

file S625  
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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

APR 16 2013

STATE WATER RESOURCES  
CONTROL BOARD  
2013 APR 19 AM 11:10  
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 March, the temperature control point was set at Balls Ferry, per the recommendation of the Sacramento River Temperature Task Group (SRTTG).

During March 2013, the average daily water temperature compliance of 56.0° F or less was met at the Balls Ferry compliance point on the Sacramento.

During the month of March 2013, the average monthly water temperature was 50.9° F at Balls Ferry.

Enclosed is the monitoring report for March 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                     |
| Keswick (R-3a)      | Flow, average daily, cfs                    |

| <b>Station</b>                         | <b>Description</b>  |
|--|---|
| Spring Creek<br>Power plant (R-4)<br>“ | Water Temperature, daily average, degrees F<br>Turbidity, ntu, monthly<br>Flow, average daily cfs |
| Balls Ferry (R-5)<br>(Control Point)   | Water Temperature, daily average, degrees F<br>Turbidity, ntu, monthly                            |
| Sacramento at<br>Delta (R-6)           | Water Temperature, monthly, degrees F<br>Turbidity, ntu, monthly                                  |
| McCloud (R-7)<br>“                     | Water Temperature, monthly, degrees F<br>Turbidity, ntu, monthly                                  |
| Pit River (R-8)<br>“                   | Water Temperature, monthly, degrees F<br>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  
Acting, 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**  
 March 2013

| Req. Sampling Frequency - Daily Average<br>(Reading indicates daily average) |       |       |       |       |       |  | Control Pt<br>3/1 to 3/31 |       |       | Req. Sampling Frequency - Monthly |  |  |
|--|-------|-------|-------|-------|-------|--|---------------------------|-------|-------|-----------------------------------|--|--|
|  | Sta 2 | Sta 3 | Sta 4 | Sta 5 | Sta 9 |  | Sta 6                     | Sta 7 | Sta 8 |                                   |  |  |
| Date   | Shd   | Kwk   | Spp * | Bsf   | Lws   |  | Dlt                       | Mss   | Pmn   |                                   |  |  |
| 1  | 47.0  | 48.0  |       | 50.0  | 47.0  |  |                           |       |       |                                   |  |  |
| 2  | 47.0  | 47.9  |       | 50.0  | 46.5  |  |                           |       |       |                                   |  |  |
| 3  | 46.9  | 47.9  |       | 50.5  | 47.4  |  |                           |       |       |                                   |  |  |
| 4  | 46.9  | 47.8  |       | 50.7  | 47.0  |  |                           |       |       |                                   |  |  |
| 5  | 46.7  | 47.8  |       | 50.3  | 46.3  |  |                           |       |       |                                   |  |  |
| 6  | 46.5  | 47.7  |       | 49.0  | 46.5  |  |                           |       |       |                                   |  |  |
| 7  | 46.8  | 47.5  |       | 49.0  | 46.5  |  |                           |       |       |                                   |  |  |
| 8  | 47.1  | 47.2  |       | 49.0  | 46.9  |  |                           |       |       |                                   |  |  |
| 9  | 47.0  | 47.2  |       | 49.2  | 47.5  |  |                           |       |       |                                   |  |  |
| 10   | 46.9  | 47.6  |       | 49.4  | 47.5  |  |                           |       |       |                                   |  |  |
| 11   | 46.6  | 47.8  |       | 50.3  | 48.0  |  |                           |       |       |                                   |  |  |
| 12   | 46.8  | 47.8  |       | 50.7  | 48.5  |  |                           |       |       |                                   |  |  |
| 13   | 47.0  | 47.9  |       | 50.8  | 48.9  |  |                           |       |       |                                   |  |  |
| 14   | 47.1  | 47.7  |       | 50.7  | 48.8  |  |                           |       |       |                                   |  |  |
| 15   | 47.1  | 47.9  |       | 50.6  | 49.0  |  |                           |       |       |                                   |  |  |
| 16   | 46.5  | 47.9  |       | 51.2  | 49.1  |  |                           |       |       |                                   |  |  |
| 17   | 46.9  | 47.8  |       | 50.9  | 49.0  |  |                           |       |       |                                   |  |  |
| 18   | 46.4  | 47.9  |       | 50.4  | 49.2  |  |                           |       |       |                                   |  |  |
| 19   | 47.5  | 47.7  |       | 50.5  | 49.5  |  | 46.4                      |       |       |                                   |  |  |
| 20   | 47.3  | 47.5  |       | 50.1  | 50.2  |  |                           |       |       | 49.2                              |  |  |
| 21   | 48.6  | 48.1  |       | 49.8  | 49.4  |  |                           |       |       |                                   |  |  |
| 22   | 49.0  | 48.2  |       | 50.0  | 49.0  |  |                           |       |       |                                   |  |  |
| 23   | 49.4  | 48.8  |       | 50.1  | 49.1  |  |                           |       |       |                                   |  |  |
| 24   | 48.8  | 49.6  |       | 51.4  | 49.9  |  |                           |       |       |                                   |  |  |
| 25   | 49.2  | 50.0  |       | 52.0  | 49.9  |  |                           |       |       |                                   |  |  |
| 26   | 49.2  | 50.3  |       | 53.2  | 50.5  |  |                           |       |       |                                   |  |  |
| 27   | 49.7  | 50.4  |       | 54.0  | 51.3  |  |                           | 47.8  |       |                                   |  |  |
| 28   | 49.5  | 50.1  |       | 53.6  | 51.1  |  |                           |       |       |                                   |  |  |
| 29   | 49.8  | 50.2  |       | 53.2  | 51.6  |  |                           |       |       |                                   |  |  |
| 30   | 50.2  | 50.5  |       | 53.2  | 51.0  |  |                           |       |       |                                   |  |  |
| 31   | 50.3  | 50.9  |       | 53.7  | 51.4  |  |                           |       |       |                                   |  |  |

**Control Point: Balls Ferry 56.0 from 04/16/2012 to 05/31/2012.**  
**Jellys Ferry 56.0 from 06/01/2012 to 09/30/2012**  
**Balls Ferry 56.0 from 10/1/2012 to 3/31/2013.**

\* On 12/7/2012 at the temperature point for the Spring Creek Power Plant (SPP), the bottom section of metal pipe was torn off the wall. Sonde missing and cable severely damaged.  
 3/6/2013 Update: Equipment scheduled to be replaced on 4/9/2013 per Northern California Area Office

**Cross Channel Gate Operation:**  
 Mar 1-31 Closed

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

| <b>TEMPERATURE</b>   |             |             |             |
|--|-------------|-------------|-------------|
| Sampling Frequency<br>Every two weeks May 1 through November 30. |             |             |             |
|  | Sample 1    | Sample 2    | Sample 3    |
|  | 3/12/2013   |             |             |
| Lake Elev  | Temperature | Temperature | Temperature |
| MSL  | Degrees F   | Degrees F   | Degrees F   |
| (400 Feet Upstream of Dam)                                       |             |             |             |
|  | Time: 10:50 | Time:       | Time:       |
| 625  | 44.1        |             |             |
| 650  | 44.1        |             |             |
| 675  | 44.1        |             |             |
| 700  | 44.1        |             |             |
| 725  | 44.2        |             |             |
| 750  | 44.2        |             |             |
| 775  | 44.3        |             |             |
| 800  | 44.4        |             |             |
| 825  | 44.6        |             |             |
| 850  | 44.9        |             |             |
| 875  | 45.8        |             |             |
| 900  | 46.2        |             |             |
| 925  | 47.6        |             |             |
| 950  | 48.5        |             |             |
| 975  | 49.1        |             |             |
| 1000   | 49.7        |             |             |
| 1025   | 51.0        |             |             |
| 1050   |             |             |             |
| Lake Surface   | 1035.40'    | 52.0        |             |

| <b>TURBIDITY</b>   |             |           |           |
|--|-------------|-----------|-----------|
| Sampling Frequency<br>Monthly, except weekly May 1 through Sep 30, when<br>turbidity at Station 2 is equal to or greater than 10 NTU |             |           |           |
|  | Sample 1    | Sample 2  | Sample 3  |
|  | 3/12/2013   |           |           |
| Lake Elev  | Turbidity   | Turbidity | Turbidity |
| MSL  | ntu         | ntu       | ntu       |
| (400 Feet Upstream of Dam)   |             |           |           |
|  | Time: 10:50 | Time:     | Time:     |
| 625  | 3.3         |           |           |
| 650  | 3.4         |           |           |
| 675  | 3.1         |           |           |
| 700  | 3.0         |           |           |
| 725  | 2.9         |           |           |
| 750  | 2.9         |           |           |
| 775  | 2.8         |           |           |
| 800  | 3.3         |           |           |
| 825  | 3.1         |           |           |
| 850  | 3.0         |           |           |
| 875  | 2.4         |           |           |
| 900  | 2.3         |           |           |
| 925  | 2.8         |           |           |
| 950  | 3.0         |           |           |
| 975  | 3.1         |           |           |
| 1000   | 3.2         |           |           |
| 1025   | 3.0         |           |           |
| 1050   |             |           |           |
| Lake Surface   | 1035.40'    | 3.1       |           |



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

**Summary of Turbidity and Dissolved Oxygen Water Sampling  
 March 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 |           | Spring    | Balls Ferry   |             |         |       |
|         | Discharge  | Keswick   | Creek PP  | Control Point | Sacramento  | McCloud | Pit   |
| Day     | at Bridge  | Discharge | Discharge | 3/1 to 3/31   | River (DLT) | River   | River |
| 5       |            |           | 0.6       |               |             |         |       |
| 7       | 3.3        |           |           |               |             |         |       |
| 8       |            | 4.0       |           |               |             |         |       |
| 14      |            |           |           | 2.5           |             |         |       |
| 19      |            |           |           |               | 1.3         |         |       |
| 20      |            |           |           |               |             |         | 7.2   |
| 27      |            |           |           |               |             | 0.9     |       |
|         |            |           |           |               |             |         |       |
|         |            |           |           |               |             |         |       |
|         |            |           |           |               |             |         |       |
|         |            |           |           |               |             |         |       |
|         |            |           |           |               |             |         |       |
|         |            |           |           |               |             |         |       |
|         |            |           |           |               |             |         |       |

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   | 3/1 to 3/31   | Time Sample |
| Day     | at Bridge                             | Discharge | Balls Ferry   | Taken       |
|         |                                       |           |               |             |
|         | No Requirement October through April. |           |               |             |
|         |                                       |           |               |             |

**Temperature Control Point:** Balls Ferry 56.0 from 04/16/2012 to 05/31/2012.  
 Jellys Ferry 56.0 from 06/01/2012 to 09/30/2012.  
 Balls Ferry 56.0 from 10/1/2012 to 3/31/2013.

**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          |     |     |     |     |     |     |
| 2            | 4,133          | 5,470          | 1,003         | 2,470          | 4,377          | 3,316          |     |     |     |     |     |     |
| 3            | 4,663          | 5,396          | 2,124         | 2,013          | 3,455          | 3,276          |     |     |     |     |     |     |
| 4            | 3,944          | 5,340          | 3,234         | 2,568          | 4,491          | 3,437          |     |     |     |     |     |     |
| 5            | 4,155          | 5,858          | 1,246         | 2,762          | 3,151          | 3,744          |     |     |     |     |     |     |
| 6            | 4,148          | 5,477          | 3,050         | 2,606          | 4,354          | 3,427          |     |     |     |     |     |     |
| 7            | 4,239          | 4,960          | 2,102         | 3,614          | 4,052          | 3,498          |     |     |     |     |     |     |
| 8            | 4,529          | 5,187          | 2,219         | 3,090          | 3,806          | 4,508          |     |     |     |     |     |     |
| 9            | 4,087          | 5,361          | 3,961         | 3,129          | 3,810          | 3,153          |     |     |     |     |     |     |
| 10           | 4,984          | 5,161          | 4,699         | 5,621          | 3,389          | 4,649          |     |     |     |     |     |     |
| 11           | 4,553          | 5,074          | 3,196         | 4,070          | 3,725          | 4,895          |     |     |     |     |     |     |
| 12           | 4,420          | 5,261          | 4,034         | 3,254          | 3,593          | 4,214          |     |     |     |     |     |     |
| 13           | 4,329          | 5,182          | 3,912         | 3,422          | 3,596          | 4,466          |     |     |     |     |     |     |
| 14           | 4,532          | 5,238          | 3,988         | 3,929          | 4,139          | 4,440          |     |     |     |     |     |     |
| 15           | 4,515          | 6,045          | 4,106         | 3,424          | 4,071          | 4,460          |     |     |     |     |     |     |
| 16           | 4,580          | 6,036          | 4,095         | 4,416          | 3,343          | 4,802          |     |     |     |     |     |     |
| 17           | 4,463          | 5,274          | 4,147         | 4,367          | 2,808          | 3,804          |     |     |     |     |     |     |
| 18           | 4,922          | 5,314          | 2,944         | 4,570          | 3,372          | 4,248          |     |     |     |     |     |     |
| 19           | 4,872          | 5,412          | 2,366         | 4,122          | 3,319          | 4,934          |     |     |     |     |     |     |
| 20           | 5,262          | 4,907          | 2,265         | 3,428          | 3,437          | 3,750          |     |     |     |     |     |     |
| 21           | 5,150          | 4,343          | 2,745         | 2,901          | 3,480          | 3,554          |     |     |     |     |     |     |
| 22           | 4,953          | 4,417          | 1,534         | 4,867          | 3,203          | 3,219          |     |     |     |     |     |     |
| 23           | 5,082          | 4,855          | 1,502         | 3,933          | 3,535          | 3,476          |     |     |     |     |     |     |
| 24           | 5,013          | 3,944          | 2,007         | 4,321          | 3,385          | 2,942          |     |     |     |     |     |     |
| 25           | 4,649          | 4,179          | 2,224         | 3,495          | 3,835          | 3,602          |     |     |     |     |     |     |
| 26           | 5,074          | 4,596          | 2,265         | 3,544          | 3,036          | 3,568          |     |     |     |     |     |     |
| 27           | 4,985          | 3,871          | 2,313         | 3,707          | 3,804          | 3,776          |     |     |     |     |     |     |
| 28           | 4,813          | 3,806          | 2,266         | 4,461          | 3,324          | 4,474          |     |     |     |     |     |     |
| 29           | 4,874          | 2,771          | 2,131         | 3,830          |                | 5,782          |     |     |     |     |     |     |
| 30           | 5,508          | 1,387          | 2,499         | 3,461          |                | 5,147          |     |     |     |     |     |     |
| 31           | 5,498          |                | 2,434         | 4,059          |                | 5,008          |     |     |     |     |     |     |
| <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>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>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>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>   |     |     |     |     |     |     |

**WATER YEAR TOTALS**

|                   |                |                   |
|-------------------|----------------|-------------------|
| <b>TOTAL</b>      | <b>713,934</b> |                   |
| <b>DAILY MEAN</b> | <b>3,923</b>   |                   |
| <b>DAILY MAX</b>  | <b>6,045</b>   | <b>11/15/2012</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: April 9, 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          |     |     |     |     |     |     |
| 2            | 7,017          | 6,507          | 4,977          | 4,656          | 4,557          | 3,882          |     |     |     |     |     |     |
| 3            | 7,007          | 6,509          | 4,888          | 4,572          | 4,453          | 3,904          |     |     |     |     |     |     |
| 4            | 6,770          | 6,770          | 4,744          | 4,558          | 4,389          | 3,872          |     |     |     |     |     |     |
| 5            | 6,746          | 6,491          | 4,738          | 4,563          | 4,487          | 3,890          |     |     |     |     |     |     |
| 6            | 6,758          | 6,433          | 4,743          | 4,570          | 4,494          | 3,877          |     |     |     |     |     |     |
| 7            | 6,754          | 6,057          | 4,754          | 4,579          | 4,575          | 3,871          |     |     |     |     |     |     |
| 8            | 6,527          | 6,009          | 4,752          | 4,523          | 4,472          | 4,926          |     |     |     |     |     |     |
| 9            | 6,501          | 6,024          | 4,616          | 4,438          | 4,315          | 5,121          |     |     |     |     |     |     |
| 10           | 6,511          | 6,026          | 4,699          | 4,465          | 4,139          | 5,142          |     |     |     |     |     |     |
| 11           | 6,516          | 6,006          | 4,568          | 4,572          | 4,172          | 5,115          |     |     |     |     |     |     |
| 12           | 6,502          | 6,013          | 4,562          | 4,582          | 4,089          | 5,013          |     |     |     |     |     |     |
| 13           | 6,499          | 6,127          | 4,550          | 4,574          | 4,000          | 5,099          |     |     |     |     |     |     |
| 14           | 6,504          | 6,317          | 4,553          | 4,471          | 3,892          | 5,118          |     |     |     |     |     |     |
| 15           | 6,502          | 6,092          | 4,575          | 4,455          | 3,893          | 5,036          |     |     |     |     |     |     |
| 16           | 6,498          | 6,304          | 4,552          | 4,423          | 3,890          | 4,912          |     |     |     |     |     |     |
| 17           | 6,512          | 6,322          | 4,552          | 4,406          | 3,887          | 4,778          |     |     |     |     |     |     |
| 18           | 6,509          | 6,136          | 4,558          | 4,410          | 3,894          | 4,601          |     |     |     |     |     |     |
| 19           | 6,753          | 5,927          | 4,569          | 4,443          | 3,903          | 4,562          |     |     |     |     |     |     |
| 20           | 6,767          | 5,913          | 4,569          | 4,496          | 3,898          | 4,450          |     |     |     |     |     |     |
| 21           | 6,768          | 5,740          | 4,367          | 4,541          | 3,898          | 4,257          |     |     |     |     |     |     |
| 22           | 6,719          | 5,471          | 4,669          | 4,559          | 3,901          | 4,043          |     |     |     |     |     |     |
| 23           | 6,757          | 5,255          | 4,733          | 4,551          | 3,900          | 4,035          |     |     |     |     |     |     |
| 24           | 6,768          | 5,220          | 4,756          | 4,566          | 3,892          | 4,037          |     |     |     |     |     |     |
| 25           | 6,760          | 5,213          | 4,756          | 4,542          | 3,905          | 4,047          |     |     |     |     |     |     |
| 26           | 6,758          | 5,212          | 4,750          | 4,551          | 3,905          | 3,867          |     |     |     |     |     |     |
| 27           | 6,753          | 5,117          | 4,728          | 4,571          | 3,917          | 3,760          |     |     |     |     |     |     |
| 28           | 6,515          | 5,017          | 4,659          | 4,551          | 3,904          | 3,985          |     |     |     |     |     |     |
| 29           | 6,513          | 4,919          | 4,671          | 4,567          |                | 5,675          |     |     |     |     |     |     |
| 30           | 6,515          | 4,817          | 4,646          | 4,557          |                | 5,806          |     |     |     |     |     |     |
| 31           | 6,509          |                | 4,669          | 4,553          |                | 5,806          |     |     |     |     |     |     |
| <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>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>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>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>   |     |     |     |     |     |     |

**WATER YEAR TOTALS**

|                   |                |                   |
|-------------------|----------------|-------------------|
| <b>TOTAL</b>      | <b>923,487</b> |                   |
| <b>DAILY MEAN</b> | <b>5,074</b>   |                   |
| <b>DAILY MAX</b>  | <b>7,017</b>   | <b>10/02/2012</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: April 9, 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          |     |     |     |     |     |     |
| 2            | 451           | 312          | 325          | 296          | 296          | 311          |     |     |     |     |     |     |
| 3            | 455           | 310          | 319          | 294          | 295          | 308          |     |     |     |     |     |     |
| 4            | 456           | 320          | 332          | 294          | 299          | 308          |     |     |     |     |     |     |
| 5            | 456           | 311          | 335          | 294          | 298          | 310          |     |     |     |     |     |     |
| 6            | 455           | 312          | 322          | 294          | 300          | 309          |     |     |     |     |     |     |
| 7            | 456           | 314          | 323          | 296          | 295          | 311          |     |     |     |     |     |     |
| 8            | 453           | 318          | 322          | 296          | 295          | 305          |     |     |     |     |     |     |
| 9            | 458           | 306          | 322          | 292          | 298          | 301          |     |     |     |     |     |     |
| 10           | 454           | 305          | 320          | 296          | 296          | 302          |     |     |     |     |     |     |
| 11           | 453           | 308          | 301          | 294          | 297          | 299          |     |     |     |     |     |     |
| 12           | 455           | 307          | 305          | 298          | 301          | 300          |     |     |     |     |     |     |
| 13           | 458           | 305          | 312          | 294          | 297          | 289          |     |     |     |     |     |     |
| 14           | 458           | 308          | 311          | 292          | 301          | 323          |     |     |     |     |     |     |
| 15           | 448           | 309          | 312          | 295          | 306          | 321          |     |     |     |     |     |     |
| 16           | 456           | 310          | 311          | 298          | 307          | 320          |     |     |     |     |     |     |
| 17           | 399           | 314          | 311          | 296          | 308          | 316          |     |     |     |     |     |     |
| 18           | 309           | 314          | 309          | 301          | 308          | 316          |     |     |     |     |     |     |
| 19           | 302           | 310          | 312          | 302          | 308          | 318          |     |     |     |     |     |     |
| 20           | 300           | 310          | 290          | 299          | 305          | 319          |     |     |     |     |     |     |
| 21           | 298           | 314          | 291          | 295          | 306          | 320          |     |     |     |     |     |     |
| 22           | 285           | 314          | 293          | 294          | 307          | 341          |     |     |     |     |     |     |
| 23           | 273           | 310          | 295          | 296          | 307          | 320          |     |     |     |     |     |     |
| 24           | 287           | 313          | 292          | 298          | 307          | 318          |     |     |     |     |     |     |
| 25           | 292           | 313          | 294          | 297          | 308          | 320          |     |     |     |     |     |     |
| 26           | 292           | 314          | 297          | 295          | 305          | 319          |     |     |     |     |     |     |
| 27           | 291           | 313          | 295          | 293          | 304          | 320          |     |     |     |     |     |     |
| 28           | 292           | 310          | 296          | 297          | 308          | 305          |     |     |     |     |     |     |
| 29           | 290           | 313          | 292          | 297          |              | 284          |     |     |     |     |     |     |
| 30           | 292           | 314          | 292          | 296          |              | 271          |     |     |     |     |     |     |
| 31           | 293           |              | 292          | 296          |              | 273          |     |     |     |     |     |     |
| <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>MEAN</b>  | <b>380</b>    | <b>311</b>   | <b>308</b>   | <b>296</b>   | <b>302</b>   | <b>309</b>   |     |     |     |     |     |     |
| <b>MAX</b>   | <b>458</b>    | <b>320</b>   | <b>335</b>   | <b>302</b>   | <b>308</b>   | <b>341</b>   |     |     |     |     |     |     |
| <b>MIN</b>   | <b>273</b>    | <b>305</b>   | <b>290</b>   | <b>292</b>   | <b>295</b>   | <b>271</b>   |     |     |     |     |     |     |

WATER YEAR TOTALS

|            |        |            |
|------------|--------|------------|
| TOTAL      | 57,864 |            |
| DAILY MEAN | 318    |            |
| DAILY MAX  | 458    | 10/09/2012 |
| DAILY MIN  | 271    | 03/30/2013 |



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

RUN DATE: April 9, 2013

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            | 1,625         | 385          | 1,659         | 1,987         | 154          | 80           |     |     |     |     |     |     |
| 2            | 1,591         | 484          | 1,146         | 1,852         | 80           | 80           |     |     |     |     |     |     |
| 3            | 1,624         | 412          | 1,783         | 1,865         | 80           | 80           |     |     |     |     |     |     |
| 4            | 1,620         | 449          | 538           | 1,792         | 80           | 80           |     |     |     |     |     |     |
| 5            | 1,673         | 81           | 1,883         | 821           | 456          | 80           |     |     |     |     |     |     |
| 6            | 1,591         | 62           | 1,448         | 789           | 80           | 80           |     |     |     |     |     |     |
| 7            | 1,588         | 40           | 1,443         | 725           | 80           | 214          |     |     |     |     |     |     |
| 8            | 948           | 39           | 931           | 653           | 80           | 85           |     |     |     |     |     |     |
| 9            | 972           | 39           | 654           | 718           | 80           | 80           |     |     |     |     |     |     |
| 10           | 1,040         | 38           | 82            | 82            | 80           | 80           |     |     |     |     |     |     |
| 11           | 1,000         | 38           | 82            | 81            | 80           | 80           |     |     |     |     |     |     |
| 12           | 981           | 38           | 82            | 241           | 80           | 80           |     |     |     |     |     |     |
| 13           | 976           | 38           | 81            | 81            | 80           | 80           |     |     |     |     |     |     |
| 14           | 972           | 38           | 157           | 67            | 80           | 80           |     |     |     |     |     |     |
| 15           | 978           | 38           | 82            | 136           | 80           | 80           |     |     |     |     |     |     |
| 16           | 963           | 38           | 81            | 56            | 80           | 80           |     |     |     |     |     |     |
| 17           | 748           | 38           | 72            | 56            | 80           | 80           |     |     |     |     |     |     |
| 18           | 736           | 38           | 1,431         | 54            | 349          | 80           |     |     |     |     |     |     |
| 19           | 711           | 38           | 1,662         | 44            | 80           | 80           |     |     |     |     |     |     |
| 20           | 569           | 21           | 1,381         | 44            | 80           | 392          |     |     |     |     |     |     |
| 21           | 644           | 709          | 1,607         | 700           | 80           | 80           |     |     |     |     |     |     |
| 22           | 844           | 14           | 2,272         | 44            | 80           | 80           |     |     |     |     |     |     |
| 23           | 815           | 14           | 2,041         | 44            | 80           | 80           |     |     |     |     |     |     |
| 24           | 1,029         | 14           | 1,382         | 44            | 80           | 80           |     |     |     |     |     |     |
| 25           | 1,151         | 14           | 1,389         | 58            | 83           | 80           |     |     |     |     |     |     |
| 26           | 687           | 14           | 1,544         | 80            | 80           | 80           |     |     |     |     |     |     |
| 27           | 644           | 14           | 1,709         | 80            | 80           | 80           |     |     |     |     |     |     |
| 28           | 605           | 359          | 1,975         | 80            | 80           | 80           |     |     |     |     |     |     |
| 29           | 563           | 686          | 1,911         | 86            |              | 84           |     |     |     |     |     |     |
| 30           | 260           | 1,908        | 1,523         | 757           |              | 80           |     |     |     |     |     |     |
| 31           | 278           |              | 1,739         | 80            |              | 80           |     |     |     |     |     |     |
| <b>TOTAL</b> | <b>30,426</b> | <b>6,138</b> | <b>35,770</b> | <b>14,197</b> | <b>2,962</b> | <b>2,935</b> |     |     |     |     |     |     |
| <b>MEAN</b>  | <b>981</b>    | <b>205</b>   | <b>1,154</b>  | <b>458</b>    | <b>106</b>   | <b>95</b>    |     |     |     |     |     |     |
| <b>MAX</b>   | <b>1,673</b>  | <b>1,908</b> | <b>2,272</b>  | <b>1,987</b>  | <b>456</b>   | <b>392</b>   |     |     |     |     |     |     |
| <b>MIN</b>   | <b>260</b>    | <b>14</b>    | <b>72</b>     | <b>44</b>     | <b>80</b>    | <b>80</b>    |     |     |     |     |     |     |

**WATER YEAR TOTALS**

|                   |                         |
|-------------------|-------------------------|
| <b>TOTAL</b>      | <b>92,428</b>           |
| <b>DAILY MEAN</b> | <b>508</b>              |
| <b>DAILY MAX</b>  | <b>2,272 12/22/2012</b> |
| <b>DAILY MIN</b>  | <b>14 11/22/2012</b>    |