



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

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## State Water Resources Control Board

JUL 21 2014

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

Dear Secretary Bose:

PRELIMINARY CONDITIONS AND COMMENTS ON THE NOTICE OF READY FOR ENVIRONMENTAL ANALYSIS FOR MERCED RIVER HYDROELECTRIC PROJECT, FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2179; MARIPOSA AND MERCED COUNTIES

On March 24, 2014, the State Water Resources Control Board (State Water Board) Division of Water Rights (Division) received the Federal Energy Regulatory Commission's (FERC) notice for Ready for Environmental Analysis (REA) and accompanied request for comments, protests, recommendations, and terms and conditions for a new license for the Merced River Hydroelectric Project (Project), FERC Project No. 2179. On April 23, 2014, the owner and operator of the Project, Merced Irrigation District (MID), prepared and submitted an amended Final License Application<sup>1</sup> (FLA) to FERC. The amended FLA contains MID's Project proposal for their new FERC license and thirty-one technical memoranda for each of the FERC ordered studies. FERC will use the amended FLA to develop a National Environmental Policy Act (NEPA) document that will be used to support decisions related to licensing for the continued operation of the Project.

In accordance with Item 2 under the Post-Application Filing Activities under the Integrated Licensing Process section of the memorandum of understanding executed between FERC and the State Water Board on November 19, 2013, and to the extent that information is available, State Water Board staff are providing comments and preliminary terms and conditions in response to FERC's REA. State Water Board staff's comments and preliminary conditions are enclosed.

If you have any questions regarding this letter or the attached comments, please contact me at (916) 323-9389 or by email at [amber.villalobos@waterboards.ca.gov](mailto:amber.villalobos@waterboards.ca.gov). Written correspondence should be directed to:

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<sup>1</sup> Final License Application submitted to FERC on February 26, 2012.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

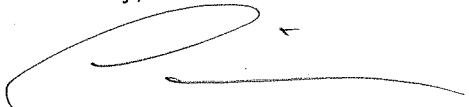
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JUL 21 2014

State Water Resources Control Board  
Division of Water Rights  
Water Quality Certification Program  
Attn: Amber Villalobos  
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Sacramento, CA 95812

Sincerely,



Amber Villalobos  
Environmental Scientist  
Water Quality Certification Program

Enclosures: Attachment A – Comments on the amended FLA for the Merced River  
Hydroelectric Project  
Attachment B – Preliminary Conditions for the Merced River Hydroelectric Project

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ATTACHMENT A:  
COMMENTS ON THE NOTICE OF READY FOR ENVIRONMENTAL ANALYSIS  
FOR THE MERCED RIVER HYDROELECTRIC PROJECT

The following comments are provided by the State Water Resources Control Board (State Water Board) staff in response to the notice of Ready for Environmental Analysis (REA) by the Federal Energy Regulatory Commission (FERC or Commission) for the Merced River Hydroelectric Project (Project), FERC Project No. 2179. The Project is owned and operated by Merced Irrigation District (MID or Merced ID or Licensee).

**State Water Board Authority**

MID must obtain water quality certification from the State Water Board, pursuant to Section 401(a)(1) of the Federal Clean Water Act (CWA) (33 U.S.C. §1341(a)(1)). Section 401 of the CWA requires any applicant for a federal license or permit, which may result in any discharge to navigable waters, to obtain water quality certification from the state in which the discharge originates that the discharge will comply with the state's water quality standards and other appropriate requirements of state or federal law. The State Water Board is the certifying agency under Section 401 for the Project. Accordingly, the State Water Board may set conditions implementing Clean Water Act requirements, including the requirements of Section 303 of the Clean Water Act for water quality standards and implementation plans, or to implement "any other appropriate requirement of State law." (33 U.S.C. § 1341(d).)

On May 21, 2014, MID requested a water quality certification (certification) for the Project. On June 6, 2014, the State Water Board confirmed receipt of MID's request for certification and informed MID that the State Water Board may request additional information to clarify, amplify, correct, or otherwise supplement the contents of the application. Supplemental information may include evidence of compliance with the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). (Cal. Code Regs., tit. 23, § 3836.) In addition, the State Water Board must analyze potential Project-related environmental effects to the Merced River and Deadman Creek drainage prior to making a determination that continued operation of the Project will be protective of the designated beneficial uses of the watershed.

**Designated Beneficial Uses of Merced River**

The Central Valley Regional Water Quality Control Board (Central Valley Region) has adopted, and the State Water Board and the US Environmental Protection Agency approved, the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). The latest version of the Basin Plan can be found at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/sacsjr.pdf](http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr.pdf). The Basin Plan designates the beneficial uses of waters within each watershed basin and water quality objectives designed to protect those uses. Section 303 of the Clean Water Act requires the states to develop and adopt water quality standards (33 U.S.C. § 1313.). The beneficial uses together with the water quality objectives that are contained in the Basin Plan constitute state water quality standards under section 303.

The existing beneficial uses currently designated for the Merced River from the headwaters to Lake McClure include irrigation, power, contact and non-contact water recreation, canoeing and rafting, warm and cold freshwater habitat, and wildlife habitat. Municipal and domestic supply is designated as a potential use for this segment of the river. The existing beneficial uses currently designated for the Merced River for Lake McClure and McSwain Reservoir include irrigation, power, contact and non-contact water recreation, warm and cold freshwater habitat, and wildlife habitat. Municipal and domestic supply is designated as a potential use for this

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segment of the river. The existing designated beneficial uses for the Merced River from the downstream end of McSwain Reservoir to the confluence with the San Joaquin River include municipal and domestic supply, stock watering, process, service supply, power, contact and non-contact water recreation, canoeing and rafting, warm and cold freshwater habitat, warm and cold migration (includes salmon and steelhead), warm and cold spawning (includes salmon and steelhead), and wildlife habitat. The Basin Plan further clarifies that any segment with both warm and cold beneficial use designations will be considered cold water bodies for the application of water quality objectives and the beneficial uses of any identified water body generally apply to its tributary streams.

Deadman Creek is a tributary to Mariposa Slough to Bear Creek to the San Joaquin River. The existing designated beneficial uses for the San Joaquin River from Sack Dam to the mouth of the Merced River include irrigation, stock watering, process, contact recreation, canoeing and rafting, other non-contact recreation, warm freshwater habitat, warm and cold migration (includes salmon and steelhead, as well as striped bass, sturgeon and shad), warm and cold spawning (includes striped bass, sturgeon and shad) and wildlife habitat. Municipal and domestic supply as well as cold spawning (includes salmon and steelhead) are designated as a potential use for this segment of the river.

**303(d) Listed Impairments**

Section 303(d) of the Clean Water Act requires the identification of waterbodies that do not meet, or are not expected to meet, water quality standards (i.e., impaired waterbodies). The current list approved by the EPA is the 2008-2010 303(d) list (303(d) list). The 303(d) list includes impairments in the vicinity of the Project for the following pollutants or stressors in the lower Merced River (defined as McSwain Reservoir to the confluence with the San Joaquin River): chlorpyrifos, diazinon, Group A pesticides, mercury, Escherichia coli, unknown toxicity and water temperature. McClure Reservoir is also 303(d) listed due to impairment caused by mercury.

**California Environmental Quality Act**

Issuance of a certification is a discretionary act and is subject to the California Environmental Quality Act (CEQA). MID will act as the lead agency in satisfying CEQA requirements for relicensing of the Project, while the State Water Board will be a responsible agency. CEQA requires an analysis of the environmental impacts of the project, including cumulative impacts; the identification of mitigation measures that could minimize any significant effects on the environment; and a monitoring-reporting program to ensure compliance with those mitigation measures adopted by the lead agency. CEQA Guidelines encourage the preparation of joint federal and state environmental documents or the reuse of existing federal NEPA documents (Cal. Code Regs. tit. 14, §§ 15221, 15222, 15226). The Scoping Document 1 states that FERC intends to prepare an Environmental Assessment (EA) for NEPA compliance that will cover not only MID's Project No. 2179, but also Pacific Gas and Electric's Merced Falls Hydroelectric Project (FERC Project No. 2467). FERC Project No. 2467 is immediately downstream of the Merced River Hydroelectric Project. The State Water Board will be the lead agency responsible for implementing CEQA for the Merced Falls Project. The State Water Board staff encourages MID to work closely with FERC staff to provide guidance on how the NEPA process can best satisfy both state and federal requirements and to work with State Water Board staff to determine extent of CEQA analysis required to act on a request for water quality certification.

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**Cumulative Effects**

There are potential cumulative effects of the Project on water resources, aquatic resources, and threatened and endangered species. With respect to water resources, the 303(d) listing of the lower Merced River as impaired due to temperature is evidence that water quality objectives are not being met downstream of the Project. As stated previously, the segment of the Merced River downstream of McSwain Reservoir to the confluence of the San Joaquin River includes beneficial use designations for cold freshwater habitat, cold migration and cold spawning. The 303(d) listing is based upon information submitted by the California Department of Fish and Wildlife (CDFW or CDFG or Cal Fish and Wildlife or Department) in the form of a report entitled "Temperature Water Quality Standards for the Protection of Anadromous Fish in the Stanislaus River, Merced River, Tuolumne River, and the San Joaquin River". This report provides an overview of how altered temperature conditions in both the San Joaquin River and its major tributaries (including the Merced River) may be affecting anadromous fish populations. During the Merced River 303d listing review, CDFW stated the following:

"The Department believes that one critical factor limiting anadromous salmon and steelhead population abundance is high water temperatures which exist during critical life-stages in the tributaries and the main-stem. This results largely from water diversions, hydroelectric power operations, water operations and other factors" (EPA 2011)."

It is important to consider the potential cumulative impacts of this multiuse Project on both water quality and fisheries resources in the Merced River. A major factor that contributes to high water temperature is the reduction of instream flow due to major diversion of Merced River flow at MID's Crocker-Huffman Dam. Any certification issued must include conditions (if necessary) that show that the operation of this multiuse Project is consistent with water quality objectives and protective of the designated beneficial uses for the Merced and San Joaquin Rivers.

**Concurrent Proceeding**

There are existing proceedings underway, both at the state and federal level, that may affect how MID manages the water resources stored in Lake McClure under its various water rights. Among these is the State Water Board Bay-Delta Program's release of the Draft Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the Bay Delta: San Joaquin River Flows and Southern Delta Water Quality (Bay-Delta SED). The draft Bay-Delta SED recommends 35 percent of unimpaired flow for the Merced River in February through June. The final Bay-Delta SED may require instream flow that range from 25 to 60 percent of unimpaired flow. While the final outcome of these proceedings is not yet known, it is important to consider the potential interaction between these activities and the relicensing proceedings before FERC. As stated in the State Water Board's July 18, 2013, correspondence to MID and relicensing participants, it is reasonable to expect that the State Water Board will consider the outcome of the Bay-Delta SED process when it makes a final decision on conditions necessary and appropriate to include in the certification for the FERC relicensing of the Project.

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**Geographic Scope**

State Water Board staff recommends that in addition to the area within the FERC Project boundaries, the Merced River downstream of the Project to the confluence of the San Joaquin River should be included in the geographic scope of the analysis for issues related to Water Resources and designated beneficial uses listed in the Basin Plan.

**Specific Comments**

**Removal of Refuge Water Delivery Facilities**

- 1) Page A-33: *"MID proposes to remove from the Project, but retain in operation outside the license, the seven Refuge Wildlife Delivery Facilities. MID proposed to continue to provide water to the refuge under the new license, but believe the minor facilities that were constructed in the early 1990s are not needed as part of the license, since MID now has a number of alternative water delivery options to the refuge and the facilities now also provide water to MID's water customers. Therefore, providing water to the refuge is no longer the sole purpose of the facilities; nor are the facilities the primary method of delivering water to the refuge".*

**Comment:** State Water Board staff support the continued inclusion of the seven Refuge Wildlife Delivery Facilities (Refuge Facilities), and winter waterfowl water mitigation water. The fact that MID is able to make use of the Refuge Facilities for MID water delivery customers does not negate the importance or relevance of the Project facilities' inclusion in the FERC license or the fact that the Refuge Facilities are a direct result of the Project. The Refuge Facilities and water delivery are mitigation for loss of wetlands for waterfowl as a result of construction and operation of the New Exchequer.

**SWRCB Water Rights License (No Expiration Date)**

- 2) Page B-29: *"Pursuant to MID's consumptive water right license 2685, 6047, and 16186 (Applications 1224, 10572, and 11395, respectively), MID is required to supplement flows in the Merced River in October by providing 12,500 acre-feet (ac-ft) of water in addition to the Project's minimum flow requirement in that month. The water rights license does not state how the flow is distributed (i.e., rate) or where the flow is measured".*

**Comment:** Clarification: MID is required to provide 12,500 ac-ft of additional water in the month of October in all water year types as measured above its current FERC requirement. The FERC requirement is Shafer Bridge, thus the compliance point for the additional 12,500 ac-ft is Shafer Bridge.

**MID's Proposed Measure AQR1: Minimum Streamflows, Ramping Rates, Water Year Types and Streamflow Compliance Monitoring**

- 3) Page B-55 thru B-56: *"MID would maintain at Shaffer Bride the Minimum Flows and Target Flows shown in Table 9.1.2-1".*

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Table 9.1-1. Minimum Streamflows and Target Streamflows proposed by Merced ID by month and Water Year type.

Month	Critical Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
<b>MINIMUM STREAMFLOW</b>					
October 1- 15	40	60	60	120	160
October 16 - 31	80	100	140	160	180
November 1 - 30	80	100	140	160	180
December 1 - 31	80	100	140	160	180
January 1- 31	80	100	140	160	180
February 1 - 28	80	120	120	120	120
March 1-- 31	80	120	120	120	120
April 1 - 30	80	120	120	120	120
May 1-31	80	120	120	120	120
June 1-31	40	60	60	120	160
July 1 - 31	40	60	60	120	160
August 1 - 31	40	60	60	120	160
September 1 - 30	40	60	60	120	160
<b>TARGET STREAMFLOW</b>					
October 1- 15	50	75	75	150	200
October 16 - 31	100	125	175	200	225
November 1 - 30	100	125	175	200	225
December 1 - 31	100	125	175	200	225
January 1- 31	100	125	175	200	225
February 1 - 28	100	150	150	150	150
March 1-- 31	100	150	150	150	150
April 1 - 30	100	150	150	150	150
May 1-31	100	150	150	150	150
June 1-31	50	75	75	150	200
July 1 - 31	50	75	75	150	200
August 1 - 31	50	75	75	150	200
September 1 - 30	50	75	75	150	200

**Comment:** State Water Board staff recommend providing minimum instream flows in cfs and as percent of unimpaired flow. On December 2012, the State Water Board released a draft Bay-Delta SED. The draft Bay-Delta SED's preferred alternative required release of 35 percent of unimpaired flow February through June in the Merced River. Although, the State Water Board is evaluating 20 to 60 percent of unimpaired flow.

MID's proposed February through June minimum and target instream flows are less than 35 percent of unimpaired flow, in all water year types. MID's proposed target flows for February range from 5 to 21 percent of unimpaired, March range from 5 to 15 percent of unimpaired, April range from 4 to 9 percent of unimpaired flow, May range from 3 to 6 percent of unimpaired, and June range from 3 to 8 percent of unimpaired.

The State Water Board reserves the right to condition specific minimum instream flows in light of the whole record. The whole record includes but is not limited to the FERC record (i.e., recommendation by the resource agencies) and Bay-Delta SED.

**Environmental Effects**

- 4) Page E3.3.1-26: *"If Merced ID were to propose ground-disturbing activities not currently addressed in the FLA, these activities could affect erosion and sediment in surface water, which in turn could affect water quality and aquatic resources. Merced ID's*

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*proposed Project includes three measures to address such instances. The first measure, Annual Consultation...Merced ID would file documentation of the meeting with FERC, including recommendations by BLM, if requested by FERC”.*

**Comment:** If activities are not part of the proposed project then potential impacts may not be analyzed and proper mitigation may not be developed. For any activity not addressed in FERC’s NEPA review and/or MID’s CEQA review, MID should, at a minimum, consult with all appropriate resource agencies.

- 5) Page E3.3.1-27: *“The third measure, Consultation Regarding New Facilities, also pertains to activities not addressed in FERC’s NEPA review. If, during the term of the new license, Merced ID proposes new Project facilities that were not addressed in FERC’s NEPA process, prior to construction Merced ID would develop a visual resources protection plan to address potential visual impacts from new Project facilities, if visual impacts on federal land are identified”.*

**Comment:** For any activity not addressed in FERC’s NEPA review and/or MID’s CEQA review, MID should consult with all appropriate resource agencies. In accordance with 18 CFR, amendments to FERC licenses are required for capacity or non-capacity amendments. An amendment to the FERC license may require a water quality certification from the State Water Board.

**Effects on Channel Stability**

- 6) Page E3.3.1-27: *“None of the Project reaches are riverine so there are no alluvial (i.e., flowing water) processes and no “channels,” and there is no evidence of extensive or unusual bank erosion on the reservoir margins”.*

**Comment:** According to the CDFW and US Geologic Survey definitions, the Project is waters of the United States and exists in a channel, thus bank erosion on the channel margins should be evaluated and quantified.

**Effects on Sediment Transport**

- 7) Page E3.3.1-28: *“None of the Project reaches are riverine so there are no alluvial (i.e., flowing water) processes and no “channels” so the Project effect is the storage of sediment within Lake McClure and McSwain Reservoir”.*

**Comment:** See State Water Board staff comment number 6.

- 8) Page E3.3.1-29: *“Project dams capture sediment that would otherwise move downstream into these areas, however the Project continued to provide flows adequate to move sediment and mobilize the river bed, to the extent possible given the extensive mining. The Project, when taken in combination with the past, present and reasonably foreseeable future actions (see Section 3.2.2) has a less than significant effect on sediment transport downstream of the Project”.*

**Comment:** Given the impairment of the Merced River, any further degradation may be significant. The Basin Plan specifically requires that the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses (California 1998). The trapping of sediment behind project dams has and continues to cause a nuisance and



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adversely affect some of the designated existing beneficial uses. Adversely affected beneficial uses include: 1) recreation canoeing and rafting; 2) cold freshwater habitat; 3) cold water migration; and 4) cold water spawning.

**Cumulative Effects**

- 9) Page E3.3.1-28: *"Channel conditions downstream of McSwain Dam, including substrate, have been and continue to be significantly affected by non-Project activities such as non FERC jurisdictional dam construction and water diversion, mining, land management, operations of Lake McClure for flood control, channel restoration projects and water deliveries. These past, present and reasonably foreseeable future actions and their effects on channel morphology and sediment are described in Section 3.2.3".*

**Comment:** Lake McClure, New Exchequer, McSwain Dam and McSwain reservoir are FERC jurisdictional Project facilities that impound both water and sediment; as a result these Project facilities and activities also affect channel conditions downstream of McSwain Dam. Both FERC jurisdictional Project facilities and operations may adversely affect water temperature, channel morphology, sediment transport rates as well as aquatic and riparian species.

**Consistency with Basin Plan Water Quality Objectives**

- 10) Page E3.3.2-43: *"Significant agricultural pesticide use does not occur in the Project Area or downstream of the Project to at least Crocker-Huffman Diversion Dam, and Merced ID is unaware of any reports that the use of pesticides in this area cause a nuisance or adversely affect designated beneficial uses".*

**Comment:** The Basin Plan pertains to all levels of pesticide use and states that the term pesticide shall include: (1) any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever, or (2) any spray adjuvant, or (3) any breakdown products of these materials that threaten beneficial uses. Note that discharges of "inert" ingredients included in pesticide formulations must comply with all applicable water quality objectives (California 1998). As defined by the Basin Plan the term *pesticide* includes but is not limited to pesticides, herbicides and any other ingredients.

The applicant states that significant agricultural pesticide use does not occur in the Project Area and that they are unaware of any instance where pesticide use in the vicinity of the Project has been reported to adversely affect designated beneficial uses yet, the Merced River is a 303(d) listed impaired for Groups A pesticides and other substances. The Basin Plan is not limited to significant agricultural pesticide use and MID not being aware is not equivalent to no adverse impact. State Water Board staff recommends disclosure of all pesticide use and monitoring for pesticide levels (as defined by the Basin Plan), including herbicide use identified on page E3.3.5-40. State Water Board staff recommends testing for pesticides as defined by the Basin Plan.

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- 11) Page E3.3.2-23: *"These included: 1) Biosimulatory Substances; 2) Chemical Constituents; 3) Color; 4) Pesticides; 5) Sediment and Settable Solids...and Turbidity"*.

**Comment:** Sediment and Settable Solids was not disclosed in this section. State Water Board staff recommend disclosing information on Sediment and Settable Solids.

**pH**

- 12) Page E3.3.2-47: *"Merced ID does not release any substance into surface waters that would affect pH"*.

**Comment:** MID is also responsible for disclosing any operations that may affect pH.

**Toxicity**

- 13) Page E3.3.2-48: *"If the condition occurs with the proposed Project, for the reason stated above, this inconsistency with the Basin Plan's Toxicity objective would be considered less than significant"*.

**Comment:** The Basin Plan states:

"All water shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective will be determined by analyses of indicator organisms, species diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or methods as specified by the Regional Water Board."

The lack thorough testing in accordance with the Basin Plan and obvious signs of detrimental physiological response in human, plant, animal or aquatic life does not negate present or future significance.

**CWA Section 303(d) List Constituents**

- 14) Page E3.3.2-48: *"...into the Merced River, nor does Project operations result in higher levels of E. coli or unknown toxicity downstream of the Project"*.

**Comment:** While the Project operations may not result in higher levels of E. coli or unknown toxicity downstream of the Project, members of the public using Project recreational facilities (e.g., Lake McClure and Lake McSwain) may contribute to the baseline amount of E.coli.

- 15) Page E3.3.2-48: *"The Project does not release warm water"*.

**Comment:** Warm water is subjective depending on species type and needs. Numerical data should be provided and analyzed.

**Effects on Bald Eagle**

- 16) Page E3.3.4-22: *Merced ID is unaware of any information indicating that Project dams and powerhouses adversely affect bald eagles"*.

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**Comment:** Project operations and associated recreation use could impact bald eagles. Identification of nesting sites is important for protecting eagles from Project-related activities such as maintenance or recreation.

**Vernal Pool Fairy Shrimp and Conservation Fairy Shrimp**

17) Page E3.3.5-40: *"Seven of the 33 sites are located in areas where vegetation maintenance may occur, including herbicide treatment in roadside ditches or swales, runoff from treated sites, or mechanical vegetation maintenance. Potential effects may be minimal if vegetation maintenance occurs in periods when fairy shrimp are in the dormant (cyst) life stage. Two other sites are shallow depressions in RA parking areas and may be affected by periodic vehicle use. Based on this information, the proposed Project will not affect Conservancy fairy shrimp; and may affect, but is not likely to adversely affect vernal pool fairy shrimp"*.

**Comment** Pesticides<sup>1</sup> applied to or that reach (via flow, drift, run off, or other mode of transport) seasonal wetlands could have detrimental impacts to fairy shrimp. Pesticides may inhibit growth of vegetation in vernal pool or may injure or kill fairy shrimp directly or indirectly through alteration of the pool's chemical properties (USFWS 2006).

**Amended Appendix E2, Merced ID's Proposed Measures**

18) Page App. E2-1: *"Measures included in Merced ID's Proposed Merced River Hydroelectric Project."*

**Comment:** State Water Board staff support MID's Proposed Measures with the additional plans listed below and detailed in Attachment B:

- A. Tiger Salamander Monitoring and Conservation Plan.
- B. Fish Passage or Habitat Restoration Plan.
- C. Gravel Augmentation Plan.
- D. Drought Plan.
- E. California Red-legged Frog, Foothill Yellow-legged Frog, Western Spadefoot Monitoring and Conservation Plan.
- F. Vernal Pool Fairy Shrimp and Conservation Fairy Shrimp Monitoring and Conservation Plan.
- G. Valley Elderberry Longhorn Beetle Monitoring and Conservation Plan.

**Proposed Measure GEN4: Consultation Regarding New Ground Disturbing Activities on Federal Land**

19) Page App. E2-4: *"If Licensee proposes a Project-related ground disturbing activity on federal land administered by BLM that was not addressed in the Commission's' NEPA process for relicensing, prior to filing the necessary documentation with the Commission"*

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<sup>1</sup> The Basin Plan pertains to all levels of pesticide use and states that the term pesticide shall include: (1) any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever, or (2) any spray adjuvant, or (3) any breakdown products of these materials that threaten beneficial uses. Note that discharges of "inert" ingredients included in pesticide formulations must comply with all applicable water quality objectives (California 1998). As defined by the Basin Plan the term *pesticide* includes but is not limited to pesticides, herbicides and any other ingredients.

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*for Commission approval, Licensee in consultation with BLM and other appropriate agencies shall determine the potential Project-related effects and whether additional information is required to proceed with the planned ground disturbing activity”.*

**Comment:** If MID proposes a Project-related ground disturbing activity in the Project area or on federal land administered by BLM that was not addressed in the Commission’s NEPA, MID’s CEQA, or the State Water Boards certification process for relicensing, MID should consult with BLM, other appropriate agencies, and State Water Board prior to filing the necessary documentation with the Commission for Commission approval.

**Proposed Measure G&S1: Development and Implementation of Recreation Facilities Construction Erosion Control and Restoration Plans**

20) Page App. E2-6: *“Licensee shall, in consultation with the appropriate agencies, prepare a Recreation Facilities Construction Erosion Control and Stabilization Plan. Licensee shall provide the plan to the appropriate agencies for a 30-day review and comment period. Licensee shall file the plan, including evidence of consultation, with the Commission at least 90-days in advance of initiating construction of the recreation facilities.*

**Comment:** MID should, in consultation with the appropriate agencies, prepare a Recreation Facilities Construction Erosion Control and Stabilization Plan. The Recreation Facilities Construction Erosion Control and Stabilization Plan should at a minimum include timing, BMP’s and maps with locations of changes to Recreation Facilities.

21) Page App. E2-13: *“Licensee shall deny delivery of any fish, regardless of the source, if the Licensee has any reason to suspect the fish contain harmful pathogens or parasites that could impact resident fish populations”.*

**Comment:** MID should only stock fish from facilities free of invasive species and that provide documentation of monitoring, and testing that fish source facility and equipment is free of invasive species. This may negate the need for denying delivery of fish.

22) Page Ap. E2-15: *“Exceptions to this schedule may be allowed only when unexpected outbreaks of pest require control measures that were not anticipated at the time the annual request was submitted, In such an instance an emergency request to BLM and approval by BLM may be made”.*

**Comment:** State Water Board staff recommend that the definition of, “emergency” be defined as: an unforeseen event that is reasonably out of the control of MID and requires MID to take immediate action, either unilaterally or under instruction by law enforcement or other regulatory agency staff, to prevent imminent loss of human life or substantial property damage. An emergency may include, but is not limited to, natural events such as landslides, storms or wildfires, malfunction or failure of Project works<sup>2</sup>, and recreation accidents.

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<sup>2</sup> Project area and Project works must be inspected and maintained on a schedule. Inspections should be at least annually. Project works inspections schedule default is most rigorous schedule. Upon State Water Board staff’s request, MID shall provide documentation of all inspection, results, dates, staff performing inspection, any

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**Proposed Measure T&E2: Monitor Anadromous Salmonids Downstream of Crocker-Huffman Diversion Dam**

23) Page App. E2-17: *“Licensee shall, beginning in the second full calendar year after license issuance and contingent upon obtaining the necessary agency permits and approvals, annually monitor Chinook salmon and Oncorhynchus mykiss abundance in Merced River downstream of Crocker-Huffman Diversion Dam.*

**Comment:** State Water Board staff recommend that MID to apply for necessary permits and approvals as soon as possible. MID should monitor all listed anadromous fish in the Merced River and include a provision for filing a revised plan if listed anadromous fish species navigate or are scheduled to be above Crocker-Huffman.

**Aquatic Invasive Species Management**

24) Page Management 2-1: *“This Plan addresses the following AIS: dreissenid mussels (Dreissena bugensis and Dreissena polymorph), New Zealand mudsnail (Potamopyrgus antipodarum), Eurasian milfoil (Myriophyllum spicatum), and Asian clam (Corbicula fluminea).”*

**Comment:** State Water Board staff recommend managing for *Egeria densa*, which also is a freshwater invasive species.

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recommended maintenance, maintenance performed, schedule for performing maintenance, and the date maintenance was performed. Lack of appropriate inspections, maintenance, or documentation may remove Project works or emergency applications from Emergency category, as determined by the Deputy Director.

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**References**

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MID. 2011. Technical Memorandum 8-2, Recreational River Boating from Merced Falls Dam to Crocker-Huffman Diversion Dam. February 2011.

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In accordance with Item 2 under the Post-Application Filing Activities under the Integrated Licensing Process section of the memorandum of understanding executed between the Federal Energy Regulatory Commission (FERC) and the State Water Resources Control Board (State Water Board) on November 19, 2013 and to the extent that information is available, State Water Board staff is providing preliminary terms and conditions in response to the notice of Ready for Environmental Analysis (REA) by FERC for the Merced River Hydroelectric Project (Project), FERC Project No. 2179.

**1. Merced River Anadromous Fish Committee**

Within 3 months of license issuance, Merced Irrigation District (MID or Licensee) shall organize and host a meeting and all future meetings with the Merced River Anadromous Fish Committee (Committee). The Committee shall be comprised of one representative from MID, Pacific Gas and Electric Company (PG&E), National Marine Fisheries Service (NMFS), US Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), State Water Board, and a non-governmental organization. Committee members shall be selected by the organizations represented.

**2. Minimum Instream Flow**

State Water Board staff reserve the right to condition the Project with minimum instream flows in light of the whole record. The whole record includes but is not limited to the FERC record (i.e., recommendation by the resource agencies) the final NEPA document, and the final CEQA document.

**3. Consultation Regarding New Ground Disturbing Activities**

For any activity not addressed in the National Environmental Policy Act (NEPA) or California Environmental Quality Act (CEQA) or water quality certification documents, that may adversely affect water quality, the Licensee shall consult with the relevant resource agencies to determine if supplemental NEPA or CEQA documents are required and/or a water quality certification amendment.

**4. Gravel Augmentation Plan**

Within one year of license issuance, MID shall submit the Gravel Augmentation Plan to the Deputy Director. MID shall create the Gravel Augmentation Plan in consultation with the Committee. The amount of gravel augmented shall be consistent with annual gravel amount trapped behind New Exchequer and McSwain.

**5. Bald and Golden Eagle Plan**

Within one year of license issuance MID shall submit the Bald and Golden Eagle Monitoring Plan (Eagle Plan) to the Deputy Director. The Eagle Plans shall that include protective measures when nesting is identified. MID shall create the Eagle Plan in consultation with USFWS, and CDFW.

The Eagle Plan shall:

- A. Be consistent with the most current USFWS National Bald Eagle Management Guidelines;
- B. Include a statement of the goals and objectives;
- C. Include a description of the proposed monitoring protocol(s);
- D. Include specific, measureable criteria that will be used in combination with monitoring data and the comprehensive list of factors to objectively evaluate if the

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goals and objectives of the Eagle Plan are being met or the Project may be adversely affecting eagles and/or eagle nests;

- E. Include a detailed monitoring and reporting schedule;
- F. Include a plan for the development of corrective measures and a timetable for action in cases when the Eagle Plan's goals and objectives are not being achieved or data indicate the Project may be impacting eagles and/or eagle nests; and

At a minimum monitoring shall include:

- G. One breeding and one wintering survey every three years beginning within three years of license issuance;
- H. Monitoring surveys within 30 days prior to any activity in the Project area listed or similar to the listed activities in the USFWS National Bald Eagle Management Guidelines; and
- I. Include documentation of any eagle or eagle nest discovered during monitoring as well as any incidental eagle or eagle nest observations.

Within 60 days of the conclusion of the monitoring, MID shall submit the results of the monitoring data with a description of location of eagle(s) or nest(s), date(s) of discovery, timeframe(s) of monitoring and protective measure implementation. Monitoring reports shall also include recommendations for more frequent monitoring based on increased use of the Project area by eagles, changes in Project operation and management activities, information derived from other resource studies or the state or federal resource agencies, and updates to be consistent with updates to the USFWS National Bald Eagle Management Guidelines.

If monitoring or incidental (other) reports confirm the presence of an eagle(s) or eagle nest(s) in the Project area, protective measures must be implement prior to any Project-associated activity.

**6. Vernal Pool Fairy Shrimp and Conservation Fairy Shrimp Monitoring and Conservation Plan (Shrimp Plan).**

Within one year of license issuance, MID shall submit a Shrimp Monitoring and Conservation Plan (Shrimp Plan) to the Deputy Director. MID shall create the Shrimp Plan in consultation with the Committee. The Shrimp Plan shall include monitoring Vernal Pool Fairy Shrimp and Conservation fairy Shrimp and their habitat on the Merced River, Deadman Slough, and associated tributaries. Monitoring shall be conducted for the first four consecutive years. After the fourth year, MID shall monitor every three years and prior to construction, or any ground disturbing maintenance or exploration activity. The Shrimp Plan shall include monitoring so that pesticides (pesticides, as defined by the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan)) will not be applied where the pesticide may reach shrimp or their habitat.

The Shrimp Plan shall include, at a minimum:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may adversely affect Vernal Pool or Conservation Fairy Shrimp. This description shall also identify whether the factors are associated with the Project's operation;
- D. A detailed monitoring and reporting schedule;
- E. Protective measures; and



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- F. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be impacting Vernal Pool and/or Conservation Fairy Shrimp or their habitat.

**7. Tiger Salamander Monitoring and Conservation Plan**

Pesticide use and recreation construction may adversely impact Tiger Salamander. Monitoring, documentation, and avoidance of Tiger Salamanders and their habitat are crucial to avoid adversely impacting Tiger Salamanders. Within one year after license issuance, MID shall submit the Tiger Salamander Monitoring and Conservation Plan (Tiger Plan) to the Deputy Director. MID shall create the Tiger Plan in consultation with the Committee.

The Tiger Plan shall include, at a minimum:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may adversely affect Tiger Salamanders. This description shall also identify whether the factors are associated with the Project's operation;
- D. A detailed monitoring and reporting schedule;
- E. Protective measures; and
- F. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be impacting Tiger Salamanders or their habitat.

**8. Fish Passage or Habitat Restoration Plan**

Within one year after license issuance, MID shall submit the Fish Passage or Habitat Restoration Plan to the Deputy Director. MID shall evaluate, develop, and implement a fish passage or habitat restoration plan that will result in passage over Crocker-Huffman, McSwain Dam, and New Exchequer or decreasing temperatures in and downstream of the Project. The Fish Passage or Habitat Restoration Plan shall be created in consultation with the Committee. MID shall submit the Fish Passage or Habitat Restoration Plan to the Deputy Director within one year of License issuance. Within three years of license issuance, MID shall implement Fish passage or Habitat Restoration Plan.

**9. Drought Plan**

Within one year after license issuance, MID shall submit the Drought Plan to the Deputy Director. Drought Plan shall provide overarching guidance for operations during an emergency drought and/or multiple critically dry years and shall be created in consultation with the Committee. The Drought Plan shall include FERC License or water quality certification (WQC) variances that MID may request.

**10. California Red-legged Frog (CRLF), Foothill Yellow-legged Frog (FYLF), and Western Spadefoot Monitoring and Conservation Plan (Frog Plan)**

Within one year of license issuance, MID shall file a Frog Plan with the Deputy Director. MID shall create the Frog Plan in consultation with the Committee. The Frog Plan shall include monitoring CRLF, YLF, and Western Spadefoot egg masses, tadpoles and adults on the Merced River, Deadman Slough (if appropriate), and associated tributaries. Monitoring shall be conducted no later than the first spring following approval of the Frog Plan by the Deputy Director. Monitoring egg masses, tadpoles, and adults will be required for the first three consecutive years. After the fourth year, MID shall monitor every three years.

The Frog Plan shall include, at a minimum:

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- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may adversely affect CRLF, FYLF and Western Spadefoot. This description shall also identify whether the factors are associated with the Project's operation.
- D. Monitoring water temperature where eggs and tadpoles are found;
- E. A detailed monitoring and reporting schedule;
- F. Protective measures; and
- G. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be impacting CRLF, FYLF, or Western Spadefoot.

**11. Valley Elderberry Longhorn Beetle Monitoring and Conservation Plan**

Within one year of license issuance, MID shall submit the Shrimp Plan with the Deputy Director. MID shall create the Valley Elderberry Longhorn Beetle (VELB) Plan in consultation with the Committee. The VELB Plan shall include monitoring of VELB and their habitat on the Merced River, Deadman Slough (if appropriate), and associated tributaries. Monitoring shall be conducted prior to construction and every three years.

The VELB Plan, shall at a minimum include:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may adversely affect VELB. This description shall also identify whether the factors are associated with the Project's operation.
- D. A detailed monitoring and reporting schedule;
- E. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be impacting VELB or their habitat; and
- F. Protective measures.

**12. Annual Consultation**

MID shall annually consult with BLM, the Committee, and the Park Service, regarding measures needed to ensure protection. The date of the Annual Consultation shall be mutually agreed to by BLM, Park Service, and the Committee. MID shall still provide notice to tribes and interested parties.

At the Annual consult meeting, MID shall at a minimum present the following:

- A. A status report regarding implementation of license conditions;
- B. Results of any studies performed over the previous year in formats agreed to by MID and agencies consulted with during the development of the study plan;
- C. Review of any non-routine maintenance;
- D. Discussion of any necessary revisions or modifications to resource plans included in the license;
- E. Discussion of needed protection measures for species newly listed as threatened, endangered, or special-status or, changes to existing management plans that may no longer be warranted due to de-listing of species or, to incorporate new knowledge about a species requiring protections; and
- F. Discussion of elements of current year operations and maintenance plans in the Project Area.

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A record of the meeting shall be kept by MID and shall include any recommendations made by BLM and the Committee.

**13. Annual Review of Endangered Species Act Lists and Special-Status Species Lists, and Assessment of New Species**

MID shall consult with BLM, the Park Service, and the Committee within 3 months after license issuance, and annually every for the term of the license and any annual extension. At the annual meeting, participants will review the current list of threatened and endangered species and special-status plant and wildlife species that may be adversely impacted by the Project. When a species is added to one or more of the lists, MID, in consultation with BLM, Park Service, and the Committee shall determine if the species may be adversely affected by the Project. If it is determined that the species may be adversely affected by the Project, MID shall develop and implement a new species specific study plan. The study plan shall be created in consultation with BLM and other appropriate agencies to assess the effects of the Project on the species.

Each species specific study plans, shall at a minimum include:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may adversely affect VELB. This description shall also identify whether the factors are associated with the Project's operation.
- D. A detailed monitoring and reporting schedule;
- E. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be impacting the newly listed specific species or their habitat; and
- F. Protective measures.

MID shall implement and prepare a report on the study including objectives, methods, results, recommended measures where appropriate, and a schedule of implementation.

**14. Large Woody Materials Plan**

Within one year after license issuance, shall submit the Large Woody Materials Management Plan (LWM Plan) to the Deputy Director. MID shall create the LWM Plan in consultation with the Committee.

**15. Lake McClure Minimum Pool**

Minimum instream flow increases will correspond to decreased water temperatures downstream of Lake McClure; as such an increase to the minimum pool requirement of Lake McClure may also be needed to achieve decreased water temperatures. State Water Board staff reserves the right to require a new value for the minimum pool requirement in Lake McClure in light of the whole record. The whole record includes but is not limited to the FERC record (i.e., recommendation by the resource agencies), the final NEPA document, and the final CEQA document.

**16. Lake McClure and McSwain Reservoir Fish Stocking**

Within 3 months of license issuance MID shall submit the Lake McClure and McSwain Reservoir Fish Stocking Plan (Fish Stocking Plan). MID shall create the Fish Stocking Plan in consultation with the Committee. Beginning the first year after license issuance MID shall annually stock fish in Lake McClure and McSwain Reservoir with a minimum of:

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Lake McClure

1) 32,000 to 70,000 of catchable sized fish; and 2) 39,000 to 95,000 fingerlings.

McSwain Reservoir

1) 1,000 to 2,000 catchable-sized rainbow trout

Fish stocked shall only be native cold water species. MID shall only stock fish from facilities free of invasive species and that provide documentation of monitoring, and testing that fish source facility and equipment is free of invasive species.

**17. Aquatic Invasive Species Management Plan**

Within one year of license issuance, MID shall submit the Aquatic Invasive Species Management Plan to the Deputy Director. MID shall create the Aquatic Invasive Species Plan in consultation with CDFW. MID shall include monitoring and corrective action steps as part of the Aquatic Invasive Species Management Plan.

The Aquatic Invasive Species Management Plan shall at a minimum include:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A detailed monitoring and reporting schedule;
- D. A Plan for corrective measures and a timetable for implementation if data indicate presence of aquatic invasive species; and
- E. Protective measures that will prevent introduction of aquatic invasive species in the Project area.

**18. Pesticide Use Plan.**

Within six months of license issuance, MID shall submit the Pesticide Use Plan to the Deputy Director. MID shall create the Pesticide Use Plan in consultation with BLM, and the Committee. The Pesticide Use Plan shall include provisions that restrict application of pesticides (pesticides, as defined by the Basin Plan) so pesticides will not reach ESA, CSA listed species or their habitat in or downstream of the Project area. Pesticides shall only be applied by an individual with a current and valid Qualified Applicator License issued by the California Department of Pesticide Regulation or under the direct visual supervision of an individual with a current and valid Qualified Applicator License issued by the California Department of Pesticide Regulation. MID shall include dates or timeframes when pesticides will be applied and a map that includes: topography, waterways, scale, areas that pesticides will be applied, roads, locations of ESA and CESA listed species. In case of an emergency, MID shall seek approval from BLM and the Committee.

**19. Water Temperature Monitoring Plan**

Within six months of license issuance, MID shall submit the Water Temperature Monitoring Plan to the Deputy Director. MID shall create the Water Temperature Monitoring Plan in consultation with the Committee. MID shall install and operate 4 to 8 water temperature monitoring devices within 1.5 years of license issuance.

The Water Temperature Monitoring Plan shall at a minimum include:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may affect water temperature. This description shall also identify whether the factors are associated with the Project's operation.

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- D. A detailed monitoring and reporting schedule; and
- E. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be increasing water temperature and/or adversely effecting water quality.

Locations shall be suitable to the Committee. Monitoring stations shall be real-time or downloaded weekly and publically available within 1 week from download.

**20. Anadromous Fish Monitoring Plan**

Within one year of license issuance, MID shall submit Anadromous Fish Monitoring Plan (Anadromous Fish Plan) to the Deputy Director. The Anadromous Fish Plan shall include monitoring of CESA and ESA listed Anadromous Fish. MID shall create the Anadromous Fish Plan in consultation with the Committee.

The Anadromous Fish Plan shall at a minimum include:

- A. A statement of goals and objectives;
- B. A description of proposed monitoring protocols;
- C. A comprehensive description of factors that may adversely affect CESA and ESA listed anadromous fish. This description shall also identify whether the factors are associated with the Project's operation;
- D. A detailed monitoring and reporting schedule;
- E. A Plan for corrective measures and a timetable for implementation if data indicate that the Project may be impacting anadromous fish or their habitat; and
- F. Protective measures.

If passage at Crocker-Huffman is scheduled to resume, one year prior to passage, MID shall submit a revised Anadromous Fish Plan to the Deputy Director. MID shall create the revised Anadromous Fish Plan in consultation with the Committee. The revised Anadromous Fish Plan shall contain provisions that geographically expand anadromous fish monitoring locations.

**21. Transportation Management Plan**

Within one year of license issuance, MID shall submit the Transportation Management Plan to the Deputy Director.

The Transportation Management Plans shall include:

- A. Map/Inventory. MID shall map and inventory roads associated with the Project, as follows:
  - I. Develop a clear and legible map with a scale and topography using a geographic information system (GIS) that includes all roads associated with the Project, appurtenant facilities (e.g., gates, closures, associated infrastructure, etc.), and locations of drainage structures, locations of streams, surface water bodies, ephemeral and intermittent waters, wetlands, and equipment storage and service areas for equipment; and
  - II. Develop a road inventory that includes: addressing uses (e.g., recreation, facility access, etc.) or non-use of the roads; condition surveys; associated facilities (e.g., culverts, gates, etc.); improvement needs; road closures; and safety, jurisdiction, and maintenance responsibilities.

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- B. Road Monitoring and Maintenance. MID shall perform at least annual monitoring and inspection of Project road conditions, as well as inspection of drainage structures and runoff patterns after major storm events. Annual monitoring and maintenance reports shall be submitted to the Deputy Director and shall identify any roads or drainage structures not meeting stipulated maintenance levels. Proposed measures to improve performance comparable to the most current United States Department of Agriculture, Forest Service National BMP's Road Management Activities shall be identified and a schedule for repair.

**22. General Preliminary Condition**

This condition applies to draft Conditions 1 through 21, as well as all plans or changes to plans required by the water quality certification or related to water quality shall be developed in consultation with relevant state and federal agencies. MID shall provide the relevant state and federal agencies with a minimum 30-day comment period on the plans and draft report, if applicable. The final plans and final reports shall include documentation of consultation with the relevant state and federal agencies, all comments made by the relevant state and federal agencies, and a description of how the final plan and/or final report incorporates or addresses the comments made by the relevant state and federal agencies. The Licensee shall implement the plans and draft the report(s). Licensee shall file the final report and final plan with the Deputy Director for revision or approval. Upon Deputy Director approval, the Licensee shall file the approved final plan and approved final report with FERC.

**The following conditions also apply to this Project in order to protect water quality and beneficial uses over the term of the Project's license and any annual extensions.**

23. Control measures for erosion, excessive sedimentation and turbidity shall be implemented and in place at the commencement of and throughout any ground clearing activities, excavation, or any other Project activities that could result in erosion or sediment discharges to surface waters. Erosion control blankets, liners with berms, and/or other erosion control measures shall be used for any stockpile of excavated material to control runoff resulting from precipitation, and prevent material from contacting or entering surface waters.
24. Waters shall be free of changes in turbidity (due to Project activities) that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributable to Project controllable water quality factors shall not exceed the following limits as defined in the Central Valley Basin Plan :
- a. Where natural turbidity is less than 1 nephelometric turbidity unit (NTU), controllable factors shall not cause downstream turbidity to exceed 2 NTUs.
  - b. Where natural turbidity is between 1 and 5 NTUs, increases in turbidity shall not exceed 1 NTU.
  - c. Where natural turbidity is between 5 and 50 NTUs, increases in turbidity shall not exceed 20 percent.
  - d. Where natural turbidity is between 50 and 100 NTUs, increases in turbidity shall not exceed 10 NTUs.
  - e. Where natural turbidity is greater than 100 NTUs, increases in turbidity shall not exceed 10 percent.
25. All imported riprap, rocks, and gravels used for construction within or adjacent to any watercourses shall be pre-washed. Wash water generated on-site shall not contact or enter

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surface waters. Wash water shall be contained and disposed of in compliance with state and local laws, ordinances, and regulations.

26. 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. All construction debris and trash shall be contained and regularly removed from the work area to the staging area during construction activities. Upon completion, all Project-generated debris, building materials, excess material, waste, and trash shall be removed from all the Project sites for disposal at an authorized landfill or other disposal site in compliance with State and local laws, ordinances, and regulations.
27. No unset cement, concrete, grout, damaged concrete, concrete spoils, or wash water used to clean concrete surfaces shall contact or enter surface waters. Any area containing wet concrete shall be completely bermed and isolated. The berm shall be constructed of sandbags or soil and shall be lined with plastic to prevent seepage. No leachate from truck or grout mixer cleaning stations shall percolate into Project area soils. Cleaning of concrete trucks or grout mixers shall be performed in such a manner that wash water and associated debris is captured, contained and disposed of in compliance with State and local laws, ordinances and regulations. Washout areas shall be of sufficient size to completely contain all liquid and waste concrete or grout generated during washout procedures. Hardened concrete or grout shall be disposed at an authorized landfill, in compliance with State and local laws, ordinances and regulations.
28. All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. Any equipment used in direct contact with surface water shall be steam cleaned prior to use. 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 (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment. Spill and containment equipment (e.g., oil spill booms, sorbent pads, etc.) shall be maintained onsite at all locations where such equipment is used or staged.
29. 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.
30. Unless otherwise specified in this WQC 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.
31. The State Water Board's approval authority includes the authority to withhold approval or to require modification of a proposal or plan prior to approval. The State Water Board may take enforcement action if the Licensee fails to provide or implement a required plan in a timely manner.
32. The State Water Board reserves the authority to add to or modify the conditions of this WQC to incorporate load allocations developed in a total maximum daily load developed by the State Water Board or the Central Valley Water Board.

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33. The State Water Board reserves the authority to add to or modify the conditions of this WQC: (1) if monitoring results indicate that continued operation of the Project could violate water quality objectives or impair the beneficial uses of the Merced River or Deadman Slough or tributaries to either waterway; (2) to coordinate the operations of this Project and other hydrologically connected water development projects, where coordination of operations is reasonably necessary to achieve water quality standards or protect beneficial uses of water; or (3) to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to section 303 of the CWA.
34. Future changes in climate projected to occur during the license term may significantly alter the baseline assumptions used to develop the conditions of this certification. The State Water Board reserves authority to add to or modify the conditions in this certification to require additional monitoring and/or other measures, as needed, to verify that Project operations meet water quality objectives and protect the beneficial uses assigned to the Project-affected stream reaches.
35. The Licensee shall comply with all applicable requirements of the SR/SJR Basin Plan. Licensee must notify the Deputy Director and Executive Officer within 24 hours of any unauthorized discharge to surface waters.
36. Notwithstanding any more specific conditions in this WQC, the Project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to section 303 of the CWA. The Licensee must take all reasonable measures to protect the beneficial uses of waters of the Merced River and Deadman Slough as well as tributaries to both waterways.
37. This WQC 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 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 WQC or water rights held by the Licensee, the Licensee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Licensee is responsible for meeting all requirements of the applicable ESAs for the Project authorized under this WQC.
38. In the event of any violation or threatened violation of the conditions of this WQC, 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 CWA, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with the water quality standards and other pertinent requirements incorporated into this WQC.
39. In response to a suspected violation of any condition of this WQC, the Deputy Director or the Executive Officer may require the holder of any federal permit or license subject to this WQC to furnish, under penalty of perjury, any technical or monitoring reports the Deputy Director or the Executive Officer 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. (Wat. Code, §§ 1051, 13165, 13267 & 13383). The State Water Board may add to or modify the conditions of this WQC as appropriate to ensure compliance.



ATTACHMENT B  
PRELIMINARY CONDITIONS  
FOR THE MERCED RIVER HYDROELECTRIC PROJECT

40. No construction shall commence until all necessary federal, state, and local approvals are obtained.
41. Any requirement in this WQC 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.
42. The Licensee must submit any change to the Project, including changes in Project operation, technology, upgrades, or monitoring, that could have a significant or material effect on the findings, conclusions, or conditions of this WQC, to the State Water Board for prior review and written approval. The State Water Board shall determine significance and may require consultation with state or federal agencies. If the State Water Board is not notified of a potentially significant change to the Project, it will be considered a violation of this WQC. If such a change would also require submission to FERC, the change must first be submitted and approved by the State Water Board, unless otherwise noted in this certification.
43. The Deputy Director and the Executive Officer shall be notified one week prior to the commencement of ground disturbing activities. Upon request, a construction schedule shall be provided to agency staff in order for staff to be present onsite to answer any public inquiries during construction and to document compliance with this WQC. The Licensee must provide State Water Board and Central Valley Water Board staff reasonable access to Project sites to document compliance with this WQC.
44. This WQC 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).
45. 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 WQC.
46. Activities associated with operation and maintenance of the Project that threaten or potentially threaten water quality shall be subject to further review by the Deputy Director and Executive Officer.
47. 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.
48. This WQC is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a 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.
49. This WQC is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.