



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

AUG 18 2015

VIA ELECTRONIC MAIL

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

During July 2015, the average daily water temperature compliance of 58.0° F or less was met at the Clear Creek compliance point on the Sacramento River. The objective is to target 57.0° F at Clear Creek and not to exceed 58.0° F in order to allow the flexibility of temperature fluctuation during heat waves. Approximately 98% of Redds have been observed above HW 44 Bridge which is about 12 miles upstream of the Clear Creek compliance point on the Sacramento River.

During the month of July 2015, the average monthly water temperature was 57.1° F at Clear Creek.

Enclosed is the monitoring report for July 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

Station	Description
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

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

Sincerely,



Elizabeth Kiteck
Chief Water Operations Division

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
July 2015

Req. Sampling Frequency - Daily Average (Reading indicates daily average)							Control Pt 7/1 to 7/31		
Date	Sta 2 Shd*	Sta 3 Kwk*	Sta 4 Spp**	Sta 5 Ccr**	Sta 9 Lws*		Sta 6 Dlt***	Sta 7 Mss***	Sta 8 Pmn***
1	51.9	55.7	55.3	57.4	54.8		73.0		
2	52.0	55.9	55.4	57.6	55.3				
3	52.3	56.0	55.6	57.7	55.1				
4	52.4	55.9	55.9	57.8	54.9				
5	52.8	55.9	56.0	57.8	54.9				
6	52.5	55.9	56.2	57.7	54.9				
7	52.5	56.2	56.3	57.9	54.8				
8	51.6	56.3	56.4	57.9	54.8				
9	51.2	55.4	56.3	57.1	53.6				
10	52.1	54.2	56.6	56.1	54.2				
11	52.8	54.4	56.6	55.9	53.9				
12	52.7	55.1	56.8	56.5	53.7				
13	52.7	55.1	57.0	56.8	54.0				
14	52.9	55.5	57.0	57.2	54.7				
15	52.0	55.9	57.1	57.5	55.1				
16	51.6	55.8	57.2	57.9	55.2				
17	51.8	55.1	57.3	57.2	55.0				
18	51.8	55.1	57.4	56.8	54.9				
19	51.5	55.2	57.6	56.9	54.9				
20	52.0	55.4	57.6	57.2	54.9				
21	51.6	55.0	57.8	57.0	55.0				
22	51.5	55.4	57.8	57.1	55.1				
23	51.7	55.0	57.9	56.7	55.1				
24	51.4	55.0	58.0	56.6	54.9				
25	51.5	55.0	58.1	56.7	54.4				
26	51.8	54.9	58.2	56.5	54.3				
27	51.9	55.2	58.4	56.9	54.5				
28	52.3	55.2	58.4	57.1	54.5				
29	52.2	55.1	58.5	57.1	54.4				
30	51.8	55.3	58.5	56.7	54.0				
31	51.6	55.1	58.6	56.8	54.5				

Control Point: 56.0 degrees at Clear Creek from 4/1/2015 to 4/17/2015.
58.0 degrees at Clear Creek from 4/18/2015 to 5/14/2015.
56.0 degrees at Clear Creek from 5/15/2015 to 6/4/2015.
Target 57.0 degrees not to exceed 58.0 degrees at Clear Creek from 6/5/2015 to 7/31/2015.

Cross Channel Gate Operation:

July 1 - 19 open
 July 20 - 23 closed
 July 24 - 31 open

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

TEMPERATURE					
Sampling Frequency					
Every two weeks May 1 through November 30.					
Lake Elev	Sample 1	Sample 2	Sample 3	Sample 4	
MSL	7/7/2015	7/21/2015	7/30/2015		
	Temperature	Temperature	Temperature	Temperature	Temperature
	Degrees F	Degrees F	Degrees F	Degrees F	Degrees F
	Time: 11:20				
	(400 Feet Upstream of Dam)				
	Time: 10:30	Time: 10:45			
625	47.1	47.2	47.2	47.2	
650	47.2	47.2	47.3	47.3	
675	47.3	47.3	47.4	47.4	
700	47.4	47.4	47.5	47.5	
725	47.5	47.5	47.6	47.6	
750	47.9	47.8	48.0	48.0	
775	48.2	48.2	48.4	48.4	
800	48.6	48.6	48.9	48.9	
825	49.0	49.3	49.5	49.5	
850	49.7	50.2	51.1	51.1	
875	51.5	53.6	56.2	56.2	
900	58.2	61.8	64.2	64.2	
925	66.3	69.4	77.5	77.5	
950	82.0	81.0	78.7	78.7	
975					
1000					
1025					
1050					
Lake Surface	966.08' 82.3	960.59' 81.4	957.24' 79.0		

TURBIDITY					
Sampling Frequency					
Monthly, except weekly May 1 through Sep 30, when turbidity at Station 2 is equal to or greater than 10 NTU					
Lake Elev	Sample 1	Sample 2	Sample 3	Sample 4	
MSL	7/7/2015	7/21/2015	7/30/2015		
	Turbidity	Turbidity	Turbidity	Turbidity	Turbidity
	ntu	ntu	ntu	ntu	ntu
	Time: 11:20				
	(400 Feet Upstream of Dam)				
	Time: 10:30	Time: 10:45			
625	3.2	2.9	2.6		
650	2.8	2.7	2.4		
675	2.7	2.4	2.0		
700	2.4	2.2	2.0		
725	2.4	2.3	2.0		
750	2.2	2.3	2.0		
775	2.3	2.3	2.1		
800	2.2	2.2	1.9		
825	2.0	1.8	1.5		
850	1.5	1.0	0.7		
875	0.8	0.6	0.5		
900	0.6	0.5	0.4		
925	0.5	0.6	0.7		
950	0.6	0.6	0.7		
975					
1000					
1025					
1050					
Lake Surface	966.08' 0.6	960.59' 0.5	957.24' 0.7		

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

RUN DATE: August 10, 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	1,560	2,718	3,566	2,892	1,946	1,961	3,189	5,370	6,118	5,034		
2	1,679	2,423	3,348	2,079	2,006	2,637	3,141	4,929	6,220	5,391		
3	1,082	4,236	2,346	3,469	4,376	3,292	2,783	5,231	6,000	5,725		
4	1,059	4,576	3,089	2,624	2,040	3,153	2,857	5,294	6,513	6,339		
5	1,426	4,669	3,132	2,979	3,571	3,371	2,888	5,963	6,645	5,909		
6	1,647	4,864	2,135	2,181	1,649	2,804	2,830	5,643	6,290	5,945		
7	1,511	4,950	1,989	2,654	357	2,947	2,978	4,673	6,374	5,617		
8	2,679	4,736	2,685	2,828	523	1,936	3,424	5,949	6,706	5,863		
9	3,874	4,876	2,767	3,081	2,433	3,270	2,203	5,558	5,741	5,457		
10	4,003	4,855	763	3,047	376	2,581	2,811	5,758	5,781	5,768		
11	3,435	4,221	296	3,068	1,779	3,489	2,586	5,616	6,038	6,037		
12	3,015	4,796	710	3,064	1,109	3,321	2,199	5,509	5,643	6,229		
13	3,726	4,469	1,719	4,159	1,187	3,126	3,105	5,811	6,249	5,849		
14	3,496	4,828	765	3,504	1,026	3,253	2,776	5,503	5,931	6,111		
15	4,156	4,621	1,510	2,374	1,213	3,332	3,051	5,414	6,835	5,731		
16	3,146	4,289	1,887	2,705	1,956	1,985	2,714	5,542	6,377	5,693		
17	3,618	4,151	2,167	2,413	1,504	3,281	3,353	5,536	5,939	5,749		
18	3,358	4,209	712	2,676	974	3,103	3,148	5,814	5,964	5,895		
19	3,309	3,526	214	4,264	1,802	2,936	2,734	6,321	6,177	5,001		
20	2,894	3,499	1,252	3,002	2,015	3,266	3,120	5,568	5,649	5,965		
21	2,876	4,345	1,780	2,849	1,783	2,986	3,370	6,849	5,758	4,840		
22	3,540	3,900	2,119	1,750	2,152	2,582	3,476	6,872	6,350	5,367		
23	4,896	4,292	1,739	3,308	2,181	3,094	3,685	6,414	5,580	5,693		
24	2,343	3,838	531	3,517	2,214	3,216	4,420	6,317	5,882	5,240		
25	2,453	3,537	833	1,984	2,659	2,866	4,383	6,321	5,644	5,240		
26	4,158	3,784	1,638	2,219	2,774	3,285	5,734	6,469	5,786	5,583		
27	4,106	3,682	1,345	4,244	2,869	2,877	4,926	6,709	5,647	5,559		
28	4,414	3,803	1,384	2,099	2,851	3,161	5,032	7,413	5,992	5,280		
29	2,666	3,601	2,135	3,614	3,601	2,013	5,333	6,931	5,779	6,057		
30	2,337	3,771	2,568	3,519	3,519	3,244	4,828	6,521	5,047	5,474		
31	4,519		2,705	3,610		2,729		6,735	5,438			
TOTAL	92,981	124,065	55,829	91,776	53,325	91,097	103,077	184,553	180,655	175,079		
MEAN	2,999	4,136	1,801	2,961	1,904	2,939	3,436	5,953	6,022	5,648		
MAX	4,896	4,950	3,566	4,264	4,376	3,489	5,734	7,413	6,835	6,339		
MIN	1,059	2,423	214	1,750	357	1,936	2,199	4,673	5,047	4,840		

WATER YEAR TOTALS

TOTAL	1,152,437
DAILY MEAN	3,791
DAILY MAX	7,413
DAILY MIN	214
	05/28/2015
	12/19/2014

UNITED STATES DEPARTMENT OF THE INTERIOR
 U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA
KESWICK DAM, RESERVOIR, AND POWERPLANT

RUN DATE: August 10, 2015

QT

TOTAL RELEASE, CFS

WATER YEAR OCTOBER 2014 TO SEPTEMBER 2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,500	4,519	3,849	2,991	3,090	3,063	3,055	6,686	7,019	7,095		
2	4,647	4,520	3,450	2,966	3,090	3,064	3,253	7,097	7,082	7,105		
3	4,409	4,549	3,375	2,963	3,088	3,093	3,138	7,109	7,078	7,109		
4	4,403	4,606	3,308	2,985	3,088	3,059	3,044	7,103	7,037	7,109		
5	4,395	4,495	3,326	2,967	3,090	3,061	2,962	7,103	7,080	7,109		
6	4,504	4,454	3,310	2,967	3,104	3,063	2,878	7,046	7,084	7,110		
7	4,462	4,406	3,306	2,940	4,733	3,062	2,745	7,074	7,087	7,105		
8	4,542	4,400	3,196	2,940	4,479	3,062	2,719	7,081	7,026	7,107		
9	4,490	4,394	3,190	3,003	3,634	3,063	2,964	7,088	7,023	7,073		
10	4,512	4,373	3,066	3,179	3,121	3,052	2,968	7,086	7,031	7,065		
11	4,545	4,267	4,723	3,168	3,041	3,093	2,969	7,083	6,997	7,059		
12	4,535	4,162	4,178	3,180	3,039	3,121	2,971	7,083	6,977	7,116		
13	4,536	4,144	3,909	3,179	3,043	3,119	2,968	7,088	6,973	7,106		
14	4,544	4,127	3,862	3,172	3,038	3,120	2,967	7,122	6,931	7,097		
15	4,521	4,177	3,854	3,066	3,041	3,118	2,967	7,200	6,887	7,027		
16	4,545	4,110	3,054	2,911	3,038	3,105	3,332	7,170	6,879	7,021		
17	4,533	4,015	3,062	2,910	3,039	3,099	3,716	7,140	6,894	6,999		
18	4,538	3,992	3,281	2,914	3,041	3,105	3,690	7,134	6,934	6,980		
19	4,533	3,924	3,558	2,911	3,039	3,101	3,689	7,168	6,929	6,984		
20	4,535	3,928	3,467	2,912	3,040	3,013	3,689	7,162	6,929	6,938		
21	4,528	3,958	3,305	2,868	3,038	3,017	4,187	7,142	6,929	6,953		
22	4,528	3,989	3,072	2,866	2,996	3,016	4,689	7,182	6,926	6,950		
23	4,540	3,933	3,125	2,865	2,975	3,016	5,320	7,152	6,924	6,950		
24	4,527	3,959	3,067	2,815	2,988	2,930	5,868	7,103	6,923	6,953		
25	4,504	3,976	3,024	2,815	3,036	2,750	6,263	7,106	7,024	6,951		
26	4,420	3,987	3,040	2,815	3,105	2,738	6,676	7,115	7,035	6,621		
27	4,449	3,981	3,038	2,812	3,064	2,733	6,683	6,916	7,048	6,836		
28	4,450	3,982	3,042	2,816	3,063	2,732	6,740	6,910	7,059	6,951		
29	4,443	3,985	3,040	2,828	2,734	2,734	6,693	6,919	7,073	6,952		
30	4,449	3,982	3,016	2,981	2,732	2,732	6,680	6,917	7,081	6,891		
31	4,503		2,991	3,090	2,732	2,732		6,916		6,890		
TOTAL	139,570	125,294	104,084	91,795	89,181	92,766	122,483	219,201	209,899	217,212		
MEAN	4,502	4,176	3,358	2,961	3,185	2,992	4,083	7,071	6,997	7,007		
MAX	4,647	4,606	4,723	3,180	4,733	3,121	6,740	7,200	7,087	7,116		
MIN	4,395	3,924	2,991	2,812	2,975	2,732	2,719	6,686	6,879	6,621		

WATER YEAR TOTALS

TOTAL	1,411,485
DAILY MEAN	4,643
DAILY MAX	7,200 05/15/2015
DAILY MIN	2,719 04/08/2015

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: August 10, 2015

QR

RELEASE TO RIVER, CFS

WATER YEAR OCTOBER 2014 TO SEPTEMBER 2015

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	315	312	299	311	310	311	1,814	1,181	458		
2	494	307	312	302	301	310	311	2,841	1,182	454		
3	512	310	312	300	311	311	312	3,851	1,179	451		
4	517	312	309	301	313	312	311	4,823	1,172	450		
5	517	301	310	303	314	313	309	4,964	1,118	449		
6	498	304	310	302	315	313	310	4,964	1,107	450		
7	487	305	310	299	316	314	308	4,965	1,102	449		
8	488	305	310	302	310	315	309	4,401	991	457		
9	488	303	311	300	309	311	310	3,114	891	461		
10	486	303	311	302	308	306	308	2,921	875	458		
11	474	303	310	302	307	297	309	2,926	782	458		
12	454	303	312	301	309	296	309	2,773	686	458		
13	450	304	310	301	307	297	306	2,089	689	458		
14	452	305	305	304	308	297	313	2,041	685	459		
15	399	306	308	304	308	297	319	2,034	684	460		
16	370	307	312	304	308	298	319	2,042	686	459		
17	311	309	314	304	310	295	319	2,035	684	461		
18	303	311	313	304	311	296	316	2,031	684	459		
19	302	310	317	304	311	295	318	2,037	627	462		
20	305	308	315	304	310	295	324	2,017	622	462		
21	298	310	304	305	309	294	322	2,004	621	458		
22	292	309	302	305	309	296	401	2,024	628	460		
23	307	309	301	306	307	307	492	2,038	629	462		
24	320	311	301	307	309	314	488	1,944	629	462		
25	323	307	302	309	311	314	485	1,882	629	462		
26	318	307	302	309	310	313	486	1,802	629	462		
27	318	307	302	308	310	313	494	1,789	629	465		
28	317	310	301	307	309	312	584	1,794	629	462		
29	317	310	301	305	310	310	723	1,805	629	461		
30	315	310	298	307	311	311	1,093	1,626	629	460		
31	316	301	301	308	311	311		1,252	629	460		
TOTAL	12,238	9,222	9,538	9,418	8,671	9,473	11,819	80,643	23,908	14,207		
MEAN	395	307	308	304	310	306	394	2,601	797	458		
MAX	517	317	317	309	316	315	1,093	4,965	1,182	465		
MIN	292	301	298	299	301	294	306	1,252	621	449		

WATER YEAR TOTALS

TOTAL	189,137
DAILY MEAN	622
DAILY MAX	4,965 05/07/2015
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: August 10, 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	14	14	15	14	673	1,261		
2	510	2,150	15	349	14	14	26	14	675	1,542		
3	654	965	1,016	14	14	14	14	14	630	1,554		
4	689	19	18	27	14	23	15	14	673	821		
5	646	14	14	86	16	14	14	14	674	810		
6	704	14	746	309	899	14	14	14	593	1,172		
7	849	14	665	14	1,529	18	16	20	368	1,224		
8	761	14	228	14	1,794	551	16	14	691	490		
9	660	14	727	15	943	22	16	17	1,089	973		
10	676	14	1,586	14	2,015	15	14	14	675	968		
11	1,266	14	699	17	1,900	49	14	14	675	956		
12	1,240	14	1,981	14	1,906	46	20	17	755	849		
13	1,056	14	1,536	15	1,969	24	19	14	817	1,168		
14	997	18	2,067	378	705	14	14	14	696	1,168		
15	585	14	2,132	17	795	14	14	14	434	1,243		
16	1,185	92	1,723	23	1,898	27	15	14	677	1,077		
17	1,106	18	28	16	1,940	14	17	14	830	902		
18	1,154	14	1,849	14	825	112	16	14	1,056	1,038		
19	1,012	97	1,374	16	1,675	14	20	14	1,017	1,127		
20	1,570	64	1,254	93	1,297	14	16	17	1,083	1,222		
21	1,620	991	299	14	1,342	14	14	14	843	786		
22	1,662	14	572	14	695	17	14	17	1,067	1,559		
23	1,235	14	805	373	619	15	16	14	929	1,451		
24	2,019	15	1,938	288	523	17	14	14	923	1,472		
25	2,068	14	2,143	14	560	20	14	51	937	1,479		
26	1,018	14	770	14	351	14	14	15	1,069	1,271		
27	476	14	1,321	14	112	14	14	24	1,092	1,330		
28	178	14	2,069	14	14	36	14	91	1,287	1,287		
29	1,439	159	685	19	685	21	14	14	1,222	1,013		
30	2,111	14	17	16	17	17	14	268	1,540	1,242		
31	718		14	15	17	17		101	1,294	1,294		
TOTAL	32,409	6,902	30,509	2,254	26,378	1,229	467	918	25,317	35,749		
MEAN	1,045	230	984	73	942	40	16	30	844	1,153		
MAX	2,111	2,150	2,143	378	2,015	551	26	268	1,540	1,559		
MIN	178	14	14	14	14	14	14	14	368	490		

WATER YEAR TOTALS

TOTAL	162,132
DAILY MEAN	533
DAILY MAX	2,150
DAILY MIN	14
	11/02/2014
	11/05/2014