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STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
BEFORE THE STATE ENGINEER AND
CHIEF OF THE DIVISION OF WATER RESOURCES

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In the Matter of Applications 13676, 13956, 13957, 14112 and 14113 by Oroville-Wyandotte Irrigation District and Applications 12532, 12573, 14571, 14572, 14741, 14742, 14983, 14984, 14985, 14986, 14987 and 14988 by County of Yuba and Yuba County Water District to Appropriate Water from Certain Tributaries of Feather and Yuba Rivers for Domestic, Irrigation and Power Purposes.

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Decision A 13676, 13956, 13957, 14112, 14113, 12532, 12573, 14571, 14572, 14741, 14742, 14983, 14984, 14985, 14986, 14987, 14988 D 838

Decided OCT 27 1955

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Appearances at Hearing Sessions Held at Oroville on March 3, 4, 5 and 6, 1953

For the Applicants

Oroville-Wyandotte Irrigation District } P. J. Minasian, Attorney at Law

County of Yuba and Yuba County Water District } Martin McDonough and Arthur W. Coats, Attorneys at Law

For the Protestants

Oroville-Wyandotte Irrigation District } P. J. Minasian, Attorney at Law

County of Yuba and Yuba County Water District } Martin McDonough and Arthur W. Coats, Attorneys at Law

E. Muriel Jones Rich, Carlin and Fuidge, Attorneys at Law

Robert P. Wilson Charles Moore

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Department of Fish and Game	No appearance
Biggs-West Gridley Water District	} P. J. Minasian, Attorney at Law
Richvale Irrigation District	
Sutter Extension Water District	

For Other Interested Parties

County of Sierra	R. F. Taylor, Civil Engineer
County of Butte	Daniel Pellicciotti, Chairman Board of Supervisors

Examiner - Leslie C. Jopson, Supervising Hydraulic Engineer, Division of Water Resources, Department of Public Works, for A. D. Edmonston, State Engineer.

Assisting the Examiner - Harrison Smitherum, Supervising Hydraulic Engineer, William R. Gianelli, Senior Hydraulic Engineer and Gavin M. Craig, Senior Attorney, Division of Water Resources.

Appearances at Hearing Sessions Held at Oroville on February 8 and 9, 1955

For the Applicants

Oroville-Wyandotte Irrigation District	} P. J. Minasian, Attorney at Law
County of Yuba and Yuba County Water District	
	} Martin McDonough Attorney at Law
County of Yuba and Yuba County Water District	

For the Protestants

Oroville-Wyandotte Irrigation District	} P. J. Minasian Attorney at Law
County of Yuba and Yuba County Water District	
	} Martin McDonough Attorney at Law
County of Yuba and Yuba County Water District	

For Other Interested Parties

City of Oroville	Robert Blade, City Attorney
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United States Bureau of
Reclamation and United States } Leland K. Hill
Department of the Interior }

Examiner - Leslie C. Jopson, Principal Hydraulic Engineer,
Division of Water Resources, Department of Public Works,
for A. D. Edmonston, State Engineer.

Assisting the Examiner - Gavin Craig, Senior Attorney and
William Gianelli, Supervising Hydraulic Engineer, Division of
Water Resources.

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DECISION

Substance of the Applications*

Applications by Oroville-Wyandotte Irrigation District:

Application 13676 to appropriate 200 cubic feet per second, year-round, also 77,300 acre-feet per annum, collected between November 1 and July 1, from South Fork Feather River; and to appropriate 100 cubic feet per second, year-round, and 40,000 acre-feet per annum, collected between November 1 and July 1, from Lost Creek, a tributary of South Fork Feather River. Purpose: generation of power. Proposed points of diversion and rediversion:

On South Fork Feather River

Little Grass Valley storage dam, within SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 31, T22N R9E - the dam to create a reservoir of a reported capacity of 50,500 acre-feet.

* Township designations refer to MDB&M.

South Fork diversion dam, within NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 30, T21N R8E; direct diversion of 200 cubic feet per second.

Forbestown diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 32, T20N R7E.

On Lost Creek

Sly Creek storage dam, within NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 19, T20N R8E. Reported reservoir capacity 48,000 acre-feet.

Lost Creek storage dam, within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E. Reported reservoir capacity 5,800 acre-feet.

Proposed places of use: Woodleaf powerhouse in NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 33, T20N R7E and Forbestown powerhouse in SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 35, T20N R6E.

Application 13956 to appropriate 300 cubic feet per second, year-round, and 35,000 acre-feet per annum, collected between January 1 and July 1, from Slate Creek, a tributary of North Fork Yuba River. Purpose: domestic use and generation of power. Proposed points of diversion and rediversion:

On Slate Creek

Slate Creek storage dam, within SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, T20N R8E. Reported reservoir capacity 5,400 acre-feet.

Slate Creek diversion dam, within SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 2, T20N R8E.

On Lost Creek

Sly Creek storage dam, within NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 19, T20N R8E. Reported reservoir capacity 48,000 acre-feet.

Lost Creek storage dam, within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E. Reported reservoir capacity 5,800 acre-feet.

On South Fork Feather River

Forbestown diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 32, T20N R7E.

Proposed place of use: Woodleaf powerhouse in NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 33, T20N R7E and Forbestown powerhouse in SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 35, T20N R6E.

Application 13957 to appropriate 300 cubic feet per second from May 1 to November 1 and 35,000 acre-feet per annum, collected between January 1 and July 1, from Slate Creek, tributary to North Fork Yuba River. Purpose: domestic use and irrigation. Proposed points of diversion and rediversion:

On Slate Creek

Slate Creek storage dam, within SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1, T20N R8E. Reported reservoir capacity 5,400 acre-feet.

Slate Creek diversion dam, within SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 2, T20N R8E.

On Lost Creek:

Sly Creek storage dam, within NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 19, T20N R8E. Reported reservoir capacity 48,000 acre-feet.

Lost Creek storage dam, within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E. Reported reservoir capacity 5,800 acre-feet.

On South Feather River

Forbestown diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 32, T20N R7E.

South Fork diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34, T20N R6E.

Proposed place of use: 31,000 acres within applicant's service area.

Application 14112 to appropriate 150 cubic feet per second from South Fork Feather River and 250 cubic feet per second from Lost Creek, tributary thereto, year-round, for power purposes. Proposed points of diversion and rediversion:

On South Fork Feather River

South Fork diversion dam, within NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 30, T21N R8E.

Forbestown diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 32, T20N R7E.

On Lost Creek

Lost Creek storage dam, within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E.

Proposed places of use: Woodleaf and Forbestown powerhouses.

Application 14113 to appropriate 350 cubic feet per second, year-round, and 77,300 acre-feet per annum, collected between November 1 and July 1, from South Fork Feather River; and to appropriate 350 cubic feet per second, year-round and 40,000 acre-feet per annum, collected between November 1 and July 1, from Lost Creek, tributary to South Fork Feather River. Purpose: domestic use and irrigation. Proposed points of diversion and rediversion:

On South Fork Feather River

Little Grass Valley storage dam, within SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 31, T22N R9E. Reported reservoir capacity 50,500 acre-feet.

South Fork diversion dam, within NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 30, T21N R8E.

Forbestown diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 32, T20N R7E.

South Fork diversion dam, within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34, T20N R6E.

On Lost Creek

Sly Creek storage dam, within NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 19, T20N R8E. Reported reservoir capacity 48,000 acre-feet.

Lost Creek storage dam, within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E. Reported reservoir capacity 5,800 acre-feet.

Proposed place of use: 31,000 acres within applicant's service area.

Applications by County of Yuba and Yuba County Water District

Applications 12532 for domestic purposes and irrigation and 12573 for power, to appropriate 12,000 acre-feet per annum from New York Creek, tributary via Dry Creek to Yuba River, 28,000 acre-feet per annum from Lost Creek, tributary to South Fork Feather River and 40,000 acre-feet per annum from South Fork Feather River. Collection period: between October 1 and July 1. Irrigation season: April 15 to October 15. Proposed points of diversion:

On New York Creek

within NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 25, T19N R6E

On Lost Creek

within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E

On South Fork Feather River

within SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 31, T22N R9E

Proposed places of use: for irrigation and domestic purposes, portions of Townships 16, 17, 18, 19 and 20 North, Ranges 4, 5, 6 and 7 East, aggregating 90,000 acres net and 240,000 acres gross; for power generation, powerhouses as follows:

Lumpkin, within Section 20, T21N R8E

Challenge, within Section 18, T19N R7E

Honcut, within Section 18, T18N R6E.

Application 14571, to appropriate 40,000 acre-feet per annum from Slate Creek, tributary to North Yuba River, for domestic purposes and irrigation. Collection period: between October 1 and June 30. Irrigation season: April 15 to October 15.

Proposed point of diversion: within Section 1, T20N R8E.

Proposed place of use: same as described in Application 12532.

Application 14572, to appropriate 40,000 acre-feet per annum from Canyon Creek, tributary to North Yuba River, for domestic purposes and irrigation. Collection period, irrigation season and place of use: same as described in Application 12532.

Proposed point of diversion: within Section 10, T20N R9E.

Application 14741, to appropriate 86,000 acre-feet per annum from Slate Creek, tributary to North Yuba River, for power generation at Challenge and Honcut powerhouses. Proposed point of diversion: within Section 1, T20N R8E. Collection period: October 1 to June 30.

Application 14742, to appropriate 90,000 acre-feet per annum from Canyon Creek, tributary to North Yuba River, for power generation at Challenge and Honcut powerhouses. Proposed point of diversion: within Section 10, T20N R9E. Collection period: October 1 to June 30.

Application 14983, to appropriate 46,000 acre-feet per annum from Slate Creek, tributary to North Yuba River, for domestic purposes and irrigation. Proposed point of diversion: within Section 1 of T20N R8E. Collection period, irrigation season and place of use: same as described in Application 12532.

Application 14984, to appropriate 32,000 acre-feet from Lost Creek, tributary to South Fork Feather River and 20,000 acre-feet per annum from South Fork Feather River, at points respectively located within Section 24, T20N R7E and Section 31, T22N R9E, for domestic purposes and irrigation. Collection period, irrigation season and place of use: same as described in Application 12532.

Application 14985, to appropriate the same amounts at the same points on the same sources and during the same

collection periods as set forth in Application 14984, but for use for power generation at Lumpkin, Challenge and Honcut powerhouses.

Application 14986, to appropriate 13,000 acre-feet per annum from Fall River, tributary to Middle Fork Feather River, and 4,500 acre-feet per annum from South Branch of Middle Fork Feather River at points respectively located within Section 4, T21N R8E and Section 27, T22N R8E, for domestic purposes and irrigation. Collection period, irrigation season and place of use: same as described under Application 12532.

Application 14987, to appropriate 50,000 acre-feet per annum from Canyon Creek, tributary to North Yuba River, for domestic purposes and irrigation. Proposed point of diversion: within Section 10, T20N R9E. Collection period, irrigation season and place of use: same as described under Application 12532.

Application 14988, to appropriate the same amounts, at the same points, on the same sources and during the same collection period as set forth in Application 14986, but for use for power generation, at Lumpkin, Challenge and Honcut powerhouses.

Other information contained in the applications includes information as to proposed reservoirs and power plants. Under the Oroville-Wyandotte Irrigation District applications reservoirs are proposed as follows:

Little Grass Valley Reservoir, 1,076 acres in surface area, 50,500 acre-feet in capacity; the impounding dam to be of rock fill construction, 164 feet high, 745 feet long, located within Section 31, T22N R9E.

Sly Creek Reservoir, 516 acres in surface area, 48,000 acre-feet in capacity; the impounding dam a rock fill structure 213 feet high, 850 feet long, located within Section 19, T20N R8E.

Lost Creek Reservoir, 142 acres in surface area, 5,800 acre-feet in capacity; created by a concrete dam 109 feet high 480 feet long, located within Section 24, T20N R7E.

Slate Creek Reservoir, 125 acres in surface area, 5,400 acre-feet in capacity; the dam to be of concrete, 136 feet high, 600 feet long.

Under the same group of applications the following power plants are proposed:

Woodleaf powerhouse in Section 33, T20N R7E; total fall 1,512 feet, maximum amount to pass through penstock 365 cubic feet per second, maximum theoretical horsepower capable of being generated 62,800; the water to be returned to South Fork Feather River at a point within Section 34, T20N R6E.

Forbestown powerhouse in Section 35, T20N R6E; total fall 783 feet, maximum stream through penstock 365 cubic feet per second, maximum theoretical horsepower capable of being generated 32,500; the water to re-enter South Fork Feather River within Section 34, T20N R6E.

Under the County of Yuba and Yuba County Water District applications reservoirs are proposed as follows:

Little Grass Valley reservoir: 1,270 acres in surface area, 60,000 acre-feet in capacity; created by an earth impounding dam 158 feet high by 800 feet long, located within Section 31, T22N R9E.

Lost Creek reservoir: 1,570 acres in surface area, 200,000 acre-feet in capacity; created by an earth impounding dam 370 feet high, 1,560 feet long, located within Section 24, T20N R7E.

Slate Creek reservoir: 195 acres in surface area, 15,000 acre-feet in capacity; storage dam to be of concrete, 183 feet high, 670 feet long, located within Section 1, T20N R8E.

New York Flat reservoir: 775 acres in surface area, 50,000 acre-feet in capacity; created by an earth impounding dam 143 feet high, 1,700 feet long, located within Section 25, T19N R6E.

Canyon Creek reservoir: 240 acres in surface area, 16,000 acre-feet in capacity; the dam a concrete structure 209 feet high, 500 feet long, located within Section 10, T20N R9E.

The Yuba County interests, under the applications, propose to operate power plants as follows:

Lumpkin powerhouse in Section 20, T21N R8E; total fall 974 feet, maximum stream used 200 cubic feet per second, maximum theoretical horsepower 22,200, the water to be returned to natural drainage at a point on Honcut Creek within Section 18, T18N R6E.

Challenge powerhouse in Section 18, T19N R7E; total fall 859 feet, maximum stream used 500 cubic feet per second, maximum theoretical horsepower 48,800, point of return of water to natural drainage as for Lumpkin powerhouse.

Honcut powerhouse in Section 18, T18N R6E; total fall 1,304 feet, maximum stream used 460 cubic feet per second, maximum theoretical horsepower 68,000, water to be returned to South Honcut Creek immediately below powerhouse.

Protests

Applications 13676, 13956, 13957, 14112 and 14113, by Oroville-Wyandotte Irrigation District, are protested by

the County of Yuba, acting by and through the Board of Supervisors, the county's single protest against the 5 applications reading in part as follows:

"2. It is desired to protest ... because to the best of our information and belief the proposed appropriation will result in injury to us as follows: (1) There are conflicts in the reservoir sites contemplated in applicant's project and the reservoir sites contemplated by protestant's project ... ; (2) There is not sufficient unappropriated water in the two streams for applicant's project after satisfying the prior requirements of protestant's said project, including its rights to Applications Nos. 5629, 5630, 5631 and 5632 of the State Department of Finance; (3) Applicant's project does not best develop, conserve and utilize in the public interest the water sought to be appropriated in that it removes water from the area in which it originates, which area can have no other practical source of supply, without providing for the reasonable present and future needs of that area; (4) Applicant's project proposes the use of water for power in such a way as to make it unavailable for necessary irrigation use, contrary to sections 106 and 1254 of the Water Code ... declaring the use of water for irrigation to be higher use, and so as to represent a waste, or unreasonable use of water contrary to section 100 of said code.

"3. Protestant claims a right to the use of water from the source from which applicant proposes to divert, which right is based upon Application Nos. 12532, 12573, 13867 and 14571, and its rights, under section 10505 of the Water Code to the unappropriated water held under Application Nos. 5629, 5630, 5631 and 5632 made by the State Department of Finance."

* * *

"6. This protest may be disregarded and dismissed if adequate water is made available to protestant to meet the reasonable future needs of area within Yuba County which cannot logically receive sufficient water from any other source."

Yuba County Water District became a co-protestant against the Oroville-Wyandotte Irrigation District applications as a result of a resolution of the Board of Supervisors of Yuba County dated September 30, 1952, effecting a partial assignment of Applications 12532 etc. to Yuba County Water District.

Applications 12532, 12573, 14571, 14572, 14741, 14742 and 14983 to 14988 inclusive, by County of Yuba and Yuba County Water District, are protested as follows:

The State of California, Department of Fish and Game, protests that the appropriations proposed in the several applications will result in destruction of trout and salmon, the amounts of water to be diverted exceeding the known minimum flow of the streams. Each of that Department's protests contains the following statements:

"Trout and salmon are present and spawn naturally in the waters affected by the application.

"Section 525 of the Fish and Game Code provides in part that,

'The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam'

"This protest may be disregarded and dismissed under no conditions until detailed plans and operating schedules are made available by the applicant."

The Biggs-West Gridley Water District protests that the diversions proposed by the applicant will deprive it of water it

requires for irrigation of lands within its boundaries. It claims appropriative rights initiated prior to the effective date of the Water Commission Act, states that it diverts at the Sutter Butte Canal Company dam in Section 33 of T19N R3E, MDB&M, mentions no terms under which the protest may be disregarded. It states further, in part, as follows:

"Biggs-West Gridley Water District supplies water to about 29,000 acres During the past six years the average acreage supplied with water has been 6,840 acres of rice, and 4,200 acres of other irrigated crops. To supply these crops, its water rights are fully used and additional water is purchased.

"The water for this district is diverted from the Feather River through the Sutter Butte Canal system Each district has a percentage interest in the water rights of the Canal Company and during the summer season there is a shortage of water for all concerned.

"Protestant's interest is 28% of the Sutter Butte Canal Company rights which yield, when water is available in the Feather River, approximately 560 cfs. This flow is necessary to meet the district's requirements.

"In each year when the flow of the Feather River at the Sutter Butte Co. dam drops below 2,000 cfs the entire flow of the river is ... used to supply the needs of the users from the Sutter Butte Canal Co. system. This occurs in most years between June 1 and July 15 and in dry years as early as May 1. Thus there is no unappropriated water in the Feather River after the dates mentioned and any appropriation by applicants during that period would deprive protestant of water to which it is entitled."

The Richvale Irrigation District and The Sutter Extension Water District protests closely parallel the Biggs-West Gridley Water

District protest. They are both directed against all of the applications. Both claim to be supplied from the Feather River through the Sutter Butte Canal system. The Richvale Irrigation District states that during the past six years it has supplied, on average, 12,000 acres of rice, 300 acres of clover and 200 acres of other irrigated crops. It claims a 26.65% interest in the rights of the Sutter Butte Canal Company. The Sutter Extension Water District states that during the past six years it has served an average of 5,650 acres of rice and 4,200 acres of other irrigated crops; and it claims a 19% interest in the Sutter Butte Canal Company's gravity rights.

The Oroville-Wyandotte Irrigation District protests all of the applications. It alleges that there is not enough water in the South Fork of the Feather River and its tributaries and in Slate Creek to supply the applicant's needs in addition to its own. It asserts that it has long established rights on the South Fork of Feather River and its tributaries, such rights being exercised by means of the Forbestown and Palermo canals and by storage in the existing Lost Creek Reservoir, Lake Wyandotte Reservoir and in several other small reservoirs. As to filing before the Division of Water Resources, it asserts rights under following permits:

"1267 ... for the diversion of 200 cu. ft.
per sec. from South Fork of Feather River for

storage, amounting to 109,012 acre-feet between October 1 and July 1 of each year at Little Grass Valley storage site;

"1268 ... for storage of 5,000 acre-feet on Lost Creek and 40,000 acre-feet at the New York Flat site on Dry Creek, ... October 1 to July 1 of each year;

"1269 ... for storage of 5,000 acre-feet at the New York Flat site on Dry Creek between January 1 and December 31 of each year;

"2492 ... for storage of 25,000 acre-feet on Lost Creek ... October 1 to July 1

"1270 ... for 150 cu. ft. per sec. from Dry Creek between April 1 and October 15 of each year;

"1271 ... for 185 cu. ft. per sec. from Lost Creek between April 1 and October 1."

The protestant also claims:

"The district filed Application 4834 ... for various quantities from South Fork and Lost Creek for power purposes. The ... Division ... issued an order declaring the water granted and the work ... under the 5 permits to be a single enterprise."

The protest continues with statements to the effect that it (the protestant) has been developing its facilities and using water continuously; that it purchased the water rights and irrigation system of the Palermo Land and Water Company and the South Feather Land and Water Company in 1923 for \$400,000; that, sensing that still further expansion would be necessary it spent large sums for engineering so that the water resources of the South Fork might be fully exploited; that it spent \$210,654 in constructing Lost Creek Reservoir and \$71,839 in

improving Lake Wyandotte, as well as several hundreds of thousands of dollars in improving and extending its distribution system; that the development mentioned was still insufficient to meet increasing demand and further remedial measures were necessary; that applications were therefore filed to appropriate from South Fork Feather, Fall River, Slate Creek and Lost Creek, that \$81,000 was spent on engineering work on the so-called "South Fork Project" and that a license was sought and obtained from the Federal Power Commission in that connection. The protestant then argues that if water is diverted as proposed by the applicant it (the protestant) will be deprived of water to which it is entitled because of

- "(a) Its rights long established by appropriation, diversion and user.
- (b) Its rights under prior applications ...
- (c) Its rights under applications filed in 1950 to carry out its original development with modifications."

The protestant argues further that the applicant does not have and cannot acquire access to Little Grass Valley and Lost Creek reservoir sites, in view of the federal license in favor of the protestant and the ownership by the protestant of the Lost Creek site. The protestant argues that the applicant cannot legally serve that portion of its proposed place of use that overlaps the protestant's boundaries. The protestant asserts a priority under the Water Code to the assignment of filings by the State Department of Finance upon the waters of the Feather River.

Final paragraphs of the protest read in part as follows:

"Domestic service has developed from less than 100 domestic services in 1922 to over 1200 domestic services in 1952. Protestant has sold and delivered to the land for irrigation purposes more than 9,000 acre-feet of water each year. The total amount of water diverted to supply said uses has been between 24,000 and 27,000 acre-feet each year for the next preceding 10 years. A portion of the water served in 1952 and in many years prior thereto is from storage in Lost Creek Reservoir and Wyandotte Reservoir.

" ... it will require in excess of 100,000 acre-feet of water annually to irrigate lands in the protestant district and adjacent thereto that can readily be served by existing facilities of protestant and economic extensions thereto and enlargements thereof. That said lands ... are limited to lands from which there is an immediate demand for water that can only be served at economical cost by protestant.

"Protestant's present points of diversion are at Lost Creek reservoir dam within ... Section 24, Township 20 North, Range 7 East, MDB&M, and also at the Enterprise dam within ... Section 34, Township 20 North, Range 6 East, MDB&M"

E. Muriel Jones, Executrix of the Last Will and Testament of Frank L. Hunt, Deceased, protests Applications 12532 and 12573, claiming that the appropriations sought therein will leave insufficient water in Dry Creek to satisfy requirements of the property she represents, for domestic use and stockwatering. She claims continuous use since September, 1939, states that diversions serving that property head within Section 25, T19N R6E, MDB&M, states further that her protest may be

disregarded and dismissed if her rights are recognized by the applicant as prior rights.

Robert P. Wilson protests Applications 14986 and 14988, stating as a basis of protest:

"Any diversion from the South Branch or Fall River watersheds would make it unfeasible to develop the high-head Power Sites on those streams. Such diversions would also make it impractical to develop the well known Bald Rock Canyon Power Project. "

He claims a right to the use of water from the source filed upon by virtue of "Filings No. 13635 ... and No. 13705", states that his diversion points are located within Sections 8 and 20 of T21N R7E, MDB&M, and states that his protest may be disregarded and dismissed if "no water is diverted from these streams above NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 34, T21N R6E, MDB&M."

Answers

•roville-Wyandotte Irrigation District's answer to the protest by the County of Yuba against Applications 13676, 13956, 13957, 14112 and 14113 includes passages as follows:

"(1) That the proposed appropriations will not result in injury to protestant. That there is ample water in the Yuba River if adequate storage is provided to meet all needs of Yuba County and in addition the water applied for by District by its applications 13836 and 13837 as modified by applications 13956 and 13957. That with respect to protestant's applications on the Feather River and its tributaries the applications of District will not injure the protestant as prior rights of District and the economic unfeasibility

of bringing the water from the Feather River or its tributaries into Yuba County make it impossible for Yuba County to develop and use said waters.

"(2) In connection with protestant's claim that a conflict exists as to the reservoir sites contemplated by protestant's project as shown by protestant's applications numbered 12532 and 12573, District alleges that in fact protestant has no project. Said reservoir sites involve the use of the Lost Creek site, Sly Creek site, and Grass Valley site. Lost Creek site is owned in fee by District and District's existing Los Creek dam and reservoir are located thereon. The said other two sites are largely on U. S. government land and District has filed applications for licenses with the Federal Power Commission for the use of said sites. In contrast, protestant has had its said water filings in existence since June ... 1948, but has made no filings whatsoever with the Federal Power Commission ... and ... protestant has taken no steps whatsoever to develop or put to beneficial use the said water

"(3) District denies that protestant has any priority in time or by virtue of the respective uses of water proposed, or otherwise, and in this connection alleges that District has prior rights to water of the Feather River and its tributaries by reason of the purchase ... of the water rights of the South Feather Land and Water Company and of the Palermo Land and Water Company and its subsequent use of the same. In addition District has prior applications numbered 1641, 2142, 2145, 2978, 2979, and 2778 to the waters of the South Fork of the Feather River, and of Lost Creek, and Dry Creek, and for storage at Grass Valley reservoir, Dry Creek reservoir, Lost Creek reservoir, and Sly Creek reservoir, that permits 1267, 1268, 1269, 1270, 1271, and 2492 have been issued to District on their filings. Said filings and permits are for domestic and irrigation purposes. That in addition District claims priority under applications numbered 5629, 5630, and 5631 of the State Department of Finance by reason of the fact that the watershed of Lost Creek is for all practical purposes entirely within the County of

Butte, and the watershed of the South Fork of the Feather River is entirely in Butte County and Plumas County, and none of it is in Yuba County. That the place of use of said water under District's application will be entirely in the County of Butte ... and District claims a right to said water under Section 10505 of the Water Code

"(4) District denies that its project does not best develop, conserve and utilize in the public interest the water sought to be appropriated. In this connection District alleges that protestant has no practical or feasible plan to put to beneficial use any water originating in Lost Creek or in the Feather River and that protestant has no practical or feasible plan to put to beneficial use any quantity of water that originates or flows in Yuba County that would interfere with the filing of applicant on Slate Creek, and in truth and fact it is and will be economically unfeasible and impractical for protestant to put to beneficial use any water from the Feather River watershed and its tributaries, and any quantity of water from the Yuba River and its tributaries that would in any way conflict with applicant's filings upon Slate Creek. That in contrast District has a feasible and economically sound plan to place to the greatest possible beneficial use the waters filed upon; that to grant protestant's request would be to defeat the District's plan of development and result in a continued waste of waters of the streams contrary to the interest of the people and the public welfare and in conflict with the policy and requirements of the constitution and laws of the State

"(5) That District's project does not remove water from the area in which it originates with the exception of certain water originated in Plumas and Sierra County which in no way conflicts with the water requirements of Plumas County or Sierra County but to the contrary the applications of protestant for waters from the Feather River and its tributaries would remove water from Butte County, the area in which the water originates, and would deprive that area

of water that it needs and for which no other practical source of supply exists.

"(6) District denies that District's project proposes to use the water for power in such a way as to make it unavailable for necessary irrigation use contrary to Sections 106 and 1254 of the Water Code ... and denies that its project would waste ... or make any unreasonable use of said water ... and in this connection alleges that the District is at the present time each year faced with a shortage of water to supply the existing users within its boundaries. That there are approximately 24,000 acres of land within the boundaries of said District and of said acreage only 4,500 acres has been served with water. That ... the remaining 19,500 acres of land has paid assessments each year and these assessments total as of this date \$43.00 per acre. That the purpose of developing the proposed project of District is to provide water for that acreage. That in addition District has an obligation to supply approximately 2,500 acres of land outside of the boundaries of the District; that said obligation arises out of an Order of the Railroad Commission ... imposing such obligation at the time the District acquired ... the irrigation system and water rights of the South Feather Land and Water Company ... and of the Palermo Land and Water Company ... ; that in addition to that there is an estimated 20,000 acres of very desirable irrigable land that lacks only the water ... ; that said 20,000 acres is adjacent to ... the District and can be served by said district if water is available; that said additional land is also located in Butte County and that all of the water proposed to be developed by this project will by a progressive development be used in irrigation of said land; that the proposed project is primarily an irrigation project and the water will be used for irrigation and domestic purposes; that power development is only an incidental phase of said project that makes financing ... possible.

"(7) That the only present or past use of water by protestant from the Feather River or its tributaries has been supplied by the irrigation system of District and the District proposes

and will continue to supply all of said users to the extent that it has supplied them in the past."

The County of Yuba and Yuba County Water District have filed answers to each of the protests against the applications standing in their names (Applications 12532 etc.) The answers are similar but not identical. In each of the answers the applicants declare:

"1. The ... applications ... are for appropriation of unappropriated water, subject to vested rights Applicants will recognize and respect all prior water rights in the construction of their project. Analysis of the water supply ... indicates that there is surplus water available. Permits granted with respect to these applications would not interfere with prior vested rights.

"2. Applicants' project ... has been developed by engineering studies over a period of 5 years, following several decades of general study, for the purpose of providing water for irrigation to approximately 90,000 acres of irrigable land in eastern Yuba and Butte Counties. The sources selected ... are the only sources from which water in the required quantities can be obtained at reasonable cost for most of this area. Applicants' project will supply quantities of water to all protestants equal at all times to the vested rights of protestants and in addition thereto will supply additional quantities of water at a reasonable cost for future development The project provides for the maximum utilization for domestic, irrigation and power purposes of the water resources of the region in the logical service area for such water"

In answer to the protest by the State of California Department of Fish and Game the applicants also declare:

"3. Applicants will so operate the dam ... that water available for fish life in excess of

what is needed for domestic and irrigation purposes will not be wastefully withheld. In the development of the operating schedules ... applicants will cooperate with protestant to release necessary water when available."

In answer to the protest by Oroville-Wyandotte Irrigation District the applicants declare:

"3. Applicants are political subdivisions of the State of California in charge of high priority uses of water, in behalf of which the sovereign power of the state may be invoked. If the applicants receive permits ... there are sufficient legal procedures available to them to permit access to the reservoir sites and to the proposed places of use.

"4. The area of use ... and the present boundaries of the applicants include an appreciable portion of the area in which the water ... originates, and as much or more as any other party to this proceeding. Applicants therefore deny that any applications of the State Department of Finance for water from the same sources ... constitute any threat or objection to applicants' project, and declare that pursuant to 10504 and 10505 of the Water Code, such applications can and should be assigned to assist such project.

"5. The order of January 3, 1923, on which protestant relies, referred to on page 3, line 3, of the protest, has expired, pursuant to its terms and all valid extensions thereof, and is no longer of any force or effect."

In answer to the protest by Robert P. Wilson the applicants declare:

"3. Applicants' project is an integrated project which will devote water to the highest uses, as defined by Section 106 of the Water Code, and is therefore entitled to priority over proposed uses of water for power only."

Hearing Held in Accordance with the Water Code

The applications were completed in accordance with the Water Code and the Rules and Regulations of the Division of Water Resources and being protested were set for public hearing under the provisions of the California Administrative Code, Title 23, Waters, on Tuesday, March 3, 1953, at ten o'clock a.m. in Board of Supervisors Hearing Chamber, Court-house, Oroville, California. The hearing extended over March 3, 4, 5 and 6 and was then continued to a date to be later announced. It was reconvened on Tuesday, February 8, 1955, at the same Board of Supervisors Hearing Chamber; it extended through and was completed upon February 9, 1955. Of the hearing session commencing March 3, 1953, and the hearing session commencing February 8, 1955, the applicants and the protestants were duly notified.

Hearing Testimony

Witnesses at the hearing which extended from March 3 to March 6, 1953 testified in substance as follows:
L. B. Dunlap, Superintendent, Oroville-Wyandotte Irrigation District, testified (pages 29 to 56, Volume I of transcript) to the effect that 24,304 acres lie within the boundaries of Oroville-Wyandotte Irrigation District, that 2,500 of those acres now receive water, that the District serves approximately 2,000 acres outside of the District boundaries, that the District

has now a reservoir capacity of approximately 6,700 acre-feet, that the District supplies water on a 21-day rotation schedule, that the District conduits run at about 90% capacity, that demand for water exceeds supply, that the 22,000 acres within the District not supplied with water have borne a charge of \$43.50 per acre toward the cost of the District's works, that a total irrigable acreage of 49,729 acres of lands not now served would require a gross diversion of 191,260 acre-feet, that there is no way to irrigate that land except the way proposed under the applications, that the District operates about 220 miles of conduits excluding pipes smaller than 4 inches in diameter, that service for domestic purposes in winter entails heavy losses, that there is no contractual relationship between the District and the owners of the 30,000 irrigable acres that adjoin the District.

Charles Cliffman, Manager, Biggs-West Gridley Water District, testified (pages 56 to 65, Volume I of transcript) to the effect that rights conveyed by Sutter-Butte Canal Company are: 26.65% to Richvale Irrigation District, 28% to Biggs-West Gridley Water District (plus 2% in a "higher bracket") and 19% to the Sutter Extension Water District, that the Sutter-Butte Canal Company rights (before the conveyance mentioned) consist of a right to the first 1,200 second-feet of the natural flow of Feather River and various percentages above that amount, that when

supply from the river becomes less than demand, his (Cliffman's) District buys water from Pacific Gas and Electric Company and continues to buy as long as river supply is insufficient - usually until September 10, that all three districts operate pumping plants for recovery of waste water, that purchasing from Pacific Gas and Electric Company began in 1942 and is based upon an arrangement with that Company, entered into each year, that the Sutter Extension Water District also has a right to divert at Sunset Pumping Plant under a filing with the Department of Public Works, that his (Cliffman's) District can buy up to 600 second-feet from Pacific Gas and Electric Company.

Horace Marlow, Secretary, Oroville-Wyandotte Irrigation District, testified (pages 66 to 96, Volume I of transcript) that the Oroville-Wyandotte Irrigation District served less than 100 domestic outlets in 1922, presently serves about 1,200, that numerous demands have been made upon the District to expand its facilities, that water supply has been insufficient to permit expansion, that the present charge for water per miner's inch-day is \$0.45, that irrigation extends from April 15 to October 15, that in addition to the water charge there is an assessment used toward paying off bonded indebtedness and power project warrants.

Frank E. Bonner, Civil Engineer, testified (pages 98 to 119, Volume I and pages 2 to 64, Volume II of transcript) to the

effect that during most irrigating months South Fork Feather River is completely diverted except for leakage, at Enterprise Dam, by Oroville-Wyandotte Irrigation District, that storage to be provided by the South Fork Project totals about 107,000 acre-feet, that the footage of power drops totals about 2,325, that the project will produce, on average, about 265,000,000 kilowatt hours of usable power, that he estimates that storage facilities will cost altogether a little over 12 million dollars, power intake works, tunnels, penstocks and power plants 14½ million, irrigation facilities 3½ million, access facilities 1/2 million or a total of some 30½ million dollars, that Pacific Gas and Electric Company has been contacted with a view to the marketing of power output, that that Company is disposed to buy power from the District, that negotiations relative to the price that the Company will pay are in abeyance pending State action on the District's pending water right applications, that the Company has substantially agreed to deal on somewhat the same basis as in the matter of the Stanislaus Project, i.e. the cost of power generation by steam, that income from power should enable the District to finance the construction of the South Fork Project, that if the water sought under Applications 12532 and 12573 were not available the Oroville-Wyandotte South Fork Project would be completely hopeless, that appropriation from Slate Creek is also essential to the South Fork Project.

Edward I. Lane, Member, Board of Directors, Oroville-Wyandotte Irrigation District, testified (pages 69 to 79, Volume II of transcript) as to the circumstances surrounding the preparation of the reports by Engineers Harper and Bonner and testified to the effect that the District's investigations of means of obtaining more water were first financed by the District's general fund and later from a certain bond issue of \$100,000 of which so far \$87,000 has been spent, that he personally owns about 2,000 acres, mainly in Sections 13, 14, 23 and 24 of T18N R4E, that said land is suitable for growing irrigated crops, that \$9 per acre-foot is a prohibitive cost for irrigated pasture, that District lands have been assessed \$43.50 per acre toward the retirement of District bonds and will be assessed an additional \$20 per acre for the same purpose, that 90% of the lands so assessed and so assessable have never received water, that "if we don't get water now within the next year or two the District faces a terrible situation."

S. J. Norris, Civil Engineer, testified (pages 79 to 86, Volume II of transcript) to the effect that he was engineer for the Oroville-Wyandotte Irrigation District when that District was formed, that in 1920 he prepared a report on the proposed development of waters of the South Fork of the Feather River, that said report and a companion report by I. C. Hess were made at District expense, that the plan proposed in the reports involves the Little Grass Valley and Lost Creek storage sites,

that the lands then proposed to be served are substantially the same as those proposed to be served under the Bonner plan, that as far as irrigation is concerned the old plan and the new are substantially the same and that another similar report was prepared for the District in 1926 by Hammon Engineering Company.

Strafford Wentworth, Member, Board of Directors, Oroville-Wyandotte Irrigation District, testified (pages 87 to 89 of Volume II of transcript) to the effect that he has been a Director for the last 8 years, that at no time has the Board authorized the abandoning of any of its filings on waters of South Fork Feather River or tributaries, that as a landowner of the District he has raised irrigated pasture, that said pasture did very well agriculturally, that forms for progress reports from the Division of Water Resources have been received by the District, filled out and returned.

Harry Harper testified (pages 90 to 94 of Volume II of transcript) to the effect that he was employed by Oroville-Wyandotte Irrigation District to contact landowners along Wyman's Ravine to ascertain which ones would wish to receive water from the District, that a storage of 10,000 acre-feet at Palermo Dam was under consideration and it was believed that 8,000 acre-feet would be available for outside water users, that landowners representing 1,170 acres signed applications for said water,

that the water from Palermo Reservoir was to cost the land-owners \$2.50 per acre-foot, and that the dam was never built. Fred R. Platt, Agricultural Commissioner, Butte County, testified (pages 95 to 107 of transcript, Volume II) to the effect that he has studied the area shown above contour 125 and below contour 850 on Exhibits 3 and 4, that the gross acreage of that area is approximately 69,500 acres, that the soils of that area are suitable for irrigated crops, that topographically about 87% of the area is irrigable and suitable for the growing of citrus trees, olives, almonds, filberts, peaches, pears and apples.

Harry E. Drobish testified (pages 107 to 111 of transcript, Volume II) to the effect that he studied agriculture in college, served 8 years as Butte County Agricultural Agent, now farms a 1,200-acre tract in the Bangor area, that of the land shown on Exhibits 3 and 4 between the 125 foot and 850 foot contours from 80% to 90% is irrigable, that climate in that foothill region is favorable to growing crops, that the climate is colder in the Lost Creek and New York service areas, and that in those areas long season crops cannot be grown profitably, that olives do particularly well in the Oroville section, that citrus fruits and avacados do well, also.

Ernest A. Bailey, Consulting Engineer, testified (pages 111 to 132 of Volume II and pages 1 to 13 and 32 to 100 of Volume III of transcript) to the effect that he has been employed by

the County of Yuba since about January, 1950 in studies as to water supply for the foothill area between the Feather and Yuba Rivers, that he obtained basic information by having a draftsman trace a certain map in a State office at Bryte, that the information on the tracing was supplemented by reconnaissance in the field, that the resultant map is in evidence as Exhibit C, that the map "is as accurate as you can make it after tracing it several times ... and on county maps," that the land classification shown on the map "is the best relative measure anyone can obtain at the present time for the demand of water in the entire foothill area of this county", that the approximate acreage of irrigable land according to the map totals 25,145 acres in Butte County and 34,695 acres in Yuba County, that 70,562 acre-feet should be allowed for the Butte County and 95,487 acre-feet for the Yuba County lands, that the study has revealed no way of meeting the estimated requirements other than the way envisioned in the applications, that the Fall River development and the South Branch of Middle Fork development are important elements of the project, especially beneficial to Oroville-Wyandotte Irrigation District. On cross examination Witness Bailey testified that he heard and agreed with Witness Schwartz' testimony. Cross examination covered numerous elements of the County of Yuba - Yuba County Water District Project.

Robert D. Martin testified (pages 101 to 113 of Volume III of transcript) to the effect that he has been a director of the Yuba County Water District since that District was incorporated, that he owns 227 acres within Section 6, T18N R7E, that he irrigates 2 acres at present, that prior to 1922 his land was all irrigated, that in about 1946 a committee of landowners conducted a survey to ascertain how many landowners of the locality desired to obtain water, that the survey revealed that water was wanted for some 20,000 acres in Yuba County as per list introduced in evidence as Exhibit D, that the people contacted were told that water might be delivered at from \$1.25 to \$7.00 per acre-foot, that certain lands requested to be excluded from Yuba County Water District.

Ted Schwartz testified (pages 14 to 31 and pages 114 to 154 of Volume III and pages 11 to 17 of Volume IV of transcript) to the effect that he is associated with the engineering firm of T. H. McGuire and Son which was employed by Yuba County Water District to make certain studies and prepare a report in collaboration with Engineer Bailey of that District, the general purposes of the studies and report being a determination as to the economic feasibility of the so-called "Honcut Plan". He testified that he collaborated in the preparation of the report and he outlined and explained the report's contents. Under cross-examination he explained how the figures used in estimating costs were arrived at.

James P. Brown testified (pages 2 to 11 of Volume IV of transcript) to the effect that he is a farmer in the Wheatland, Southern Yuba County, area, that for 8 years he was a member of the Yuba County Board of Supervisors, a member of the Yuba County Farm Bureau since 1920, a director of the Marysville-Yuba County Chamber of Commerce for 12 years. He testified further that a written statement (Exhibit E) showing need for additional water in Yuba County was compiled by him and under his direction. He testified finally that the people of Yuba County are rather opposed to land bond issues but are not opposed to revenue bonds, and that they recognize the need of water.

William G. Dunn testified (pages 18 to 47 of Volume IV of transcript) to the effect that he is administrator for the Water Resources Board for the County of Yuba, that he has prepared a table entitled "Irrigable Acreage, Yuba County" (introduced as Exhibit F), that the data therein are based upon a copy of a map made from field maps of the State Water Resources Board, that he has prepared a table entitled "Total Diversions from Feather River by Months" (introduced as Exhibit G), the data therein being taken from Sacramento-San Joaquin State Water Supervision reports, that a table entitled "Analysis of Flow in Feather River at Oroville" (introduced as Exhibit H) was compiled from his (Witness Dunn's) department from U. S.

Geological Survey Water Supply Papers, that he is familiar with the needs of Brown's Valley Irrigation District, that that District's service area is a major portion of "Brown's Service Area" as shown on Exhibit A, that it would be advantageous to Brown's Valley Irrigation District to participate in the construction of Honcut Reservoir, that they need additional water and state that they can afford to pay up to \$15 or \$20 per miner's inch-season for it.

John C. Meyer testified (pages 48 to 61 of Volume IV of transcript) to the effect that he is a Director of Yuba County Water District, that he owns 1,900 acres within Sections 10, 14, 15, 16 and 22 of T18N R6E, that that land lies within New York Service Area, that he irrigates 5 acres from a spring, that he has also farmed in the Browns Service Area and in the area adjacent to the Oroville-Wyandotte Irrigation District, that he considers the land that he owns is better for pasture development than the land in the other places mentioned, the soil being deep and free from rocks, that he would irrigate more land if water were available, that with sprinklers he believes he could irrigate much more land than is classified as irrigable, that soil conditions in Yuba County are in his opinion superior to those around Paradise, that Butte County residents in the New York service area have expressed interest in the Yuba District project, that there is a demand within that area for the amount of water allocated thereto under that

project, that it takes about 6 months to reach maximum production in irrigated pasture, that weather may make 2 weeks difference in the time an irrigated pasture may be used but doesn't much affect the rate of growth, that in his present location he would pay \$25 per miner's inch per year and operate profitably with livestock at present prices.

Salvador Calleo testified (pages 61 to 64 of Volume IV of transcript) to the effect that he owns 60 acres in New York Service Area, that he irrigates 18 acres from a well, including strawberries, alfalfa and pasture, that irrigation is profitable, that he would irrigate more land if water were available, that in his little valley there are 5,000 acres of "nice profitable land", that strawberries do well, that the elevation of his land is about 1,550 feet, that he thinks he can afford to pay \$35 per miner's inch for water, per season.

Fred R. Platt, Agricultural Commissioner, Butte County, recalled as a witness, testified (pages 65 to 86 of Volume IV of transcript) that he took certain photographs (entered as OWID Exhibit 25), that he has marked on a map (OWID Exhibit 24) the points where the pictures were taken, that the map shows Section 9 of T18N R4E as containing about 40 or 50 acres of irrigable land, that that section contains plantings of olives, some of them 40 to 60 years old, that there are at least 160 acres of olives in that section, that there is some irrigated pasture also, that

all of the section is irrigable except from 50 to 70 acres, that the map (Exhibit C) shows not over 130 acres in Section 13 of T18N R4E as being irrigable whereas his (Witness Platt's) examination shows that section to be practically all irrigable, that he has been unable to find any really direct correlation between Exhibit C and the map of the 1926 report by Storie et al., that 16,000 acres of the service area proposed to be served under the Oroville-Wyandotte plan is not covered in the service area proposed under the Yuba County plan, that the gross acreage in the service area proposed under the Oroville-Wyandotte plan is about 69,500 acres, that of that acreage he (Witness Platt) considers 87% or about 60,475 acres to be "good", some 5% or 3,475 acres to be "satisfactory" and some 8% or 5,550 acres to be "poor", that when the pictures were taken he had both the "Storie" map and the "Yuba" map with him, that he "was not able to get any definite way of telling where I was in soil classification" by the "Yuba" map but that he found "that the Storie map of 1926 was very, very, surprisingly accurate", that the points at which he took photographs are plotted with no greater error in any instance than 100 yards.

Frank E. Bonner, Civil Engineer, recalled as a witness, testified (pages 87 to 121 of transcript, Volume IV, that he has studied the project proposed by Yuba County Water District (Bailey Plan). With reference to elements of that project he questioned the

omission of storage on Canyon Creek, the adequacy of the projected diversion dam on Canyon Creek, the assumed range in daily flow of Canyon Creek. He expressed concern that debris from hydraulic mining by its gradual movement downstream requires provision of more ample dead storage behind dams, questioned the assumption as to elevation at intake of Slate Creek tunnel, questioned the choice as to type and location of the proposed dam on Lost Creek and the location of the spillway appurtenant to that dam, cited the hazards of washouts and freeze-ups inherent in long open canals and in siphons in the mountains, criticized the lack of forebay capacity, the practicability of the proposed combination of inclined tunnels with pressure penstocks. He testified that his estimate of water supply at the lower power plant is about 9% less than the County of Yuba estimate, his estimate of cost of Grass Valley dam and South Fork diversion in close agreement, his estimate of other items generally higher, his estimate of the entire project \$47,000,000. As to the power that might be produced and the revenue to be anticipated from its sale Witness Bonner testified that he is in agreement with the proposed installation of 62,000 kilowatts but believes that output may not exceed 250,000,000 kilowatt hours and believes that the estimated revenues of 2.7 mills per kilowatt hour and \$23.70 per year per kilowatt for installed capacity are about 10% high. He estimates that

\$2,220,000 per year would be required to amortize the project over a 40-year period, assuming an interest rate of 3.5 per cent, and that an additional \$500,000 per year would be required for operation.

L. B. Dunlap, Superintendent, Oroville-Wyandotte Irrigation District, recalled as a witness, testified (pages 122 to 135 of transcript, Volume IV) to the effect that he had studied the distribution facilities proposed in the Bailey plan, that that plan contemplates putting approximately 90.7 second-feet into the Oroville-Wyandotte distribution system at points where that District is able to produce approximately 60 second-feet now, that if conveyance losses in laterals are 1% per mile the District would be able to serve 1,800 domestic services and irrigate 7,400 acres at 2.5 acre-feet per acre, that such supply would suffice the District for some 15 years after which supply would have to be increased further, that such increase would involve enlargement of the proposed Bangor Canal, construction of a reservoir for regulation at Honcut, considered to be a \$6,000,000 installation, plus a powerhouse, that the Bailey plan would impose additional operating expenses upon the District, that water would still cost \$7 per acre-foot or more. He testified further that the District is irrigating 4,500 acres now and under the Bailey plan could increase that by 2,900 acres, that the District anticipates an expansion of 225 acres per year.

Witnesses at the hearing sessions of February 8 and 9, 1955, testified in substance as follows:

Lucian J. Meyers, Senior Hydraulic Engineer, Division of Water Resources, testified (pages 18 to 23 and 30 to 47 of transcript dated 2/8/55) to the effect that in December, 1944 he prepared a report entitled "Analysis of Plans for Development and Utilization of Water Resources of South Fork of Feather River", said report containing analyses of the Oroville-Wyandotte Irrigation District plan as first submitted, the Frank Bonner report, the Yuba County Water District plan as presented in the E. A. Bailey - T. H. McGuire and Son report and the S. J. Norris report, that the report which he (Meyers) prepared also sets forth an alternative plan, developed within the Division of Water Resources; that water requirements as estimated in the alternative plan may warrant some modification due to differences in standards of land classification.

John W. Shannon, Land and Water Use Specialist, Division of Water Resources, testified (pages 23 to 26 and 47 to 50 of transcript dated 2/8/55) as to adopted standards of land classification and recent experience of the Division in that regard.

Frank E. Bonner testified (pages 51 to 92 of transcript dated 2/8/55 and pages 1 to 24 of transcript dated 2/9/55) as to the extent that work accomplished to date furthers the development contemplated under Application 2979 and earlier applications

by Oroville-Wyandotte Irrigation District, and as to the extent that such work fits into that District's present plan of development; he testified further as to the origin, by counties, of the water currently sought, and he testified in support and explanation of his report entitled "Comment on Division of Water Resources Report, South Fork of Feather River Development."

Ralph Brereton, Manager, Oroville-Wyandotte Irrigation District, testified (pages 24 to 49 of transcript dated 2/9/55) as to expenditures by Oroville-Wyandotte Irrigation District for development under its early group of applications and as to matters relating to current operation of the District.

Earl R. Stuver testified (pages 58 to 66 of transcript dated 2/9/55 to the effect that he had conducted a survey of the present water supply and possible sources of future water supply of the City of Oroville, that said City is presently served by California Water Service, the supply coming from West Branch North Fork Feather River at tailrace of the Cold Canyon power plant, that he estimates the potential need of the Oroville area to be 30 cubic feet per second, that it would be more economical and desirable for the Oroville area to receive water from the South Fork Project.

Allen Replogle testified (pages 66 to 69 of transcript dated 2/9/55) to the effect that he is City Engineer, City of Oroville, that Mr. Stuver's investigation was made under his

(Replogle's) general direction, that he is in accord with Mr. Stuver's general conclusions, that Oroville requires an ample, firm and economic water supply, that any plan of development of water resources of the locality should take Oroville's needs into account, that an application by the City of Oroville to appropriate water is in course of preparation.

John W. Shannon, recalled, testified (pages 69 to 72 of transcript dated 2/9/55) further as to classification of certain lands, testified that maps showing classification of lands of the region are being drafted, will soon be released, are meanwhile available for inspection.

E. A. Bailey, recalled, testified (pages 75 to 89 of transcript dated 2/9/55) as to the origin, by counties, of the water sought under the "Yuba Project" applications, and testified in explanation and elaboration of comments upon the State Engineer report of December, 1954 (Exhibit P).

Ted Swartz, recalled, testified (pages 90 to 97 of transcript dated 2/9/55) in explanation of portions of the same comments upon the State Engineer report as testified to by Witness Bailey.

Hearing Exhibits

Exhibits were introduced during the hearing sessions of March 3, 4, 5 and 6, 1953 as follows:

By the Division of Water Resources

A. A set of United States Geological Survey quadrangles, attached together to form one large map, showing all lands involved

in the parties' projects, service area boundaries and main project features delineated thereon.

By Oroville-Wyandotte Irrigation District

1. Map entitled "Oroville-Wyandotte Irrigation District South Fork Project General Location Map", showing District boundary and existing and proposed reservoir and conduits.

2. Tabulation of annual diversions and water sales.

3. Map entitled "Oroville-Wyandotte Irrigation District Service Area for Future Expansion of South Fork Project." The map consists of United States Geological Survey quadrangles, attached together, with lands therein of three categories, i.e. "Oroville-Wyandotte Irr. Dist. 24,300 acres", "Area predominantly holding water rights & served by O.W.I.D. 5,000 acres" and "Area for future expansion 20,800 acres" shown thereon in separate colors.

4. Map entitled "Service Area for Future Expansion by South Fork Water and Power Development." The map consists of joined United States Geological Survey quadrangles, with "Oroville-Wyandotte Irr. Dist.", "Area predominantly holding water rights & served by O.W.I.D.", "Area for future expansion", "Cordova Irrigation District", "District 10", and "Service area for either Oroville Resvr. or O.W.I.D." shown in separate colors and hatching. The map also shows certain canals.

5. Tabulation of Oroville-Wyandotte Irrigation District Service Areas and water requirements.
6. A list entitled "Water Rights, Sutter-Butte Canal Company", with attached photostats.
7. Tabulation of diversions into Sutter-Butte Canal at Hazelbush Dam.
8. A listing of Oroville-Wyandotte Irrigation District capital expenditures.
9. A listing of capital expenditures on South Fork Project.
10. Copy of letter to Oroville-Wyandotte Irrigation District, dated December 20, 1950, signed by Clifford L. Mitchell et al.
11. List of requests for irrigation water refused by Oroville-Wyandotte Irrigation District.
12. Tabulation of Oroville-Wyandotte Irrigation District water sales, 1937 through 1952.
13. Copy of letter to Oroville-Wyandotte Irrigation District from Harold Conkling, Chief of Division of Water Rights, dated February 8, 1929.
14. Copy of Federal Power Commission preliminary permit to Oroville-Wyandotte Irrigation District, bearing date of May 18, 1927.
15. Copy of approval by Federal Power Commission of location of Little Grass Valley reservoir, dated June 22, 1926.

16. Memorandum of February 19, 1953, by F. E. Bonner re. future growth of demand on Oroville-Wyandotte Irrigation District system.

17. Copy of letter dated August 27, 1952, signed G. H. Gutride relating to Project No. 2088.

18. Copy of resolution of acceptance by Oroville-Wyandotte Irrigation District of provisions of Federal Power Commission license, project No. 2088.

19. Map entitled "South Fork Project, Project Boundary Map."

20. Documents relating to title to water rights, Oroville-Wyandotte Irrigation District.

21. Preliminary report to Oroville-Wyandotte Irrigation District, by Hammon Engineering Company, on utilization of water resources, South Feather River Watershed.

22. Map showing Palermo Reservoir and lands to be irrigated therefrom.

23. Report, undated - "Report on Use of Surplus Water under Proposed Development of Palermo Dam," by H. A. Harper.

24. Map "State Land Classification --- Feather-Yuba Foothill Area" with locations plotted thereon of points where pictures were taken by Witness Platt.

25. Folder containing 19 photographs taken by Witness Platt, with annotations.

26. Leaflet, University of California, "Revision of the Soil-Rating Chart" by R. Earl Storie.

27. "List of pictures in relation to Yuba land use map.

38. "Tentative cost estimate, E.A.B. Honcut Project."

By County of Yuba and Yuba County Water District

A. Copy of letter dated January 19, 1952, re. Project No. 2088, from acting Secretary of the Interior to Chairman, Federal Power Commission.

B. Copy of letter dated March 20, 1951 from Pacific Gas and Electric Company to Oroville-Wyandotte Irrigation District mentioning terms under which Company will deliver an emergency supply of water to District.

C. Map entitled "State Land Classification of Irrigable Areas, Feather River Foothill Areas."

D. Map, "State ... Division of Forestry Administrative Map Western Placer-Nevada-Yuba Counties 1943." Reverse side contains list of landowners, location and extent of their holdings etc. as per testimony of Witness Martin (page 105, Volume III of transcript).

E. Report by Witness Brown as referred to on page 9, Volume IV of transcript.

F. Tabulation, "Irrigable Acreage, Yuba County."

G. Tabulation, "Total Diversions from Feather River by Months."

H. Tabulation, "Analysis of Flow in Feather River at Oroville."

I. Tabulation, "Analysis of Flow in South Fork Feather River at Enterprise with respect to flow of Feather River at Oroville."

J. Tabulation, "Diversions made by Pumping from Feather River at Sunset Pumping Plant by Sutter-Butte Canal Co. & Sutter Extension Water District."

K. Stipulation.

L. Tabulation of Monthly Diversions, 1951, Oroville-Wyandotte Irrigation District.

M. Tabulation, "Oroville-Wyandotte Irrigation District, 1952, Domestic Water Use in Improvement Districts."

Additional exhibits were introduced during the hearing sessions of February 8 and 9, 1955 as follows:

By the Division of Water Resources

B. "Analysis of Plans for Development and Utilization of Water Resources of the South Fork of Feather River" - Division of Water Resources.

C. Chart - "Water Requirements, South Fork of Feather River."

D. "Preliminary Report on Proposed Development of Water Resources of the South Fork of Feather River ..." -

S. J. Norris.

E. "Revised Feather-Yuba Irrigation Project ..."

E. A. Bailey.

F. Table - "Areas of Hydrographic Units and Subunits."

By Oroville-Wyandotte Irrigation District

29. "Memorandum on Utilization of Brownsville Reservoir in Coordination with OWID Project" - F. E. Bonner.

30. "Supplementary Irrigation Supply including Spillway Gate Control at Grass Valley Reservoir" - F. E. Bonner.

31. "South Fork Project Distribution of Tributary Area.

32. "Comment on DWR Report of 12/15/54 South Fork of Feather River Development." - F. E. Bonner.

33. "Oroville-Wyandotte Irrigation District Capital Expenditures."

34. "Average Daily Discharge in second feet of Lost Creek ..."

35. Resolution of Oroville-Wyandotte Irrigation District, February 7, 1955.

36. Resolution of Palermo Grange No. 493.

37. Resolution of Wyandotte Grange No. 495.

38. Order amending license - Federal Power Commission, March 3, 1953.

39. Order extending time for commencement and completion of construction - Federal Power Commission, July 16, 1954.

40. Order further amending license - Federal Power Commission, September 23, 1954.

By County of Yuba and Yuba County Water District

N. Daily Construction Service, November 16, 1954.

O. Origin of Water by Counties - Yuba County Applications.

P. Comments by Yuba County Water District on analysis of plans for development and utilization of water resources of South Fork Feather River.

Q. Letter, Dunn to Minasian, April 8, 1953.

By City of Oroville

1. City of Oroville, Resolution No. 1483.

Briefs

The Oroville-Wyandotte Irrigation District filed an opening brief and a reply brief. The County of Yuba and the Yuba County Water District filed an opening brief only.

The Oroville-Wyandotte Irrigation District contends in its opening brief that both the evidence adduced at the hearing and the analysis made by the Division of Water Resources establish that the Oroville-Wyandotte plan of development is sound from both engineering and economic standpoints and that therefore, under the law, the Oroville-Wyandotte applications should be granted. It urges that the Yuba County and Water

District applications be denied, alleging in that connection that the plan underlying those applications is unsound, that the project cannot therefore be built, that those applications constitute a stumbling block to feasible development, that the Yuba interests lack right of access to the water they seek to appropriate and that there is no unappropriated water available to them. It contends that it has been diligent in efforts to perfect its earlier applications (Application 1651 etc.) and that that circumstance together with its ownership of the so-called Lost Creek site and the possession of a Federal Power Commission license covering the so-called Little Grass Valley site renders it impossible for Yuba County and the District to carry through the project that those interests advocate. With respect to county of origin rights it alleges that Butte County is a county of origin in a more substantial degree than is Yuba County. It argues that permits to appropriate should not be issued to proponents of projects that cannot succeed, whereas the Oroville-Wyandotte project is not only feasible, economically and otherwise, but is also the project that is best adapted to supplying water to the higher elevations in Yuba County. It alleges that in the light of Sections 1253, 1254 and 1255 of the Water Code the Oroville-Wyandotte applications should be approved, the Yuba County and District applications denied. It cites East Bay Municipal District v. Department of Public

Works, 1 Cal. (2d) 476 as a precedent for the rejection by the Division of the Yuba County and District applications.

The opening brief in behalf of County of Yuba and Yuba County Water District sets forth among other things that the applications of those interests should be approved because in their opinion they have complied with the requirements of Section 1375 of the Water Code, that unappropriated water exists in the sources upon which they have filed, that the rights initiated by the filing, in the 1920's, by Oroville-Wyandotte Irrigation District of Application 1651 and related applications are invalid because of failure by that applicant to exercise due diligence. The brief urges that the permit issued in approval of Application 1651 and other early applications related thereto be revoked, argues that in any event rights under those permits have been abandoned. The brief maintains that the applicant Yuba interests can obtain access to the sites of their proposed works notwithstanding the holding by Oroville-Wyandotte Irrigation District of a Federal Power Commission license and title to the Lost Creek Reservoir site. The brief contends that the Federal Power Commission license is effective only as long as licensee's water rights are retained, and contends further that the privilege of joint use of Lost Creek reservoir site is obtainable under Water Code Sections 1775 to 1801. The brief argues that it is in

the public interest that the Yuba County and District applications be approved, since the project under those applications would supply the water needs of much the larger area of the two projects, an area which includes the Oroville-Wyandotte area, most of which, it contends, can never obtain a practicable supply under the Oroville-Wyandotte Irrigation District plan. The brief further argues that permits should be denied the Oroville-Wyandotte Irrigation District because of the advantage in priority of the Yuba County and District applications and the non-existence of sufficient unappropriated water to supply both of the competing projects.

The reply brief on behalf of Oroville-Wyandotte Irrigation District argues that rights initiated by the applications filed by "Oroville-Wyandotte" in the 1920's are valid irrespective of whether or not the time within which to complete construction etc. thereunder has been extended by the Division of Water Resources, argues that the question as to whether due diligence has been exercised in connection with those early applications is a question of fact, argues further that due diligence has been exercised, that permits issued in response to those applications have never been revoked and that rights thereunder are therefore in full force and effect. As to questions raised in Yuba County and Water District opening brief as to access to certain proposed works the reply brief asserts

that expiration of the Federal Power Commission license in favor of Oroville-Wyandotte Irrigation District can be avoided by commencement of construction of one dam prior to August 1, 1956, that it is common practice for the Federal Power Commission to grant extensions of time within which to complete, on showing of good cause. The reply brief asserts in the same connection that Yuba County and Water District could not possibly obtain the privilege of joint use of the Lost Creek Reservoir, Sections 1775 to 1801 of the Water Code notwithstanding. The reply brief argues that the Division of Water Resources in acting upon applications to appropriate may and should consider questions as to economic feasibility, and cites in that connection Temescal Water Co. v. Department of Public Works, 280 Pac. (2d). It argues that from the standpoints of economic feasibility, preponderance of use for domestic purposes and irrigation, comprehensiveness and consistency with the State Water Plan the applications by Oroville-Wyandotte Irrigation District warrant preference over those by County of Yuba and Yuba County Water District.

Information from Division Files

Earlier filings were made by Oroville-Wyandotte Irrigation District during the period 1920-1922 and approved shortly thereafter for irrigation and/or domestic purposes in each instance and include the following:

Application 1651 Permit 1267 - 200 cubic feet per second from South Fork Feather River at a point within SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 1, T20N R7E, MDB&M, from April 1 to July 1; also 109,102 acre-feet per annum to be collected in storage in Little Grass Valley Reservoir on South Fork Feather River between October 1 and July 1, the dam to be located within Section 31, T22N R9E, MDB&M.

Application 2142 Permit 1268 - 5,000 acre-feet per annum to be collected in Lost Creek Reservoir between October 1 and July 1, the impounding dam to be located within Section 24, T20N R7E, MDB&M; also 40,000 acre-feet per annum to be taken from Lost Creek and stored in New York Flat Reservoir, the dam in that instance to be located within Sections 25 and 26, T19N R6E, MDB&M, collection to be effected between October 1 and July 1.

Application 2145 Permit 1269 - 5,000 acre-feet per annum to be collected from Dry Creek drainage in New York Flat Reservoir, point of diversion within NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 25, T19N R6E, MDB&M, collection period year-round.

Application 2778 Permit 2492 - 50 cubic feet per second from April 1 to June 1 and 25,000 acre-feet per annum, collected between October 1 and June 1 in Sly Creek Reservoir, the water

to be diverted in both instances from Lost Creek at a point within the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 19, T20N R8E, MDB&M, and to be rediverted from Lost Creek at a point within NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, T20N R7E, MDB&M.

Application 2978 Permit 1270 - 150 cubic feet per second from April 1 to October 15 from Dry Creek at a point within SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 26, T19N R6E, MDB&M.

Application 2979 Permit 1271 - 185 cubic feet per second from April 1 to October 15 from Lost Creek at a point within NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T20N R7E, MDB&M.

The projects under Applications 1651, 2142, 2145, 2978 and 2979 were declared, by Division order dated January 3, 1923, to be in effect a single enterprise, provided that construction of works and application of water to beneficial use be completed by dates ranging from 1928 to 1940. It does not appear from the record that any of the projects have been completed or are under extension of time within which to complete. The permits issued in approval of the 5 applications contain provisions which read:

"Actual construction work shall begin on or before ... and shall thereafter be prosecuted with reasonable diligence and if not so commenced and prosecuted this permit may be revoked."

Reference to the files discloses that none of the permits have been revoked and that progress reports by permittee have been submitted periodically.

During the period of May 23 to May 25, 1955, inclusive, a field inspection was made of the physical works of the District and use of water thereunder as proposed under Applications 1651, 2142, 2145, 2778, 2978, 2979 and permits issued in connection therewith by one of the field engineers of the Division. The inspection disclosed that a certain amount of construction and use of water had taken place under Application 2142, Permit 1268 and Application 2979, Permit 1271, but that under Applications 1651, 2145, 2778, and 2978 and permits issued pursuant thereto, no construction has taken place nor has use of water been made thereunder. It is therefore intended to set the latter group of applications for revocation hearings at the earliest practical date at which time the District will be required to show cause why the permits should not be revoked for failure to comply with the terms and conditions thereof. Insofar as Applications 2142 and 2979 are concerned where construction and use has taken place, licenses will be issued confirming those amounts of water actually applied to beneficial use under the terms and conditions of the respective permits.

Department of Finance Applications

In accordance with the provisions of Part 2, Division 6 of the Water Code, as amended, the State Department of Finance has made and filed certain applications to appropriate unappropriated waters of the Feather and Yuba Rivers in furtherance of a general or coordinated plan looking toward the development, utilization, or conservation of the water resources of the State. A tabulation of these applications follows:

APPLICATIONS FILED BY DEPARTMENT OF FINANCE WITH
 DIVISION OF WATER RESOURCES AS AUTHORIZED BY PART 2,
 DIVISION 6, OF THE WATER CODE, AS AMENDED

Appl. No.	Date Filed	Source	Amount of Application		Point of Diversion			Purpose	Place of Use
			Direct Diversion	Storage	in Feet	in Acres	MDB&M Sect.:Twp.:Range		
5629	7-30-27	Feather River	7,600	380,000	34 20N 4E 3 19N 4E		Power	Powerhouse located in Sec. 3, T19N R4E	
5630	7-30-27	Feather River	1,400	380,000	34 20N 4E 3 19N 4E		Irrigation, domestic use, saline control, flood control and navigation	2,500,000 acres in Sacramento and San Joaquin Valley Floors	
5631	7-30-27	Yuba River	1,800	490,000	22 16N 6E 27 16N 6E		Power	Powerhouse located in Sec. 27 T16N R6E	
5632	7-30-27	Yuba River	1,700	490,000	22 16N 6E 27 16N 6E		Irrigation, domestic use, saline control, flood control and navigation	2,500,000 acres in Sacramento and San Joaquin Valley floors	
14443	8-24-51	Feather River (Oroville Dam)	1,360	3,500,000	(Direct diversion along Feather R. between Oroville Dam & Bear R.; storage at Oroville Dam)			Irrigation, domestic, municipal, industrial, recreation, flood control, saline control, and navigation	Feather R. Service Area, Santa Clara and Alameda Counties, areas south of Tehachapi Mt., west side and south portion of San Joaquin Valley
		Italian Slough	185	42,100	24 1S 3E				
		Old River	6,000		(29 1S 4E 1 2S 4E				
		*** Point of diversion - SBB&M							
14444	8-24-51	Feather River (Oroville Dam)	11,000	3,500,000	1 19N 4E 35 20N 4E		Power	Powerhouses in Sec. 2, T19N, R4E; and Sec. 8, T19N R4E	
14445	8-25-51	Feather River	2,140		Along Feather R. between Oroville Dam & Bear River			Irrigation, domestic, municipal, industrial, recreation, flood control, saline control, and navigation	Within Lower Sacto. Valley, San Mateo, Alameda, Contra Costa, Monterey, San Benito, Santa Cruz, & Santa Clara Counties; San Joaquin Valley and areas south of Tehachapi Mt.
		Italian Slough	2,000	600,000	24 1S 3E				
		Old River	6,000		(29 1S 4E 1 2S 4E				

Of the foregoing applications included in the table, Applications 5629 through 5632, inclusive, are prior in time to the applications of the Oroville-Wyandotte Irrigation District and the Yuba County interests which were included in the hearing and upon which this decision is to be rendered. The Oroville-Wyandotte Irrigation District on January 15, 1952, requested from the Department of Finance a release of such priority as may have been established under the State filings in favor of the pending applications of the District. Similarly, on November 19, 1952, a request was received from the County of Yuba and the Yuba County Water District for either a release from priority or assignments of such portions of the Department of Finance applications as necessary to allow Yuba County to proceed with the developments proposed under its pending applications. These requests were referred to the Division of Water Resources for recommendation. The Division recommended to the Director of Finance that action on these requests for release or assignment be withheld until after the hearings on the water right applications pending before the Division.

Stream Flow Records

Monthly mean discharges of South Fork Feather River at Enterprise, Yuba River at Marysville, Feather River near Gridley, Feather River at Yuba City and Feather River below Shanghai Bend, as shown in United States Geological Survey Water Supply Papers and/or in Division of Water Resources reports of Sacramento-San Joaquin Water Supervision, are set forth in following pages. No gaging stations have been established on Slate or Canyon Creeks.

The gaging station on South Fork Feather River is about 0.5 mile downstream from head of Palermo Canal, about 11 miles below the mouth of Lost Creek, and about 5 miles above the junction of South and Middle Forks of Feather River. Approximate distances of the gaging stations and other points presently warranting consideration, in miles above the junction of Feather and Sacramento Rivers, are as follows:

Gaging station - South Fork Feather River at Enterprise	80.5
Western Canal intake	61.2
Intake serving Sutter Butte Canal Company, Biggs-West Gridley Water District, Richvale Irrigation District and Sutter Extension Water District	58.1
Gaging station - Feather River near Gridley	49.7
Sunset pumping plant of Sutter Extension Water District	38.1
Gaging station - Feather River at Yuba City	28.0
Mouth of Yuba River	27.3
Gaging station - Feather River below Shanghai Bend	23.0

"Yuba River at Marysville" is located 0.9 mile above junction of Yuba and Feather Rivers.

DISCHARGE OF SOUTH FORK FEATHER RIVER AT ENTERPRISE

In Cubic Feet Per Second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1942-43	16.1	135	410	1,125	712	1,161	814	354	177	40.1	9.32	3.97
43-44	9.35	20.2	33.5	61.2	223	398	416	637	161	17.5	2.08	1.55
44-45	5.72	132	274	191	1,173	372	558	617	147	24.6	7.90	7.24
45-46	26.0	112	1,047	543	262	434	669	476	83.7	14.1	4.54	7.32
46-47	14.7	93.7	132	51.8	380	608	435	82.9	64.3	5.73	3.67	5.68
47-48	45.2	51.7	29.7	373	95.3	214	1,125	931	398	39.4	4.68	6.21
48-49	4.82	35.9	70.9	45.9	83.2	397	794	562	85.2	5.38	2.05	0.93
49-50	2.65	13.4	18.4	234	755	611	948	633	158	12.7	1.52	1.48
50-51	54.5	871	1,314	797	971	607	688	509	90.6	16.0	2.20	3.05
51-52	36.4	116	687	651	1,098	694	1,480	1,679	734	155	30.6	14.0
52-53	NO RECORD											
1953-54	21.5	124	124	306	662	878	1,192	404	88.3	19.4	6.15	2.49

DISCHARGE OF YUBA RIVER AT MARYSVILLE

In Cubic Feet Per Second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1942-43	278	428			NO RECORD				2,275
43-44	536	435	488	727	2,036	3,443	2,792	3,989	1,600
44-45	339	886	1,870	NO RECORD			3,930	5,420	2,530
45-46	289	707	7,595	5,071	2,702	3,772	5,344	5,546	1,613
46-47	305	509	1,481	827	2,717	4,327	3,203	1,264	733
47-48	375	387	365	2,538	965	1,791	7,377	7,098	4,355
48-49	152	430	756	715	1,249	4,027	5,281	3,918	978
49-50	51.5	266	205	3,103	5,941	4,472	6,860	6,463	2,939
50-51	287	8,586	14,190	7,683	7,120	4,413	4,697	5,023	1,217
51-52	406	687	5,090	6,387	9,131	6,709	10,400	13,750	8,712
52-53	476	492	1,068	9,358	2,461	3,360	5,405	5,681	5,896
1953-54	484	580	624	2,185	4,487	6,605	7,250	3,563	859

DISCHARGE OF FEATHER RIVER NEAR GRIDLEY

In Cubic Feet Per Second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1942-43	NO RECORD											
43-44				1,585	3,152	5,382	5,644	4,989	917	102	56	351
44-45	740	2,387	3,344	2,298	11,763	4,336	5,784	4,819	1,235	126	81	450
45-46	1,091	2,403	12,709	9,490	4,816	6,305	8,085	4,752	762	129	232	593
46-47	1,055	2,440	2,780	1,420	5,640	7,790	5,780	643	465	175	278	510
47-48	1,550	1,970	1,770	5,603	2,638	3,562	13,295	9,641	4,575	437	61.7	455
48-49	1,707	1,811	1,819	1,750	2,444	6,438	8,129	4,071	352	38.4	61.2	281
49-50	346	900	920	4,326	8,728	7,948	11,180	7,081	1,975	127	57.2	855
50-51	2,479	11,530	17,800	11,250	13,680	8,647	6,800	5,360	738	53.3	47.6	948
51-52	1,909	3,330	10,120	9,938	16,150	11,710	29,620	21,820	8,675	2,087	837	1,248
52-53	2,046	2,320	4,311	18,610	5,902	6,237	8,950	8,284	5,767	1,075	703	1,447
1953-54	1,835	2,813	2,755	NO RECORD								

DISCHARGE OF FEATHER RIVER BELOW SHANGHAI BEND

In Cubic Feet Per Second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1942-43						NO RECORD						
43-44						NO RECORD				620	259	536
44-45	1,397					NO RECORD				730	477	988
45-46	2,212	NO RECORD		17,050	8,550	10,110	14,460	10,960	2,800	797	576	991
46-47	1,430	2,860	4,220	1,840	7,850	11,920	9,630	2,200	1,160	229	435	708
47-48	2,110	2,480	2,020	8,137	4,131	5,977	21,500	16,740	9,365	1,112	371	1,003
48-49	2,394	2,483	2,860	2,480	4,395	12,110	13,570	9,233	1,797	345	263	547
49-50	654	1,412	1,289	7,774	15,820	12,950	17,700	13,780	5,660	827	361	1,258
50-51	2,779	20,450	32,430	19,160	21,100	13,620	11,700	10,560	2,289	567	389	1,583
51-52	2,654	4,156	15,580	20,060	27,570	19,160	43,220	39,330	18,060	5,464	1,575	2,302
52-53	3,038	3,414	6,415	29,550	2,021	10,140	15,060	15,500	13,210	2,803	630	1,621
1953-54	2,681	3,819	3,846					NO RECORD				

Aggregate diversions, in cubic feet per second, from the reach between "Feather River near Gridley" and "Feather River at Yuba City" have averaged, according to reports of Sacramento-San Joaquin Water Supervision of the State Division of Water Resources, as follows:

Year	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
1944	2.51	1.8	21.7	58.7	72.1	53.8	38.3	32.3
45	0	3.2	16.7	85.2	86.3	103.0	48.8	0.8
46	0.76	15.9	65.3	22.6	67.3	91.5	36.0	0.5
47	1.45	10.3	94.4	29.8	62.1	58.1	31.3	1.06
48	3.03	0.3	1.8	43.3	77.4	56.6	29.3	2.0
49	0	29.6	18.6	53.5	78.3	56.6	14.1	0.8
50	1.63	1.25	6.86	21.3	77.7	45.2	20.6	3.5
51	0	14.2	2.79	32.3	74.8	66.1	16.1	3.3
52	0	0	30.7	22.1	38.5	88.4	43.3	5.5
53	5.95	6.75	24.5	30.9	75.7	103.2	47.5	4.4

Diversions in the reach between "Feather River at Yuba City" and "Feather River below Shanghai Bend" and in the reach between "Feather River below Shanghai Bend" and the mouth of Feather River have never, in any month of record, exceeded averages of 17.6 and 165 cubic feet per second, respectively.

Discussion

Water Available

The Oroville-Wyandotte Irrigation District seeks under its five applications involved in the hearing to appropriate amounts that aggregate 350 cubic feet per second year-round and 77,300 acre-feet per annum from South Fork Feather River, 350 cubic feet per second year-round and 40,000 acre-feet per annum from Lost Creek (tributary to South Fork Feather River), 300 cubic feet per second year-round and 35,000 acre-feet per annum from Slate Creek (tributary to Yuba River); the amounts which it seeks to appropriate thus represent a total demand of 700 cubic feet per second year-round plus 117,300 acre-feet per annum from South Fork Feather River drainage and 300 cubic feet per second plus 35,000 acre-feet per annum from Yuba River drainage. It proposes to use the water filed upon for irrigation, domestic and for power generation purposes.

The County of Yuba and Yuba County Water District seek under their twelve applications to appropriate amounts that aggregate 120,000 acre-feet per annum from South Fork Feather River drainage, 188,000 acre-feet per annum from Yuba River drainage, 17,500 acre-feet per annum from Middle Fork Feather River drainage. The water as in the case of the Oroville-Wyandotte Irrigation District project is to be used for irrigation, domestic and power generation purposes.

Under the Oroville-Wyandotte applications collection in storage is to extend from November to June, inclusive, and under the Yuba applications the collection period is to extend from October to June, inclusive.

The flows passing the points of diversion proposed by the applicants on South Fork Feather River and/or on Lost Creek command but a portion of the watershed tributary to the gaging station "South Fork Feather River at Enterprise". Diversions at said proposed points of diversion presumably cannot aggregate more than the flow measured at the gaging station mentioned. Monthly mean flow passing that station exceeded 700 cubic feet per second (the direct diversion sought by Oroville-Wyandotte Irrigation District) in but 19 of the 132 months of record. Flow passing that station during proposed collection periods (November 1 through June) exceeded the amounts either applicant proposes to store within South Fork Feather River watershed during every year of record except one. While the data do not enable amounts passing the various proposed points of diversion to be estimated closely, the records of flow passing "South Fork Feather River at Enterprise" are evidence that substantial amounts pass those proposed points of diversion which can be diverted in the manner proposed without injury to downstream users.

The same general statement may be made with respect to diversions within the Yuba River watershed. Relatively large

flows have passed gaging station "Yuba River at Marysville" during the collection to storage seasons proposed by both applicants. However, during August, September and October, less than the 300 cubic feet per second sought year-round by Oroville-Wyandotte Irrigation District from Slate Creek has frequently reached the gaging station.

The records of stream flow passing the various points of measurement on Feather and Yuba Rivers indicate that diversions as proposed in the several pending applications can have little, if any, effect upon such diversions as have thus far been made from that stream. The records of flow past "Feather River near Gridley" indicate that all diverters above that point, including the protestant Biggs-West Gridley Water District, Richvale Irrigation District and Sutter Extension Water District have probably had full opportunity, except during the low period of some years, to divert such amounts as they have in recent years required. The same records in conjunction with the record of aggregate diversions between "Feather River near Gridley" and "Feather River at Yuba City" indicate that the flow of Feather River near Gridley, alone, has equaled or exceeded probable requirements along the reach extending from that station to "Feather River at Yuba City" in all irrigating months except one month of July (of the 10 Julys of record) and 2 months of August. The flow of Feather River near Gridley is not, however, the sole supply of diverters along the Gridley-Yuba City reach, inasmuch as there

is considerable lateral accretion. Lateral accretion is evidenced in general by comparison of flows passing the two gaging stations. It is further evidenced by examples such as the situation in July, 1949, during which flow passing "Feather River near Gridley" averaged but 38.4 cubic feet per second, whereas diversions from the reach averaged 78.3 cubic feet per second and flow passing "Feather River at Yuba City" averaged 192 cubic feet per second. Thus the records strongly indicate that substantial amounts of surplus waters exist in the Yuba and Feather River watersheds over the requirements of the record protestants.

Protests

Against Oroville-Wyandotte Irrigation District applications -- The only protests filed against the approval of the Oroville-Wyandotte Irrigation District applications are those filed by the Department of Fish and Game and the County of Yuba and Yuba County Water District.

Under date of July 18, 1952, Mr. Seth Gordon, Director of the Department of Fish and Game, advised the Division of Water Resources that an agreement had been drawn up between the Department of Fish and Game and the Oroville-Wyandotte Irrigation District which adequately protects the fish and wildlife resources to be affected by the subject diversions. Mr. Gordon further advised that as a result of the agreement, the protests of the Department of Fish and Game to the applications of the Oroville-Wyandotte Irrigation District could be withdrawn without prejudice.

The protest, filed in the name of the County of Yuba and Yuba County Water District, contends in effect that approval of the Oroville-Wyandotte Irrigation District applications would block the development contemplated under the County of Yuba and Yuba County Water District applications, and states that the protest may be disregarded and dismissed "if adequate water is made available to protestants to meet the reasonable future needs of the area within Yuba County which cannot logically receive sufficient water from any other source". No grounds exist for the rejection of this protest inasmuch as certain of Yuba applications are prior in time to those of Oroville-Wyandotte now pending.

Against County of Yuba and Yuba County Water District Applications.--The record protestants against the Yuba applications as stated earlier in this decision are the Department of Fish and Game, E. Muriel Jones, Robert P. Wilson, Biggs West

Gridley Water District, Richvale Irrigation District, Sutter Extension Water District, and the Oroville-Wyandotte Irrigation District.

There is no evidence in the records to show that any agreement exists between the Yuba interests and the Department of Fish and Game such as that entered into between the Oroville-Wyandotte Irrigation District and that Department nor was any appearance or representation made at the hearings on behalf of said Department. In view thereof, it may be presumed that such nonappearance is evidence of abandonment of interest and there is no basis for further consideration of the Department of Fish and Game protest.

The protests by A. Muriel Jones against County of Yuba and Yuba County Water District Applications 12532 and 12573 represent that the diversions proposed in those applications will leave too little water in Dry Creek to satisfy her own rights; she states further that her protests may be disregarded and dismissed if her rights are recognized. Applications 12532 and 12573 propose diversion to storage only during the season October 1 to July 1 of each season, which season normally constitutes the period of surplus runoff. In view thereof, it is not apparent, so long as applicant Yuba limits its season of diversion to the period named in the applications, that use by protestant will be interfered with materially, if at all. The protests of A. Muriel Jones are therefore not a bar to approval of subject applications.

The protest by Robert P. Wilson against certain applications by County of Yuba and Yuba County Water District is considered insufficient in view of the policy declaring irrigation to be a higher use of water than power generation.

The allegations by Biggs-West Gridley Water District, Richvale Irrigation District and Sutter Extension Water District to the effect that diversions proposed by County of Yuba and Yuba County Water District will deprive those protestants of water that they require is at variance with indications afforded by the flow data discussed in an earlier paragraph. In view thereof these protests cannot be considered as a bar against the approval of the Yuba applications which propose diversion only during the noncritical period of October 1 to July 1 of each season.

The protests by Oroville-Wyandotte Irrigation District against all County of Yuba and Yuba County Water District applications allege insufficiency of unappropriated water to supply applicants' needs in addition to its own; argue that its own projects should prevail. No grounds exist for the rejection of these protests inasmuch as all of the Oroville-Wyandotte's are prior in time to all but two of Yuba's applications now pending.

Proceedings Before the Federal Power Commission

Neither the County of Yuba nor the Yuba County Water District have made application to the Federal Power Commission for a preliminary permit or for a license in support of its

project as outlined in applications pending before the Division of Water Resources.

On July 21, 1952, the Federal Power Commission issued a license in the matter of Oroville-Wyandotte Irrigation District Project No. 2088 pending before the Commission. The project as outlined in the Federal Power Commission's license is essentially the same project as that identified as the South Fork Project in the District's applications pending before the Division.

On March 9, 1953, an order amending license was issued by the Power Commission which eliminated Article 18 from the original license and added Article 44 relating to the operation of the project.

On July 16, 1954, the Commission entered a further order relating to Project 2088 extending the time for commencement and completion of the construction of the project until August 1, 1956, and August 1, 1959, respectively.

On September 23, 1954, a further order was entered by the Power Commission with respect to this project authorizing the inclusion of additional works to be known as the Ponderosa Dam and Forbestown Afterbay.

Feather River Project

Construction of the Feather River Project by the State of California, acting through the Water Project Authority, was authorized by the Legislature in 1951 by Chapter 1441, Statutes of 1951. This project as originally contemplated and set forth

in the publication of the State Water Resources Board "Report on Feasibility of the Feather River Project and Sacramento-San Joaquin Delta Diversion Projects Proposed as Features of the California Water Plan", May 1951, comprises the following features

(a) A dam on the Feather River 1.7 miles below the junction of the north and middle forks of the stream and 5.5 miles above the City of Oroville in Butte County.

(b) A power plant at the dam.

(c) An afterbay dam and power plant 4.5 miles below the main dam and one mile above the City of Oroville.

(d) The Delta cross channel.

(e) An electric power transmission system from Oroville power plant to load center near Tracy.

(f) A conduit to transport water from the Sacramento-San Joaquin Delta to the San Joaquin Valley and Southern California.

(g) A conduit to transport water from the Sacramento-San Joaquin Delta to Santa Clara and Alameda Counties.

The 1952, 1953, and 1954 Legislatures have appropriated moneys in excess of \$2,200,000 for conducting the necessary studies, investigations and surveys and the preparation of plans and specifications for the project. In February, 1955, the Division of Water Resources submitted to the Legislature a report entitled "Program for Financing and Constructing the Feather River Project". This report revised the project features included in the 1951 Feasibility Report and included certain other features.

It is now being reviewed by an engineering firm employed by the Legislature who will comment thereon by December 31, 1955.

In planning for the Feather River Project, estimates of water requirements and water development plans for the Upper Feather River Service Area have been given consideration. Included in this area are the foothill portions of Butte and Yuba Counties whose source of supplemental water supply is the South Fork of the Feather River and tributaries of the North Fork Yuba River.

In addition to the studies for the Feather River Project the Budget Act of 1954 authorized a restudy of the ultimate water needs of certain of the counties within the northern portion of the state with particular attention being given to those counties lying within the Feather River Drainage Basin. These studies have been completed evaluating the water requirements and setting forth water development plans in the Upper Feather River Service Area. These plans include the following:

A diversion dam on Canyon Creek, a tributary of North Yuba River, and a 22,400-foot diversion tunnel with a capacity of 135 second-feet extending to Slate Creek; a diversion dam on Slate Creek and a 11,500-foot diversion tunnel with a capacity of 500 second-feet extending to a tributary of Lost Creek; Little Grass Valley Reservoir on the South Fork of Feather River with a storage capacity of 50,500 acre-feet; a diversion dam on South Fork of Feather River, nine miles downstream from Little Grass Valley Dam, and a 13,900-foot diversion tunnel with a capacity of 250 second-feet extending to a tributary of Lost Creek; Lost Creek Reservoir

with a dam at a site just downstream from the existing Lost Creek Dam on Lost Creek, with a capacity of 140,000 acre-feet; a 16,580-foot tunnel leading from Lost Creek Reservoir to the penstocks of the Woodleaf Power Plant; Woodleaf Power Plant with an installed generating capacity of 47,000 kilowatts; a diversion dam below Woodleaf Power Plant and an 18,340-foot tunnel leading to the head of the penstocks of the Forbestown Power Plant; and Forbestown Power Plant with an installed generating capacity of 28,000 kilowatts.

The features for supplying water to the Oroville-Wyandotte area would be Ponderosa Diversion Dam on South Fork of Feather River below Forbestown Power Plant and Miners Ranch conduit, constructed initially for a capacity of 125 second-feet, comprising 6.0 miles of canal, 1.5 miles of flume and 4.4 miles of tunnel along the South Fork of Feather River terminating at Miners Ranch near Oroville. This conduit could later be enlarged, or constructed initially, to a capacity of 250 second-feet, and extended southerly, running to the east of the Oroville-Wyandotte Irrigation District, a distance of 14.6 miles to the vicinity of Bangor. The extension, called the Bangor Canal, would have a capacity of about 100 second-feet at its upper end and 50 second-feet at its terminus.

To supply irrigation water to the lands in the Yuba County area, the existing Forbestown Ditch could be enlarged to a capacity of 100 second-feet for 12.4 miles from the Lost Creek Dam to French Dry Creek. The water could then be conveyed down

District has the next five applications, and the Yuba interests have the last ten applications. To approve the applications strictly in order of their priority would have the effect of allowing neither applicant to proceed with its proposed project.

Sections 105, 1253, and 1255 of the Water Code state as follows:

"105. It is hereby declared that the protection of the public interest in the development of the water resources of the State is of vital concern to the people of the State and that the State shall determine in what way the water of the State, both surface and underground, should be developed for the greatest public benefit."

"1253. The department shall allow the appropriation for beneficial purposes of unappropriated water under such terms and conditions as in its judgment will best develop, conserve and utilize in the public interest the water sought to be appropriated."

"1255. The department shall reject an application when in its judgement the proposed appropriation would not best conserve the public interest."

In view of the foregoing provisions of the Water Code a decision on the subject applications must take into consideration the matter of public benefit and interest. Furthermore, to supply both areas of use of the applicants it appears mandatory that a joint project should be undertaken. Such a joint project will develop the water resources concerned to the best and fullest extent in the public interest. To this end the Division, subsequent to the hearings, has made comprehensive studies of water supply from the sources in question and utilization thereof for maximum development and believes such a joint project is feasible and within

the scope of the subject applications. This project would contain substantially the following features:

A reservoir on South Fork Feather River at the Little Grass Valley Site of 107,000 acre-feet capacity; a diversion dam on Fall River with accompanying conduit of 200 cfs capacity into South Fork Feather River; a diversion dam on the South Fork Feather River and accompanying conduit of 400 cfs capacity diverting the waters of South Fork Feather River and Fall River into existing Lost Creek Reservoir; a diversion dam on Canyon Creek and accompanying conduit of 135 cfs capacity into Slate Creek; a diversion dam on Slate Creek and accompanying conduit of 500 cfs capacity diverting the waters of Canyon Creek and Slate Creek into Lost Creek; Sly Creek Reservoir of 75,000 acre-feet on Lost Creek; a conduit and penstock from the existing Lost Creek Reservoir to the Woodleaf Power House which would have 47,000 Kw installed capacity; a rediversion dam at the tailrace of Woodleaf Power House together with accompanying conduit and penstock to the Forbestown Power House which would have 28,000 Kw installed capacity; Ponderosa Diversion dam and afterbay on South Fork Feather River with accompanying Miners Ranch Conduit of 125 cfs capacity into the Oroville-Wyandotte Irrigation District service area. In addition the project would include improvements and enlargements of the Forbestown ditch and certain other additions to the conveyance system of the Oroville-Wyandotte Irrigation District. The capital cost of the aforescribed project would be \$48,313,000.

The power output of such a project would be 75,000 kilowatts of dependable capacity and 354,000,000 kilowatt-hours average annual electric energy generation.

The aforementioned project would yield on a power demand schedule a total water supply of approximately 160,000 acre-feet annually at Lost Creek Reservoir. Of this amount 15,000 acre-feet annually would be available on an irrigation demand schedule for service in Yuba County through the Forbestown Ditch. The remainder would be available for use through the power houses and would furnish 55,000 acre-feet annually to the Oroville-Wyandotte Irrigation District for use in its service area. Preliminary financial analyses indicate that the project could be financed entirely through power revenues.

The project could be operated on an irrigation demand schedule at the end of the payout period at which time with certain enlargements a total of 50,000 acre-feet annually would be available to the Yuba service area and still allow approximately 100,000 acre-feet annually within the contemplated Oroville-Wyandotte service area. It is believed that the amounts of water to be made available from this project will supply adequate water for the foreseeable future needs of the areas to be served from the project.

Assignment or Release of Priority of State Filings

The prior State filings, upon which assignment or release is required, are Applications 5629 and 5630 which seek to appropriate from the Feather River at the proposed Big

Oroville site and Applications 5631 and 5632 which seek to appropriate from the Yuba River at the Narrows dam site. These applications are from the main streams of the Feather and Yuba Rivers many miles below the developments proposed under the applications of the Oroville-Wyandotte Irrigation District and the Yuba County interests. In view thereof it would appear appropriate that releases of priority rather than assignments should be executed in favor of the pending applications.

Before any release may be granted, however, two findings as required by Sections 10504 and 10505 of the Water Code must be made: (1) That the release is for the purpose of development not in conflict with a general or coordinated plan looking toward the development, utilization or conservation of the water resources of the state; (2) no priority shall be released of any appropriation that will in the judgment of the Department of Finance deprive the county in which the appropriated water originates of any such water necessary for the development of the county.

With respect to Item (1) above, the Division, as previously described has formulated a project which will develop and conserve water from the sources named for full beneficial use to all areas included within the service area of all the applicants. It is believed that a release from priority in favor of the foregoing plan would be for a purpose of development not in conflict with the general or coordinated plan looking toward the

development, utilization or conservation of the water resources of the State, for which the State applications were filed.

With respect to Item (2) relative to the requirements of the County of Origin with respect to the projects of the Oroville-Wyandotte Irrigation District and those of the Yuba County interests, information was submitted at the February 1955 hearing by both the Irrigation District and Yuba County representatives regarding the extent that water originates above the various points of diversion proposed. Both representatives submitted data substantially in accord as follows:

Stream	Point	Drainage area	County
South Fork Feather River	Little Grass Valley dam site	27.3 sq. mi.	Plumas
Lost Creek	Lost Creek storage dam	10 sq. mi.	Butte
		1 sq. mi.	Yuba
		19 sq. mi.	Plumas
Slate Creek	Slate Creek diversion dam	60 sq. mi.	Plumas
		12 sq. mi.	Sierra
		3 sq. mi.	Yuba
Canyon Creek	Canyon Creek diversion dam	39.2 sq. mi.	Sierra

It is obvious from the above table that the principal Counties of Origin with respect to the projects of the Oroville-Wyandotte Irrigation District and Yuba interests are Sierra and Plumas Counties.

It would therefore appear that County of Origin requirements of Butte and Yuba Counties with respect to the subject projects are relatively insignificant and that the County of Origin law does not provide the basis of any preferential treatment of one entity over the others. Reservation in any releases of priority recommended should be for the protection of Sierra and Plumas Counties.

Summary and Conclusions

1. Unappropriated water is available from the sources named in the subject applications for present and future water supplies of the service areas of the applicants which can logically be served therefrom.

2. Oroville-Wyandotte Irrigation District has established certain rights to the waters of South Fork Feather River and Lost Creek. The magnitude of these rights has been set forth earlier in this decision together with statements as to claim of such rights.

3. Oroville-Wyandotte Irrigation District is an operating district presently serving water to some 4,500 acres for irrigation and domestic purposes in the vicinity of Oroville.

4. The County of Yuba and the Yuba County Water District are not at the present time serving water to lands within their proposed service area, although certain of the lands are receiving water from the Oroville-Wyandotte Irrigation District through the Forbestown ditch.

5. Oroville-Wyandotte Irrigation District urgently needs additional water for expansion of its services.

6. Yuba interests have immediate need for some additional water in their area but their primary concern is provision for future development.

7. All entities have shown their intent to begin construction and apply the water to beneficial use after the

necessary permits have been granted and to proceed diligently with consummation of their project.

8. Releases of priority of State Department of Finance applications will be recommended as necessary, subject to adequate reservations being made in favor of Sierra and Plumas Counties.

9. Yuba County and Yuba County Water District have prior pending applications to those of the Oroville-Wyandotte Irrigation District to the extent of 40,000 acre-feet per annum from the South Fork Feather River and 28,000 acre-feet per annum from Lost Creek for both irrigation and power purposes. Oroville-Wyandotte Irrigation District applications are prior to all other pending applications of Yuba County and Yuba County Water District considered herein.

10. Pursuant to the provision of Section 105 of the Water Code it is concluded that a project substantially as that described beginning on page 82 of this decision would ultimately provide an adequate water supply for all areas concerned and should be constructed in the public interest. Such a project will require changes in the project proposed by each applicant; however, such changes are the proper subject of petitions to the Division which petitions should be filed by both applicants. Such a project will require mutual cooperation for both construction and operation.

To carry out the foregoing program the Division will withhold further action on the subject applications of Oroville-Wyandotte Irrigation District and those of Yuba County and Yuba County Water District for a period of six months from date of this

decision to allow both entities to enter into an agreement and submit the necessary petitions. Upon the submission of said petitions and action thereon the Division will enter a further order approving such applications as are necessary to carry out the project and will also make appropriate recommendations to the Department of Finance. Failure of either of the parties to submit said petitions and cooperate with the other party will result in a further order by the Division denying all applications of such party in the public interest.

oOo

ORDER

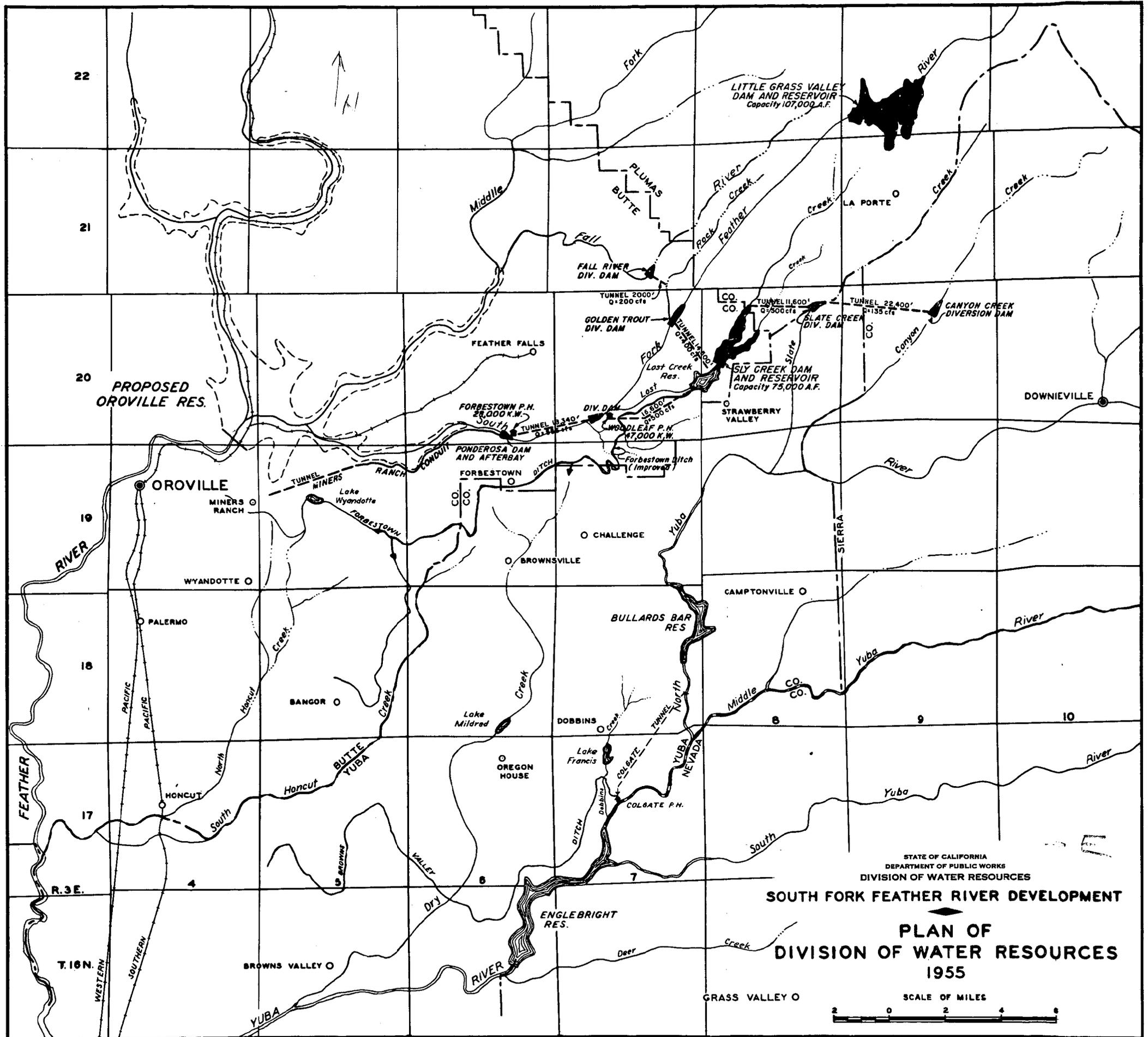
Applications 12532, 12573, 13676, 13956, 13957, 14112, 14113, 14571, 14572, 14741, 14742, 14983, 14984, 14985, 14986, 14987 and 14988 having been filed with the Division of Water Resources as above stated, protests having been filed, a public hearing having been held and the State Engineer now being fully informed in the premises:

IT IS HEREBY ORDERED that action be deferred on the foregoing applications for a period of not to exceed six months from present date and pending the entry of a further order.

WITNESS my hand and the seal of the Department of Public Works of the State of California this 27th day of October, 1955.

Original signed by

A. D. Edmonston
State Engineer



PROPOSED OROVILLE RES.

LITTLE GRASS VALLEY DAM AND RESERVOIR
Capacity 107,000 A.F.

SILY CREEK DAM AND RESERVOIR
Capacity 75,000 A.F.

FALL RIVER DIV. DAM

FEATHER FALLS

FORBESTOWN P.H.
28,000 K.W.

WOODLEAF P.H.
47,000 K.W.

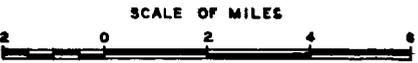
BULLARDS BAR RES.

ENGLEBRIGHT RES.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

SOUTH FORK FEATHER RIVER DEVELOPMENT

PLAN OF
DIVISION OF WATER RESOURCES
1955



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES
STATE ENGINEER

ORDER

WHEREAS, on October 27, 1955, the State Engineer rendered Decision No. 838 in the matter of Applications 13676, 13956, 13957, 14112 and 14113 of the Oroville-Wyandotte Irrigation District and Applications 12532, 12573, 14571, 14572, 14741, 14742, 14983, 14984, 14985, 14986, 14987 and 14988 of the County of Yuba and Yuba County Water District; and

WHEREAS, in said decision it was concluded that approval of the applications in order of their respective priority in time would allow neither of the applications to proceed with its proposed project; and

WHEREAS, it was further concluded in said decision that pursuant to the provisions of Section 105 of the Water Code a joint project should be constructed which would ultimately provide an adequate water supply for all areas proposed to be served with water by both applicants and that such a project should be constructed in the public interest; and

WHEREAS, in said decision, a project was outlined which in the State Engineer's opinion based on preliminary analyses, would accomplish the full development of the water resources concerned and would furnish needed water for the areas to be served by both applicants as well as developing the power potential, and which appeared to be engineeringly and financially feasible; but

it was not the State Engineer's intention that this project should necessarily be the one to be constructed by the applicants if, in the opinion of the applicants, a different project would be more feasible and would accomplish the same general objectives; and

WHEREAS, it appeared that such a project would require mutual cooperation for both its construction and operation and would require changes in the projects proposed by each applicant, but that such changes would be the proper subject of petitions to the State Engineer, which petitions should be filed by both applicants; and

WHEREAS, it was further concluded in said decision that in order to carry out the foregoing program further action on the subject applications would be withheld for a period of six months to allow both applicants to enter into an agreement and submit the necessary petitions; that upon the submission of said petitions and action thereon a further order would be entered approving the necessary applications to carry out the project and that appropriate recommendations would be made to the Department of Finance for the assignment of applications of said department; and that failure of either of the parties to submit said petitions and cooperate with the other party would result in a further order denying all applications of such party in the public interest; and

WHEREAS, pursuant to said decision, on October 27, 1955, the State Engineer ordered that action on the foregoing applica-

tions be deferred for a period not to exceed six months from said date and pending the entry of a further order; and

WHEREAS, the applicants did not enter into an agreement and did not submit the necessary petitions within the time allowed by the decision, or at any time; and

WHEREAS, on June 7 and 8, 1956, a further hearing was held by the State Engineer for the purpose of allowing the applicants to show what progress had been made in accomplishing the objectives set forth in the aforesaid decision, and at said time applicants appeared and presented evidence; and

WHEREAS, the evidence submitted by the parties at such hearing on June 7 and June 8, 1956, has been considered by the State Engineer; and

WHEREAS, evidence presented at said June hearing strongly indicates that neither applicant can proceed at this time with due diligence with the project described in its applications principally because of financing difficulties; and

WHEREAS, additional time must be allowed the applicants within which to further explore all possibilities of financing; and

WHEREAS, although no agreement has been entered into or petitions submitted, meetings have been held and some efforts made by the parties to cooperate but without tangible results or mutual understanding; and

WHEREAS, from the evidence submitted at said June hearing it appears that neither applicant has made a comprehensive analysis of the State Plan as outlined in Decision 838 nor has made a determined effort to develop a modified or different plan which would accomplish the general objectives which are set forth in said decision in the public interest; and

WHEREAS, the testimony submitted by Yuba and Oroville-Wyandotte witnesses was entirely conflicting insofar as their opinions as to whether a joint project is feasible are concerned; and

WHEREAS, after thorough analysis of all data submitted at the June hearing it is still the opinion of the State Engineer that a joint project may be feasible and that it is mandatory in the public interest that the feasibility of such a project to serve all areas concerned be thoroughly analyzed; and

WHEREAS, a thorough joint study must, therefore, be made of a project to serve the areas outlined in Decision 838, which study would analyze not only the project outlined in Decision 838 but possible modifications thereof; and

WHEREAS, such a thorough joint analysis should be financed jointly by the two applicants and should determine the feasibility of a project or projects to supply all areas involved.

NOW, THEREFORE, it is ordered that action be deferred on Applications 13676, 13956, 13957, 14112 and 14113 of Oroville-Wyandotte Irrigation District, and Applications 12532, 12573, 14571, 14572, 14741, 14742, 14983, 14984, 14985, 14936, 14987, and 14988 of County of Yuba and Yuba County Water District, until

July 1, 1957, in order to allow the applicants time to further explore financing possibilities and also to allow the applicants time to jointly prepare and submit a report to the State Water Rights Board as to the engineering and financial feasibility of a project or projects to accomplish the general objectives heretofore described in said Decision 838, said report to be jointly financed; and

BE IT FURTHER ORDERED that failure of the applicants to submit said joint feasibility report on or before July 1, 1957, will result in the cancellation of the applications of either or both applicants.

WITNESSETH my hand and the seal of the Department of Public Works of the State of California this 3rd day of July, 1956.

(Original signed by)

Harvey O. Banks
State Engineer