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STATE OF CALIFORNIA STATE WATER RIGHTS BOARD

In the Matter of Applications 353, 360, 5640, 10750, 10979, 11023, 11075, 15231 and 16469 held by Fresno Irrigation District as Trustee, 14608 and 14609 of City of Fresno, and 19836, 20002, 20098, 20486, 20585 and 20679 of Others

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Decision D 1290

Source: Kings River,

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In the Matter of Applications 353, 360, 5640, 10750, 10979, 11023, 11075, 15231 and 16469 Held by Fresno Irrigation

District as Trustee, 14608 and 14609 of City of Fresno, and 19836, 20002, 20098, 20486, 20585 and 20679 of Others to

Appropriate Water from the Kings River, Its Tributaries and Distributaries in Fresno, Kings and Tulare Counties

Decision D 1290

DECISION APPROVING APPLICATIONS 353, 360, 5640, 11023, 11075, 15231, 16469 AND 20486; APPROVING IN PART APPLICATION 10979; DENYING APPLICATIONS 10750, 14608 AND 14609; AND DEFERRING ACTION ON APPLICATIONS 19836, 20002, 20098, 20585 AND 20679

The Applications

Nine applications held by Fresno Irrigation District, Trustee, (referred to herein as the applicant trustee) relate to storage of water for irrigation and other uses in Pine Flat Reservoir of the United States Army Corps of Engineers (Corps of Engineers), storage for downstream irrigation use in two upstream reservoirs of Pacific Gas & Electric Company (PG&E), direct diversion or rediversion of stored

water at over 60 downstream points located over the entire course of the river and its distributaries, and storage of water in Tulare Lake Basin. The beneficiaries of the trust are all members of the Kings River Water Association (KRWA). They all are named and a copy of the trust agreement, dated September 16, 1964, is included in the supplements to Application 5640, as amended on September 22, 1965.

During the course of the hearing of these applications, the applicant trustee filed petitions to amend Application 360, 10979, 11023 and 16469 "to conform in all respects to Application 5640 insofar as it relates to the place of use, downstream points of diversion and beneficiaries set for and designated therein." These petitions, as amended, are dated July 18, 1967. No objections at the hearing were made to them. Application 5640 covers most of the water sought to be appropriated by all these applications. Since full publicity was given to the hearing of Application 5640, no additional notice is reasonably required, and the Board finds, pursuant to Water Code Section 1702, that the proposed changes will not operate to the injury of any legal user of the water involved. An order will approve these petitions.

No appearance, presentation, or excuse for non-appearance was made by the City of Fresno on behalf of Applications 14608 or 14609, by J. G. and M. I. Wittig for their Application 20098, by W. J. Vann, et al., for their Application 20585, or by Lester B. Vaughn, et al., for their Application 20679. The Board finds that Applications 14608 and

14609 have been abandoned. As authorized by Water Code Section 1352, they will be denied. The applicant trustee had no proposed project or presentation to make for Application 10750. (See RT 23*.) Application 10750 is also found to be abandoned, and will be denied. For reasons to be explained near the end of this decision, action will be deferred on five applications, including Applications 20098, 20585 and 20679, to appropriate from the upper watershed of the Kings River.

Several applications scheduled for hearing with the above-mentioned applications were authorized by their respective applicants to be withdrawn and canceled. These are Applications 2042 of Orange Cove Irrigation District, 3179, 3180 and 3181 of South Lake Farms, et al., and Applications 4439 and 4440 of Tulare Lake Basin Water Storage District. These applications have been canceled by separate orders.

Also heard at the same time were three applications of cattle ranchers to appropriate relatively small quantities of water from the upper reaches of the Kings River watershed for stockwatering and related uses.

The essential features of applicant trustee's nine applications are set forth in Table 1, and of the three upstream applications in Table 2.

^{*} Reporter's Transcript, page 23.

Storage Reservoir			Reservoir		mount			and the same of days and the same of the s	
Appl. No.	Source	or Points of Diversion	Capacity (acre-feet)	cfs ⁽¹⁾	afa (2)	Diversion Season	Purpose (3)	Place of Use	
353	Kings River	Tulare Lake Basin and Empire Weir No. 2	Expandable: possibly 1,000,000	2,000	300,000	1/1 - 7/15	I	138,563 acres within a gross area of 190,003 acres	
360	Kings River	Pine Flat Reservoir and points shown on Plates IA, IB, and IC	1,000,000	5,000	600,000	1/1 - 12/31	I	1,100,000 acres within a gross area of 1,130,000 acres	
5640	Kings River	Pine Flat Reservoir and points shown on Plates IA, IB, and IC	1,000,000	5,000	1,540,000	1/1 - 12/31	I, D, FC	1,100,000 acres within a gross area of 1,130,000 acres	
10979	Kings River North Fork Kings River	Pine Flat Reservoir Wishon Reservoir Diversion and rediversion same as A-5640	1,000,000 128,500	10,000 720	1,000,000 128,000	1/1 - 12/31 1/1 - 12/31	I, P I, P	Irrigation use: 1,100,000 acres within a gross area of 1,130,000 acres	
11023	Kings River	Direct diversion Pine Flat Reservoir and points shown on Plates IA, IB, and IC		10,000 (Not to exceed	1,000,000 afa)	1/1 - 12/31	I	1,100,000 acres within a gross area of 1,130,000 acres	
11075	Kings River	Empire Weir No. 2		2,000 (Not to exceed	136,700 afa)	1/1 - 12/31	Ī	172,000 acres within a gross area of 190,003 acres	
15231	Tulare Lake	Tulare Lake Basin and around levee of Lake		2,500	1,000,000	1/1 - 12/31	I, D, S	172,000 acres within a gross area of 190,003 acres	
16469	Helms Creek	Courtright Reservoir rediversion points same as A-5640	123,300		102,500	1/1 - 12/31	I	1,100,000 acres within a gross area of 1,130,000 acres	

⁽¹⁾ cfs = Cubic Feet per Second

⁽²⁾ afa = Acre-Feet per Annum

⁽³⁾ I = Irrigation; P = Power; D = Domestic; S = Stockwatering; R = Recreation; FC = Flood Control

TABLE 2
SUMMARY OF APPLICATIONS TO APPROPRIATE FROM UPPER WATERSHED OF KINGS RIVER

	Appl. No.	Date Filed	Applicant `	Source				ersic Tp :		Amount cfs af	a .	Diversion Season	Purpose (1)
	19836	10-31-60	Watkin L. and Helen Owen	Unnamed Stream	NW	NW.	15	14S	27E	. 1	100	11/1-6/1	I&S
	20002	2-23-61	A. M. and L. A. Van Dyne	Unnamed Stream Unnamed Spring	NW NE	SW NW	23 23	10S 10S	24E 24E	6,000gpd	15	11/1-6/1 1/1-12/31	D,I,S
	20098	4-21-61	J. G. and M. I. Wittig	Flint Rock Creek	k NW	NW	27	10S	24E	0.5 35	5.9	7/1 - 9/15 10/1 - 5/31	I,S,R F
	20486	11-9-61	R. A. and J. M. Taylor	2 unnamed streams	NW NE	SE NW	30 31	13S 13S	27E 27E		11 21	10/1-5/1	S,F
ş	20585	2-2-62	W. J. Vann, et al	Unnamed Creek	SE	SW	1	14S	26E	·	6	11/1-3/31	S
	20679	3-26-62	Lester B. Vaughn, et al	Unnamed Stream	SW	NE	23	105	24E		11	11/15-5/15	S,R

⁽¹⁾ Purposes same as for Table 1, except $F^{\scriptscriptstyle{(1)}}=$ Fish Culture

Protests, Hearing, and Issues

Protests having been received, public hearings were held in Fresno, California, conducted by Board Members George B. Maul (Chairman), Ralph J. McGill, and W. A. Alexander. Testimony was received by the Board during a total of 15 days between April 4 and July 20, 1967.

Hearing of the applications which are now held by the applicant trustee had been postponed for many years—first, to await construction of Pine Flat Dam and Reservoir; second, for an agreement between trust beneficiaries regarding division of water; and third, for a permanent contract with the United States relating to operation of the dam and use of its storage capacity for irrigation purposes.

Well over a hundred protests had originally been filed to the applicant trustee's nine applications. Many of the original protestants are now members of the Kings River Water Association. As beneficiaries under the trust, they appeared at the hearing in support of the applications. The only protestants to these applications who appeared at the hearing were individuals in an unincorporated organization known as the Kings River Riparian & Percolating Water Users Association, a representative of a sportsman's club, and various individuals with property along or near the river channels inside the boundaries of the Kings County Water District, which district appeared in these proceedings as an interested party. The latter were represented by the attorney and an

engineering expert for that district, and will sometimes be referred to collectively as KCWD. None of these protestants objected to approval of any of the nine applications. Their protests and their evidence were directed toward permit conditions proposed by them to require certain releases of water in downstream channels, primarily for what they considered to be vested riparian and overlying rights.

The upstream applications are protested by the applicant trustee on the ground of lack of unappropriated water.

Description of the Watershed

All of the applications included in this hearing propose the appropriation of Kings River water either from its tributaries, the main channel, one of its forks, Tulare Lake Basin, or Fresno Slough down to its junction with the San Joaquin River.

In general, the Kings River originates in the highest, most rugged part of the Sierra Nevada. The north, middle, and south forks all head near the summit of the range in eastern Fresno County at elevations of over 11,500 feet. The divide is characterized by rugged peaks of 12,000 to over 14,000 feet in height. At these altitudes, the watershed usually receives a heavy annual snowfall which is retained until late spring or early summer. In unusual years, the snowpack may support a substantial flow into late summer.

The eastern escarpment of the Sierras is abrupt and precipitous, but the western side slopes downward much less abruptly, reaching an elevation of about 200 feet on the San Joaquin Valley floor at a distance of about 50 miles from the summit. The watershed is capable of producing substantial quantities of water from rainfall at lower elevations. This variety in topography and climatic conditions tends to produce a dependable flow of water in the Kings River throughout much of the year.

Watershed Development

Pine Flat and Upstream

Pine Flat Dam, located in Section 2, T13S, R24E*, forms a reservoir with spillway elevation of 953.5 feet U.S.G.S. datum, and is the principal control structure on the Kings River. Located in the Sierra foothills, it is convenient to use the dam as a point of reference in describing the watershed and its development.

The watershed above Pine Flat Dam is wild and rugged, with deep canyons and very little arable land. Domestic and irrigation uses of water are minimal and agricultural use is not expected to constitute a major factor in future development. It is anticipated that domestic use for summer homes and recreational facilities will undergo a large

^{*} All references to township and range are from Mount Diablo Base and Meridian (MDB&M).

increase, but the total amount will not be a substantial percentage of available supply.

Generation of hydroelectric power is the principal water-related development above Pine Flat Dam. PG&E has constructed a series of dams and powerhouses, including Courtright Dam and Reservoir on Helms Creek with a spillway elevation of 8,170 feet. Power storage in the 123,300 acrefoot reservoir began in 1958.

About 2.5 miles below Courtright Dam, Helms Creek joins the North Fork Kings River. Wishon Dam is approximately four miles farther downstream on the north fork. Spillway elevation at Wishon is 6,539 feet and the capacity of Wishon Reservoir is about 128,500 acre-feet. Storage began in 1957.

In addition to these two major structures, the PG&E power facilities include the Haas powerhouse, the Balch Reservoir (1,260 acre-feet), the Balch powerhouse, and the Balch afterbay on the North Fork Kings River. Another powerhouse is located on the Kings River upstream from Pine Flat Reservoir. The general location of these features and Pine Flat Dam are shown on Plate II.

Pine Flat Dam forms a reservoir with a capacity of 1,013,400 acre-feet to the top of spillway gates. It is located on the Kings River about 3.5 miles upstream from Piedra. This multipurpose dam was constructed by the Corps of Engineers primarily for flood control, but it also provides

valuable conservation benefits in the regulation and storage of water used on over a million acres of intensively cultivated land on and adjacent to the alluvial fan of the Kings River in the San Joaquin Valley. Some regulation by the reservoir began December 4, 1951, with the reservoir in full operation by 1954.

Below Pine Flat Dam

Agricultural development below Pine Flat Dam on the alluvial fan of the Kings River dates back to Mexican land grants made before California was admitted as a state. As the cultivation of crops became more intensive over the years, the need for irrigation canals, diversion facilities, and river control projects became necessary and were constructed.

Below Pine Flat Dam, the river follows a southwesterly course for about eight miles where it emerges upon the floor of the San Joaquin Valley. It is at this approximate location that the Friant-Kern Canal, a United States Bureau of Reclamation (Bureau) conduit leading from the San Joaquin River, siphons under the Kings River and has outlet facilities to discharge water into the Kings River. It is also the location of some of the major headworks of irrigation canals diverting water for use in the Kings River service area. In all, 24 canals of the Kings River Water Association originate in this general area, including five large ones. Their names

and locations are shown on Plate I-A, which was taken from Kings River Water Association Exhibit No. 10. (Downstream points of diversion are shown on Plates I-B and I-C)

The next major structure is Peoples Weir, which is located about 34 miles downstream from Pine Flat Dam and one mile west of U. S. Highway 99. Peoples Weir and other principal control structures are shown on Plate III. Lakelands Canal, Peoples Ditch, and Riverside Ditch divert water at Peoples Weir.

A short distance below Peoples Weir, the river separates into two branches, Cole Slough and the high-flow channel of Kings River. The main branch, Cole Slough, flows to the right in a southwesterly direction until it separates into two channels. The right or northern branch continues as Cole Slough to Reynolds Weir and Murphy Slough Weir, the latter being a control structure at the head of Murphy The southern branch of Cole Slough is called Dutch John Cut and has a weir at its head to control the division of flow down Dutch John Cut and Lower Cole Slough. Dutch John Cut flows in a more southerly direction until it rejoins the Kings River high-flow channel, which is the left or southern branch of the bifurcation below Peoples Weir. Kings River in this reach is also known as Old Kings River, since almost all of the water now flows down Cole Slough. Cole Slough rejoins the Kings River about two miles west of

Dutch John Cut and one mile north of Last Chance Weir. The next major structure on the river, some three miles to the west, is Lemoore Weir.

About six miles west and somewhat south of Lemoore Weir, flow of Kings River became divided under natural conditions. This point is known as the "bifurcation", and the immediate vicinity as the bifurcation area. The north fork, or Kings River North, flows in a westerly direction about five miles, where the stream divides again, one branch flowing north (Fresno Slough) to join the San Joaquin River. Crescent Weir, at the head of Fresno Slough, controls the amount of water flowing through that channel and out of the Kings River service area. Crescent Weir also is the means by which water is diverted into Crescent Canal and Summit Lake Ditch. The southerly branch of Kings River North flows to its terminus in Tulare Lake Basin.

At the bifurcation, the flow into Kings River North is controlled by Island Weir and the flow into Kings River South is controlled by Army Weir. Kings River South also forms two channels, the main channel being called Clarks Fork of Kings River and the other channel being called the South Fork. Both forks join Kings River North as it flows south to Tulare Lake Basin.

As the Kings River approaches Tulare Lake, a large weir, the Empire No. 2, diverts water into the canal

of Tulare Lake Canal Company. This canal circles the bed of Tulare Lake to the north and east where it empties into large distribution canals traversing the lakebed. Below Empire Weir No. 2, the remaining flow of the Kings River enters the distribution canals in Tulare Lake at its northern edge.

One hundred years ago the bed of Tulare Lake was covered at all times by water which formed a lake varying in size from 150,000 to 300,000 acres. Since then, the bed of the lake has been reclaimed for agriculture with a comprehensive system of irrigation-drainage canals bordered by levees. These levees form a system of cellular storage areas into which flood waters may be diverted when inflow to the lakebed exceeds irrigation requirements. The Kings River service area of the Kings River Water Association (KRWA) is shown on Plate III. Plate IV depicts in more detail the controversial area between Peoples and Lemoore Weirs.

The need for supplementary flood control works was emphasized by the disastrous floods of 1937 and 1938. Runoff of the Kings River at Piedra during the year 1937 was 2,478,000 acre-feet or 148 percent of the average for the preceding 42 years. A flood peak of 80,000 cubic feet per second occurred on December 11, 1937. This resulted in the flooding of thousands of acres of valuable farmland and extensive damage to roads and bridges.

During 1938, the runoff was 3,181,380 acre-feet or 186 percent of the average for the previous 43 years. Canals of the KRWA diverted 1,653,900 acre-feet. The balance flowed about equally to the San Joaquin River and Tulare Lake Basin.

The bed of Tulare Lake Basin, at its lowest elevation, is about 179 feet, U.S.G.S. datum, but during the 1938 flood the water reached an elevation of 195.35 feet and receded to 193.06 feet after all the levee breaks had occurred. At that time, the lake contained a little over 1,100,000 acre-feet of water. It did not again become completely unwatered until October of 1946, although, before that time, water was confined to a limited area to permit farming of as much land as possible.

In recognition of the need to minimize loss of income and property damage in this agriculturally rich area, the Corps of Engineers made an engineering study with plans for improvements and submitted this to Congress in February of 1940.

In addition to Pine Flat Dam, the plans included levee and channel work in the Kings River Service Area which, when constructed, resulted in a larger measure of flood control in both the area below Pine Flat Dam and in Tulare Lake Basin.

Water Supply and Use of Water in the "Kings River Service Area"

The "Kings River Service Area", as the phrase is used by the applicant trustee, includes all district lands and service areas of the 28 beneficiaries of the trust, all of whom are members of the Kings River Water Association.

At its greatest dimensions, the Kings River service area extends about 60 miles from east to west, and 75 miles from north to south. It includes about 1,100,000 irrigable acres, and contains nearly all the lands served water from the Kings River. That it does not contain all lands that receive a surface or ground-water supply from the Kings River is pointed out by the protestants, particularly those individuals who have property near Cole Slough or the Old Kings River in the general vicinity of Dutch John Cut.

As the Kings River flows out on the floor of the San Joaquin Valley, the river channel changes from gravel and sand to sand and finer detrital material. This sandy material is permeable and serves as a medium for transmission of river water to the ground-water basin underlying the delta of the Kings River.

Approximately 30 miles from the Sierra foothills in a southwesterly direction, the permeable soils of the Kings River delta are separated horizontally by an impervious stratum called the Corcoran clay. Water from the free groundwater table upstream or east of this clay formation can, and

does, seep underneath the clay and becomes confined, a situation which, in the past, has given rise to a supply of artesian water to the west. Percolating waters also are trapped and form an unconfined water table above the clay.

The primary source of all ground water in the Kings River service area is the river and its distributaries, including percolation from applied irrigation water, direct rainfall, and some imported water.

The annual water supply of the Kings River has for many years been measured or calculated at Piedra, which is located just downstream from Pine Flat Dam. (See Plate II.) The average annual runoff at Piedra for the period 1896-1966 inclusive equals 1,626,256 acre-feet. Maximum year was 1906, with about 3,958,300 acre-feet, and minimum year was 1924, with about 399,500 acre-feet (See Table 3.)

Since the Kings River drainage area receives 80 percent of its precipitation in the form of snow (RT 88), the runoff tends to peak between April and July, with relatively small flows in the late summer and fall months. (Staff Exh. 13.) Even with storage and regulation, normal operation requires a supplementary use of ground water in nearly all the Kings River service area. The ground-water overdraft in the San Joaquin Valley south of the San Joaquin River is estimated to be 2,000,000 acre-feet per year (RT 199). In the Kings River service area, the ground-water

TABLE 3

Annual Discharge of Kings River at Piedra*
From U.S.G.S. Records
(Thousands of Acre-Feet)

<u>Year</u>	<u>Total</u>	Year	<u>Total</u>	Year	<u>Total</u>	<u>Year</u>	<u>Total</u>
1896(1) 1897 1898 1899 1900	1,545.5 1,988.7 817.6 1,343.6 1,331.2	1916 1917 1918 1919 1920	3,142.5 1,782.5 1,478.6 1,101.7 1,446.4	1936 1937 1938 1939 1940	1,905.0 2,478.5 3,181.4 918.8 1,841.6	1956 1957 1958 1959 1960	2,214.2 1,267.7 2,504.4 791.2 740.0
1901 1902 1903 1904 1905	2,919.0 1,460.0 1,615.7 1,827.1 1,308.4	1921 1922 1923 1924 1925	1,520.5 2,220.7 1,500.3 399.5 1,283.0	1941 1942 1943 1944 1945	2,547.3 1,970.3 1,993.2 1,218.0 2,184.4	1961 1962 1963(3) 1964(3) 1965(4)	946.4
1906 1907 1908 1909 1910	3,958.3 2,714.5 982.5 2,908.4 1,668.5	1926 1927 1928 1929 1930	1,099.0 1,983.4 894.4 837.2 869.6	1946 1947 1948 1949 1950	1,569.1 981.7 976.4 973.9 1,701.6		1,105.3 1,419.5
1911 1912 1913 1914 1915	2,836.7 932.3 961.4 2,559.2 1,796.5	1931 1932 1933 1934 1935	513.7 2,043.2 1,201.4 647.8 1,615.1	1951 1952 1953 1954(2	1,244.1 2,828.2 1,118.5 2)1,337.5 1,504.3		

^{*}Calendar Year

Mean annual runoff at Piedra, 1896-1966, Incl.=1,626,256 acre-feet

⁽¹⁾ Unadjusted for years 1896 through 1953, inclusive, and 1967 (9 months).

⁽²⁾ Kings River Water Association adjustment for years 1954 through 1963 inclusive.

⁽³⁾ U.S.G.S. adjustment for change in storage in Wishon, Courtright, and Pine Flat Reservoirs and evaporation from Pine Flat Reservoir.

⁽⁴⁾ U.S.G.S. adjustment for storage in contents in Wishon, Courtright, and Pine Flat Reservoirs and evaporation from Pine Flat Reservoir for period January 1 to September 30 and Kings River Water Association adjustment for period October 1 to December 31.

⁽⁵⁾ Kings River Water Association adjustment for period January 1 to September 30 and no adjustment for period October 1 to December 31.

⁽⁶⁾ For nine month period January 1 to September 30.

deficiency manifests itself by receding ground-water levels. In ground-water units of the Alta, Fresno, and Consolidated Irrigation Districts between 1921 and 1965, the average depth to ground water dropped by 20.5 feet, 40.8 feet, and 20.5 feet, respectively (RT 197, 198). In the lower Kings River comparable records were not kept prior to 1959.

A water deficiency in the Kings River service area is also indicated by an analysis of consumptive uses of the main crops. Referring to Table 104 on page 157 of Bulletin No. 2 (Staff Exh. 9), we find the relative acreages of these crops planted in 1955 and are able to determine that the average consumptive use was 2.3 acre-feet per acre exclusive of rainfall. Depending upon the crops planted, this figure will vary somewhat from year to year, but total water requirements will amount to about 2,500,000 acre-feet for the KRWA's 1,100,000 irrigable acres.

Some water from sources outside the Kings River service area is being imported into the area for the primary purpose of ground-water recharge. During the period 1954 through 1964, the amount of water that was purchased by units in the Kings River service area from the Friant Division of the Central Valley Project was 704,638 acrefeet. Members of the Kings River Water Association who purchased water during this period include Fresno Irrigation District, Consolidated Irrigation District, Alta Irrigation

District, Tulare Lake Basin Water Storage District, Last Chance Water Ditch Company, Corcoran Irrigation District, Laguna Irrigation District, Riverdale Irrigation District. Stratford Irrigation District, and Empire West Side Irrigation District. Included in the total given above was 73,373 acre-feet purchased by the Kings County Water District. Tulare Lake Basin Water Storage District has signed a contract with the State of California Department of Water Resources for delivery of 110,000 acre-feet per annum from the California Aqueduct (RT 213). In addition, Tranquillity and James Irrigation Districts have leased their basic Kings River rights to KRWA, and the water represented by those rights is now being released down the Kings River below Peoples Weir to help make up the heavy channel losses that are now occurring, particularly in the reach above Lemoore Weir. With the proceeds of this transaction, Tranquillity and James Irrigation Districts are now buying 20,200 and 9,700 acre-feet per annum, respectively, from the United States Bureau of Reclamation at Mendota Pool on the San Joaquin River. The same districts have also contracted with the Bureau for supplemental supplies of 13,800 and 35,300 acre-feet per annum. All these import supplies of water still leave a substantial overdraft of water in the Kings River service area.

Reservoirs and Their Operation for Consumptive Use

Since Pine Flat Reservoir was constructed by the Corps of Engineers primarily for flood control purposes, it is operated by the Corps pursuant to a reservoir regulation manual (F.I.D. Exh. 1). The regulations on Plate 8 contain a flood control storage reservation diagram and criteria for flood control operation. The entire reservoir capacity is available for conservation space after July 31, but this space starts to diminish on October 1, and is little more than half the reservoir's capacity through the months of December and January.

After February 1, there is a conditional flood control space requirement that could require use of up to the entire reservoir capacity, based on predicted runoff.

A permanent contract for the repayment of irrigation benefits was entered upon between the U. S. Bureau of Reclamation and members of the KRWA on December 23, 1963, (F.I.D. Exh. 14-9). The contract in general provides for use of the available conservation space, reregulation of irrigation water, and release of stored waters, pursuant to operating instructions of the association, but without interference with basic flood control operations by the Corps of Engineers. This prevents damaging floods during peak runoff on the river, reduces the outflow to the ocean, and minimizes the flooding of valuable agricultural land in Tulare Lake Basin.

Courtright and Wishon Reservoirs were both built by PG&E upstream from Pine Flat Reservoir for the primary purpose of power generation. They are operated pursuant to agreements both with the members of the KRWA (F.I.D. Exhs. 17 and 18) and with the United States. The latter agreement is reflected in the operating criteria for flood control operation of Pine Flat Reservoir, which provides:

"5. The flood control reservation shall be decreased by the amount of flood control space in upstream P.G.&E reservoirs, but not to a value smaller than the rain-flood reservation value."

The effect of this agreement is to make additional conservation storage space available in Pine Flat Reservoir. The contracts with members of the KRWA result in the controlled release of water from these reservoirs to satisfy downstream requirements for irrigation and ground-water recharge.

The construction and operation of Pine Flat
Reservoir has provided storage and regulation of flood
waters which formerly flowed out Fresno Slough or into Tulare
Lake Basin. This has increased the area in the basin which
is now farmed, and which in turn requires increasing
quantities of surface and ground water for farming operations.
Water which formerly evaporated in the Tulare Lake Basin will
be discussed in connection with unappropriated water.

Protection of Vested Rights

In passing upon applications for unappropriated water, the Board does not have the powers of a court, but it nevertheless has a duty to protect vested rights from unreasonable infringement or damage resulting from the construction and operation of approved projects. In the case of Meridian, Ltd. v. San Francisco (1939), 13 Calif. (2d) 424, the court states:

"It should be the first concern of the court in any case pending before it and of the department (now the board) in the exercise of its powers under the act to recognize and protect the interests of those who have prior and paramount rights to the use of the waters of the stream."

The High-Flow Channel Below Peoples Weir

The evidence shows that there is an area of about nine miles of river channel that has been directly and adversely affected with respect to the recharge of ground water by the construction and operation of Pine Flat Dam and Reservoir. This is the high-flow channel of the Kings River which is shown on Plate IV. It extends from about a quarter of a mile below Peoples Weir to Dutch John Cut.

This is referred to as a high-flow channel because its elevation is higher than that of Cole Slough, and no water flows in the high-flow channel unless the flow below Peoples Weir amounts to several thousand cubic feet per second.

There is no substantial disagreement by the experts as to the amount of water required to produce a flow of water down the high-flow channel of the Kings River. engineering expert for protestants stated that average daily flows of 4.096 second-feet below Peoples Weir initiated flow in the high-flow channel in 1966, and the KRWA watermaster said that this figure was 4,094 cubic feet per second (cfs) (RT 1485). An engineering expert for the applicant trustee testified that the elevation of the high-flow channel had varied somewhat from year to year with respect to the elevation of Cole Slough. (See F.I.D. Exhs. 39 and 41.) According to him, a flow of 4,650 cfs in 1956 was required to initiate a flow in the high-flow channel (RT 1874). We believe and find that over the years prior to construction of Pine Flat Dam, an average daily flow of approximately 4,500 cfs below Peoples Weir would result in flows down the high-flow channel.

The protestants expert analyzed the KRWA watermaster records. When the flow below Peoples Weir was not
directly available, he subtracted from daily recorded or
calculated flows at Piedra all recorded diversions downstream
to and including those at Peoples Weir.

He made no allowance for channel losses above
Peoples Weir because the Kings River is considered a gaining stream in this reach. This procedure and these assumptions

we find to be consistent with other testimony, and to be reasonable. For the 58-year period of 1896-1953, he found that there was an average of 20.4 days of flows down the high-flow channel, on the further assumption that 4,500 cfs were required below Peoples Weir to initiate such flows.

The protestants' expert estimated ground-water recharge in the high-flow channel to be at the rate of 6.2 cfs per mile. "Predicated upon the foregoing, the losses in the Kings River Channel between Old Cole Slough and one mile upstream from its confluence with Dutch John Cut are estimated at 6.2 cfs/mi. x 9.0 mi. or 55.8 cfs, say 56 cubic feet per second" (KCWD Exh. 22). For convenience, we will consider these figures to approximate 55 cfs or 110 acre-feet per day of ground-water recharge.

Note the reference of the protestants' expert to a termination of the high-flow channel at a point "one mile upstream from its confluence with Dutch John Cut." This is because water which flows down Dutch John Cut backs up in the high-flow channel for approximately one mile.

The protestants' expert also "estimated that 400 acre-feet of inflow to this reach of the river is dissipated in channel storage and saturation of the riverbed materials and accrues to the ground-water supply in addition to percolation from sustained surface flows" (KCWD Exh. 22, Sheet 3).

This testimony as to percolating and channel losses was not seriously questioned on cross-examination, nor was it controverted by other expert testimony. We find it to be reasonable and to represent pre-project conditions as applied to the nine miles of the high-flow channel, when coupled with the finding that 4,500 cfs below Peoples Weir caused water to flow down the high-flow channel. We further find that nearly all of this pre-project percolation to the high-flow channel has been lost as a result of the construction and operation of Pine Flat Dam. This conclusion tends to be supported by a comparison of the change in ground-water surface elevations during the 14-year periods that preceded and followed the construction and operation of Pine Flat Dam, although the two periods are not fully comparable (KCWD Exhs. 32 and 33).

These findings are limited to ground-water deficiencies resulting from the operation of Pine Flat Reservoir. They do not take into consideration any quantities of water that might have been pumped from the high-flow channel under possible claim of riparian or other right. Surface flow was so irregular in this reach of the Kings River that wells and ground water had to be relied upon almost exclusively to meet irrigation requirements.

For reasons that will be discussed in connection with other areas, we find that the only area of the Kings River that was directly and unreasonably interfered with as

to its ground-water supply by the construction and operation of Pine Flat Reservoir was the nine-mile reach of the high-flow channel described above.

We also believe it is possible to calculate, within a reasonable range, the river flows at Piedra at all different months of the year which would have resulted in flows down the Kings River high-flow channel except for the presence and operation of Pine Flat and the other upstream reservoirs to which these applications relate.

In pre-Pine Flat days, the KRWA watermaster calculated the entitlement of all members of the association based on daily flows at Piedra and in accordance with the agreement dated May 3, 1927, as supplemented and amended on June 1, 1949, (F.I.D. Exhs. 12(a), 12(b) and 13). Watermaster records are prepared daily, and show recorded and calculated flows at Piedra. The annual reports also show daily diversions made by the watermaster (Staff Exh. 13).

If all members of KRWA located upstream from Peoples Weir had taken their full entitlements in preproject days, the following flows at Piedra would have resulted in flow below Peoples Weir at a rate of 4,500 cfs or more, according to F.I.D. Exhibit 13:

January	-	7,100	July	10,700
February		8,200	August	8,800
March	_	8,500	September	8 , 7 0 0
April	-	10,500	October	7,600
May	-	11,000	November	7,800
June	-	11,100	December	7,500

In the 13-year period 1940-1952, the number of days when the high flow equalled or exceeded the above rates of flow amounted to only about 60 percent of the days when the records show the flows below Peoples Weir equalled or exceeded 4,500 cfs, as the watermaster records are analyzed and reported by the protestants' expert (KCWD Exh. 19). A further analysis of the watermaster records for this period shows that not all members of the KRWA located above Peoples Weir took their full entitlements in the first half of the year. In fact, the analysis of records for this period shows that in the first half of the year when the high flows at Piedra exceeded the above figures, these upstream members of KRWA had diverted about 1,000 cfs less than their full entitlements.

A further analysis was made, assuming that in preproject days the KRWA diverted their full entitlements from July 1 through December, but that during the first half of the year their actual diversions—that would result in flows of 4,500 cfs below Peoples Weir—were not in excess of the following monthly rates, in cfs:

January	- 6,000	April	-	9,500
February	- 7,000	May	-	10,000
March	- 7,500	June	-	10,000

A comparison was then made for this 13-year period between the modified entitlement method, described above, and the daily flows recorded in the watermaster reports, as

^{*} Term used for convenience, has no legal significance

reported by the protestants' expert Henning. A comparison of these two methods of computing flows at Piedra required to result in flows in excess of 4,500 cfs below Peoples Weir is as follows:

	(Days	of fl	ow dow	n the	high-f	low ch	annel)
Year	1940	1941	1942	1943	1944	1945	1946
(Henning (Method	23	56	32	25	0	21	4
(Modified (Entitlement	17	46	23	18	0	25	6
Year	1947	1948	1949	<u>1950</u>	<u> 1951</u>	1952	
(Henning (Method	0	1	0	7	2	54	
(Modified (Entitlement	0	2	0	9	3	53	

The modified entitlement method follows the Henning method closely on an annual basis, and results in a 13-year total that is 90 percent of the Henning total. The modified entitlement method is explained in this detail because it affords a reasonable basis for looking at the daily recorded and calculated Piedra flows during each month of the year, and calculating on an approximate basis what specific high-flow days in the absence of Pine Flat Reservoir would have resulted in flows and percolation of water in the Kings River high-flow channel. Permits to be approved with upstream points of diversion will be conditioned accordingly, for the protection of vested rights to percolating water in and near the high-flow channel.

Area of Kings River Riparian and Percolating Water Users Association

The Kings River Riparian and Percolating Water
Users Association (for convenience sometimes referred to
as the Riparian Association, or R.A.) is the name of an
unincorporated and loosely organized group of people without
constitution or bylaws who have in common a desire to make
sure that their property and water supply is not prejudiced
by the operations of the KRWA and its watermaster. The
property of persons who at any time have contributed to
the Riparian Association is shown by most but not all of the
pink areas on R.A. Exhibit 1. These pink areas extend in
a sporadic and irregular manner from Peoples Weir to
Stinson Weir, and as far south as the Clark's Fork near
the North Fork of the Kings River.

The Riparian Association's protests will be considered in the light of the testimony of its members, about ten in number, who appeared at the hearing. R. A. Exhibit 1 is marked in ink to show the location of the property of these individuals. Most of them have property located along or between Cole Slough and the Kings River, just upstream or downstream from Dutch John Cut. A few have property along the high-flow channel of the Kings River, and are located within the area previously discussed. One individual who appeared on behalf of the Riparian Association has property located along Fresno Slough, and another is on Clark's Fork near the North Fork.

For several reasons we believe that the evidence does not require or justify imposition of any of the various permit conditions proposed by the Riparian Association.

The KRWA watermaster reports show that since the construction of Pine Flat Dam, each year there are many additional thousands of acre-feet of channel losses in the reach between Peoples Weir and Lemoore Weir. Channel losses. as defined in these reports, include percolation in the channel and pumped diversions. Part of the increased channel losses result from the large quantities of stored water which now are released down the Kings River channels in the late summer. Part of the increased channel losses result from the increased pumpage of water either directly from the river channels or from ground-water wells located near these channels. It is reasonable to conclude that the total supply of river and ground water available to and used by Riparian Association members with property located between Peoples Weir and Lemoore weir is augmented -- not decreased -- as a result of the construction and operation of Pine Flat Dam and Reservoir. There is no reason to anticipate any change in this situation in the future.

None of the protestants contend that the project deprived them of ground water. Some of them testified to the lowering of the ground-water levels after the construction of Pine Flat Dam. This testimony must be weighed in the light

of the large water deficiency and the general lowering of ground-water levels throughout the Kings River service area before as well as after the construction of Pine Flat Dam.

In some instances, individuals claimed to have riparian rights to a share of the natural flow of the Kings River that had been interfered with by the project for which the applicant trustee seeks permits. Undoubtedly some of these individuals do have, or have had, riparian rights, but in no instance was the testimony before the Board clear as to interference with riparian rights. general, in most reaches of the Kings River, there have been more days of flow during the irrigation season after the construction of Pine Flat Dam than there was in pre-project days, so most riparians would have difficultly in showing any damage attributable to the project (F.I.D. Exh. 45). It is assumed that all these members of the Riparian Association with ground-water wells located in the Kings River groundwater area do have overlying rights. Their protests are considered on the basis of that assumption.

Another reason for not adopting permit conditions proposed by the Riparian Association relates to the nature of the downstream channels. The evidence did not show the loss of flood percolation directly attributable to the project in any channels downstream from Dutch John Cut. The many downstream channels have water diverted to or from them

pursuant to KRWA agreements and operations that have been in existence for many years, and which withstood attack in the recent case of <u>Turner</u>, et al v. <u>Kings River Conservation</u> <u>District</u> (1966), 360 F. 2d 184.

Additional reasons for not adopting permit conditions proposed by the Riparian Association include the fact that their members are located in the same ground-water area as the members of KRWA, and gratuitously benefit from the ground-water recharge purchases and activities of KRWA. No evidence indicated the purchase of any import supplies by members of the Riparian Association.

The Riparian Association evidence and argument is admittedly thin as to present damage resulting from the project—it is more directed to the possibility of future damage, such as might result from the changing of points of diversion or places of use. The holders of pre-1914 appropriative rights (the basic rights held by most members of KRWA) are authorized by Water Code Section 1706 to "change the point of diversion, place of use, or purpose of use if others are not injured by such a change." It is for the courts to determine whether such injury takes place; no such jurisdiction over pre-1914 appropriative rights is given to this Board.

Although the Board does not find it reasonable to impose streamflow permit conditions for the area downstream

from Dutch John Cut, it will, acting within its authorized jurisdiction, be prepared to cooperate with the parties for the elimination of any specific instances of damage to vested rights which is clearly and directly attributable to the project.

The protest of the Kings County Sportsman's Club, Inc., is similar to the request of the Riparian Association for a permit condition to require a live stream in all channels of the river at all times. This would require more water in the river channels than in pre-project days and is found not to be justified by the evidence. The California Department of Fish and Game originally filed a somewhat comparable protest which it later withdrew after reaching an agreement with the KRWA and the applicant trustee.

Unappropriated Water

Before the Board approves an application, it must make a finding of the existence and availability of unappropriated water.

Unappropriated water is included in the water which in the pre-project days flowed out of the Kings River service area. From 1932 to 1953 the total outflow ranged from zero to over 800,000 acre-feet per annum and averaged 170,350 afa (F.I.D. Exh. 21). This quantity can be broken

down into two parts. The applicant trustee considers that 28,900 afa is the portion of this total which for this period represents the "apparent unappropriated water in Kings River" (F.I.D. Exh. 21). The balance of 141,450 afa is claimed by the applicant trustee and by KRWA to constitute pre-1914 appropriative rights to the first 2,000 cfs of outflow through the Fresno Slough that were formerly held by the U.S. Bureau of Reclamation, and prior to that by several canal companies by various court judgments. By an agreement dated April 23, 1965, in consideration of a payment of \$750,000, the Bureau relinquished all claims to Kings River water through Fresno Slough, and assigned its Application 10750 to the KRWA. It is the position of the applicant trustee and KRWA that the first 2,000 cfs of Fresno Slough outflow are pre-1914 appropriative rights, with respect to which they can and are moving upstream the points of diversion and place of use. The Board has no reason to question this concept. If for any reason a court should consider the 2,000 cfs settlement to have resulted in unappropriated water, the total supply thereof would be increased accordingly, but it would make no difference to the pending applications.

The project has also caused total Kings River evaporation losses to decrease by many thousand acre-feet a year. The former high evaporation losses from the wide

and shallow surface of Tulare Lake have been substantially decreased by storage in the deeper upstream reservoirs which have less surface area subject to evaporation.

Most of the water stored behind the upstream dams is water that formerly was consumptively used downstream by members of KRWA under claim of pre-1914 appropriative rights. California law is not clear as to whether a permit is required for the storage from one season to another of pre-1914 direct diversion appropriative rights. Certainly permits eliminate any question of the validity of such storage for consumptive use under California law. A permit clause will provide for the prevention of excessive combined rights as the result of the overlapping of rights.

Fresno Irrigation District, Trustee, Applications to be Approved

It is the intention of KRWA to utilize all of the runoff of the river. While this is not possible in years of extreme flood, the association members have planned their overall project to take maximum advantage of all storage facilities available to them. This includes recharge of ground water and underground storage as well as the storage of flood waters in Tulare Lake Basin and maximum retention in Pine Flat Reservoir. Consulting Engineer

Henry Karrer testified to the effect that under certain ideal conditions, about 2,000,000 acre-feet could be stored and regulated in Pine Flat Reservoir in any one year (RT 192). He also said that up to 1,000,000 acre-feet of water could be stored in the cellular dyke system in Tulare Lake Basin (RT 192). Thus, total storage capacity, including that in Wishon and Courtright Reservoirs, would be about 3,230,500 acre-feet.

The evidence justifies approval for irrigation and related uses of the following amounts of direct diversion and storage:

Application No.	Direct Diversion (cfs)	Storage (afa)
353	2,000(1)	300,000(1)
360	5,000	600,000(2)
5640	5,000	1,540,000(2)
10979	o o	128,000(3)
11023	10,000(4)	_
11075	2,000(5)	-
15231	2,500(6)	1,000,000(7)
16469	-	102,500(8)

- (1) At Empire Weir No. 2 and Tulare Lake
- (2) At Pine Flat Reservoir
- (3) At Wishon Reservoir on North Fork Kings River
- (4) Not to exceed 1,000,000 acre-feet per annum
- (5) At Empire Weir No. 2 not to exceed 136,700 acrefeet per annum
- (6) At inlet channels to Tulare Lake Basin
- (7) In Tulare Lake Basin
- (8) In Courtright Reservoir on Helms Creek

Storage to be approved totals 3,670,500 acrefeet per annum compared to total storage capacity of 3,230,500 acre-feet, exclusive of underground storage, and maximum recorded runoff of 3,958,300 acre-feet per annum at Piedra. Storage at Pine Flat totals 2,140,000 acre-feet per annum. Total direct diversion to be approved, exclusive of flood flows, is 16,500 cubic feet per second as compared to total diversion capacity of irrigation canals aggregating somewhat over 15,500 cubic feet per second (See Application 5640 and RT 132).

Applications on Sycamore and Mill Creeks or Tributaries Thereto

As is indicated by the preceding discussion, the amounts of water applied for by Fresno Irrigation District, Trustee, exceed the long-term mean annual runoff at Piedra and, in addition, include flood flows in order to utilize the entire flow of the Kings River.

Only in years of exceptionally high runoff would any water be allowed to leave the Kings River service area through Fresno Slough. Since Pine Flat Dam began storing water, outflow through Fresno Slough has occurred in less than one-third of the years, and for nine consecutive years there was no such outflow. Under these circumstances, it must be concluded that the prior major applications which are to be approved will appropriate essentially all of the

available unappropriated water of the Kings River. Evaporation savings resulting from the project cannot be considered as available to the area above Pine Flat because it results from the conservation operation of storage reservoirs under contracts with the KRWA. The association's conservation of water is not available for the Board to transfer to other parties in the guise of unappropriated water.

Upstream applicants appeared and testified on behalf of Applications 19836, 20002 and 20486.

Application 19836 was filed on October 31, 1960, by Watkin L. and Helen Owen for storage of 100 afa in two reservoirs diverting from an unnamed stream tributary to Mill Creek, which joins the Kings River from the south a short distance below Pine Flat Dam.

Two small reservoirs had been constructed on the applicants' farm prior to their purchase of the property. The prior owners had not applied for a permit to build these. Applicants desire to increase the size of both reservoirs and want a permit to authorize the proposed storage. Formerly, the total capacity of both reservoirs together was reported to be less than 40 acre-feet. Water has been used for irrigation of 15 acres of pasture and stockwatering. Mr. Owen wants to increase the acreage of irrigated pasture to 40 (RT 503).

According to applicant Owen, the only water that reaches his reservoirs is produced during heavy winter storms when his ponds fill quickly (RT 509). Immediately after every rain or snow, the small ravine dries up completely and there is no continuity of flow from the ravine to Mill Creek (RT 504 and 508). In this case and those of the other two upstream applicants under consideration, lack of continuity of flow has no bearing on applications for winter storage, since Fresno Irrigation District and the members of the trusteeship claim total appropriation of unappropriated water including winter runoff.

Application 20002 was filed on February 23, 1961, by A. M. and Loistene A. Van Dyne for direct diversion of 6,000 gallons per day, year-round, and storage of 15 afa during the period November 1 to June 1 of the succeeding year. The uses are domestic, irrigation, and stockwatering. The source of direct diversion is an unnamed spring and storage is on an unnamed stream, both located in Section 23, T10S, R24E, and both tributary to Sycamore Creek, thence Pine Flat Reservoir.

The spring is on a neighbor's property owned by a protestant who did not appear at the hearing. Water from the spring is piped to a tank near the Van Dyne residence and the overflow continues on to his pond, which is used for recreation and stockwatering (RT 514). The only other protestant is Fresno Irrigation District, as trustee.

Mr. Van Dyne introduced into evidence a decree in the matter of Ford v. Van Dyne, Fresno County Superior Court No. 116841, issued on October 27, 1966, (Van Dyne Exh. 1). As between the parties to that action, the decree allows Van Dyne to continue diverting from his neighbor's spring in the manner he has been doing for the past 18 years. Mr. Van Dyne said that the previous owner of his property had also used the water in the same manner for an additional 16 years (RT 516).

Application 20486 was filed by Ralph A. and Jeanette M. Taylor on November 9, 1961, for storage of 32 afa in two reservoirs located in Sections 30 and 31, T13S, R27E. The source is two unnamed streams tributary to Milk Ranch Canyon, thence Mill Creek. The season of diversion would be October 1 to the succeeding May 1. The use is stockwatering of 250 head of cattle and fish culture.

Mr. Taylor owns 555 acres of table land and his immediate neighbors own about 300 acres more in this area. The surrounding land all belongs to the U. S. Forest Service (RT 528). He said that the soil on his land is only six to eighteen inches deep and overlies about 30 feet of decomposed granite and then solid granite. He has drilled a number of wells and they produce not more than five gallons per minute (RT 528-529). Generally, the area receives 30 to 40 inches of rain during the year and this either runs off or is used by the brush. In late summer, it is usually dry and the cattle have to be moved (RT 530).

Mr. Taylor stated during his testimony that he has cleared about 350 to 400 acres of dense brush from his land in order to plant grass for his cattle and conserve water. He also said he has a regular maintenance program to keep the brush off his land (RT 534-5-6).

In past decisions of the State Water Rights Board, recognition has been taken of brush clearing programs insofar as they conserve water which the brush normally consumes. The U. S. Bureau of Reclamation and other agencies have also recognized that brush clearing, in effect, generates new water and that the person who clears the land and keeps it clear is entitled to use the water he generates in this manner. The ratio of acreage of brush cleared to acre-feet of water requested to be appropriated is comparable to the ratio in other applications that have been approved by the Board, subject to a permit condition requiring continued maintenance of the brush clearance program.

While the brush clearing program of the Taylors permits a finding of unappropriated water and approval of Application 20486, there remains a problem of finding sufficient unappropriated water available to justify the other two applications on the basis of the present record. The Board does know that a relatively small quantity of water could satisfy the consumptive use requirements of

the upper watershed for recreation, fish and wildlife, and for stockwatering and related uses.

Both the needs of the upper area and the problem of unappropriated water were anticipated by the Board at the hearing when Board Members discussed the possibility of exchange contracts to serve this area. This Board has been instrumental in bringing into existence such contracts in other comparable foothill areas to serve the same purpose as is needed here. Counsel for the KRWA expressed sympathy with the idea, but no such contract is yet in existence. The Board believes that the possibility of exchange contracts is of such importance that action should be deferred on Applications 19836 and 20002 for a reasonable period of time to give the applicants an opportunity to negotiate such contracts which might provide a sound basis for approval of these applications. the same reason action will now be deferred on Applications 20098, 20585 and 20679 because of a possible impression by these applicants that their applications would be denied at this time for want of necessary unappropriated water.

Conclusion

The evidence indicates and the Board finds that unappropriated water exists in the Kings River and its

tributaries at times and in sufficient quantities to justify approval in their amended form of Applications 353, 360, 5640, 11023, 11075, 15231 and 16469 for the full amount and season requested; approval of Application 10979 insofar as it covers storage for irrigation purposes in Wishon Reservoir, for the full amount and season requested; denial of Application 10979 insofar as power is concerned, at Wishon Dam, Haas, Balch, and Kings River Powerhouses, for want of any proposed project there; that the direct diversion and storage features of Application 10979 at Pine Flat Dam and Reservoir be denied insofar as irrigation is concerned, as being surplus to the applicants' requirements; and that the power features of Application 10979 at Pine Flat Dam and Reservoir be held in abeyance for hearing at a later date. Unappropriated water is also available to justify approval of Application 20486.

The Board also finds that the uses proposed under the applications named above are beneficial; that the water sought to be appropriated may be taken and used, as proposed, subject to certain conditions, without interference with the exercise of prior rights; and that the applications should be approved as indicated and permits issued pursuant thereto, subject to the usual terms and conditions and the special terms and conditions indicated in this decision.

For the reasons explained above, action will be deferred at this time on Applications 19836, 20002, 20098, 20585 and 20679.

ORDER

amend Applications 360, 10979, 11023 and 16469 "to conform in all respects to Application 5640 insofar as it relates to the place of use, downstream points of diversion and beneficiaries set forth and designated therein," as such petitions were amended July 18, 1967, be, and they are, approved.

IT IS FURTHER ORDERED that Applications 353, 360, 5640, 11023, 11075, 15231 and 16469 be, and they are, approved, and that Application 10979 be, and it is, approved in part, and that permits be issued to the applicant subject to vested rights and to the following limitations and conditions:

1-a. The water appropriated under the permit issued pursuant to Application 353 shall be limited to the quantity which can be beneficially used and shall not exceed 2,000 cubic feet per second by direct diversion from about January 1 to about July 15 of each year and 300,000 acre-feet per annum by storage in Tulare Lake Basin, to be collected between about January 1 and July 15 of each year.

1-b. The water appropriated under the permit issued pursuant to Application 360 shall be limited to the quantity which can be beneficially used and shall not exceed 5,000 cubic feet per second by direct diversion, year-round, and 600,000 acre-feet per annum by storage in Pine Flat Reservoir, to be collected year-round.

l-c. The water appropriated under the permit issued pursuant to Application 5640 shall be limited to the quantity which can be beneficially used and shall not exceed 5,000 cubic feet per second by direct diversion, year-round, and 1,540,000 acre-feet per annum by storage in Pine Flat Reservoir, to be collected year-round.

l-d. The water appropriated under the permit issued pursuant to Application 10979 shall be limited to the quantity which can be beneficially used and shall not exceed 128,000 acre-feet per annum by storage in Wishon Reservoir for irrigation use only, to be collected year-round.

l-e. The water appropriated under the permit issued pursuant to Application 11023 shall be limited to the quantity which can be beneficially used and shall not exceed 10,000 cubic feet per second by direct diversion, year-round, or a total of 1,000,000 acre-feet per annum.

l-f. The water appropriated under the permit issued pursuant to Application 11075 shall be limited to the quantity which can be beneficially used and shall not exceed 2,000 cubic feet per second by direct diversion, year-round, or a total of 136,700 acre-feet per annum.

1-g. The water appropriated under the permit issued pursuant to Application 15231 shall be limited to the quantity which can be beneficially used and shall not exceed 2,500 cubic feet per second by direct diversion, year-round, and 1,000,000 acre-feet per annum by storage in Tulare Lake Basin, to be collected year-round.

- 1-h. The water appropriated under the permit issued pursuant to Application 16469 shall be limited to the quantity which can be beneficially used and shall not exceed 102,500 acre-feet per annum by storage in Courtright Reservoir, to be collected year-round.
- 2. The maximum quantity herein stated may be reduced in the license if investigation warrants.
- 3. Complete application of the water to the proposed use shall be made on or before December 1, 1971.
- 4. Progress reports shall be filed promptly by permittee on forms which will be provided annually by the State Water Rights Board until license is issued.

- 5. All rights and privileges under these permits, including method of diversion, method of use, and quantity of water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.
- 6. Permittee shall allow representatives of the State Water Rights Board and other parties, as may be authorized from time to time by said Board, reasonable access to project works to determine compliance with the terms of these permits.
- 7. Water appropriated under these permits, to the extent it includes water already in use pursuant to other rights, shall be inclusive of and not in addition to such water.
- 8. The permits issued pursuant to Applications 360, 5640 and 11023 are subject to the following condition:

Permittee shall deliver water from the Kings
River into the Kings River's high-flow channel which is
located near and downstream from the Cole Slough bifurcation
below Peoples Weir (herein called the "high-flow channel")
in order to replenish the underground water supply for the
benefit of overlying owners, as follows:

(1) Permittee shall maintain a current record showing each day when the Kings River Water Association's "CALCULATED PRE-PROJECT PIEDRA" daily discharges, in cubic feet per second, equal or exceed the rate of flow applicable to the current month, as follows:

January	-	6,000	July		10,700
February	owel	7,000	August	_	8,800
March	-	7,500	September	-	8,700
April	-	9,500	October	_	7,600
May	eat0	10,000	November	-	7,800
June	_	10,000	December	_	7,500

Each day will be referred to herein as a "high-flow day."

(2) For each high-flow day, calculated as above, permittee shall deliver into the high-flow channel sufficient water to cause the channel to flow as a live stream continuously for one day in the direction of and as far as Dutch John Cut, subject to a maximum daily delivery requirement of 500 acre-feet for the first delivery day of each year, and of 110 acre-feet for all other days.

Deliveries shall be made in excess of the maximum daily delivery requirement when necessary for the maintenance of a live stream to Dutch John Cut; but any such excess deliveries shall be deducted from the cumulative annual delivery obligation. Delivery requirements into the high-flow channel, as calculated by flows at Piedra, shall be

reduced by one day for each day or fraction of a day that flood conditions cause water to flow down the high-flow channel as far as Dutch John Cut.

- (3) Permittee may make deliveries under this condition at any convenient time, except that all outstanding deliveries shall be completed not later than the end of July of each year. When permittee has surplus water available, it may build up an advance recharge credit of not to exceed 1,800 acre-feet at any one time by delivering water into the high-flow channel pursuant to this condition.
- (4) Permittee shall report to the Board its deliveries under this condition at least once each year, and at such additional times and in such detail as may be requested by the Board.
- (5) The Board reserves the right to cancel this condition if the high-flow channel is not so maintained that water can flow freely and unimpeded by temporary or permanent dams, roads, or other obstacles.
- (6) This condition may be modified to conform to any agreement between permittee and the Kings County Water District. This condition will be modified or canceled to conform to the requirements of the judgment of any court of competent jurisdiction.
- 9. The permit issued pursuant to Application 5640 is subject to this additional condition:

Before making any change in the project determined by the State Water Rights Board to be substantial, permittee shall submit such change to the Board for its approval in compliance with Water Code Section 10504.5(a).

10. The permits issued pursuant to Applications 10979 and 16469 will each contain the following additional condition:

Unless otherwise agreed by permittee and Pacific Gas and Electric Company, permittee shall store and release water under this permit only in accordance with the provisions of the agreement dated December 20, 1954, by the Kings River Water Association and its members and the Pacific Gas and Electric Company, and the agreement dated February 15, 1955, by the Kings River Water District and the Pacific Gas and Electric Company, or as such agreements may hereafter be amended or superseded, to the extent that the provisions of such agreements are within the jurisdiction of the Board.

IT IS FURTHER ORDERED that Application 20486 be, and it is, approved, and that a permit be issued to the applicants subject to vested rights and to the following limitations and conditions:

1. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 32 acre-feet per annum by storage to be collected from about October 1 of each year to about May 1 of the succeeding year. This permit does not authorize collection of water to storage outside the specified season to offset evaporation and seepage losses or for any other purpose.

- 2. After the initial filling of the storage reservoir, permittee's right under this permit extends only to water necessary to keep the reservoir full by replacing water beneficially used or lost by evaporation and seepage and refill if emptied for necessary maintenance or repair.
- 3. The maximum quantity herein stated may be reduced in the license if investigation warrants.
- 4. Actual construction work shall begin on or before September 1, 1968, and shall thereafter be prosecuted with reasonable diligence, and if not so commenced and prosecuted, this permit may be revoked.
- 5. Construction work shall be completed on or before December 1, 1970.
 - 6. Complete application of the water to the proposed use shall be made on or before December 1, 1971.
 - 7. Progress reports shall be filed promptly by permittee on forms which will be provided annually by the State Water Rights Board until license is issued.
 - 8. All rights and privileges under this permit, including method of diversion, method of use, and quantity of water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

9. Permittee shall allow representatives of the State Water Rights Board and other parties, as may be authorized from time to time by said Board, reasonable access to project works to determine compliance with the terms of this permit.

10. Permittee shall maintain a continuous program of brush clearance to the satisfaction of the Board that will keep cleared of brush at least 350 out of 500 acres that are located near the two reservoirs which are covered by this permit.

IT IS FURTHER ORDERED that Applications 10750, 14608 and 14609 be, and they are, denied.

IT IS FURTHER ORDERED that action be deferred, for the reasons set forth in this decision, on Applications 19836, 20002, 20098, 20585 and 20679, and that action be deferred on the part of Application 10979 that requests the appropriation of water for power at Pine Flat Dam.

Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held at Sacramento, California.

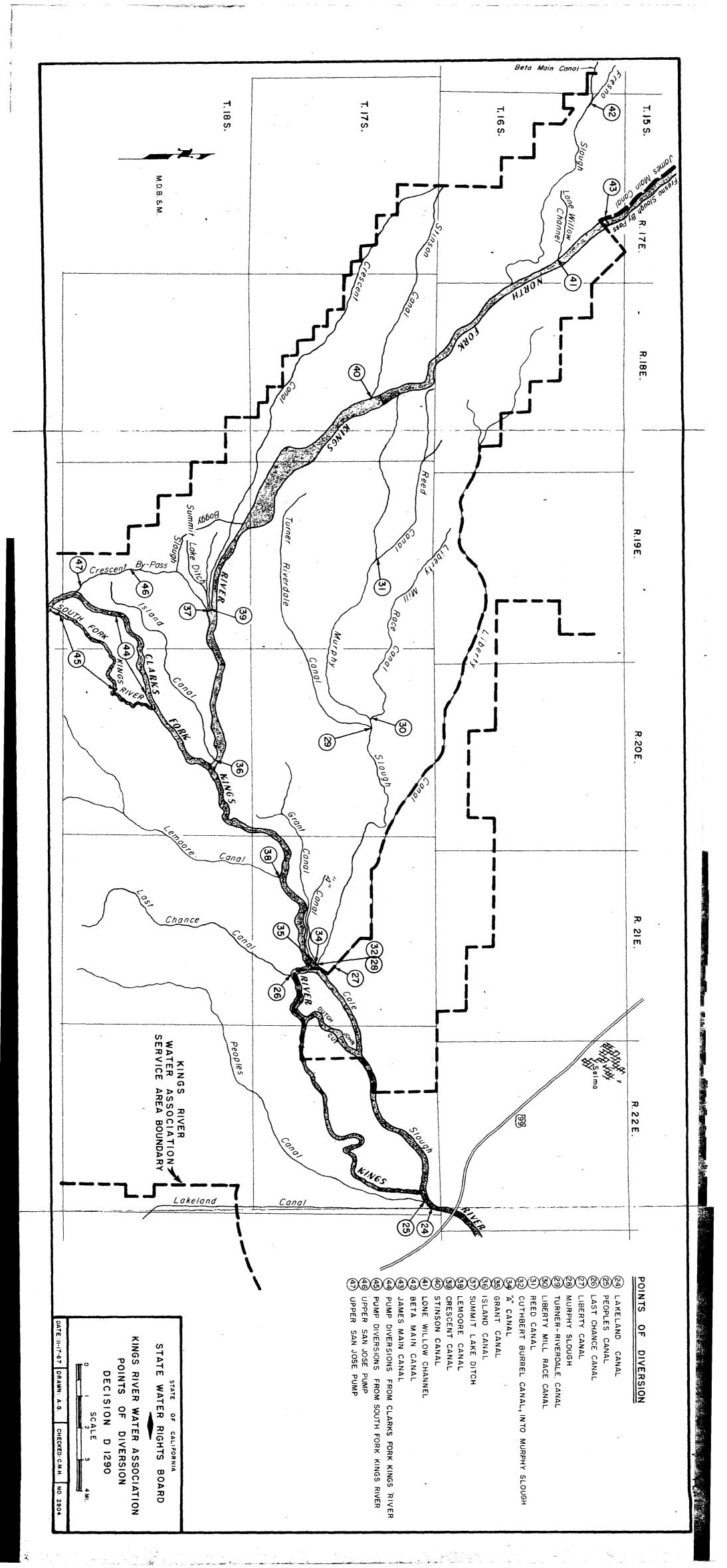
Dated: November 30, 1967

/s/ George B. Maul George B. Maul, Chairman

/s/ Ralph J. McGill Ralph J. McGill, Member

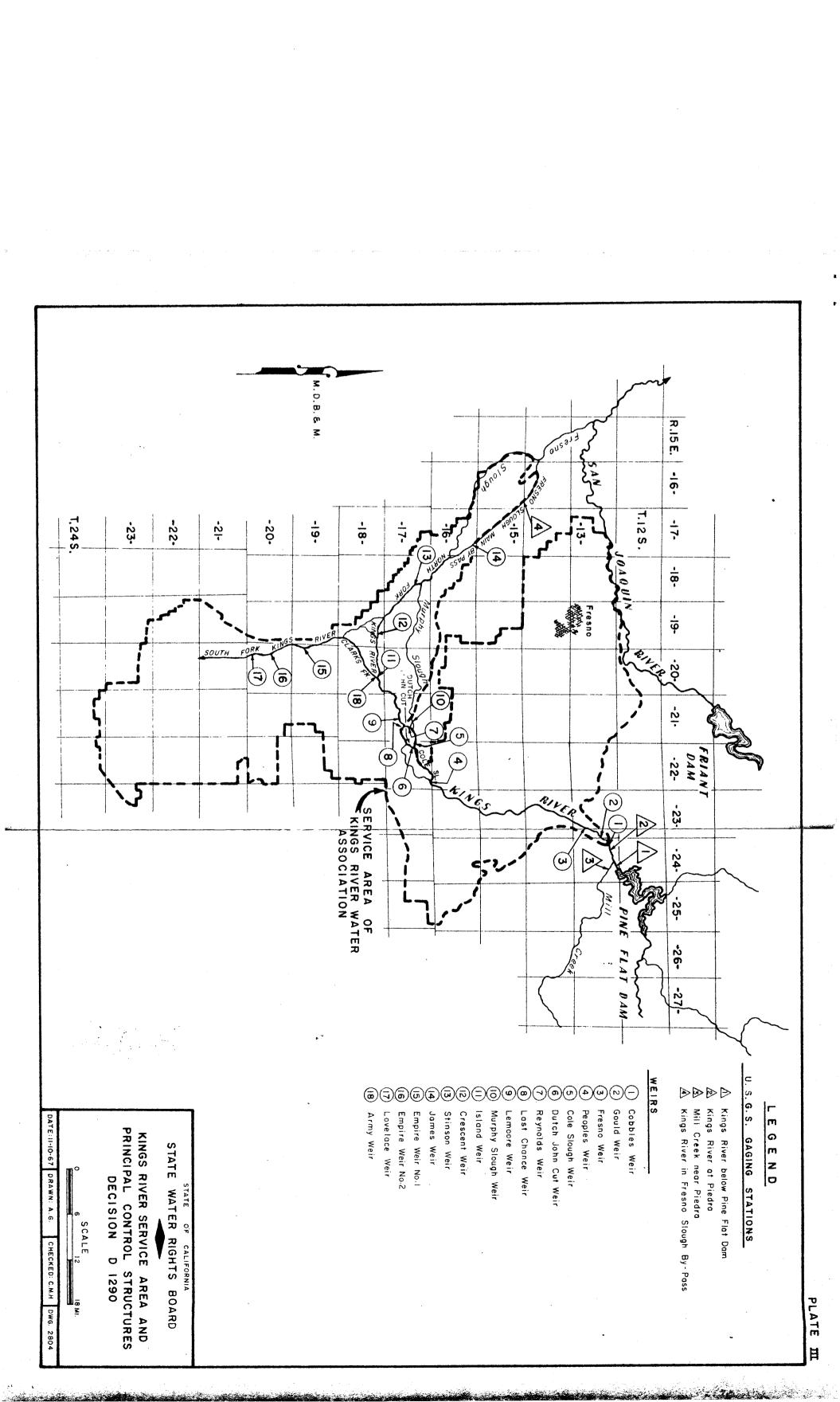
/s/ W. A. Alexander
W. A. Alexander, Member

POINTS of DIVERSION "76" CANAL CONSOLIDATED CANAL SHORT DITCH NO. 1 PHILLIPS DITCH CHINA SLOUGH INTO CONSOL GOULD CANAL ALTA CANAL MCLAUGHLIN DITCH RICE DITCH SHORT DITCH NO. 2 CARMELITA DITCH FRESNO CANAL FARMS DITCH NO.3 FARMS DITCH NO. I JACOBI DITCH CONSOLIDATED -(a) DATED CANAL (a) (J 6 **®** KINGS RIVER WATER ASSOCIATION POINTS OF DIVERSION NEAR PINE FLAT DAM (8) STATE WATER RIGHTS BOARD DRAWN ECW DECISION D 1290 Piedro STATE OF HARRIS SLOUGH DITCH MITCHELL DITCH CAMERON DITCH JACK DITCH BYRD DITCH HANKE DITCH TURNER DITCH FINK DITCH M. D. B & M. CALIFORNIA PLATE IA



RIVER Z T 15 S T148 TIOS THIS LEGEND R 2 4 E POWERHOUSES AQUEDUCTS M.D.B&M CBEEK PINE FLAT © HAAS В ВАССН A KINGS RIVER R25E WATERSHED B CBEEK DINKEA R26E COURTRIGHT NOR co. co. MIDDLE OUNDARY (P) WISHON -R29E DATE: II-IO-67 DRAWN: ECW MAJOR DEVELOPMENT UPSTREAM FROM PIEDRA RELATED TO DECISION D 1290 X NGS ONSJAJ STATE WATER RIGHTS BOARD (B) KINGS RIVER WATERSHED RIVER SCALE CHECKED: CMH R33E DWG. 2804 Ħ

PLATE



KINGS RIVER RIVERSIDE CHANCE WEIR MURPHY SLOUGH WEIR M. D. B. & M. REYNOLDS WEIR DITCH R.21 E. R. 22E. CUT WEIR John 9 RIVERSIDE 29 20 BRANCH 28 Cole 6 The san OLTCH 22 SLAND 27 ō TULARE KINGS PEOPLES TO FRESHO KINGS 26 88 KINGS RIVER CHANNELS & STRUCTURES DATE: 11-10-67 PEOPLES WEIR DITCH STATE WATER RIGHTS BOARD <u>SLOUGH ÇAÑA</u>L 24 13 2 R.22E R.23E. DECISION PEOPLES WEIR COUNTY WATER DISTRICT SCALE TO LEMOORE WEIR CHECKED: C.M.H. 0 T. 17 N. 1290 (8) PLATE TX DWG. 2804

STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of Applications 360, 5640, 11023 and 16469 Held by Fresno Irrigation District, Trustee

DECISION DENYING PETITION FOR RECONSIDERATION AND ORDER AMENDING ORDER IN DECISION D 1290

Ι

Petition of Fresno Irrigation District, Trustee, for Reconsideration of Decision D 1290

On November 30, 1967, the State Water Rights Board adopted Decision D 1290. This decision, insofar as it relates to Fresno Irrigation District, Trustee (herein called "Trustee District"), approved its Applications 353, 360, 5640, 11023, 11075, 15231 and 16469, approved in part Application 10979, and denied Application 10750. On December 1, 1967, the State Water Resources Control Board succeeded to the duties of the State Water Rights Board, and the latter board was abolished, pursuant to Chapter 284, Statutes of 1967. On December 29, 1967, the Trustee District filed a petition for reconsideration of Decision D 1290 "with respect to the imposition of condition 8 on Applications 360, 5640 and 11023." Condition 8 provides for the delivery of water into a highflow channel of the Kings River, about nine miles in length, in order to replenish the ground water for the benefit of overlying owners.

The petition does not question the Board's analysis of the evidence or its findings, which include the following:

- 1. "The evidence shows that there is an area of about nine miles of river channel that has been directly and adversely affected with respect to the recharge of ground water by the construction and operation of Pine Flat Dam and reservoir." (p. 22)
- 2. "... the losses [by percolation] in the Kings River Channel ... are estimated at ... 56 cubic feet per second" (p. 24)
 - "This testimony as to percolating and channel losses was not seriously questioned on cross-examination, nor was it controverted by other expert testimony." (p. 25)
- 3. "The modified entitlement method [used in Condition 8] ... affords a reasonable basis for looking at the daily recorded and calculated Piedra flows during each month of the year, and calculating on an approximate basis what specific high-flow days in the absence of Pine Flat Reservoir would have resulted in flows and percolation of water in the Kings River high-flow channel." (p. 28)

The petition for reconsideration is limited to the ground that the Board lacked jurisdiction to include Condition 8 as a permit condition. Its argument falls under two main headings:

A. Pre-1914 Appropriative Rights

The petition states that to a large extent Condition 8 of the decision relates to and affects the exercise of pre-1914 appropriative rights of the Trustee District and its trust beneficiaries. However, the Board's actions are confined to the framework of the Trustee District's own applications, and to the Board's duty to protect vested rights. (See Meridian, Ltd. v. City and County of San Francisco, 13 Cal 2d 424.)

Inclusion of Condition 8 does not hurt whatever pre1914 rights the Trustee District or its beneficiaries own;
it merely prevents them from acquiring a windfall equivalent
to the amount of the high-flow channel losses which occurred
naturally prior to the construction of Pine Flat Dam, but which
no longer take place as a result of the construction and operation of Pine Flat Dam and Reservoir.

It is true, as is pointed out by the petition, that relief is requested for the high-flow channel area of the Kings River as well as for other areas, in the action before the Superior Court in Kings County entitled Kings County Water District v. Laguna Irrigation District, et al. A demurrer is now pending with respect to this action. To avoid any possible conflict with this or any other action, including possible proceedings before the United States Court of Claims, Condition 8 concludes as follows:

"This condition will be modified or canceled to conform to the requirements of the judgment of any court of competent jurisdiction."

We do not believe that the pendency of the Kings County action suspends the Board's duty to protect vested rights, although the Board will conform Condition 8 to the requirements of any judgment, as is expressly indicated.

B. Effect of Turner Case (Max E. Turner, et al. v. Kings River Conservation District, et al., 360 F 2d 184)

It is the position of petitioner that Condition 8 is prohibited by the Circuit Court's decision in the Turner case. We do not understand that to be the holding or effect of the Turner decision.

The Turner case was an action by owners of riparian and overlying lands against officials operating Pine Flat Dam and Reservoir, built by the United States on the Kings River pursuant to the Flood Control Act of 1944, and against the Kings River Conservation District and its members, in which an injunction was sought. The Court of Appeals held, among other things, that United States officials in the operation of Pine Flat Dam and Reservoir were authorized to interfere with riparian and overlying owners' rights, and that the owners' remedy against the United States was not an action in the U. S. District Court for an injunction but a suit in the Court of Claims for damages. Since the action related directly to the operation of the dam and reservoir, the United States was found to be an indispensable party, but the United States had authorized no such suit to be brought against it in the federal district court.

Condition 8 does not have any direct effect upon the operation of Pine Flat Dam and Reservoir by the United States. The applications being heard by the Board were those of the Trustee District, not of the United States. Condition 8 relates to a high-flow channel which is about 34 miles downstream from Pine Flat Dam, in the midst of an area where river diversions are controlled by the watermaster for the Kings River Conservation District.

There is only an indirect connection between Condition 8 and operation of Pine Flat Dam and Reservoir. By contract between the United States and the Kings River Conservation District, the project is operated to store and release water as requested by the district, but without interfering with mandatory flood storage operations. Compliance with Condition 8 would probably require the Trustee District to order the releases of certain quantities of water by the United States for delivery into the high-flow channel no later than the end of July of each year when required. This is water which the Trustee District, in the absence of Condition 8, would have ordered for release and delivery to members of the Kings River Conservation District, who are also beneficiaries of the trust. It is not water which the United States has any interest in after it leaves the reservoir. The deliveries into the high-flow channel would be expected to average somewhat more than one-tenth of one percent of the average flow of the Kings River at Piedra. This amount

of water is small in comparison with the total operation of the Kings River Conservation District, and with the additional quantities of unappropriated water which are approved for appropriation by these applications.

Insofar as the Turner case involved proceedings against the Kings River Conservation District, its members and officials, the decision left open the possibility of future state action, in court or administrative proceedings, as appropriate. In this connection the Court stated at page 199:

"We are satisfied that there was no basis for federal jurisdiction of appellants' second cause of action which did not require the presence of the United States: diversity of citizenship was lacking; and the interests of the United States were inextricably involved in all of appellants' claims arising under federal statutes."

For the foregoing reasons this petition for reconsideration will be denied.

II

Petition by California Department of Fish and Game for Order Amending Order in Decision D 1290

By a petition dated December 22, 1967, the California Department of Fish and Game (Department) requested an amendment of the order in Decision D 1290.

The Department points out that not only does it have an agreement with the Trustee District regarding releases of water to be made below Pine Flat Dam for the protection

and enhancement of fish and wildlife, but that dismissal of the Department's protest was contingent upon inclusion of the agreement by reference or otherwise as a permit condition.

The Department also points out that it had requested that any permit issued on Application 16469 expressly require the same releases of water below Courtright Reservoir as are required by order of the Federal Power Commission, issued September 3, 1958 (Fish and Game Exh. 4); and the Trustee District so stipulated on April 6, 1967 (RT 427, 428).

These permit conditions requested by the Department were omitted by clerical error and oversight, and the order in Decision D 1290 will be corrected to include them, pursuant to Water Code Section 1359.

ORDER

IT IS HEREBY ORDERED that the petition for reconsideration of Decision D 1290, filed by Fresno Irrigation District, Trustee, be, and it is, denied.

IT IS FURTHER ORDERED that the order in Decision D 1290, starting on page 44 and concluding on page 50, which approves, among other applications, Applications 5640, 11023 and 16469, be amended by adding after Condition 10 the following:

11. The permits issued pursuant to Applications 5640 and 11023 will each contain the following additional condition: Unless otherwise agreed by permittee and California Department of Fish and Game, permittee shall store and release water under this permit only in accordance with the provisions of the agreement dated September 11, 1964, by permittee and said Department, for the preservation and enhancement of fish and wildlife.

12. The permit issued pursuant to Application 16469 will contain the following additional condition:

Permittee shall maintain, in the stream downstream from Courtright Dam, water flows for the preservation of fish and aquatic life, in the quantities and for periods hereinafter specified:

June l	December 1	
through	through	Dry
November 30	May 31	<u>Years</u>
4 cfs	2 cfs	2 c fs

A dry year shall be defined as one in which the unimpaired seasonal runoff of Kings River at Piedra, as estimated on May 1 by the State of California, Department of Water Resources, will be 1,000,000 acre-feet or less. The point of measurement of the above flows shall be just downstream from the point where the flow through the discharge tunnel returns to the stream.

Adopted as the decision and order of the State Water Resources Control Board at a meeting duly called and held at Sacramento, California.

Dated: JAN 18 1968

/s/ George B. Maul	
George B. Maul, Chairman	
/s/ W. A. Alexander W. A. Alexander, Vice Chairman	
W. A. Alexander, Vice Chairman	_
/s/ Ralph J. McGill	
/s/ Ralph J. McGill Ralph J. McGill, Member	

Board Members Norman B. Hume and E. F. Dibble, not having participated in hearings on these applications or in Decision D 1290, disqualified themselves from participating in this decision and order.