

accordance with an agreement between Reclamation and DFG. This release schedule was included in Order 90-05, which maintains a minimum release of 3,250 cfs at Keswick Dam and RBDD from September through the end of February in all water years, except critically dry years.

Table 3-3 Current minimum flow requirements and objectives (cfs) on the Sacramento River below Keswick Dam

Water year type	MOA	WR 90-5	MOA and Order 90-5	1993 NMFS winter-run Biological Opinion
Period	Normal	Normal	Critically dry	All
January 1 - February 28(28)	2,600	3,250	2,000	3,250
March 1 - March 31	2,300	2,300	2,300	3,250
April 1 - April 30	2,300	2,300	2,300	---
May 1 - August 31	2,300	2,300	2,300	---
September 1 - September 30	3,800	3,250	2,800	---
October 1 - November 30	3,800	3,250	2,800	3,250
December 1 - December 31	2,600	3,250	2,000	3,250
*No regulation				

The 1960 MOA between Reclamation and DFG provides that releases from Keswick Dam from September 1 through December 31 are made with minimum water level fluctuations or change to protect salmon, if when doing so is compatible with other operations requirements. Releases from Shasta and Keswick Dams are gradually reduced in September and early October during the transition from meeting Delta export and water quality demands to operating the system for flood control and fishery concerns from October through December.

The Reasonable and Prudent Alternative contained in the 1993 National Marine Fisheries Service (NOAA Fisheries) biological opinion required a minimum flow of 3,250 cfs from October 1 through March 31. Also, as part of the alternative, ramping constraints for Keswick release reductions from July 1 through March 31 are required as follows:

- Releases must be reduced between sunset and sunrise.
- When Keswick releases are 6,000 cfs or greater, decreases may not exceed 15 percent per night. Decreases also may not exceed 2.5 percent in one hour.
- For Keswick releases between 4,000 and 5,999 cfs, decreases may not exceed 200 cfs per night. Decreases also may not exceed 100 cfs per hour.
- For Keswick releases between 3,250 and 3,999 cfs, decreases may not exceed 100 cfs per night.
- Variations to these release requirements are allowed under flood control operations.



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REDDING, CA 96049-6071

*Conserving resources today
for Redding's tomorrow*

June 5, 2007
W-010-580-000

Mr. James Pedri, P.E.
Assistant Executive Officer
California Regional Water Quality Control Board
415 Knollcrest Drive, Suite 100
Redding CA 96002

Dear Mr. Pedri:

Subject: Response to Stillwater Wastewater Treatment Facility Draft Permit Order No. R5-2007-Tentative, NPDES No. CA0082589 and Tentative Cease and Desist Order No. R5-2007-XXXX

Protecting the environment and health of the Sacramento River always has been a priority for the City of Redding (City). However, it is our position that this permit requires an unnecessarily inordinate amount of testing and studies for purported problems that do not exist or that the Stillwater Wastewater Treatment Plant (SWWTP) does not contribute to. At the same time, the City must consider the burden to the ratepayers which is presented by new and unnecessarily burdensome monitoring requirements placed on them by this permit. The City will cooperate to the fullest extent possible in completing all of the required studies and appreciates your consideration of the permit modifications requested in this letter.

On Friday April 27, 2007, Central Valley Regional Water Quality Control Board (CVRWQCB) staff delivered the tentative National Pollutant Discharge Elimination System (NPDES) permit for the SWWTP to City staff in a meeting held at the CVRWQCB. The tentative NPDES permit was briefly reviewed and following some discussion, the City and CVRWQCB scheduled a follow-up meeting on May 2, 2007, to further discuss and modify the NPDES permit.

During the April 27, 2007, meeting some consideration in regard to the interim copper effluent limitations were provided. This cooperative effort to work with the City was greatly appreciated. Copper effluent limits, at the concentration listed in the tentative NPDES permit, remain a concern to the City. The City believes the copper limits have been set low, and the SWWTP may exceed the interim limits.

On May 2, 2007, the City provided a response to the tentative NPDES permit. The majority of the City's comments were incorporated into the tentative NPDES permit before it was available for public review. Again, this cooperative effort was greatly appreciated. The City has now had the benefit of a thirty day public review period and is submitting these additional responses to the tentative NPDES permit for the CVRWQCB to consider.

Plans and Programs

Page 23, (c.) and Page F-31, (c.) – Salinity Evaluation and Minimization Plan and Salinity

The City requests the requirement for a salinity evaluation plan be implemented only if the monthly analysis of electrical conductivity (EC) is greater than 600 $\mu\text{mhos}/\text{cm}$. The SWWTP total dissolved solids (TDS) and EC are well below the Agricultural WQ goals and Secondary MCL's listed on the



fact sheet. We feel the City is not contributing significant salinity to the river. Current monitoring of the influent EC finds a reduction of EC in the normal course of treatment. The historical values for the influent at the SWWTP averages 600 $\mu\text{mhos/cm}$, and the effluent averages 400 $\mu\text{mhos/cm}$. Therefore, the City feels this monitoring requirement chases a non-existent problem and places an unfair financial burden on the ratepayer. Therefore, the City requests the following:

- Eliminate the requirement for a salinity evaluation plan from this permit.

Page 29 (iv.) – Treatment Feasibility Study

The tentative order requires a treatment feasibility study for copper. It does not seem reasonable to require such a study at this time. The City plans to gather data and perform other studies that will lead to an effluent limitation that can be met with the current treatment facilities. The City requests the following:

- The treatment feasibility study for copper be scheduled to occur after May 18, 2010, and only be required if the data and other studies do not result in justifying effluent limitations that can be met with the current treatment facilities.

Monitoring Requirements

Page E-14 - Table E-9 – Reporting Requirements for Special Provisions Progress Reports

On page 22 (a.), the BPTC Evaluation Tasks states, "Not applicable." This is inconsistent with the reporting requirements set forth at Table E-9. The City requests the following:

- The BPTC Evaluation reporting requirement in Table E-9 state "Not Applicable".

Page E-16, Number 5 – Annual Pretreatment Reporting Requirements

Paragraph (a.) under this section reads as follows: "A summary of analytical results from representative, flow proportioned, 24-hour composite sampling" The paragraph in the document indicates that only flow proportioned, 24-hour composite sampling is required. The City requests the following:

- The paragraph be revised to read as follows: "A summary of analytical results from representative, grab, flow proportioned, or 24-hour time weighted composite sampling"

Fact Sheets

Page F-20 - Table F-5 – Effluent and Receiving Water Flows for Calculating Dilution Ratios and Page F-35 - Table F-9 – Dilution Credits for Water Quality Criteria

Critical receiving water flows used in calculating dilution ratios were determined using the past twenty years of data. The criteria used for operation of Shasta and Keswick reservoirs upstream of the City on the Sacramento River is decided by various State and Federal agencies and has changed in the past ten to fifteen years. It seems prudent to use the data from the time period that reflect the current minimum flows in the river to calculate the critical flow values. During the meeting on April 27, 2007, Jim Pedri of the CVRWQCB agreed that the past ten years or the time period beginning on the dates listed in other agency documents would be more representative of the current flow conditions in the river.



The U.S. Department of the Interior, Bureau of Reclamation, Long-Term, Central Valley Project Operations Criteria and Plan is attached for supporting documentation as requested by the CVRWQCB concerning this issue. The City requests the following:

- The minimum Sacramento River flows be consistent with current operating conditions designated by the Bureau of Reclamation and other resource agencies when calculating future or final limits.

Page 10 (f.) – Average Daily Discharge Flow and Page F-7 - Table F-3 Historical Effluent Flow

The following language was added to page 10, (f.): "...Flows occurring in May shall be excluded from this limitation if significant rain events occur or seasonal high groundwater conditions persist". For consistency, this language also should be added to Table F-3. The City requests the following:

- At page F-7 - Table F-3: Add the sentence "...Flows occurring in May shall be excluded from this limitation if significant rain events occur or seasonal high groundwater conditions persist."

Cease and Desist Order for Zinc

Page 5, Task 3 – Treatment Feasibility Study

The tentative order requires a treatment feasibility study for zinc. It does not seem reasonable to require this study at this time. The City plans to gather data and perform other studies that will lead to an effluent limitation that can be met with the current treatment facilities. The City requests the following:

- The treatment feasibility study for zinc be scheduled to occur after May 18, 2010, and only be required if the data and other studies do not result in justifying effluent limitations that can be met with the current treatment facilities.

I appreciate your time and consideration in this matter. Please contact me at 224-6063 if you have other questions regarding this response to the tentative NPDES permit.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dennis McBride".

Dennis McBride
Wastewater Utility Manager

dmh

attachment: U.S. Department of Interior, Bureau of Reclamation - Operations Criteria and Plan

- Gerry Cupp, Municipal Utilities Director
- John Szychuda, Wastewater Utility Supervisor - Sewer
- Marco Ames, Wastewater Utility Supervisor - Industrial Waste
- Susan Zanni, Industrial Waste Analyst
- Nolan Randal, P.E. – CH2MHill

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RECLAMATION

Managing Water in the West

**Long-Term
Central Valley Project
Operations Criteria and Plan
CVP-OCAP**

**U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Sacramento, California**

June 30, 2004



U. S. Department of the Interior
Bureau of Reclamation

the Sacramento River at Keswick Dam. The dam's fish trapping facility operates in conjunction with the Coleman National Fish Hatchery on Battle Creek. During the construction of Shasta Dam, the Toyon Pipeline was constructed to supply water from the Sacramento River to the camp used to house the workers at Toyon. The pipeline remains in use today, supplying M&I water to small communities in the area.

Flood Control

Flood control objectives for Shasta Lake require that releases be restricted to quantities that will not cause downstream flows or stages to exceed specified levels. These include a flow of 79,000 cfs at the tailwater of Keswick Dam, and a stage of 39.2 feet in the Sacramento River at Bend Bridge gauging station, which corresponds to a flow of approximately 100,000 cfs. Flood control operations are based on regulating criteria developed by the Corps pursuant to the provisions of the Flood Control Act of 1944. Maximum flood space reservation is 1.3 million acre-feet, with variable storage space requirements based on an inflow parameter.

Flood control operation at Shasta Lake requires forecasting of runoff conditions into Shasta Lake as well as runoff conditions of unregulated creek systems downstream from Keswick Dam as far in advance as possible. A critical element of upper Sacramento River flood operations is the local runoff entering the Sacramento River between Keswick Dam and Bend Bridge.

The unregulated creeks (major creek systems are Cottonwood Creek, Cow Creek, and Battle Creek) in this reach of the Sacramento River can be sensitive to large rainfall events and produce large rates of runoff into the Sacramento River in short time periods. During large rainfall/flooding events, the local runoff between Keswick Dam and Bend Bridge can exceed 100,000 cfs.

The travel time required for release changes at Keswick Dam to affect Bend Bridge flows is approximately 8 to 10 hours. If total flow at Bend Bridge is projected to exceed 100,000 cfs, the release from Keswick Dam is decreased to maintain Bend Bridge flow below 100,000 cfs. As the flow at Bend Bridge is projected to recede, the Keswick Dam release is increased to evacuate water stored in the flood control space at Shasta Lake. Changes to Keswick Dam releases are scheduled to minimize rapid fluctuations in the flow at Bend Bridge.

Flood control criteria for Keswick releases specify that releases should not be increased more than 15,000 cfs or decreased more than 4,000 cfs in a 2-hour period. The restriction on the rate of decrease is intended to prevent sloughing of saturated downstream channel embankments caused by rapid reductions in river stage. In rare instances, the rate of decrease may be accelerated to avoid exceeding critical flood stages downstream.

Fish and Wildlife Requirements in the Sacramento River

Reclamation operates the Shasta, Sacramento River, and Trinity River Divisions of the CVP to meet, to the extent possible, the provisions of SWRCB Order 90-015 and the NOAA Fisheries 1993 winter-run Chinook salmon biological opinion (see Table 3-3). An April 5, 1960, MOA between Reclamation and DFG originally established flow objectives in the Sacramento River for the protection and preservation of fish and wildlife resources. The agreement provided for minimum releases into the natural channel of the Sacramento River at Keswick Dam for normal and critically dry years. Since October 1981, Keswick Dam has been operated based on a minimum release of 3,250 cfs for normal years from September 1 through the end of February, in