STATE OF CALIFORNIA
STATE WATER RIGHTS BOARD

In the Matter of Applications
15177, 15178, 15179, 15467, 15468,
15587, 15996, 16078, 16152, 16399,
16539, 18005, 18014, 18284, 18593,
19083, and 20448 of Sutter Extension
Water District and Others to Appropriate
Water from Sutter By-Pass, Butte Creek,
and Various Drainage Canals in Glenn,
Butte, and Sutter Counties

Decision D 1181

A summary of these 17 applications, all filed between
January 1953 and October 1961, is set forth in Table 1.

All of the applications are for water to be used for
irrigation purposes. Stock water is an additional use in Appli-
cation 16078. Recreation is an additional use in Applications
16399, 18005, and 18014.

The points of diversion are shown on the attached map.
TABLE 1
APPLICATIONS TO APPROPRIATE UNAPPROPRIATED WATER FROM
SUTTER BY-PASS, BUTTE CREEK AND VARIOUS DRAINAGE CANALS

<table>
<thead>
<tr>
<th>Application</th>
<th>Applicant</th>
<th>Source</th>
<th>Rate (cfs)</th>
<th>Season of Diversion</th>
</tr>
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<tbody>
<tr>
<td>15177</td>
<td>Sutter Extension Water District</td>
<td>Live Oak Canal</td>
<td>20</td>
<td>Apr. 1 - Nov. 1</td>
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<tr>
<td>15178</td>
<td>Sutter Extension Water District</td>
<td>State Reclamation Drain</td>
<td>20</td>
<td>Apr. 1 - Nov. 1</td>
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<td>15179</td>
<td>Sutter Extension Water District</td>
<td>State Reclamation Drain</td>
<td>31</td>
<td>Apr. 1 - Nov. 1</td>
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<td>15467</td>
<td>McGowan Brothers</td>
<td>Butte Creek Drainage District Ditch</td>
<td>25</td>
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<td>15468</td>
<td>McGowan Brothers</td>
<td>Butte Creek</td>
<td>25</td>
<td>Apr. 1 - Oct. 31</td>
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<tr>
<td>15587</td>
<td>Sutter Extension Water District</td>
<td>East Intercepting Canal</td>
<td>40</td>
<td>Apr. 1 - Nov. 1</td>
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<td>15996</td>
<td>Lal Singh Rai and Chanchal Singh Rai</td>
<td>East Borrow Pit of Sutter By-Pass</td>
<td>10</td>
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<tr>
<td>16078</td>
<td>Kenyon T. and Helen Gregg</td>
<td>Two unnamed Drains</td>
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<td>Apr. 1 - Oct. 31</td>
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<td>16152</td>
<td>W. A. and Mary Elizabeth Bonslett</td>
<td>Drainage Ditch Reclamation District No. 833</td>
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<td>Mar. 1 - Oct. 31</td>
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<td>16399</td>
<td>Department of Fish and Game</td>
<td>Main Canal of Reclamation District No. 833</td>
<td>50</td>
<td>Jan. 1 - Dec. 31</td>
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<td>16539</td>
<td>Oji Brothers</td>
<td>Unnamed Drain</td>
<td>4</td>
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<td>18005</td>
<td>Department of Fish and Game</td>
<td>Main Canal of Drainage District No. 2054</td>
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<td>Jan. 1 - Dec. 31</td>
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<tr>
<td>Application</td>
<td>Applicant</td>
<td>Source</td>
<td>Rate (cfs)</td>
<td>Season of Diversion</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------</td>
<td>---------------------------------------------</td>
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<tr>
<td>18014</td>
<td>Department of Fish and Game</td>
<td>Lateral C Canal of Reclamation District No. 833</td>
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<td>18284</td>
<td>Mildred D. and Jere F. Lang</td>
<td>Main Canal Reclamation District No. 777</td>
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<td>18593</td>
<td>E. H. Erickson</td>
<td>Lateral Drain of Reclamation District No. 777</td>
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<td>19083</td>
<td>Agrivest Corporation</td>
<td>Nelson Slough</td>
<td>4.2</td>
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<td>20448</td>
<td>Leon D. and Kathryn L. Webb</td>
<td>East Intercepting Canal</td>
<td>5.5</td>
<td>Apr. 1 - Oct. 31</td>
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</table>
Protests and Hearing

Protests to seven of the applications were received from the United States through its Bureau of Reclamation. Protests to some of the applications were also received from Reclamation District No. 833, Layton and Baldwin, McGowan Brothers, Estate of Carolyn Christenson, Fred Heitman, and Sutter Extension Water District.

On September 11, 1963, after due notice to the applicants and protestants, a public hearing was held in Sacramento before Board Members Kent Silverthorne (Chairman), Ralph J. McGill and William A. Alexander, at which time the parties appeared, and evidence was received. Upon conclusion of the hearing, the matter was submitted upon a consolidated record.

In relation to Application 15996, applicants Lal Singh Rai and Chanchal Singh Rai appeared and expressed a desire to "withdraw" from the proceedings, whereupon they took no further part in the hearing. Subsequently, by letter dated November 1, 1963, they expressed continued interest in Application 15996 and explained that the "withdrawal" was the result of misunderstanding; that they thought they were withdrawing their land from the Feather Water District. The District had filed a formal protest to Application 15996 subsequent to the time allowed pursuant to published notice. The District appeared at the hearing in opposition to the application, but in view of the withdrawal by the applicants, the District offered no evidence. The protest not having presented any issues within the jurisdiction of the Board and there being sufficient
evidence upon which to consider the merits of the application, the request by the District for further hearing is denied and Application 15996 will be considered upon the basis of the record.

No appearance was made at the hearing in regard to Application 18593 of E. H. Erickson. However, by letter of November 21, 1963, counsel for the heirs of the applicant explained that the absence was due to Mr. Erickson's illness and that subsequently he had died. On behalf of the estate, counsel expressed continuing interest in the application. With respect to Application 16152 by W. A. and Mary Elizabeth Bonslett, the applicants failed to appear at the hearing. However, by subsequent letter, they expressed continued interest in the application, explaining their absence as being the result of oversight. However, Applications 16152 and 18593 will be considered upon the basis of the record.

Protestants Layton and Baldwin, as well as Estate of Carolyn Christenson, and Fred Heitman did not appear in support of their protests and therefore are considered to have abandoned any further interest in the applications. The protests of Reclamation District No. 833 and McGowan Brothers against Application 16078 were withdrawn by counsel, as were those of Sutter Extension Water District against Applications 18284 and 18593.

The only remaining protestant is the United States. It asserts that there is no surplus water in most years during the critical summer months to supply any of the applicants.
Sources and Water Supply

The sources named in the applications all are located within Butte Sink and Sutter Basin bounded on the east by Feather River and on the west by the Sacramento River. Except for seasonal rainfall which contributes a minor part, the principal source of the water sought to be appropriated during the season of April to November is return flow from lands irrigated by diversions from the Feather River. Lands within the basin, which have been reclaimed from low-lying swamps and are currently being cultivated for rice, are flooded early in the season for planting. As the growing season progresses, drain water from rice fields is collected in various drainage ditches and canals which traverse Butte Sink and Sutter Basin. Water collected in Butte Creek is discharged into either the Sacramento River at the mouth of Butte Creek or into Sutter By-Pass through Butte Slough. Water entering Sutter By-Pass also is finally discharged into the Sacramento River through Sacramento Slough.

The Sacramento River flows into the Sacramento-San Joaquin Delta where much of the water enters the various channels and sloughs of the Delta finally discharging into Suisun Bay.

Purposes of Use

All of the applicants intend to use the water for irrigation purposes in the production of crops, which include rice, alfalfa, tomatoes, and milo. The California Department of Fish
and Game, in addition to irrigating feed crops to be used in the operation of The Gray Lodge State Waterfowl Management Area, intends to maintain duck ponds and marshes.

All of the applicants presently divert from the named sources or tributaries and three of the parties also maintain wells which are used for irrigation.

**Existence of Unappropriated Water**

The physical presence of water at the proposed points of diversion during the seasons requested is undisputed. It is also conceded by the applicants, as well as the protestant United States, that most of the water in the named sources during the season from April to November is water which has been previously beneficially used and allowed to drain off the land, thus contributing to the flow of the Sacramento River and Delta channels downstream. The extent to which such return flows are needed to satisfy prior vested rights has never been judicially determined, and in the absence of such determination, the Board must decide the question of the existence of unappropriated water from the available information.

For the purpose of determining the availability of unappropriated water the Sacramento River has been divided into three reaches: Reach 1 extends from Keswick Dam to Knights Landing; Reach 2, Knights Landing to the City of Sacramento; and Reach 3, the Delta below Sacramento. An examination of topographic maps of the area under consideration discloses that the sources named
in Applications 15467, 15468, 16078, 16152, 16399, and 18014 are all tributary to the Sacramento River in Reach 1. The sources named in Applications 15177, 15178, 15179, 15587, 15996, 16539, 18005, 18284, 18593, 19083, and 20448 are similarly connected with Reach 2. It is reasonably clear, therefore, that return flows contribute to the supply of water in the river with which they are connected.

An analysis of the available water supply within Reaches 1 and 2 has been made using the reports of the 1956 Cooperative Study Program (Staff Exh. 5) and "Central Valley Project Operation Study, Shasta Reservoir Operation" (Staff Exhs. 7 and 8). The analysis takes into consideration the effect that Condition 22 of Board Decision D 990 has on the availability of streamflows to satisfy export requirements beyond the Delta as against rights initiated by application for use within the watershed.

The analysis included the following items and assumptions:

1. A repetition of the hydrologic conditions for the period 1922 through 1954 was assumed.

2. The available water supply was adjusted to reflect conditions of ultimate development of the Central Valley Project.

3. Local rights in each reach (including riparian, appropriative, and "other" rights initiated prior to 1954) and Bureau requirements for the Sacramento Valley Canals, Cow Creek and Yolo-Zamora units in Reach 1 were satisfied, first by tributary and return flows occurring within the reach and, second, by the natural runoff flowing into Shasta Lake.
The inflow to Shasta Lake and the water in each reach remaining after the satisfaction of the local rights and the requirements of the United States within the Sacramento Valley are considered reliable indications of the existence of unappropriated water.

From the analysis, it is concluded that unappropriated water is available in Reaches 1 and 2 during the period April through October the percentages of time shown in Table 2.

The transition from flood flows caused by spring rains to sustained flow by snowmelt is very rapid in the Sacramento River and usually occurs during the month of June (Staff Exh. 2). This phenomenon tends to make water available for appropriation in Reach 1 during the first part of June but not during the latter part of the month. Thus, sources named in those applications which are tributary to Reach 1 cannot be said to carry surplus water during the season June 15 through August 31. Sources which are tributary to Reach 2 do not carry surplus water which could be appropriated by any of the applicants during the months of July and August.

CONCLUSION

The evidence indicates, and the Board finds, that unappropriated water exists in the various sources named in the applications at times and in sufficient quantities to justify the approval in part of Applications 15177, 15178, 15179, 15467, 15468, 15587, 15996, 16078, 16152, 16399, 16539, 18005, 18014, 18284,
<table>
<thead>
<tr>
<th>Month</th>
<th>Reach 1</th>
<th>Reach 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>May</td>
<td>85</td>
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<tr>
<td>June</td>
<td>48</td>
<td>91</td>
</tr>
<tr>
<td>July</td>
<td>0</td>
<td>58</td>
</tr>
<tr>
<td>August</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>September</td>
<td>79</td>
<td>94</td>
</tr>
<tr>
<td>October</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
18593, 19083, and 20448; that the uses proposed are beneficial; that such waters in general, but with certain exceptions and subject to certain conditions, may be taken and used as proposed without interference with the exercise of prior rights; and that the applications should be approved in part and permits issued as set forth in the following Order.

ORDER

IT IS HEREBY ORDERED that the applications be, and the same are, approved in part, and that permits be issued to the applicants subject to vested rights and to the limitations and conditions herein set forth, as follows:

1-a. The amount of water to be appropriated under Application 15177 of Sutter Extension Water District shall be limited to the amount which can be beneficially used and shall not exceed 20 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about October 31 of each year.

b. The amount of water to be appropriated under Application 15178 of Sutter Extension Water District shall be limited to the amount which can be beneficially used and shall not exceed 20 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about October 31 of each year.

c. The amount of water to be appropriated under Application 15179 of Sutter Extension Water District shall be
limited to the amount which can be beneficially used and shall not exceed 31 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about October 31 of each year.

d. The amount of water to be appropriated under Application 15467 of McGowan Brothers shall be limited to the amount which can be beneficially used and shall not exceed 25 cubic feet per second to be diverted from about April 1 to about June 15 and from about September 1 to about October 31 of each year.

e. The amount of water to be appropriated under Application 15468 of McGowan Brothers shall be limited to the amount which can be beneficially used and shall not exceed 25 cubic feet per second to be diverted from about April 1 to about June 15 and from about September 1 to about October 31 of each year.

f. The amount of water to be appropriated under Application 15587 of Sutter Extension Water District shall be limited to the amount which can be beneficially used and shall not exceed 40 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about October 31 of each year.

g. The amount of water to be appropriated under Application 15996 of Lal Singh Rai and Chanchal Singh Rai shall be limited to the amount which can be beneficially used and shall not exceed 10 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about October 31 of each year.
h. The amount of water to be appropriated under Application 16078 of Kenyon T. and Helen Gregg shall be limited to the amount which can be beneficially used and shall not exceed 3 cubic feet per second from about April 1 to about June 15 and from September 1 to about October 31 of each year.

i. The amount of water to be appropriated under Application 16152 of W. A. and Mary Elizabeth Bonslett shall be limited to the amount which can be beneficially used and shall not exceed 5 cubic feet per second to be diverted from about March 1 to about June 15 and from about September 1 to about October 31 of each year.

j. The amount of water to be appropriated under Application 16399 of Department of Fish and Game shall be limited to the amount which can be beneficially used and shall not exceed 50 cubic feet per second to be diverted from about September 1 of each year to about June 15 of the succeeding year.

k. The amount of water to be appropriated under Application 16539 of Oji Brothers shall be limited to the amount which can be beneficially used and shall not exceed 4 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to October 31 of each year.

l. The amount of water to be appropriated under Application 18005 of Department of Fish and Game shall be limited to the amount which can be beneficially used and shall not exceed 15 cubic feet per second to be diverted from about September 1 of each year to about June 30 of the succeeding year.
m. The amount of water to be appropriated under Application 18014 of Department of Fish and Game shall be limited to the amount which can be beneficially used and shall not exceed 10 cubic feet per second to be diverted from about September 1 of each year to about June 15 of the succeeding year.

n. The amount of water to be appropriated under Application 18284 of Mildred D. and Jere F. Lang shall be limited to the amount which can be beneficially used and shall not exceed 3 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about September 15 of each year.

o. The amount of water to be appropriated under Application 18593 of E. H. Erickson shall be limited to the amount which can be beneficially used and shall not exceed 1.4 cubic feet per second to be diverted from about April 15 to about June 30 and from about September 1 to about September 15 of each year.

p. The amount of water to be appropriated under Application 19083 of Agrivest Corporation shall be limited to the amount which can be beneficially used and shall not exceed 4.2 cubic feet per second to be diverted from about March 1 to about June 30 and from about September 1 to about October 31 of each year.

q. The amount of water to be appropriated under Application 20448 of Leon D. and Kathryn L. Webb shall be limited to the amount which can be beneficially used and shall not exceed 5.5 cubic feet per second to be diverted from about April 1 to about June 30 and from about September 1 to about October 31 of each year.
2. The equivalent of such continuous flow allowance for any thirty-day period may be diverted in a shorter time if there be no interference with vested rights.

3. The maximum amount herein stated is limited to the quantities which can be beneficially used and may be reduced in the license if investigation warrants.

4. Construction work shall be completed on or before December 1, 1966.

5. Complete application of the water to the proposed use shall be made on or before December 1, 1967.

6. 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.

7. 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.

8. 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.
Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held in Sacramento, California, this day of , 1964.

/s/ Kent Silverthorne
Kent Silverthorne, Chairman

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

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