STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for the

**YUBA COUNTY WATER AGENCY**
**NARROWS 2 MITIGATION PLAN**

SOURCE: Yuba River

COUNTIES: Yuba and Nevada

**WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE**

BY THE EXECUTIVE DIRECTOR:

## I. Project Description

Yuba County Water Agency (YCWA or Applicant) proposes the Narrows 2 Mitigation Plan (Project), which involves the installation of large woody material (LWM) in the Yuba River below Englebright Dam. The Project is required by the Federal Energy Regulatory Commission (FERC) to improve habitat for anadromous fish in the Yuba River, as mitigation for a minimum instream flow violation that occurred on February 8, 2015, resulting in harm to anadromous fishes.

Yuba River instream flow below Englebright Dam is maintained by two FERC licensed powerhouses: 1) YCWA's Yuba River Development Project (YRDP) (FERC Project No. 2246) Narrows 2 Powerhouse; and 2) Pacific Gas and Electric Company's (PG&E) Narrows Project (FERC Project No. 1403) Narrows 1 Powerhouse. Under the FERC licenses for the YRDP and Narrows Project, the required minimum instream flow on February 8, 2015 was 550 cubic feet per second (cfs). On February 8, 2015, flow recorded at the Smartsville Gage[1] dropped below 550 cfs for 45 minutes, reaching a minimum flow of 150 cfs.

Following the flow violation, biologists observed 100 to 200 post-emergent Chinook salmon fry-mortalities and potential desiccation of four fall-run Chinook salmon redds[2] and one steelhead redd. FERC concluded that the flow violation was the result of a combination of unanticipated events and preventable operator error at the Narrows 2 Powerhouse and violated both the YRDP and Narrows Project FERC licenses. FERC directed YCWA and PG&E to remedy the adverse effects to the Yuba River fishery resulting from the flow incident.

[1] YRDP and Narrows Project FERC licenses require instream flow compliance at the Smartsville Gage. The Smartsville Gage (United States Geological Survey 11418000) is located approximately 2,000 feet downstream of Englebright Dam on the Yuba River.

[2] A redd is a spawning nest that is built by salmon and steelhead in the gravel.

To mitigate for the flow violation and resulting harm to anadromous fishes, YCWA will place a total of 30 pieces[3] of LWM, evenly distributed among three locations along the Yuba River downstream of Englebright Dam (see Figure 1 and Figure 2). The three locations were selected based on their suitability to retain LWM and provide benefits to a variety of salmonid life stages. YCWA will truck the LWM to each site on existing roads. A backhoe excavator, located on dry ground, will be used to: 1) excavate the bank where each LWM piece will be placed; 2) place each LWM piece; 3) place the excavated fill over each LWM piece; and 4) grade the area after each LWM piece is placed.

LWM will be placed and anchored along the water's edge, facing downstream at an approximately 45-degree angle to the stream bank. LWM will be buried in the streambank using excavated soil or anchored with boulders, t-posts, rebar, or other poles/stakes driven below grade. The goal of LWM placement is to have partial inundation of the crowns and root wads at flows of 800 cfs, with additional inundation at higher flows.

In-water work will be confined within an upstream and downstream turbidity curtain/fence. A biological monitor will be on-site during all Project activities to provide environmental awareness training to construction staff, install the turbidity curtain/fence, minimize impacts to biota, and collect monitoring data.

During Project implementation, YCWA will implement best management practices (BMPs) included in the water certification quality (certification) application (see Attachment 1) and will remove waste, equipment, and/or other construction material upon Project completion. The Project is estimated to take one to three weeks to complete, and will occur during the low flow period between July through September to minimize in-water work and potential impacts to salmonids.

## II. Regulatory Authority

*Water Quality Certification and Related Authorities*

The Federal Clean Water Act (CWA) (33 U.S.C. §§1251-1387) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Section 101 of the CWA (33 U.S.C. §1251(g)) requires federal agencies to "co-operate with the State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources."

Section 401 of the CWA (33 U.S.C. §1341) requires every applicant for a federal license or permit which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance with specified provisions of the CWA, including water quality standards and implementation plans promulgated pursuant to section 303 of the CWA (33 U.S.C. §1313). CWA section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the CWA and with any other appropriate requirement of state law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project. The State Water Resources Control Board (State

[3] The 30 pieces of LWM will be comprised of: 1) 21 larger LWM pieces, defined as a log with target size of 18 feet or greater in length, an average diameter of 24 inches or greater, and having an attached root wad; and 2) nine smaller LWM pieces with a minimum thickness of 10 inches diameter at breast height, with crowns attached.

Water Board) is designated as the state water pollution control agency for all purposes stated in the CWA and any other federal act (Wat. Code, §13160). The State Water Board's Executive Director has been delegated the authority to issue a decision on a certification application (Cal. Code Regs., tit. 23, § 3838, subd. (a)).

Water Code section 13383 provides the State Water Board with the authority to "establish monitoring, inspection, entry, reporting and recordkeeping requirements…and [require] other information as may reasonably be required" for activities subject to certification under section 401 of the CWA that involve the diversion of water for beneficial use. The State Water Board delegated this authority to the Deputy Director of the Division of Water Rights (Deputy Director), as provided for in State Water Board Resolution No. 2012-0029. In the *Redelegation of Authorities Pursuant to Resolution No. 2012-0029* memo issued by the Deputy Director on October 19, 2017, this authority is redelegated to the Assistant Deputy Directors of the Division of Water Rights.

The application for certification was received on April 29, 2016. The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the State Water Board's website on May 26, 2016. No comments were received. The application for certification was withdrawn on December 28, 2016 to further develop the Project.[4] The application for certification was resubmitted to the State Water Board on December 29, 2017; no significant changes were made to the Project application that would impact water quality or the beneficial uses of water. On January 26, 2018, the State Water Board provided notice of receipt of a complete application for the Project to the applicable parties pursuant to California Code of Regulations, title 23, section 3835(c).

The State Water Board forwarded the portions of the application that have the potential to cause adverse water quality impacts other than specific impacts resulting from alterations to instream flows to the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) on July 19, 2016. (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B)). No comments were received. State Water Board staff also forwarded the draft Project certification to the Central Valley Regional Water Board on June 6, 2018. Central Valley Regional Water Board staff responded with no comments on July 13, 2018.

The United States Army Corps of Engineers (ACOE) determined that the Project qualifies for authorization under the Department of the Army Nationwide Permit (NWP) No. 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities, pursuant to Section 404 of the CWA. The ACOE identification number for the Project is SPK2016-00453. On July 2, 2018, the California Department of Fish and Wildlife (CDFW) issued YCWA a Lake or Streambed Alteration Agreement for the Project. The CDFW notification number for the Project is 1600-2018-0003-R2. Under the Biological Monitor section of Attachment 1 (Best Management Practices for the Narrows 2 Mitigation Plan) YCWA identified that: "*In case the fish are ESA [Endangered Species Act]-listed species and to facilitate the work, YCWA will request in its Clean Water Act Section 404 permit application that, through the lead federal agency consultation with the National Marine Fisheries Service (NMFS), an Incidental Take Permit from NMFS for up to 10 spring-run Chinook salmon and up to 10 steelhead be issued. YCWA believes that NMFS and the California Department of Fish and Wildlife (CDFW) will consult regarding CDFW's issuance of a Consistency Determination, if needed*." NMFS and CDFW did

[4] FERC approved the Project on September 19, 2017.

not issue take authorizations; both the ACOE and CDFW made no-effect determinations on listed fish under the ESA and California ESA.

*Water Quality Control Plans and Related Authorities*

The Regional Water Quality Control Boards (Regional Water Boards) have primary responsibility for the formulation and adoption of water quality control plans for their respective regions, subject to the State Water Board and United States Environmental Protection Agency (USEPA) approval, as appropriate. (Wat. Code, § 13240 et seq.) The State Water Board may also adopt water quality control plans, which will supersede regional water quality control plans for the same waters to the extent of any conflict. (Wat. Code, § 13170.) For a specified area, the water quality control plans designate the beneficial uses of water to be protected, the water quality objectives established for the reasonable protection of those beneficial uses or the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Wat. Code, §§ 13241, 13050 subds. (h), and (j).) The beneficial uses together with the water quality objectives that are contained in the water quality control plans, in addition to state and federal anti-degradation requirements, constitute California's water quality standards. The Central Valley Region Water Board adopted, and the State Water Board and the USEPA approved, the *Water Quality Control Plan for the Sacramento River and San Joaquin Rivers Basins* (Basin Plan). The Basin Plan identifies existing beneficial uses for the Yuba River below Englebright Dam as: irrigation; stock water; power; water contact recreation; noncontact water recreation; canoeing and rafting; warm and cold freshwater habitat; warm and cold-water migration; warm and cold-water spawning; and wildlife habitat.

The State Water Board has listed the Yuba River below Englebright on the CWA section 303(d) list as impaired for mercury, which is in part the result of historic gold mining of the Yuba River. Mercury can affect stream sediments and bioaccumulate in fish tissue, impacting the water contact recreation beneficial use. YCWA collected sediment samples in the Project work area in February 2018. A California certified laboratory analyzed the samples and found all mercury concentrations (0.0199 – 0.376 milligrams per kilogram [mg/kg]) below the Probable Effect Level (0.486 mg/kg) presented in the *Sediment Quality Guidelines for Freshwater Ecosystems*[5]. State Water Board staff reviewed the sediment testing results and determined Project activities will not significantly impact beneficial uses.

*Construction General Permit*

The State Water Board has adopted a Construction General Permit[6], which is required for activities that disturb one or more acres of soil or projects that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation.

*California Environmental Quality Act*

YCWA is the lead agency for the purpose of California Environmental Quality Act (CEQA) compliance, and the State Water Board is a responsible agency (Cal. Pub. Resources Code, §21000-21177). YCWA issued a Mitigated Negative Declaration (MND) for public comment on April 26, 2018. On June 21, 2018, YCWA filed a Notice of Determination for the MND with the

[5] Burton, G. A. and Pitt, R. E. 2002. Stormwater Effects Handbook: A Toolbox for Watershed Managers, Scientists, and Engineers. Appendix G.

[6] Water Quality Order 2009-0009-DWQ and National Pollution Discharge Elimination System No. CAS000002, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ and any amendments thereto.

County Clerk for the County of Yuba. The MND identified the following potentially significant impacts from the Project that fall within the State Water Board's purview:

- Increased turbidity from sediment management activities; and
- Adverse effects to sensitive or special-status aquatic species.

State Water Board staff considered the MND adopted by YCWA during development of this certification. The mitigation measures described in the MND that pertain to protection of resources within the State Water Board's purview are incorporated into Conditions 2, 6, 7, 9, 10, and 15 of this certification to meet the requirements of Public Resources Code section 21081.6, subdivision (a)(1). Monitoring and reporting requirements to ensure the implementation and completion of mitigation measures are found in certification Conditions 2, 7, 9, 10, and 11, in accordance with California Code of Regulations, title 14, section 15097.

The State Water Board finds that there is no substantial evidence in the record that the Project will have a significant effect on the environment. The State Water Board will file a Notice of Determination within five days of issuance of this certification.

All documents and other information that constitute the public record for this Project are maintained and available for public review at the State Water Board, Division of Water Rights, 1001 I Street, Sacramento, California 95814.

## III. Findings and Conclusion

When preparing the conditions in this certification, State Water Board staff reviewed and considered a wide range of information including the: (a) certification application, including subsequent submissions; (b) Basin Plan; (c) existing water quality conditions; (d) Project-related controllable factors; (e) MND; and (f) other information in the record.

In order to ensure that the Project meets water quality standards as anticipated, to ensure compliance with other relevant state and federal laws, and to ensure that the Project will continue to meet state water quality standards and other appropriate requirements of state law throughout its lifetime, this certification imposes conditions regarding monitoring, enforcement, and potential future revisions. Additionally, California Code of Regulations, title 23, section 3860 requires imposition of certain mandatory conditions for all certifications, which are included in this certification. The State Water Board finds that, with the conditions and limitations imposed by this certification, the proposed Project will be protective of the water quality and consistent with other appropriate requirements of state law.

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**ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES THAT THE NARROWS 2 MITIGATION PLAN (PROJECT)** will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of state law, if Yuba County Water Agency complies with the following terms and conditions during the Project activities certified herein.

**CONDITION 1.** All proposed environmental measures described in the application for water quality certification (certification) and supplemental application information are conditions of this certification. Notwithstanding any more specific conditions in this certification, the Applicant shall comply with the water quality protection measures and best management practices described in the certification application and its supplements (included in Attachment 1).

**CONDITION 2.** Unless otherwise approved in writing by the State Water Resources Control Board (State Water Board) Deputy Director for Water Rights (Deputy Director), Project construction shall be conducted between July 1 and September 30. If Project construction begins prior to the end of migratory bird nesting season (February 1 through August 31), a qualified biologist shall survey each site for migratory nesting birds no more than five days prior to commencing work. If migratory nesting birds are found, Project construction shall not commence until a qualified biologist determines the nest is inactive (i.e., nest failure or fledging of young), unless the Applicant receives written approval for an alternative start date from the Deputy Director.

**CONDITION 3.** The Applicant shall notify the Deputy Director five days prior to commencing construction. Upon request, the Applicant shall provide State Water Board staff with a work schedule.

**CONDITION 4.** Site access, laydown, or staging areas shall be confined to existing roads and parking areas outside the functional floodplain (the area above the waterline at a flow event of 5,000 cubic feet per second).

**CONDITION 5.** The Applicant shall ensure that Yuba River instream flow requirements are maintained during Project implementation. The Applicant shall record flows at the Smartsville gage during Project implementation, and provide the records as part of the Project Completion Report (Condition 11).

**CONDITION 6.** Endangered and special status species shall be protected during Project implementation. Prior to construction, a qualified biologist shall conduct training for employees implementing the Project. The training shall include but not be limited to: a description of endangered or special status species with potential to be present in the Project area; actions to be taken to prevent or reduce impacts to the species; and protocols to follow if species are encountered.

**CONDITION 7.** A biological monitor shall inspect the Project area at the beginning of each work day for non-native invasive plants[7], and any known sensitive resources which include, but are not limited to: federal Endangered Species Act-listed, California Endangered Species Act-listed, and special-status species, including plants. Invasive plants and sensitive

[7] Non-native invasive plants will be flagged to ensure these plants and their seeds are not spread to other Project areas.

resources will be documented, and their locations flagged. Flagged areas shall not to be disturbed by Project operations.

**CONDITION 8.** During Project activities, the excavator shall not enter surface water except for the arm/bucket or backhoe, which may be extended into the water to excavate or move material.

**CONDITION 9.** A turbidity curtain/fence shall be placed at the upstream and downstream ends of each wetted area to be disturbed. For purposes of this condition, Site 1 and Site 2 shall be treated as one wetted area and Site 3 shall be treated as a separate wetted area. Additional sediment curtains/fences shall be installed, as needed. The turbidity curtain/fence shall be made of material such that water can pass through, but soil particles and other debris will be retained. Turbidity curtain/fence material shall not be composed of material that may cause entrapment of fish or wildlife. A biological monitor shall inspect the enclosed area each day before construction begins. No construction shall be conducted if fish or wildlife are located within the boundaries of the turbidity curtains/fences.

**CONDITION 10.** The Project shall not cause increased turbidity downstream of the Project area greater than allowable levels identified in the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan) (shown in Table A), except as provided for in this condition. Project activities shall not cause increases in turbidity that constitute nuisance or that adversely affect beneficial uses. Except for periods discussed in this condition, increases in turbidity shall not exceed Basin Plan thresholds identified below:

Table A. Basin Plan Water Quality Objectives for Turbidity

| **Background Level or Natural Turbidity** | **Downstream Turbidity (after starting construction)** |
|---|---|
| Less than 1 NTU | Total turbidity shall not exceed 2 NTU |
| Between 1 and 5 NTU | Increases shall not exceed 1 NTU |
| Between 5 and 50 NTU | Increases shall not exceed 20 percent |
| Between 50 and 100 NTU | Increases shall not exceed 10 NTUs |
| Greater than 100 NTU | Increases shall not exceed 10 percent |

NTU = Nephelometric Turbidity Units

Standard turbidity limits may be eased during in-water working periods to allow a turbidity increase of up to 15 NTU over the background turbidity as measured in surface waters no greater than 300 feet downstream from the working area.

*Monitoring Equipment*
Turbidity shall be measured using nephelometry. A hand-held field meter may be used to measure turbidity, provided the meter uses a United States Environmental Protection Agency-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. For each monitoring meter used, a calibration and maintenance log shall be maintained onsite and provided to State Water Board staff upon request.

*Turbidity Monitoring Procedure*
For purposes of turbidity monitoring, Site 1 and Site 2 shall be considered one construction area and Site 3 shall be considered a separate construction area. The Applicant shall establish four turbidity-monitoring locations: 1) a single location approximately 50 feet upstream of each construction area (background level); and 2) a single location about

300 feet downstream of each construction area. A global positioning system (GPS) point of each monitoring location shall be taken at the time of initial monitoring. Turbidity shall be measured daily: before the start of work; every hour while in-water work is conducted; at any time water clarity becomes visibly impaired; and upon concluding in-water work.

*Reporting*

The Deputy Director and the Central Valley Regional Water Quality Control Board (Regional Water Board) Executive Officer (Executive Officer) shall be notified within 24 hours if monitoring results indicate a turbidity limit exceedance. Activities associated with a turbidity exceedance may not resume without written approval from the Deputy Director.

**CONDITION 11.** Within 30 days of Project completion, the Applicant shall submit to the Deputy Director a Project Completion Report documenting compliance with this certification and detailing any failure to meet conditions of this certification. The Project Completion Report shall include GPS coordinates of the final site locations, Project duration, turbidity and monitoring data, results of any inspections, and photographic documentation of each site before and after construction. The photographs shall be taken from the following locations: 1) downstream of each site looking upstream; 2) upstream of each site looking downstream; 3) from each site's staging area; and 4) from the opposite river bank. GPS coordinates shall be provided for each photo point location. A meter stick shall be included in each photo for reference.

**CONDITION 12.** No later than five years following Project completion, the Applicant shall provide the Deputy Director with an assessment of the Project's success in providing habitat for anadromous fish species and meeting the Project's objectives.

**CONDITION 13.** A construction schedule shall be provided to State Water Board staff upon request. The Applicant shall provide State Water Board and Central Valley Regional Water Board staff reasonable access to Project sites to document compliance with this certification.

**CONDITION 14.** The Applicant shall implement erosion control measures prior to beginning construction. Work may continue during precipitation events, but must stop and may not resume when 0.25-inch of rain has occurred within a 24-hour period.

**CONDITION 15.** Work activities shall be conducted in a manner that prevents the introduction, transfer, and spread of aquatic and terrestrial invasive species, including plants, animals, and microbes (e.g., algae, fungi, parasites, mussels, and bacteria). All equipment shall be washed prior to transport to the Project site and be free of sediment, debris, and foreign matter. Any equipment used in direct contact with surface water shall be cleaned prior to use. Additionally, prior to entering the work area, the Applicant shall inspect all equipment for invasive species and, if any signs of invasive species are found, the equipment shall be cleaned to remove those species. All visible soil/mud, plant materials, and animal remnants on equipment shall be removed prior to entering and exiting the work site.

**CONDITION 16.** A copy of this certification shall be provided to all contractors and subcontractors conducting Project work, and copies shall remain in their possession at the Project site. The Applicant shall be responsible for work conducted by its contractors and subcontractors. The Applicant, including its contractors and subcontractors, shall report any noncompliance with the conditions of this certification to the Deputy Director within 24 hours of the time when the Applicant, its contractors, or subcontractors become aware of noncompliance with the certification.

**CONDITION 17.** As appropriate, the Applicant shall obtain coverage under and comply with the Construction General Permit[8] and any amendments thereto.

**CONDITION 18.** Appropriate spill containment, absorbent spill clean-up materials, and spill kits shall be available on-site. All spills shall be cleaned up immediately and shall not be buried or washed with water. Initial containment shall be with absorbent material or, if necessary, the construction of berms. Used clean-up materials, contaminated materials, and recovered spilled materials that are no longer useable shall be stored and disposed of properly. Hazardous and non-hazardous material shall be disposed of in the manner specified by the manufacturer. Contaminated soil shall be excavated, contained, and transported to an approved disposal site.

The Applicant and its contractors shall notify all applicable agencies as soon as feasible, but no later than three business days after the incident, as to the type, date, time, and actions taken in response to all spills within their jurisdiction. In the event of a major spill affecting plant, wildlife, or aquatic resources or creating public health concerns, notification shall be according to all applicable requirements.

**CONDITION 19.** Control measures for erosion, excessive sedimentation, and turbidity shall be implemented and in place at the commencement of, during, and after any ground clearing activities, excavation, or any other Project activities that could result in erosion or sediment discharges to surface waters.

All material stockpiles shall be protected, covered, and surrounded with coil rolls, straw wattles, erosion control blankets, liners with berms, or equivalent, to prevent sediment runoff and prevent material from contacting or entering surface waters. Stockpiles shall be located outside of riparian habitat.

**CONDITION 20.** Any maintenance or refueling of vehicles or equipment occurring on-site shall be done in a designated area with secondary containment, located away from the riparian area and stream corridor. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (motors, pumps, generators, etc.) and vehicles not in use shall be positioned over drip pans or other types of containment. Spill and containment equipment (oil spill booms, sorbent pads, etc.) shall be maintained onsite at all locations where such equipment is used or staged.

**CONDITION 21.** All imported rocks used for construction within or adjacent to any watercourses shall be pre-washed. Wash water generated on-site shall not contact or enter surface waters. Wash water shall be contained and disposed of off-site in compliance with federal, state, and local laws, ordinances, and regulations.

**CONDITION 22.** Construction material, debris, spoils, soil, silt, sand, bark, slash, sawdust, rubbish, steel, or other inorganic, organic, or earthen material, and any other substances from any Project-related activity shall be prevented from entering surface waters.

[8] *Water Quality Order 2009-0009-DWQ and National Pollution Discharge Elimination System No. CAS000002*, as amended by *Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ,* and any amendments thereto.

**CONDITION 23.** All construction debris and trash shall be contained and regularly removed from the work area to the staging area during construction activities. Upon completion of construction, all Project-generated debris, building materials, excess material, waste, and trash shall be disposed at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations.

**CONDITION 24.** Onsite containment for storage of chemicals classified as hazardous shall be away from watercourses and include secondary containment and appropriate management as specified in California Code of Regulations, title 27, section 20320.

**CONDITION 25.** Unless otherwise specified in this certification or at the request of the Deputy Director, data and/or reports must be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.

**CONDITION 26.** The Applicant shall comply with all applicable requirements of the Basin Plan. If at any time an unauthorized discharge to surface waters (including river or streams) occurs or monitoring indicates that the Project has or could soon be in violation of water quality objectives, the associated Project activities shall cease immediately and the Deputy Director and the Executive Officer shall be notified. Associated activities may not resume without written approval from the Deputy Director.

**CONDITION 27.** Notwithstanding any more specific conditions in this certification, the Project shall be conducted in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to section 303 of the Clean Water Act. The Applicant must take all reasonable measures to protect the beneficial uses of waters of the Yuba River below Englebright Dam.

**CONDITION 28.** This certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050-2097) or the federal ESA (16 U.S.C. §§ 1531 - 1544). If a “take” will result from any act authorized under this certification or water rights held by the Applicant, the Applicant must obtain authorization for the take prior to any construction of the portion of the Project that may result in a take. The Applicant is responsible for meeting all requirements of the state and federal ESAs for the Project authorized under this certification.

**CONDITION 29.** In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to all remedies, penalties, processes, or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

**CONDITION 30.** In response to a suspected violation of any condition of this certification, the State Water Board and Central Valley Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board 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 (Water Code sections 1051, 13165, 13267 and 13383). In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate.

**CONDITION 31.** No Project work shall commence until all necessary federal, state, and local approvals have been obtained. The Applicant is responsible for compliance with all applicable federal, state, and local laws or ordinances.

**CONDITION 32.** This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).

**CONDITION 33.** The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

**CONDITION 34.** Activities associated with construction and maintenance of the Project that threaten or potentially threaten water quality may be subject to further review by the Deputy Director and Executive Officer.

**CONDITION 35.** This certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

**CONDITION 36.** Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another state or federal agency, will apply equally to the successor agency.

**CONDITION 37.** This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28 and owed by the Applicant.

**CONDITION 38.** Nothing in this certification shall be construed as State Water Board approval of the validity of any water rights, including pre-1914 claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action if necessary to prevent any unauthorized or threatened unauthorized diversions of water.

ORIGINAL SIGNED BY — AUG 09, 2018

Eileen Sobeck
Executive Director

Date

Enclosures:

| | |
|---|---|
| Figure 1: | Project Construction Site 1 and Site 2 |
| Figure 2: | Project Construction Site 3 |
| Attachment 1: | Best Management Practices for the Narrows 2 Mitigation Plan |

**Figure 1: Project Construction Site 1 and Site 2**
Site 1 and Site 2 are located approximately two miles upstream of the Highway 20 Bridge crossing, near the University of California Davis Educational Pavilion. The red arrows indicate the approximate locations where large woody material will be placed. The Yuba River flows from right to left in this picture.

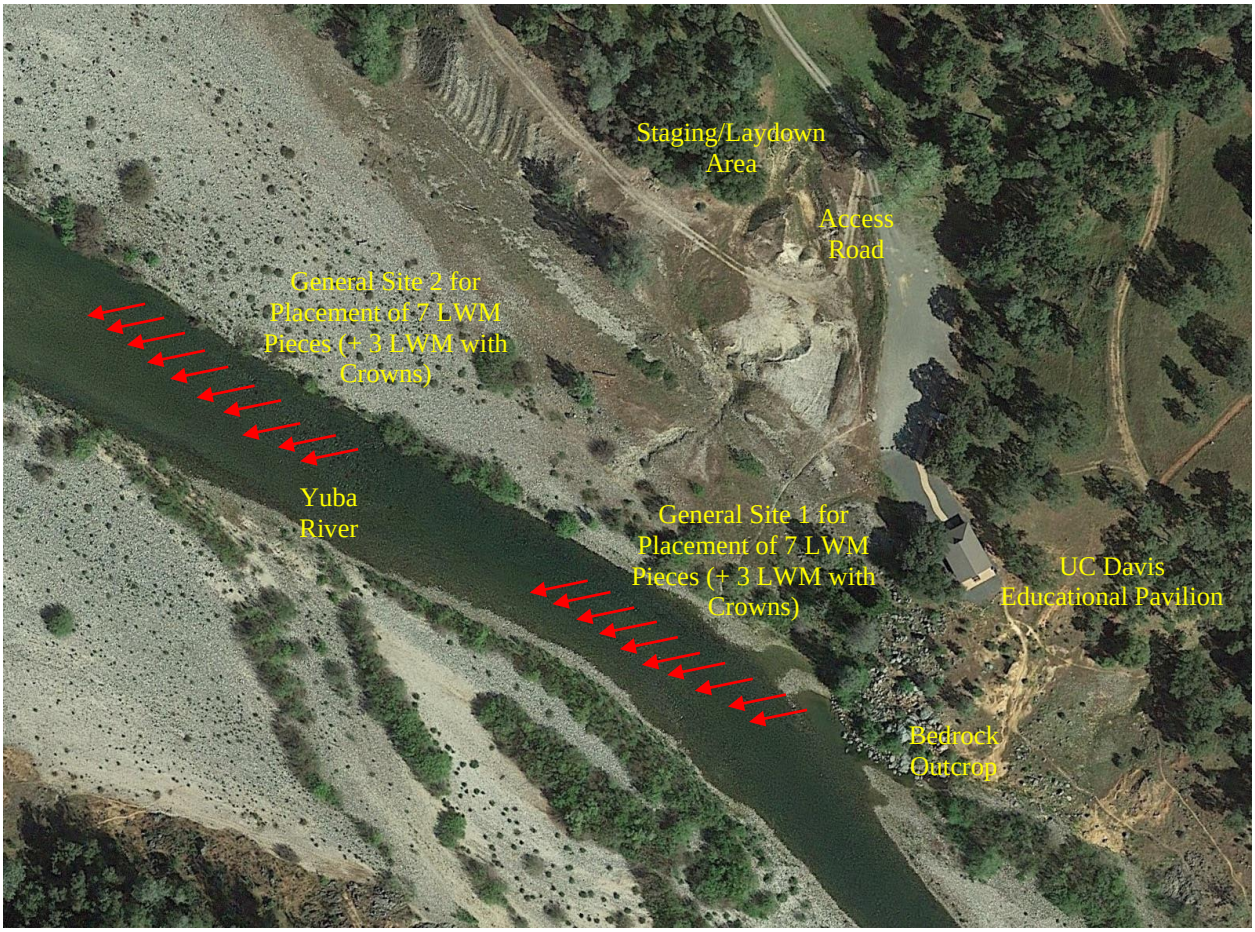
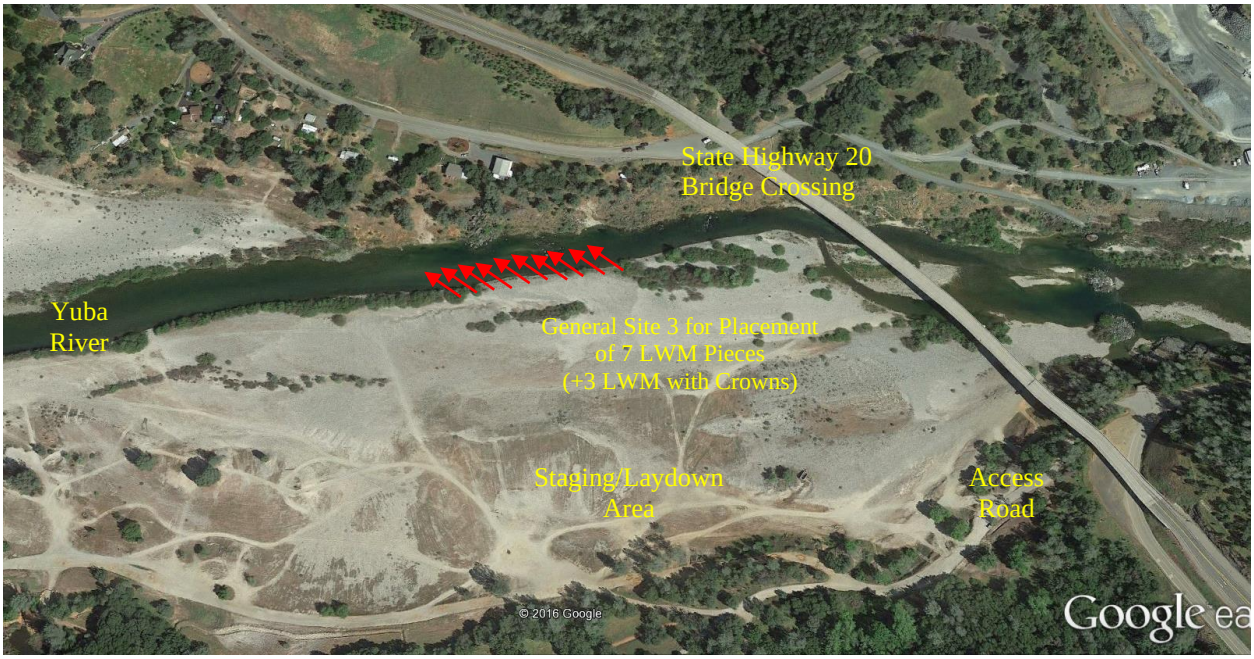


**Figure 2: Project Construction Site 3**
Site 3 is located approximately 1,000 feet downstream of the Highway 20 Bridge crossing. The red arrows indicate the approximate locations where large woody material will be placed. The Yuba River flows from right to left in this picture.



# Attachment 1:
# Best Management Practices
# for the Narrows 2 Mitigation Plan
# (Excerpt from Water Quality Certification Application)

## SECTION 11. OTHER ACTIONS/BEST MANAGEMENT PRACTICES (BMPs)

**Nesting Birds:** Yuba County Water Agency (YCWA) plans to perform the work outside of the nesting season for migratory birds, which ends on August 1. If work is necessary prior to August 1, YCWA will survey for nesting birds in the work area prior to commencement of activities.

**Flagging Sensitive Resources:** Any known sensitive resources (these include, but are not limited to: special status species, non-native invasive plants [so they can be avoided to prevent their spread] and other pre-determined areas with significant sensitive resources) within or near the work area will be flagged to ensure that no activities are conducted in those areas.

**Biological Monitor:** A biological monitor will be on-site for each day of fieldwork. Prior to the start of fieldwork, the monitor will perform environmental awareness training for all on-site fieldwork staff. The training session will discuss sensitive resources and work-specific protection measures. If after fieldwork begins, a new staff joins the on-site fieldwork, the monitor will provide the training to that individual before the staff works on-site.

Prior to the start of fieldwork each day, the monitor will walk the work area to survey for Endangered species Act (ESA)-listed, California Endangered species Act (CESA)-listed, and other special-status species in the area and in the area immediately adjacent to the area potentially to be disturbed that day. The biological monitor will note the location of any ESA-listed, CESA-listed, or other special-status species. With the exception of the area to be excavated, if these species are found, the monitor will flag the area and assure no work or disturbance occurs in the area in which the species was observed.

With regards to the area to be excavated, the monitor will oversee the placement of an instream sediment trapping device at both the upstream and downstream extents of the area because the areas may be slightly wetted (~6 inches of water at some locations). The turbidity curtain or floating silt fence will allow water to pass through, but retain soil particles and other debris, and will not be composed of a product with plastic monofilament or cross joints in the netting that are bound/stitched, which may cause entrapment of wildlife or fish.

Specifically, the curtain/fence will first be installed at the upstream end of the area to be disturbed. The monitor will then visually survey through bank and snorkel observations the area to be enclosed when the lower curtain/fence is installed to ensure no fish are within the area. If fish are not found inside the area to be cordoned off by the curtain/fence, the downstream curtain/fence will be installed. If fish are found in the area to be disturbed, the upstream curtain/fence will be left in place overnight to allow fish to voluntarily move out of the area. If upon inspection the next morning no fish are found in the area to be enclosed by the curtain/fence, the downstream curtain/fence will be installed. If upon inspection the next morning fish are still present in the area, YCWA will move them from within the work area. If the fish are not ESA-listed (i.e., not steelhead or spring-run Chinook salmon), YCWA will move the fish. In case the fish are ESA-listed species and to facilitate the work, YCWA will request in its Clean Water Act Section 404 permit application that, through the lead federal agency consultation with the National Marine Fisheries Service (NMFS), an Incidental Take Permit from NMFS for up to 10 spring-run Chinook salmon and up to 10 steelhead be issued. YCWA believes that NMFS and the California Department of Fish and Wildlife (CDFW) will consult regarding CDFW's issuance of a Consistency Determination, if needed. All fish will be captured using fine mesh, soft material nets (e.g., catch-and-release nets), or another method approved by NMFS and CDFW, placed in a holding bucket of recently-drawn river water, and immediately

placed in the Yuba River downstream of the Narrows 2 Powerhouse where the fish cannot re-enter the work area.

Once the curtain/fence is fully installed, it will remain in place until the excavation work is complete and, after the initial installation, prior to the excavation each day, the biological monitor will re-inspect the area within the curtain/fence to assure no fish have entered the area. If they have, the fish will be moved as described above before the work begins. Based on field conditions, YCWA will place additional sediment curtain/fences, as needed. The curtain/fence will be removed as soon as the excavation work is completed.

**Water Quality Monitoring:** In addition, the biological monitor will measure, using a hand-held meter, turbidity in Nephelometric Turbidity Unit (NTU) at two locations in the Yuba River: 1) single location about 50 feet upstream of the work; and 2) a single location about 300 ft downstream of the work area. At the first two locations, the measurements will be taken before the start of fieldwork each day, approximately hourly when in-water work is being conducted and when work activities may affect turbidity (i.e., excavation in or near the water), and at the end of the fieldwork each day.

During the fieldwork, increases in turbidity at the sampling location 300 ft downstream from the work will not exceed background turbidity (i.e., natural turbidity measured prior to the start of the fieldwork at the most upstream location) by more than the thresholds identified in Table 3, with the exception that during in-water working periods, turbidity increase of up to 15 NTU over the background turbidity may occur.

**Table 3. Table of turbidity levels.**

| **Background Level or Natural Turbidity** | **Downstream Turbidity (after starting construction)** |
|---|---|
| Less than 1 NTU | Total turbidity shall not exceed 2 NTU |
| Between 1 and 5 NTU | Increases shall not exceed 1 NTU |
| Between 5 and 50 NTU | Increases shall not exceed 20 percent |
| Between 50 and 100 NTU | Increases shall not exceed 10 NTU |
| Greater than 100 NTU | Increases shall not exceed 10 percent |

If monitoring shows that turbidity downstream of the work area exceeds the specified turbidity levels described in Table 3, work will cease and YCWA will consult with the State Water Resources Control Board (SWRCB).

When not performing specific monitoring activities described above, the monitor will be on-site during all fieldwork observing the work.

**Stream Flow:** The proposed work has been designed to be conducted advantageously during fall, a period of low flows in the work area.

**Invasive Species Prevention:** Work activities will be conducted in a manner that prevents the introduction, transfer and spread of aquatic, riparian, and terrestrial invasive species, including plants, animals, and microbes (e.g., algae, fungi, parasites, mussels and bacteria). Prior to entering the work area, YCWA will inspect the equipment to be used for invasive species and, if any signs of invasive species are found, the equipment shall be cleaned to remove those species. All visible soil/mud, plant materials, and animal remnants on equipment will be removed prior to entering and exiting the work site.

**Hazardous Materials:** No debris, soil, silt, sand, rubbish, construction waste, cement, concrete, washings, asphalt, paint, oil, petroleum products, substances which could be hazardous to aquatic life or, organic earthen material from logging or construction related activities shall be allowed to contaminate the soil, groundwater, surface water, or runoff. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 ft of the high water mark.

Leaks and spills into the waterway will be prevented by ensuring that all vehicles and equipment are in good working order (no leaks); placing drip pans or absorbent materials under vehicles and equipment when not in use; ensuring that all construction areas have proper spill clean up materials (e.g., absorbent pads, sealed containers and booms) to contain the movement of any spilled substances; preventing any other substances which could be hazardous to aquatic life from contaminating the soil and/or entering the waters of the state; and performing maintenance or refueling of vehicles or equipment at an off-site location, using a designated area and/or a secondary containment located away from drainage courses to prevent the runoff of storm water and spills. Oil absorbent pads will be placed at the downstream end of the work site to minimize the spread of contaminants in the event of a spill. Additionally, absorbent padding will be kept at the work site for swift clean up in the event of a spill.

Leak and spill prevention measures will be instated throughout the work, including having spill response materials onsite and using vegetable based hydraulic fluids, if feasible.

**Turbidity/Sedimentation Minimization:** Prior to any work in the field, YCWA will collect sediment from the areas that will be affected by the work, analyze the sediment for mercury, and provide the results in both wet and dry weight to the SWRCB.

The turbidity curtain or floating silt fence will be installed prior to proposed work allowing water to pass through, but retain soil particles and other debris, and will not be composed of a product with plastic monofilament or cross joints in the netting that are bound/stitched, which may cause entrapment of wildlife or fish. The curtain/fence will be removed as soon as the excavation work on the gravel bar is completed. Based on field conditions, YCWA will place additional sediment curtain/fences, as needed.

**Vegetation:** No vegetation will be removed during the work.

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