

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification For
SLATE CREEK DIVERSION DAM SEDIMENT PASS-THROUGH PLAN
OROVILLE-WYANDOTTE IRRIGATION DISTRICT
SOUTH FORK PROJECT

FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2088

SOURCES: Slate Creek, North Fork Yuba River Basin

COUNTY: Plumas County

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

1. The **Oroville-Wyandotte Irrigation District (OWID)** is proposing a Sediment Pass-Through (SPT) plan for the Slate Creek Diversion Dam. The Slate Creek Diversion Dam was built in 1962 and is part of OWID's South Fork Hydroelectric project. The reservoir behind the dam has become filled with sediments, due in part to mining activities upstream from the dam. The sediments behind the Slate Creek Diversion Dam pose a hazard to the functioning of the diversion tunnel and low level water release valves. Sediments have been removed by dredging in the past, however the reservoir has quickly refilled. OWID is seeking a long term solution for maintaining the functioning of the Slate Creek Diversion Dam. OWID is proposing to pass sediments through a low level outlet valve in the dam. In addition to maintaining the function of the dam, the sediments may improve the aquatic habitat downstream of the dam. Sediments passed through the dam may provide essential aquatic habitat that has been lost as a result of sediment entrapment behind the Slate Creek Diversion Dam.
2. The Slate Creek watershed has a large sediment load as a result of hydraulic gold mining. Mining activities continue in the upper watershed. A large deposit of material is stored behind the Saint Louis Debris Dam, located approximately one mile upstream of the Slate Creek diversion dam. The Saint Louis Debris Dam was breached in the 1950's and as a result large amounts of sediments are transported downstream during storm events. Large

amounts of sand, gravel, and cobbles have washed into the stream and into Slate Creek diversion dam.

3. Up until 1986 OWID had passed sediments through the low-level outlet valve in the dam on a regular basis. In 1972 sediments were mechanically removed from the area surrounding the lower level outlet to repair the valve, which had been rendered inoperable by the accumulation of sediments. Again in 1981, sediments were mechanically removed from around the lower level outlet. In 1986 OWID discontinued their SPT after Federal and State Agencies expressed concerns about the potential negative effects from passing sediments. OWID is currently under order from the Federal Energy Regulatory Commission (FERC) to mechanically remove the sediments from the dam. Mechanical removal of the sediments has been considered, but it is costly, and location of a suitable disposal site is difficult. The FERC will rescind the order to mechanically remove sediments if OWID obtains approval of the state and federal agencies to allow sediments to be passed through the low-level outlet.
4. In 1993, OWID began a series of environmental studies concerning the hazardous waste content of the impounded sediments. There is an association with gold mining and the use of mercury for collecting gold. Large amounts of mercury were used in an around rivers. In 1993, a series of test pits were dug in the sediments behind the Slate Creek Diversion Dam and the St. Louis Diversion Dam to collect samples for sieve analysis and metals testing. The pits were 15-18 feet deep and samples were taken at increments along the excavation. No hazardous levels of metals were found. The sediments were sieved to determine their composition, which was found to be mostly gravel, with lesser amounts of sand and cobble. These gravels are the appropriate size for spawning gravels for trout. In 1996 a study was conducted to determine the hazardous waste potential of the sediments located directly in front of the low-level outlet. Samples were collected from depths of 21 and 41 feet, including directly in front of the low-level outlet. Divers descending the trash rack, which protects the low-level outlet, collected the samples. Water samples were collected concurrently with the sediment samples. No elevated levels of hazardous materials were detected in the sediment of water samples.
5. OWID is proposing to pass sediments through the low-level outlet when flows in Slate Creek exceed 1,000 cubic feet per second (cfs), on the ascending limb of the hydrograph at the beginning of a storm event. These events would be scheduled in December, January, or February when no water diversion is occurring. During these events the lower level outlet will be opened to it's maximum flow of 650 cfs, while the remainder of the flow (350 cfs +) is allowed to spill over the top of the dam. Once a scour cone has developed the low-level outlet will be closed and the full flow will pass over the spillway. The duration of the sediment pass through events would be 24 hours or less. Once the low-level outlet valve is closed, flows will be provided by a combination of spill, low-level outlet (fish water) releases, and mid-level outlet (tunnel sediment trap) flows. Downstream flows will be

decreased at a maximum rate of 10% per hour. The open valve will increase water velocities sufficient to move sediments from about a 75 foot radius around the valve. This "cone" will provide sufficient clearance to protect the valve works and keep the diversion tunnel free of sediments.

6. The Federal Clean Water Act (33 USC §1251, et seq.) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33USC §1251[a]). Section 101(g) (33 USC §1251[g]) requires federal agencies to "cooperate with state and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources." Section 401 (33 USC §1341) requires every applicant for a federal license or permit to provide the responsible federal agency with certification that the project will be in compliance with specified provisions of the Clean Water Act, including section 303 ("Water Quality Standards and Implementation Plans", 33 USC §1313); directs the state agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the Clean Water Act and with any other appropriate requirement of state law; and provides that state certification conditions shall become conditions of any federal license or permit for the project.
7. The SWRCB has delegated the authority to issue or deny water quality certification to the Executive Director. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)
8. The OWID has applied for an Individual Section 404 permit from the U.S. Army Corps of Engineers.
9. The SWRCB staff has reviewed the proposed project and conditions incorporated into the project to protect the environment pursuant to the California Environmental Quality Act (CEQA). OWID prepared a Negative Declaration (SCH #2001082096) for this project and filed a Notice of Determination on September 26, 2001. The SWRCB has prepared a Notice of Determination for this project.
10. The California Regional Water Quality Control Boards have adopted, and the State Board has approved, Water Quality Control Plans (Basin Plans) for each watershed basin in accordance with provisions of section 303 of the Clean Water Act, related to the establishment of water quality standards and planning (33 USC §§1313). Basin Plans identify beneficial uses of the waters within each Region.

The Slate Creek Diversion Dam is located on Slate Creek, a tributary of the Yuba River thence the Feather River thence the Sacramento River. The California Regional Water Quality Control Board, Central Valley Region, (CVRWQCB) in its Water Quality Control Plan for the Central Valley Region, Sacramento River and San Joaquin River Basins has identified the beneficial uses of the Yuba River and tributaries from its source as Municipal

and Domestic Supply, Irrigation, Stock Watering, Hydropower Generation, Contact and Non-Contact Recreation, Canoeing and Rafting, Cold Freshwater Habitat, Cold Water Spawning, and Wildlife Habitat.

Protection of the chemical, physical, and biological integrity of waters of the state for instream beneficial uses identified in the Basin Plans requires maintenance of adequate stream flows as well as effluent limitations and other limitation on discharges of pollutants from point and nonpoint sources to navigable waters and their tributaries.

11. The SWRCB is issuing certification, notwithstanding the potential for adverse water quality impacts, including but not limited to the potential for adverse impacts due to the release of sediments or mercury, based on conditions requiring that the activities being certified will be monitored, and will be revised as appropriate, including a cessation of pass through operations if necessary. Without these conditions, the SWRCB could not certify that there is reasonable assurance that the activity will not reduce water quality below applicable standards.

ACCORDINGLY, THE SWRCB CERTIFIES THAT THE SLATE CREEK DIVERSION DAM SEDIMENT PASS-THROUGH PLAN PROPOSED BY OROVILLE-WYANDOTTE IRRIGATION DISTRICT (OWID) will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law provided OWID complies with the following terms and conditions during the prosecution of the work certified herein.

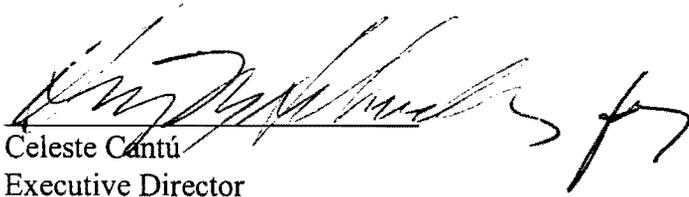
1. In order to protect the beneficial use designations identified in the Basin Plan, the authorized outlet structure modifications and replacement activities shall not add the following substances to surface waters, or cause or contribute to the presence of these Taste or odor-producing substances to impart undesirable tastes to domestic and municipal water supplies or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses;
 - a. Taste or odor-producing substances to impart undesirable tastes to domestic and municipal water supplies or odors to fish flesh or other edible products of aquatic origin or to cau nuisance or adversely affect beneficial uses;
 - b. Perceptible floating material including, but not limited to, solids, liquids, foams or scums which could result in degradation of water quality;
 - c. Suspended or settable material in concentrations that cause a nuisance or adversely affect beneficial uses;
 - d. Oil, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water;
 - e. Toxic pollutants present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health; and,
 - f. Coliform organisms attributable to human wastes.

2. The OWID prepared a Draft Monitoring Plan (revised November 1999) that includes the monitoring activities that will be conducted after sediment pass-through events. The OWID shall complete all of the studies listed in the Draft Monitoring Plan each year the sediment pass through event occurs. The Draft Monitoring Plan may be changed only with approval of staff from the State Water Resources Control Board and Central Valley Regional Water Quality Control Board. Results of the monitoring studies shall be submitted to the State Water Resources Control Board and Central Valley Regional Water Quality Control Board prior to the start of the sediment pass through season (December) or sooner.
3. A report listing the number and duration of sediment pass-through events, the amount of sediment passed through the dam, the size of the scour-cone produced, and the hydrograph for each event shall be submitted annually to the State Water Resources Control Board and Central Valley Regional Water Quality Control Board.
4. If the Sediment Pass-Through Plan does not result in the formation of a scour-cone, and proper functioning of the lower level outlet, this 401 Certification may be modified or withdrawn as appropriate.
5. The OWID shall sample turbid water during sediment pass-through events for Mercury using EPA Method 1631 (40CFR, part 136) utilizing a laboratory certified for EPA Method 1631 and following the proper sampling protocol as established in EPA Method 1669. Sediments samples shall be taken from the weir downstream of the Slate Creek Dam after completion of the last sediment pass-through event of the season and analyzed for Mercury using EPA Method 1631 (40CFR, part 136). Samples of fish muscle tissue from large trout taken from above and below the dam will be sampled yearly for mercury. The results of these samples shall be reported annually to the State Water Resources Control Board, and the Central Valley Regional Water Quality Control Board.
6. The turbidity shall be monitored below the dam (and above the weir) and reported to the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board annually. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity shall not exceed the following limits:
 - Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increase shall not exceed 1 NTU.
 - Where natural turbidity is between 5 and 50 NTUS, increase shall not exceed 20 percent.
 - Where natural turbidity is between 50 and 100 NTUs, increase shall not exceed 10 NTUs.
 - Where natural turbidity is greater than 100 NTUs, increase shall not exceed 10 percent.

7. The OWID shall survey above and below the Slate Creek Dam yearly for the presence of all life stages of Foothill Yellow-Legged Frogs. The State Water Resources Control Board and the Central Valley Regional Water Quality Control Board shall be notified immediately of any adverse impacts from sediment pass-through operations.
8. Notwithstanding any more specific conditions in this certification, OWID shall implement the Slate Creek Diversion Dam Sediment Pass-Through Plan in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or Section 303 of the Clean Water Act.
9. The OWID shall comply with any Department of Fish and Game Streambed Alteration Agreement (Section 1603 Permit), the terms and conditions of which are incorporated into this 401 Certification by reference.
10. The OWID shall take all reasonable measures to protect the beneficial uses of water of Slate Creek.
11. In the event of any violation or threatened violation of any condition of this certification, the State Water Resources Control Board may set additional conditions of certification, including a cessation of pass-through operations if appropriate, that the State Water Resources Control Board determines are reasonably necessary to halt or prevent the violation or threatened violation. The violation or threatened violation shall be subject to any remedies, penalties, processes or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the State Water Resources Control Board's set additional conditions in response to any violation or threatened violations, and the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitute limitations necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.
12. In response to a suspected violation of any condition of this certification, the SWRCB may require OWID to furnish, under penalty of perjury, any technical or monitoring reports that the SWRCB deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
13. Prior to implementing any change to the project that would have a significant or material effect on the findings, conclusions, or conditions of this certification, the OWID must obtain the written approval of the Chief of the Division of Water Rights.
14. The SWRCB may add to or modify the conditions of this certification as appropriate to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or Section 303 of the Clean Water Act.

15. This water quality certification applies only to this project, which encompasses the Slate Creek Diversion Dam Sediment Pass-Through Plan. This water quality certification is not intended and shall not be construed to apply to any other activities proposed in OWID's application for a license amendment, or to the issuance of any other federal permit or license, including the issuance of a new FERC license for Project No. 2088.

16. This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, sections 3867-3869.



Celeste Cantú
Executive Director

Date:

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