

11 F.P.C. 1129, 1952 WL 1430

Oroville-Wyandotte Irrigation District

**Project** No. **2088**

**Order** issuing license (major)

July 17, 1952; July 21, 1952

**\*\*1 \*1129** Application was filed July 9, 1951 by Oroville-Wyandotte Irrigation District, of Oroville, Calif., for license under the Federal Power Act (hereinafter referred to as the act) for proposed **project** No. **2088** known as the South Fork **project**, to be located on South Fork of Feather River, Slate Creek (tributary of the North Fork of Yuba River), and on Lost Creek (tributary of the South Fork of Feather River), in Butte, Plumas, Sierra, and Yuba Counties, Calif.

The Feather River, one of the principal tributaries of the Sacramento River, rises in the Sierra Nevada Mountains and flows in a general southwesterly direction until it empties into the Sacramento River at Vernon, Calif., at about mile 80 on the latter river. Proceeding upstream from this point, the Feather **\*1130** River junctions with the Yuba River at Marysville, Calif., at about mile 27; with its North Fork at about mile 68; and with its Middle and South Forks at about mile 71.

According to available records, the Feather River was used at least from 1848 for the transportation of persons and property up to Marysville, 27 miles above its mouth. Such commerce included oceangoing ships. The operation of the reservoirs of the proposed **project**, having a capacity of 50,000 acre-feet, at points less than 50 miles above Marysville will affect the downstream navigable capacity of the Feather River.

The proposed **project** would consist of:

(a) All lands constituting the **project** area and enclosed within the boundary or limits of which are otherwise defined, and/or interest in such lands necessary or appropriate for the purposes of the **project**, whether such lands or interest therein are owned or held by applicant or by the United States; the location of such **project** area and **project** boundary being more specifically shown and described by certain exhibits which formed a part of the application for license and which are designated '*South Fork project*' and described as follows:

*Exhibit J.*-(**F. P. C. 2088**-1) 'General location map'

*Exhibit K-1 and Exhibit K-2:* (two sheets) (**F. P. C. 2088**-2 and **F. P. C. 2088**-3) '**Project** boundary map'

*Exhibit K-3 and Exhibit K-4:* (two sheets) **F. P. C. 2088**-4 and **F. P. C. 2088**-5) 'Grass Valley Reservoir-topographic map'

*Exhibit K-5:* (**F. P. C. 2088**-6) 'Slate Creek Reservoir-topographic map'

*Exhibit K-66:* (**F. P. C. 2088**-7) 'Sly Creek Reservoir-topographic map'-all of the above 'J' and 'K' exhibits having been signed on June 25, 1951: Oroville-Wyandotte Irrigation District, by E. I. Lane, president, board of directors.

(b) Principal structures consisting of:

(1) A rock-fill dam, about 150 feet high, across South Fork of Feather River, creating the Grass Valley Reservoir which at elev. 5016 will have a gross storage capacity of 50,500 acre-feet;

(2) A concrete arch dam 136 feet high, across Slate Creek, creating the Slate Creek reservoir which at elev. 3786 will have a capacity of 5,400 acre-feet;

**\*\*2** (3) A rock-fill dam 225 feet high, across Lost Creek, creating Sly Creek Reservoir which at elev. 3,500 will have a storage capacity of 48,000 acre-feet;

(4) An existing concrete arch dam, about 100 feet high, across Lost Creek creating Lost Creek Reservoir which at elev. 3282 has a storage capacity of 5,800 acre-feet;

(5) Two diversion conduits about 12,400 feet and 14,200 feet long extending from Slate Creek and the South Fork of Feather River, respectively, each terminating near the upper end of Sly Creek Reservoir and each diversion to be effected by a low concrete arch dam;

(6) A concrete arch diversion dam, about 60 feet high, across South Fork of Feather River, to allow maximum forebay regulation to elev. 1763 for the proposed Forbestown powerhouse, the diversion dam to be located about 1,700 feet downstream from the proposed Woodleaf powerhouse;

(7) Woodleaf powerhouse, on South Fork of Feather River, to be served by a pressure tunnel extending 18,400 feet from Lost Creek Reservoir to a portal and thence by a single penstock 3,410 feet long; the proposed powerhouse to contain one impulse turbine rated at 48,000 horsepower and direct-connected to a generator rated at 40,000 kilovolt amperes;

(8) Forbestown powerhouse, on South Fork of Feather River, to be served by a pressure tunnel extending 18,470 feet to a portal and thence by a single **\*1131** penstock 1,190 feet long, the proposed powerhouse to contain a single 27,000 horsepower turbine direct-connected to a generator rated at 22,500 kilovolt amperes;

(9) A substation and appurtenant facilities at each of the proposed power-houses. No transmission lines are contemplated for inclusion in the **project**-the location, nature, and character of which structures are more specifically shown on and described by the exhibits hereinbefore cited and by certain other exhibits which formed part of the application for license and which are designated 'South Fork **project**' and described as follows:

*Exhibit L-1*-(F. P. C. **2088**-8) 'Grass Valley Dam-General plan.'

*Exhibit L-2*-(F. P. C. **2088**-9) 'Grass Valley Dam-sections and spillway.'

*Exhibit L-3*-(F. P. C. **2088**-10) 'Grass Valley elevation and outlet works.'

*Exhibit L-4*-(F. P. C. **2088**-11) 'Slate Creek Dams-plans and sections.'

*Exhibit L-5*-(F. P. C. **2088**-12) 'Sly Creek Dam-general plan.'

*Exhibit L-6*-(F. P. C. **2088**-13) 'Sly Creek Dam-spillway sections.'

*Exhibit L-7*-(F. P. C. **2088**-14) 'Sly Creek Dam-sections, elevation and outlet.'

*Exhibit L-8*-(F. P. C. **2088**-15) 'Lost Creek Reservoir-topography and dam design.'

*Exhibit L-9*-(F. P. C. **2088**-16) 'Diversion tunnel profiles and South Fork diversion dams.'

*Exhibit L-10*-(F. P. C. **2088**-17) 'Pressure conduits-profiles and sections.'

*Exhibit L-11*-(F. P. C. **2088**-18) 'Woodleaf power plant-floor plans.'

*Exhibit L-12*-(F. P. C. 2088-19) ‘Woodleaf power plant-section and elevations.’

*Exhibit L-13*-(F. P. C. 2088-20) ‘Forbestown power plant-floor plans.’

**\*\*3** *Exhibit L-14*-(F. P. C. 2088-21) ‘Forbestown power plant-section and elevations.’

and

*Exhibit M*-(two sheets) ‘General description of equipment’-all of the above ‘L’ and ‘M’ exhibits having been signed on June 25, 1951: Oroville-Wyandotte Irrigation District by E. I. Lane, President, Board of Directors.

(c) All other structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the **project** and to be located on the **project** area, including such portable property as may be used or useful in connection with the **project** or any part thereof, whether located on or off the **project** area, if and to the extent that the inclusion of such property as a part of the **project** is approved or acquiesced in by the Commission; also riparian or other rights, the use or possession of which is necessary or appropriate in the maintenance and operation of the **project**.

(d) The installed capacity of the proposed **project** would be as follows:

Plant	Installed capacity	
	Proposed present	Future addition
	Horsepower	
Woodleaf	48,000	(a)
Forbestown	27,000	(a)
	75,000	a

**\*1132** The Chief of Engineers, Department of the Army, the Secretary of the Interior, and the Assistant Secretary of Agriculture, who has supervision over the Plumas National Forest, have reported on the application. The Division of Fish and Game, Department of Natural Resources, State of California, has also reported on the application.

An agreement was made and executed on March 27, 1952 by the between California State Department of Fish and Game and the applicant under the terms of which it was proposed that certain conditions and schedule of fish water releases be included in any license issued to the applicant, as hereinafter provided for.

Protests against the application and resolutions in support of the application have been received from organizations and companies resident in the area of the proposed **project**.

The Commission, having considered the entire record in this proceeding, including the protests and favorable resolutions referred to above, *finds*:

(1) The Feather River from its mouth at least as far upstream as Marysville, Calif., at mile 27 is a navigable water of the United States.

(2) The interests of interstate or foreign commerce would be affected by the construction and operation of the South Fork **project**.

(3) The applicant is a public district organized under the laws of the State of California and has submitted satisfactory evidence of compliance with the requirements of all applicable State laws insofar as necessary to effect the purposes of a license for the **project**.

(4) No conflicting application is before the Commission. Public notice has been given as required by the act.

**\*\*4** (5) The applicant has submitted satisfactory evidence of its financial ability to construct and operate the proposed **project**.

(6) The proposed **project** does not affect any Government dam, nor will the issuance of a license therefor as hereinafter provided affect the development of any water resources for public purposes which presently should be undertaken by the United States.

(7) The installed horsepower capacity of the **project** hereinafter authorized is 75,000 horsepower, and the energy generated thereby will be marketed through a public utility serving northern California.

(8) Under present circumstances and conditions and upon the terms and conditions hereinafter imposed, the proposed **project** is best adapted to a comprehensive plan for the improvement and utilization of water-power development, and for other beneficial public purposes, including recreational purposes.

(9) In accordance with section 10(d) of the act, the rate of return upon the net investment in the **project**, and the proportion of surplus earnings to be paid into and held in amortization reserves are reasonable as hereinafter specified.

(10) The issuance of a license for the **project** as hereinafter provided will not interfere or be inconsistent with the purposes for which the Plumas National Forest was created or acquired.

(11) The amount of annual charges to be paid under the license for the purpose of reimbursing the United States for the costs of administration of part I of the act, and for recompensing it for the use, occupancy, and enjoyment of its lands is reasonable as hereinafter fixed and specified.

(12) The exhibits designated and described in paragraphs (a) and (b) above conform to the Commission's rules and regulations and should be approved as part of the license for the **project**.

The Commission **orders**:

**\*1133** (A) This license is issued to Oroville-Wyandotte Irrigation District, of Oroville, Calif., for a period of 50 years, effective as of the first day of the month in which the accepted license is filed with the Commission, for the construction, operation, and maintenance of **project** No. **2088**, subject to the terms and conditions of the act which are incorporated by reference as a part of this license, and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the act.

(B) This license shall also be subject to the terms and conditions set forth in form L-6, entitled 'Terms and conditions of license for unconstructed major **project** affecting navigable waters and lands of the United States,' which terms and conditions, described as articles 1 through 27, are attached hereto and made a part hereof, except for articles 9, 12, 15, 16, 17, and 23 thereof, and subject to the following special conditions set forth herein as additional articles:

*Article 28.* The licensee shall commence construction of the **project** within 2 years from the effective date of this license and shall complete the **project** within 5 years from such effective date.

**\*\*5 Article 29.** The licensee shall release from the lower levels of the several dams sufficient water to maintain the following minimum flows to provide satisfactory streamflow conditions for the fish and wildlife and aesthetic purposes:

(i) Below the Grass Valley Reservoir, South Fork diversion (to Sly Creek), and Forbestown powerhouse diversion dams on the South Fork Feather River: ten (10) cubic feet per second during the period May through October and five (5) cubic feet per second during the period from November through April provided that in dry years the minimum flow shall be five (5) cubic feet per second, year long; (a dry year shall be defined as 50 percent or less of the average annual discharge of the South Fork Feather River including all upstream diversions, as measured at the Enterprise Gage for the period 1028-1949 inclusive; or 117,000 acre-feet. The existence of a dry year shall be determined in advance on the basis of snow survey forecasts by the State Division of Water Resources for the Feather River basin and other information.)

(ii) Below the Slate Creek Reservoir and the Slate Creek diversion (to Sly Creek) dams: ten (10) cubic feet per second or the natural flow, whichever is less; and the licensee agrees that in the event of power development on the South Fork Feather River between Grass Valley Reservoir and the South Fork diversion (to Sly Creek), the above schedule of water releases shall be subject to renegotiation.

*Article 30.* The licensee shall regulate the releases from the Grass Valley Reservoir and the Slate Creek Reservoir so that such releases will be at as uniform a rate as practicable. During the fishing season, as prescribed from time to time by the California State Department of Fish and Game, the releases shall not be increased or decreased by more than twenty (20) cubic feet per second during any successive hour. During flood periods releases from the reservoirs shall be limited to an amount not greater than the inflows.

*Article 31.* The licensee shall maintain a minimum pool of 500 acre-feet at the Grass Valley and Sly Creek Reservoirs.

*Article 32.* To secure the maximum recreational benefits, the licensee shall make every effort to maintain the water surface of the several reservoirs at the maximum elevation and with a minimum fluctuation from June 15 to September 15 of each year as is consistent with the primary purpose of the reservoir.

*Article 33.* The licensee shall install deer escape ramps in the **project** canals: one in the Slate Creek diverting tunnel just above the upper portal of the tunnel, and several in the irrigation canal at intervals to be determined by the California Department of Fish and Game.

**\*1134 Article 34.** The licensee shall construct, maintain, and operate such protective devices and comply with such reasonable modification of the **project** structures and operation in the interest of fish and wildlife, and recreation resources as may be hereafter prescribed by the Federal Power Commission upon the recommendations of the California State Department of Fish and Game, the U. S. Forest Service, and the U. S. Fish and Wildlife Service.

**\*\*6 Article 35.** The licensee shall grant to the United States the right, in connection with the development of a water storage **project** utilizing the Bidwell Bar dam site, at any time to enter upon, occupy, use, and flood, in whole or in part, the lands of the licensee and improvements thereof covered by this license subject to such payment and reconstruction, exchange, or substitution of property and interests therein (any or all) as may be agreed upon by the United States and the licensee, or, in the event the parties cannot reach agreement, to payment of just compensation in condemnation proceedings.

*Article 36.* The licensee shall construct, operate, and maintain at the Palermo diversion dam fish-passage facilities in accordance with requirements of the Commission as agreed to by the licensee.

*Article 37.* For the protection and utilization of the national forest lands and resources, the licensee shall relocate the existing County and Forest Service roads through the Grass Valley Reservoir site and the Sly Creek Reservoir site on the general locations indicated below, subject to final approval by the County and the Forest Service:

(i) The county road (No. 2112) relocation shall be across the crest of the Grass Valley dam and around the south side of the reservoir, extending from a point in Lot 4, sec. 4, T. 21 N., R. 9 E., to a point in the NE 1/4 NE 1/4, sec. 31, T. 22 N., R 9 E., Mount Diablo meridian;

(ii) The Feather Fork mine road (No. 2221) shall be relocated up the east side of the reservoir, extending from a point in the NE 1/4, sec. 4, T. 21 N., R. 9 E., to a point in the SE 1/4, sec. 21, T. 22 N., R. 9 E., Mount Diablo meridian;

(iii) A connection shall be made from the County road (No. 2112) in the SE 1/4, sec. 30, T. 22 N., R. 9 E., to the existing Black Creek road (No. 2220) in the NW 1/4, sec. 29, T. 22 N., R. 9 E., Mount Diablo meridian.

(iv) The Mooreville Ridge road (Lewis Ridge) (No. 2116) relocation shall be across the crest of Sly Creek dam, extending from a point in lot 8, sec. 19, T. 20 N., R. 8 E., to a point on the existing logging road in SE 1/4, sec. 18, T. 20 N., R. 8 E., Mount Diablo meridian;

and the licensee shall observe the following specified standards of design for such roads and structures:

(i) The relocated roads shall be suitable for heavy trucks, trailers, tractors, fire equipment and other motor vehicles. The road shall be single lane, 16-foot usable roadbed, minimum radius of 70 feet, maximum grade 10 percent. The dam crossing shall provide a 14-foot usable roadbed with approaches not to exceed 6 percent grade for 200 feet and intervisible turnouts not less than 22 feet wide and 100 feet long at each end. The design of all structures shall be in accordance with the Specifications of the American Association of State Highway Officials for H20-S16 Loading. Departures from the above specifications may be made upon mutual agreement between the licensee and the Forest Service.

**\*\*7** (ii) The licensee shall provide and maintain a public roadway across the Grass Valley and Sly Creek dams in accordance with the foregoing conditions.

*Article 38.* Within 5 years after issuance of license the licensee shall clear the existing Lost Creek Reservoir completely from maximum high water elevation 3,282 down to elevation 3,260, and all trees and snags protruding above elevation 3,260, within the reservoir area shall be cut so that no part thereof will protrude above said elevation.

**\*1135** *Article 39.* The licensee shall clear all lands in the bottom and margin of all other reservoirs up to a high-water level before they are filled, and shall clear and keep clear to an adequate width lands of the United States along open conduits.

*Article 40.* The licensee shall dispose of all temporary structures, unused timber, brush, refuse and inflammable material resulting from the clearing of all lands or from construction of the **project** works to the satisfaction of the Commission's authorized representative; and shall remove all trees, along the shores of all reservoirs, which die due to the operation of the reservoir.

*Article 41.* The actual legitimate original cost, estimated where not known, and the accrued depreciation of the existing parts of the Lost Creek reservoir, dam, and appurtenances, as of the effective date of the license, shall be determined by the Commission in accordance with the act and the rules and regulations of the Commission, and such cost less such accrued depreciation, so determined, shall be the net investment in the **project** as of such effective date.

*Article 42.* The actual legitimate original cost of the new parts of the **project** and of any addition to or betterment thereof, shall be determined by the Commission in accordance with the act and the Commission's rules and regulations thereunder.

*Article 43.* The licensee shall pay to the United States the following annual charges:

(i) For the purpose of reimbursing the United States for the costs of administration of part I of the act, 1 cent per horsepower on the installed capacity (75,000 horsepower) plus 2 1/2 cents per 1,000 kilowatt-hours of gross energy generated by the **project** during each calendar year for which the charge is made;

(ii) For the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands, \$5,464.00.

(D) The exhibits designated and described in paragraphs (a) and (b) above are approved as part of this license.

(E) This **order** shall become final thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided by section 313 (a) of the act, and failure to file such an application shall constitute acceptance of this license. In acknowledgment of the acceptance of this license, it shall be signed for the licensee and returned to the Commission within 60 days from the date of issuance of this **order**.

FEDERAL POWER COMMISSION

Footnotes

a None.

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