EXECUTIVE SUMMARY

Turlock Irrigation District (TID) and Modesto Irrigation District (MID) (collectively, the Districts) are public agencies with headquarters located in Turlock and Modesto, California, respectively, organized under the laws of the State of California to provide water and retail electric services to their respective service territories. TID was established in June 1887 and was California's first irrigation district. TID provides irrigation water to 150,000 acres of land and serves approximately 100,000 electric customers in a 662-square-mile electric service area (TID 2010). MID was established in July 1887. MID provides irrigation water to almost 60,000 acres of land and serves approximately 111,000 electric customers in a 560-square-mile electric service area (MID 2010). MID also supplies a portion of the treated municipal water supplies of the City of Modesto (population 210,000) and the Districts jointly provide treated water to the community of La Grange.

Together, the Districts own the La Grange Diversion Dam (LGDD) located on the Tuolumne River in Tuolumne County, California. LGDD was constructed from 1891 to 1893, displacing Wheaton Dam, which was built by other parties in the early 1870s. LGDD raises the level of the Tuolumne River to permit the diversion and delivery of water by gravity to irrigation systems owned by TID and MID. Built in 1924, the La Grange hydroelectric plant is located approximately 0.2 miles downstream of LGDD on the east (left) bank of the Tuolumne River and is owned and operated by TID. The powerhouse has a capacity of 4.7 megawatts (MW) and operates in run-of-river mode. The LGDD provides no flood control benefits, and there are no recreation facilities currently associated with the La Grange Hydroelectric Project (Project) or the La Grange headpond.

The Exhibits contained in this Final License Application describe the La Grange Project facilities, which are comprised of elements associated with hydropower generation (Project facilities) and non-Project features which are those operated by the Districts for the purpose of diverting water from the Tuolumne River for irrigation and municipal and industrial (M&I) uses. Hydroelectric generation is a secondary purpose of the La Grange Project. As indicated above, the Districts are seeking an original license to continue generating hydroelectric power. Water diversions at the La Grange Project are not dependent on the issuance of a Federal Regulatory Energy Commission (FERC or Commission) license and will occur with or without the licensing of the hydroelectric facilities. Based on the information contained in this application, and other sources of information on the record, FERC will consider whether, and under what conditions, to issue an original license for the continued generation of hydropower at TID's 4.7-MW hydroelectric plant. The Districts are providing a complete description of all the facilities and operations of the La Grange Project so the effects of the operation and maintenance of the hydroelectric facilities can be distinguished from the effects of the operation and maintenance activities of the overall La Grange Project's water supply/consumptive use purposes.

This Final License Application is the culmination of a multi-year, comprehensive effort by the Districts in consultation with licensing participants working under the Commission's Integrated Licensing Process (ILP) to identify and assess the effects of ongoing hydropower operations on environmental resources. Studies were cooperatively scoped with licensing participants, then

conducted by the Districts with draft results and findings made available for review, comment, and discussion.

Many licensing participants devoted a considerable amount of time participating in a series of Workshops focused on issues related to providing fish passage at the La Grange and Don Pedro projects for anadromous fish to access the upper reaches of the Tuolumne River above the Don Pedro Project. The Districts extend their sincere appreciation to all the parties involved.

Initial investigations conducted in year one of the study program identified a number of data gaps related to the feasibility of fish passage at the La Grange and Don Pedro projects. The Districts, in consultation with licensing participants, recognized the importance of considering a broader scope of factors dealing with the overall viability of anadromous fish restoration on the Tuolumne River. It is widely recognized that constructing fish passage facilities is not an end in and of itself, but is only part of a set of broader questions of ecological, biological and socioeconomic viability which must consider life cycle survival, overall population viability, source population stability, changes in habitat that have occurred over time, socioeconomic impacts, and a host of other factors. To discuss and consider these broader questions, the Districts suggested a collaborative Upper Tuolumne River Reintroduction/Fish Passage Assessment Framework process (Assessment Framework).

The Assessment Framework process introduced by the Districts was developed using guidance provided in Anderson et al. (2014), *Planning Pacific Salmon and Steelhead Reintroductions Aimed at Long-Term Viability and Recovery*. This peer-reviewed journal article authored by the National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center, in collaboration with state fish and wildlife agencies, stresses the need for implementing a broad evaluation process that describes benefits, risks, and constraints when considering the potential viability and costs of a fish introduction or reintroduction program. The Assessment Framework provided an opportunity for collaboratively defining substantive goals and objectives for a Tuolumne River fish restoration program, defining critical information needs and data gaps, and providing an open forum for discussing the benefits, risks and constraints associated with anadromous fish restoration.

Some of the studies related to restoration being conducted separately by the Districts and by NMFS are not completed. However, the collaborative Assessment Framework, which included participation by federal and state resource agencies, have completed two major activities—the establishment of an agreed-upon restoration Goals Statement and relevant Water Temperature Indices. In addition, the Districts have most recently completed their feasibility assessment of fish passage. All of these findings are discussed and presented in this Final License Application.