451	312	325	296	296	311	270	3,910	1,354			
3	455	310	319	294	295	308	270	4,305	1,376			
4	456	320	332	294	299	308	270	4,420	1,364			
5	456	311	335	294	298	310	299	4,258	1,253			
6	455	312	322	294	300	309	308	4,068	1,204			
7	456	314	323	296	295	311	307	3,819	1,143			
8	453	318	322	296	295	305	308	3,680	1,094			
9	458	306	322	292	298	301	300	3,470	1,064			
10	454	305	320	296	296	302	299	3,359	1,022			
11	453	308	301	294	297	299	300	3,203	938			
12	455	307	305	298	301	300	299	3,050	902			
13	458	305	312	294	297	289	299	2,901	729			
14	458	308	311	292	301	323	303	2,778	681			
15	448	309	312	295	306	321	303	2,674	677			
16	456	310	311	298	307	320	300	2,541	676			
17	399	314	311	296	308	316	296	2,463	675			
18	309	314	309	301	308	316	298	2,354	638			
19	302	310	312	302	308	318	298	2,235	578			
20	300	310	290	299	305	319	298	2,128	540			
21	298	314	291	295	306	320	684	1,984	539			
22	285	314	293	294	307	341	1,621	1,976	503			
23	273	310	295	296	307	320	2,043	1,982	488			
24	287	313	292	298	307	318	2,025	1,982	464			
25	292	313	294	297	308	320	2,026	1,964	452			
26	292	314	297	295	305	319	2,029	1,922	447			
27	291	313	295	293	304	320	1,991	1,923	446			
28	292	310	296	297	308	305	1,980	1,686	447			
29	290	313	292	297	284	284	1,993	1,520	451			
30	292	314	292	296	271	271	1,953	1,520	450			
31	293		292	296	273	273		1,521				
<b>TOTAL</b>	<b>11,774</b>	<b>9,341</b>	<b>9,538</b>	<b>9,167</b>	<b>8,458</b>	<b>9,586</b>	<b>24,241</b>	<b>84,436</b>	<b>23,949</b>			
<b>MEAN</b>	<b>380</b>	<b>311</b>	<b>308</b>	<b>296</b>	<b>302</b>	<b>309</b>	<b>808</b>	<b>2,724</b>	<b>798</b>			
<b>MAX</b>	<b>458</b>	<b>320</b>	<b>335</b>	<b>302</b>	<b>308</b>	<b>341</b>	<b>2,043</b>	<b>4,420</b>	<b>1,376</b>			
<b>MIN</b>	<b>273</b>	<b>305</b>	<b>290</b>	<b>292</b>	<b>295</b>	<b>271</b>	<b>270</b>	<b>1,520</b>	<b>446</b>			

**WATER YEAR TOTALS**

<b>TOTAL</b>	<b>190,490</b>	
<b>DAILY MEAN</b>	<b>698</b>	
<b>DAILY MAX</b>	<b>4,420</b>	<b>05/04/2013</b>
<b>DAILY MIN</b>	<b>270</b>	<b>04/02/2013</b>



