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In the Matter of Applications 11792, 14250, 14251 and 18729 of Calaveras County Water District; Applications 12668 and 12839 of Stockton and East San Joaquin Water Conservation District; Application 17695 of City of Stockton; and Applications 18812 and 18813 of United States Bureau of Reclamation to Appropriate Water from the Calaveras River and Various Tributaries in Calaveras and San Joaquin Counties

Decision D 1179

Approved: April 21, 1964

The nine applications which are the subject of this decision are for permits to appropriate water from the Calaveras River system to be used for irrigation, domestic, municipal, industrial
and recreational purposes. A summary of the data contained in them is set forth in Tables 1 and 2. The relative location of the various physical features and the points of diversion described in each application are shown on the attached map.

Calaveras County Water District is sometimes referred to herein as "Calaveras District" or "CCWD". The United States Bureau of Reclamation is sometimes referred to as "Bureau" or "USBR". Stockton and East San Joaquin Water Conservation District is sometimes referred to as "Stockton District" or "SD".

PROTESTS AND HEARING

Protests to the applications having been received, a public hearing was held in Sacramento on April 2, 3, 4, 5, 17, 18, and 19, 1963, before Board Members Ralph J. McGill (presiding) and William A. Alexander, at which time the applicants and certain of the protestants appeared and evidence was received.

By letter to the Board dated March 28, 1963, Calaveras Cement Company withdrew its protests to Applications 11792 and 14250 (RT 327). The protests by Calaveras District to the applications of the United States and of Stockton District were withdrawn in the course of the hearing.

### Summary of Applications of Calaveras County Water District to Appropriate Water from Calaveras River and Tributaries as Amended at the Hearing Held during April 1963

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Location of</th>
<th>Direct</th>
<th>Storage</th>
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</thead>
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<tr>
<td>11792</td>
<td>3-24-47</td>
<td>NP Calaveras Cedar</td>
<td>SE 35 5N 12E</td>
<td>10 1/1-1/31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF Calaveras Forks</td>
<td>SE 32 4N 12E</td>
<td>25 4/1-10/31</td>
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<tr>
<td>14250</td>
<td>4-12-51</td>
<td>San Domingo Cr. San Domingo</td>
<td>SE 36 4N 13E</td>
<td>3 1/1-12/31</td>
</tr>
<tr>
<td>14251</td>
<td>4-12-51</td>
<td>San Domingo Cr. San Domingo</td>
<td>SE 36 4N 13E</td>
<td>3 1/1-12/31</td>
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<tr>
<td>18729</td>
<td>5-20-59</td>
<td>SF Calaveras Forks</td>
<td>SE 32 4N 12E</td>
<td>33 1/1-12/31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NP Calaveras Cedar</td>
<td>SE 35 5N 12E</td>
<td>26 1/1-12/31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>San Antonio Cr. Scotts</td>
<td>NW SE 9 4N 14E</td>
<td>10 1/1-12/31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calaveras R. San Andreas</td>
<td>NW SE 7 4N 14E</td>
<td>10 1/1-12/31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calaveritas Cr. Calaveritas</td>
<td>NE NE 33 4N 12E</td>
<td>26,702 10/1-7/1</td>
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</tbody>
</table>

- **I** - Irrigation, **D** - Domestic, **M** - Municipal, **In** - Industrial, **R** - Recreational

**a** - Water will be diverted at a maximum rate of 800 cfs to off-stream storage in Forks Reservoir.

**b** - A gross irrigable area of 248,030 acres within Calaveras County and the foothill areas of San Joaquin and Stanislaus Counties.
<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Source</th>
<th>Location of Diversion</th>
<th>Direct</th>
<th>Division</th>
<th>Storage</th>
<th>Place of Use</th>
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<tr>
<td>12668</td>
<td>6-25-40</td>
<td>Calaveras R.</td>
<td>Hogan SW NW 31 4N 11E</td>
<td></td>
<td>76,000</td>
<td></td>
<td>A gross area of 84,400 acres within SARESJDW</td>
</tr>
<tr>
<td>12829</td>
<td>12-1-48</td>
<td>Calaveras R.</td>
<td>Movable NE NE 36 2N 9E</td>
<td></td>
<td>200,000b</td>
<td>11/1-5/1</td>
<td>Same as Application 12668</td>
</tr>
<tr>
<td>17695</td>
<td>7-3-57</td>
<td>Calaveras R.</td>
<td>New Hogan NE SW 31 4N 11E</td>
<td></td>
<td>100,000</td>
<td>11/1-6/15</td>
<td>City of Stockton and environs</td>
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<tr>
<td>18812</td>
<td>6-19-59</td>
<td>Calaveras R.</td>
<td>New Hogan SW NW 31 4N 11E</td>
<td>1000</td>
<td>500,000</td>
<td>11/1-6/30</td>
<td>A gross area of 579,000 acres within potential service area around and below New Hogan Reservoir</td>
</tr>
<tr>
<td>18813</td>
<td>6-19-59</td>
<td>Calaveras R.</td>
<td>New Hogan SW NW 31 4N 11E</td>
<td>500</td>
<td>250,000</td>
<td>11/1-6/30</td>
<td>Same as Application 18812</td>
</tr>
</tbody>
</table>

a - I-Irrigation, D-Domestic, M-Municipal, I-In-Industrial, R-Recreational

b - Underground storage within District boundaries
are considered to have abandoned any further interest in the subject matter of the applications.

PLANS FOR DEVELOPMENT

United States

The Bureau's plan involves the use of New Hogan Reservoir on the Calaveras River about 29 miles northeast of the City of Stockton. New Hogan Dam is about 600 feet downstream from Hogan Dam and will completely replace the latter structure. Of the 325,000 acre-foot gross storage capacity, 165,000 acre-feet will be reserved during the winter months for flood control and 145,000 acre-feet for carryover or cyclic storage to provide water for irrigation, domestic, municipal, industrial, and recreation purposes. The remaining 15,000 acre-feet will consist of dead storage.

The space reserved for flood control can be used for conservation purposes commencing in April of each year. Total allowable storage including minimum pool can be 225,000 acre-feet in April, 282,000 acre-feet in May, and 325,000 acre-feet in June (USBR 27D). The place of use is a gross area of 597,000 acres within approximately a 35-mile radius west and south of New Hogan Reservoir, and extends westerly from the community of San Andreas to include the Stockton-Lodi area and from the north line of San Joaquin County to Littlejohn Creek on the south as delineated on USBR Exhibit 10a.

Under the Bureau's planned operation the project would produce a firm water supply of 39,900 acre-feet per annum (afa) in
all but two years of the 42-year period of study from 1915 through 1956. In that same period an average supply of 16,000 afa could be delivered but would not be available in every year (USBR 28). This yield of 55,900 afa from the project is based upon the assumption that the annual diversion in the watershed area above New Hogan Reservoir will not exceed 7,500 acre-feet resulting in a depletion of the average annual inflow to the reservoir of 5,600 acre-feet (RT 456-458).

Hogan Dam, constructed in 1930 by the City of Stockton, had a capacity of approximately 76,000 acre-feet of water. The City transferred the dam and all city-owned lands lying within the New Hogan Reservoir to the United States at a cost of $1.

**Calaveras District**

The full development plan of Calaveras District embraces the coordinated use of water of the North Fork Stanislaus River, the Calaveras River and its tributaries, and the North, Middle, and South Forks of the Mokelumne River. The only portion of this integrated plan for which permits are requested in this proceeding is that which concerns the Calaveras River and its tributaries and is briefly described in the following paragraphs and is shown on the attached map.

McCarty's Reservoir is proposed on the North Fork Calaveras River with a capacity of 35,000 acre-feet. All but about 2,200 acre-feet of this storage space would be for water brought from the South Fork Mokelumne River. Esperanza Reservoir on Esperanza
Creek and Jesus Maria Reservoir on Jesus Maria Creek would be constructed to 6,600 and 36,000 acre-foot capacities, respectively. Both of these streams are tributary to North Fork Calaveras River and water not taken under control by these structures would reach Cedar Reservoir which would be built to a capacity of 40,000 acre-feet on North Fork near its confluence with South Fork Calaveras River.

O'Neil Reservoir would be constructed to a capacity of 5,500 acre-feet on O'Neil Creek which is tributary to Calaveritas Creek, and water not controlled at this point would flow down to the junction of Calaveritas Creek and Willow Creek, at which point Calaveritas Reservoir, with a capacity of 1,700 acre-feet would serve as a diversion structure into Forks Reservoir on the South Fork Calaveras River. Forks Reservoir would have a capacity of 98,000 acre-feet. Also tributary to South Fork Calaveras River are San Antonio and San Domingo Creeks. On the former, Scotts Reservoir would be built to a capacity of 20,000 acre-feet. On the latter, San Domingo Reservoir would be built to a capacity of 15,000 acre-feet. San Andreas diversion dam and reservoir, with a capacity of 9,000 acre-feet, would be built at the confluence of the North and South Forks, from which a conduit and tunnel would carry water to service areas surrounding the communities of Valley Springs, Jenny Lind, and Wallace.

Releases of water would be made from storage in Cedar and Forks Reservoirs into the Calaveras River and diverted therefrom at San Andreas Reservoir to the service areas. The drainage courses
of the entire Calaveras River tributary system, located within the boundaries of Calaveras County, would be used as the means for distributing the irrigation water supply to service areas adjacent to the reservoirs as well as to more remote areas in San Joaquin and Stanislaus Counties.

The plan has been developed upon the premise that a firm yield of 55,400 acre-feet per annum from the Calaveras River drainage basin would provide the water supply to service the initial development of the area by diversion directly from the tributary streams and from storage in the reservoirs constructed on the several tributaries. For ultimate development, however, it is contemplated that an additional 20,100 acre-feet per annum would be developed in the Calaveras River watershed and 75,000 acre-feet of supplemental water supply would be diverted annually from the North Fork Stanislaus River passing through the reservoirs on San Antonio Creek, O'Neil Creek, Jesus Maria Creek and Esperanza Creek for terminal regulation and release to use as required. The capacities of the latter facilities would be sufficient for both the storage of local runoff as well as regulatory storage of the imported water.

As a partial alternative to this plan, Calaveras District would store water in New Hogan Reservoir, provided a storage space agreement could be negotiated with the Federal Government which owns the facility. If such an arrangement were obtained, the District's plan would be to use 109,000 acre-feet of New Hogan storage capacity, thereby reducing the size of, or eliminating entirely, San Andreas, Forks, Cedar, and Calaveritas Reservoirs.
The project plan of the Stockton District is essentially the continuation of present operations but on a larger scale. In the past water was stored at Hogan Dam pursuant to terms of a contract between Stockton District and the City of Stockton. Water was released from Hogan Reservoir down the river channel for diversion by individuals. With the exception of lands which border the tidal influence of the Delta, all of the water which historically has been used to irrigate lands within the District has come from the river and its distributary channels or from wells. The present annual water requirements of the 74,400-acre district are 173,880 acre-feet with a supplemental water requirement of 97,990 acre-feet, which is currently being provided by overdraft of the ground water basin (SD 4 and 5 and RT 620).

Distributaries of the Calaveras River utilized for conveying water to individual users within the District include Mormon Slough, the Stockton Diverting Canal, and North Slough.

The Stockton District plan would store water in New Hogan Reservoir provided a storage space agreement with the United States can be obtained. The District estimates that the average yield from New Hogan would be 47,408 afa (SD 14).

Percolation to underground storage is planned by control of flows through the various distributaries, by surface pooling and by spreading.

The Stockton District plans to improve some or all of the existing group of 13 flashboard structures presently maintained
in the bed of the Calaveras River channel and related distributaries to increase percolation to the ground water basin or control flows (SD 9). Preliminary estimates have been made for induction wells and spreading works. Field examinations have also been made to determine areas where water might be spread (RT 810).

City of Stockton

The City of Stockton appeared at the first day of hearing and expressed support for the Stockton District applications. It also supported those of the United States, provided the local areas below Hogan Dam were given a ten-year priority to contract for service from the New Hogan Project before water is sold elsewhere. With respect to its own application, the City of Stockton has no immediate plan to construct pipelines for delivery of water as envisioned under Application 17695 and offered no evidence in support of it.

WATER SUPPLY

The existence of substantial quantities of unappropriated water at times during most years in the Calaveras River stream system is established by the hydrologic studies upon which all of the applicants rely and is not disputed by any of the protestants.

The Calaveras River watershed lies almost entirely below 5,000 feet and does not have the sustained snowmelt runoff common to other major tributary streams in the San Joaquin Basin. Therefore, storage for conservation must come from winter rains (USBR 10 and 17).
The mean annual flow of the Calaveras River at Hogan Dam as calculated by the Corps of Engineers was 140,800 acre-feet for the 40-year study period 1915-16 through 1955-56 (USBR 27-C, RT 496).

About 93 per cent of this runoff (130,500 acre-feet) occurs in a 6-month period, November 1 to April 30 (RT 435-36). During the 40-year study period the average annual natural runoff at Hogan Dam between May 1 and October 31 was 10,300 acre-feet (USBR 15). An average of 24,200 afa has actually been diverted from the river below Hogan Dam during the irrigation season with the dam in operation (USBR 28). This leads to our conclusion that there is no unappropriated water in the Calaveras River from about May 1 to about October 31 of most years.

The annual mean flow remaining must be further reduced by 6,000 acre-feet to take care of channel losses which are estimated to average 4,400 acre-feet and to provide 1,600 acre-feet to maintain a live stream during the winter months downstream from Hogan Dam (USBR 27-D). Upon this calculation, an average of approximately 124,500 afa is available for appropriation during the season from November 1 to May 1. This quantity, compared with the amounts of water requested by all the applications as set forth in Tables 1 and 2 demonstrates that all applications cannot be approved.

THE MAJOR ISSUES

Each of the applicants except the City of Stockton requests issuance of permits on its own applications.
The Bureau opposes plans of the other applicants as being remote, speculative, and less comprehensive than those of the United States. To the extent that use of New Hogan Reservoir is proposed, the Bureau points out that others do not have access to it and that the Bureau does not intend to enter into a contract for "joint use" of that facility. The Bureau contends that its plan of development will best develop, conserve, and utilize in the public interest the water sought to be appropriated.

Calaveras District requests that it be permitted to store water at various locations upstream from New Hogan as described in the District's proposed amendments to its applications. At the same time, Calaveras maintains an alternative position of seeking to negotiate a "storage space" contract with the Federal Government at New Hogan provided the quantities applied for by the District are permitted by the Board.

In opposition to the applications of the Bureau, Calaveras District contends that no provision is made by the Bureau for service to portions of Calaveras County and that the allowance for depletion in the water supply for use above New Hogan Dam set forth in the Bureau's plans is not sufficient for Calaveras's future requirements. It is also contended that service to areas in Calaveras County above New Hogan would be prohibitively costly and, in effect, would deprive a county of origin of water necessary for its development. The District points out that more water would be conserved with its plan than with the Bureau's plan.

In opposition to the applications of Stockton District, Calaveras takes the position that the plan by Stockton District is
contrary to the California Water Plan in seeking to take water from an area of origin without provision to serve the needs of the area. With respect to Application 12839, Calaveras District asserts that Stockton District contemplates no facilities for underground replenishment, in the absence of which the application should be denied.

Stockton District takes the position that permits should be issued to it as well as to the United States but that those of the latter should be subject to the prior rights of the Stockton District under Application 12668 as well as to a condition granting the District a "prior right to contract for water appropriated under the applications of the United States..." and "to contract for storage space." Stockton District also contends that the applications of Calaveras should be denied by the Board without prejudice to the filing of new applications at such time as Calaveras is ready and able to proceed with construction. Accordingly, Stockton District does not oppose a reservation to Calaveras for future appropriation provided a substitute supply of water is at that time available for Stockton District at no increase in cost.

The Department of Water Resources takes the position that, regardless of which applications are approved, permits issued for diversions from the Calaveras River at or below New Hogan Reservoir should contain conditions which would allow, at any time in the future, development of water from the Calaveras River for use within the area tributary to the river above New Hogan. The department also urges that permits for storage at New Hogan should require
that the Hogan Service Area* be afforded first opportunity to con-
tract for water service from New Hogan and, as a substitute supply
becomes available in the future, to also contract for project
water initially delivered from the reservoir to users outside the
Hogan Service Area.

The California Department of Fish and Game, appearing
as a protestant to the applications of Calaveras District, takes
the position that fishery resources, a property of the State, will
be damaged unless minimum stream flows and reservoir pools are
maintained as part of project operations.

STATE INTEREST IN NEW HOGAN PROJECT

When New Hogan Project was authorized by Congress in the
Flood Control Act of 1944, the plan presented by the U. S. Corps
of Army Engineers provided for the enlargement of Hogan Reservoir
owned by the City of Stockton to a gross capacity of 237,000 acre-
feet. On October 15, 1945, the Board of Engineers for Rivers and
Harbors, reporting the results of further studies on Sacramento-
San Joaquin Basin streams adopted an ultimate capacity of 325,000
acre-feet for the project. In view of their findings that the dam
could not be safely or economically raised to provide such storage,
construction of a new earth dam at the site was recommended.

A review of the 1945 Army Engineers' report by the
California Department of Public Works, Division of Water Resources,
dated April 26, 1946, expressed approval of the Hogan Reservoir

*For description of this area, see page 20
Project with a capacity of 325,000 acre-feet, "to be constructed for flood control and irrigation when adequate assurances are furnished by responsible organized interests that sufficient water will be purchased for irrigation or municipal uses to make the project economically justified" (USBR 4).

At about this same time, the U.S. Department of the Interior asked for and received from the State of California comments on its study "Comprehensive Plan for Water Resources Development, Central Valley Basin, Calif." The comments, transmitted to the Secretary of the Interior April 29, 1946, stated:

"The Hogan Reservoir with a capacity of 325,000 acre-feet is a unit of the State water plan as presented to the State legislature of 1931." The state comments conclude as follows:

"The following conclusions are reached relative to New Hogan Dam on Calaveras River as proposed by the United States Bureau of Reclamation:

"1. A safe dam of the earth-fill type as proposed can be constructed at the site of the existing dam; the project is feasible from an engineering standpoint; the estimated cost may be increased due to probable interference with the highway and railroad.

"2. Based upon a comparison of the estimated annual costs as given in the United States engineers' comprehensive flood-control survey report on Sacramento-San Joaquin Basin streams and the annual benefits as estimated by the Sacramento district United States Engineer office, the project is economically feasible and justified on the basis of combined flood control and water conservation and utilization.

"3. Based upon a comparison of the same estimated annual benefits and estimated annual costs, the project is not economically feasible or justified for flood control alone."
"4. There is immediate need for the project in the interest of flood control, a probable market in the near future for irrigation water in a substantial amount, and a possible market for an additional municipal supply to the city of Stockton. The project should be constructed when adequate assurances are furnished for the utilization of water from it in such amounts that the income therefrom, added to the flood-control benefits, will make the project economically justified.

"5. The additional irrigation water that can be made available by the project is needed by and can be beneficially applied in the local service area and no surplus water, except return water, would be available for export.

"6. The dam should be constructed in one step to store 325,000 acre-feet of water."

In 1958 the Legislature made a budget appropriation of $10,000,000 from the Investment Fund (now the California Water Fund) to the Department of Water Resources for expenditure, without regard to fiscal years, "in cooperation with the United States in the construction of multipurpose projects which include flood control." (Ch. 1, p. 553, Stats. 1958, 2nd Extra. Session).

The following year the Legislature authorized New Hogan Dam and Reservoir as a unit of the State's Central Valley Project (Water Code, Secs. 11252 through 11254, added by Ch. 1750, Stats. of 1959).

Also, an additional $3,740,000 was appropriated from the Investment Fund for the same general purposes as those stated in the 1958 budget appropriation (Ch. 1300, p. 3548, Stats. of 1959).

Further evidence of the legislative intent in regard to State cooperation with the Federal Government for development of
the New Hogan Project is set forth in Senate Concurrent Resolution No. 17 of the 1958 1st Extraordinary Session of the California Legislature, which states as follows:

"WHEREAS, It is hereby declared that the people of this State have a primary interest in the control and conservation of the waters of the State, and that the prevention of floods and conservation of water are proper functions of the State in cooperation with local agencies, private interests, and the Federal Government; and

"WHEREAS, It is further declared that the State should participate and co-operate in multiple-purpose water projects authorized for construction by the Corps of Engineers of the United States Army in order that such projects may be completed at the earliest possible time, thereby affording urgently needed flood protection for the areas involved and providing for the development and conservation of the water resources of the State; now, therefore, be it

"Resolved by the Senate of the State of California, The Assembly thereof concurring, That it is the intention of the Legislature that the State participate and co-operate in multiple-purpose water projects authorized for construction by the United States Army Corps of Engineers to the end that such projects be completed as rapidly as possible, and that it also is the intention of the Legislature to implement such co-operation by later providing specific legislation concerning the repayment by the State, local agencies, or private interests of the reimbursable costs allocated to the conservation features of specific multiple-purpose water projects authorized for construction by the United States Army Corps of Engineers."

Upon the premise that the New Hogan Project is within the purview of legislative acts appropriating funds for State cooperation with the United States in the construction of multipurpose projects including flood control, the United States and the State of California on March 2, 1960, entered into a contract for repayment of costs for New Hogan Dam and Reservoir allocated to conservation, and for the payment of the proportionate share of the
operation and maintenance costs allocated to conservation incurred by the United States (USBR 33).

In essence, the contract provides that 36.2 per cent of the total cost of construction of the project is attributable to the water conservation features of the project; the State will be given the right in perpetuity to store water in the reservoir up to a stated maximum amount, the remainder of the storage space to be utilized by the United States for flood control purposes; the United States Bureau of Reclamation will have the right for a period of seven years after completion of construction to negotiate contracts for water or storage with local agencies and to the extent that the United States succeeds in doing so, the State's obligations will be proportionately reduced.

If the United States is able to contract for the full amount of water or storage space available within such seven-year period, the State's rights and obligations under the contract will terminate. There are appropriate provisions for refund of payments in case of contracting by the United States with local entities for water or storage space.

The State undertakes to repay to the United States the 36.2 per cent of the total cost of constructing the project in forty annual installments on a graduated basis. Beginning with the eighth year, the State agrees to pay 38 per cent of the annual maintenance and operation costs of the project. The State is given the right to sell water or storage space to other entities eligible to contract under the Federal reclamation laws, but limited to that
portion of space or water service unobligated by the United States. Revenues to be received by the State from contracting entities pursuant to contracts between the State and local entities are pledged for payment of the State's obligation to the United States for repayment of construction costs. To the extent that such revenues are not sufficient to meet those payments when due, such payments are to be made from the $13,740,000 appropriated by two budget acts of the Legislature.

Finally, if these two sources of revenue are insufficient, performance and payments by the State under the contract other than from these sources, if required, will be subject to future appropriations of funds therefor by the Legislature.

In November of 1960, only a few months after the contract was executed, construction of New Hogan Dam commenced.

The long history of continuing State interest in Federal development and construction of New Hogan Dam and Reservoir, the existing Federal-State contract guaranteeing the repayment of project costs allocated to conservation by means of State funds appropriated to the general purpose, followed by actual construction of the project, strongly suggests that the granting of permits to the United States for the appropriation of water for project purposes would best conserve the public interest and that permits to others which would substantially diminish the conservation yield and impair the repayment of the project should be denied.
CALIFORNIA WATER PLAN

While the State has been interested in and concerned with Federal construction and operation of the New Hogan Project, studies looking toward a general and coordinated plan for development of the State's water resources also have been in progress. One such study is the California Water Plan outlined in Bulletin 3 of the Department of Water Resources (Staff 3) which includes construction of an enlarged reservoir at the Hogan site for flood control and to conserve water for use on lands north of the Calaveras River.

The Department of Water Resources, as part of its more recent studies, has undertaken the Calaveras Area Investigation. Included is a plan for development of water of the main stream Calaveras River as well as of nine tributary streams. Ten geographic water service areas have been delineated (DWR 3) for the purpose of studying the present-day annual consumptive uses of applied water as compared with the needs projected to the year 2020. One of these, designated "Hogan Water Service Area" (DWR 2), contains approximately 58,000 irrigable acres which will ultimately require 64,750 acre-feet of project water annually (DWR 7). Located between the Mokelumne and Calaveras Rivers, the land area lies below New Hogan Dam and above the route proposed for Folsom South Canal. The Department plan calls for all of the yield from New Hogan Reservoir to be used ultimately in the Hogan Service Area but that initially project water could be delivered outside this area where there is a demand for it. However, at such time in the future as Folsom
South Canal is constructed to bring an adequate water supply from that source to the valley floor, the Hogan Service Area should be given another opportunity to contract for project water (RT 828).

No consideration has been given, however, to possible disparity between the price of water from New Hogan under today's costs and the price of water which is to be developed in the future from Folsom South Canal (RT 830). In the absence of persuasive evidence, it is unreasonable to speculate at this time upon the effectiveness of a plan requiring an exchange of water under contracts yet to be negotiated. The Bureau's applications describe a proposed service area which includes that set forth in the State plan as well as the areas served by the Stockton District. The Bureau's policy of contracting for water service to those entities willing and able to make beneficial use of water should be sufficient assurance that the needs of water users will be met to the extent that the operation of New Hogan Reservoir is able to supply them. That an exchange contract agreement is possible, has not been denied by any of parties. However, no useful purpose would be served by injecting such a condition into any permits to be issued to the Bureau in these proceedings.

According to the Department's studies, the amounts of water to be developed from the Calaveras River and its tributaries to satisfy requirements above New Hogan Reservoir will be relatively small with the principal sources of supply for that area being from the Stanislaus and Mokelumne Rivers (RT 827).
At the time Applications 18812 and 18813 were filed, Board rules required separate applications for each major consumptive use. This is no longer necessary and all consumptive uses can now be included in one application. Since a single permit will be sufficient for the project, the Bureau has consented, by letter of April 10, 1964, to the inclusion of municipal and industrial purposes of use in Application 18812. In view of this change, Application 18813 is an unnecessary duplication and therefore will be denied.

The records of streamflow indicate, and the Board finds, that unappropriated water seldom exists in the Calaveras River from about May 1 to about November 1 of each year and that the flow at New Hogan Dam seldom exceeds 200 cfs except during flood stages. Accordingly, the direct diversion portions of Application 18812 of the Bureau will be limited to 200 cfs with a diversion season from November 1 of each year to May 1 of the succeeding year. Diversion to storage pursuant to the application will be limited to the same season and to 325,000 afa, the capacity of the reservoir.

Application 18812 was filed on June 19, 1959. A review of applications made subsequent to that date on the Calaveras River stream system for diversions in the watershed above New Hogan Dam...
reveals that up to December 1, 1963, a total of 863 afa has been applied for. Of this total, approximately 693 afa has been permitted and applications for an additional 170 afa are pending. These applications were unprotested. The Board finds it to be in the public interest to subject the permit of the Bureau to these applications because many of the projects have already been constructed and the amounts of water appropriated will not substantially interfere with the operation of New Hogan Reservoir.

The permit of the United States should also be subject to future appropriations within the Calaveras River watershed above New Hogan for stockwatering. Appropriations for these limited purposes will not interfere substantially with the Bureau's project. At the same time, a reservation for such appropriations is in keeping with, though not as broad as, the recommendation of the Department of Water Resources for a condition reserving water for the county of origin for all future uses. One of the principal uses of land in Calaveras County is for livestock grazing. The availability of stockwater ponds is essential to this industry. By encouraging applications to be filed for small projects, the Board will have an opportunity to consider the reasonableness of the quantities requested, whereas there would be little or no control over stockwater reservoirs constructed without permits. For future irrigation and other consumptive use requirements, exchange contracts with either the Bureau or the Calaveras District should meet the needs in the upper watershed area.
Available information indicates and the Board finds that surface flow in the Calaveras River downstream from Hogan Dam is required to satisfy vested rights of water users within the Stockton District and for ground water replenishment (Staff 4). Therefore, water should be collected to storage or directly diverted pursuant to the permit issued to the Bureau only at such times as a live stream exists between New Hogan Dam and a point on the Calaveras River immediately below the junction of the Stockton Diverting Canal within projected Section 26, T2N, R6E, MDB&M, about two miles north of the City of Stockton.

A condition to this effect will require the Bureau to release the inflow to New Hogan Reservoir during the season from November 1 to May 1 whenever the tributary inflow below the dam is insufficient to maintain surface flow in either the Mormon Slough channel, thence the Stockton Diverting Canal channel, or in the Calaveras River channel.

Calaveras District raises a number of legal arguments in opposition to the applications of the Bureau, some of which merit a direct answer. It is contended, for example, that Water Code Sections 10505, 11460, 11463, and 11128 require that Calaveras District be preferred because it is a "county of origin" as well as a "watershed of origin" and therefore entitled to all the water from the Calaveras River necessary for its future development.

Water Code Section 10505, affording protection to future water requirements in counties in which the water originates, applies by its terms only to the assignment of a State filing with which we are not presently concerned.
While Section 11460 and the related sections concerning watershed protection are clearly applicable to the New Hogan Project, its operation in the manner proposed by the United States will not conflict with those sections because project water will be used entirely within the watershed of the Calaveras River or an area immediately adjacent thereto.

Calaveras District

The development plan presented by Calaveras District would require a substantial portion of the unappropriated water of the Calaveras River together with some quantities imported from the Mokelumne River on the north and the North Fork Stanislaus River on the south. Details of the North Fork Stanislaus River portion of the development system were previously considered by the Board and applications approved in Board Decision D 1114.

In support of the total quantity requested, Calaveras District's evidence establishes a pattern of expanding agriculture which would see irrigated crop lands increasing from the present 3,000 or 4,000 acres to 55,160 acres within an estimated 30- to 40-year future development period. On this basis, a minimum of 468,000 acre-feet of water is the estimated ultimate requirement annually for Calaveras District (RT 94). On the basis of projected population studies, Calaveras can be expected to support 70,000 people by the year 2020 (DWR 12). However, the population increase will not change the estimated future water requirement based on irrigation demand.
The operation of Forks, Cedar, San Andreas, and Calaveritas Reservoirs as proposed by Calaveras District would seriously impair the yield of New Hogan Reservoir. For the reasons explained elsewhere in this decision, the conflict between applications for these facilities must, in the public interest, be resolved in favor of the applications by the Bureau of Reclamation at New Hogan. Only those reservoirs and diversions which would have no serious adverse effect upon the New Hogan project should be approved. This does not mean that the land area which would have been served from these reservoirs proposed by the Calaveras District will be without water. Most of the land also lies within the New Hogan Project Service Area of the Bureau and therefore can look to water service contracts from New Hogan for a supply.

The average combined annual yield of the proposed Esperanza, Jesus Maria, McCarty's, O'Neil, and Scotts Reservoirs will be 15,000 acre-feet (CCWD 3). The combined diversions at these points will average about 19,500 afa or 14 per cent of the annual average flow of the Calaveras River at Hogan Dam. Storage in these reservoirs would not greatly diminish the water supply available for conservation at New Hogan.

Jesus Maria Reservoir was approved in Decision D 1114 as an off-stream reservoir for water from the North Fork Stanislaus River. This reservoir is a key unit in serving water to Calaveras Service Area 11, with more than 2,000 irrigable acres.

About 7,255 acres of irrigable land would be served from Esperanza Reservoir in Area 12, primarily by water from the Calaveras River system, and approximately 2,000 acres within Area 15 would be served by Scotts Reservoir.

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O'Neil Reservoir would be used to supply domestic water primarily to the City of San Andreas and vicinity as a substitute for the present source of supply. O'Neil will be supplemented by water from the Calaveras Conduit or Jesus Maria Reservoir when needed (RT 114). McCartys Reservoir is proposed for Stage "B" construction but is part of the Mokelumne River development. The major portion of the water collected in this reservoir would be diverted from the South Fork Mokelumne River which is to be considered in a subsequent proceeding.

Operation studies made by the Board's staff for the 36-year hydrologic period 1921-1956 show that the reconstructed annual flows of the Calaveras stream system, measured at Jenny Lind, are sufficient to allow diversion by Calaveras District at the upstream reservoirs for which permits are to be issued in every year of study. The quantity varies from 4,000 acre-feet in 1924 to 37,000 acre-feet in 1936. With these diversions by the Calaveras District, the studies show that there would also be unappropriated water at New Hogan in every year. The quantities would vary from 11,000 acre-feet in 1924 to about 296,000 acre-feet in 1938.

Application 11792 should be approved to the extent it proposes direct diversion and storage at McCartys, Jesus Maria, Esperanza, O'Neil, and Scotts Reservoirs. This application should be denied to the extent it requests permission to appropriate water at Cedar and Hogan Reservoirs.

Application 18729 which proposes diversions at Forks, Cedar, Scotts and Hogan Reservoirs, should be denied. The proposed
diversion of 10 cfs at Scotts Reservoir contained in this application is duplicated in Application 11792 and is unnecessary. The industrial use of water referred to in this application can be added to the permit to be issued pursuant to Application 11792 by petition to the Board.

It is planned that the water conserved at San Domingo Reservoir would be released into San Domingo Creek for rediversion downstream at San Andreas Dam to fill irrigation and domestic requirements in Service Areas 1 and 2. Some water would also be available from this unit for use in Service Area 5 (RT 119). The place of use, therefore, is remote from the point of diversion to storage and also lies within the service area for the Federal New Hogan project. In view of these circumstances and the Board's denial of a permit for San Andreas Reservoir, San Domingo Reservoir will serve no useful purpose to the Calaveras District project and Applications 14250 and 14251 should, therefore, be denied.

The financing of the Calaveras County water resources development plan was analyzed in a feasibility report (CCWD 3) on the basis of revenue bonds at 4 per cent interest, a maturity period of 50 years and a total amortization period of 47 years. Commencement of construction in two and a half years following permit was assumed. Constructing the maximum power developments on the North Fork Stanislaus River as an initial development would require an estimated $154,155,000 bond issue, the annual cost of which would be derived from power revenues estimated for the total power development at $8,079,000 per year (RT 185). Funds thus
derived, together with additional funds which would be available as grants for recreation and from the sale of water, would be used as necessary for construction.

An alternative plan would be to construct by stages, thereby reducing the initial bond issue as well as the amount of power placed on the market at one time. Construction in either plan would be expected to go forward in 1965; however, if the stage development were to be followed, the second phase (Stage B) would not be expected to commence until 1983 (CCWD 27), taking an estimated two and one-half years to complete (RT 304). The main features of Stage B are McCarty's, Esperanza, Jesus Maria, and Scotts Reservoirs. Stage C construction, consisting principally of San Domingo, Calaveritas and O'Neil Reservoirs, would follow. The Bureau and Stockton District contend that applications of the Calaveras District should be denied because of the long delay in scheduled construction of these units. Stage A construction would include Cedar, Forks, and San Andreas. Since none of these works will be authorized, permits issued to Calaveras District will require that an early construction date be adopted for the approved projects. The evidence indicates that the applicant can be expected to proceed with reasonable promptness in the construction of the projects for which permits will be issued after the bond issue is authorized.

Since Cedar, San Andreas, and Forks Reservoirs, as well as Calaveritas Dam, will not be approved for the reasons given, it will not be necessary to require that petitions to change the
points of the diversion for Applications 11792 and 18729 be filed with the Board. Therefore, the procedural issue which was raised by the parties and argued extensively at the hearing as to the time when such petitions are properly before the Board is moot.

Stockton District

The point of diversion to storage described in Application 12668 of Stockton District is Hogan Reservoir which has been replaced with a new federally-owned facility. The applicant admits that it does not now have the right of access to New Hogan Reservoir. Title 23, California Administrative Code, Section 747, provides that the Board, for good cause shown, may allow reasonable time for an applicant to negotiate with the owner for necessary right of access. The District cites the rule and asks that a permit be granted it to divert water to storage conditioned upon an agreement with the United States for joint use of the facility.

The position of the Bureau in this regard is unequivocal opposition to such an arrangement. In its reply brief (at page 3) the Bureau states as follows:

"The fact that the Bureau of Reclamation in its Applications 18812 and 18813 has requested 325,000 acre-feet, which is the capacity of New Hogan Reservoir, should demonstrate quite clearly to the Board that it is the intent of the United States to store and market the water as property of the United States and not to enter into a contract for 'joint use' of the New Hogan Dam."

There is no evidence in the record of negotiations between the Bureau and Stockton District and no cause has been shown for allowing time for the applicant to negotiate for a right
of access which it apparently has no prospect of obtaining. Application 12668 should therefore be denied. This does not mean, however, that Stockton District is foreclosed from receiving the benefits of the New Hogan Reservoir. Evidence offered in support of Stockton's applications clearly shows a need for additional water. The lands within the District boundaries are within the Bureau's service area and are among the logical beneficiaries of the project's conservation benefits.

Stockton District conceded that the most efficient use of water would require that all water available for storage in New Hogan except mandatory flood releases be stored and released primarily for purposes of supplying downstream surface diversions of water for beneficial use. The District made such an assumption in its own operations study and gave first priority to storage of water in New Hogan with the expectation that underground storage pursuant to Application 12839 would be a secondary use or a secondary priority (RT 813). While the District's study was made upon the premise that both of its applications would be approved, the same principle of priority should logically apply as between Application 12839 and that approved for the Bureau which was filed at a later time.

Assuming both the Calaveras District and the Federal New Hogan projects in operation, the studies disclose that there would be unappropriated water available in 17 years of the 36-year study period which Stockton District could divert to underground storage. Quantities available for this purpose would range from 2,000 acre-feet in 1923 to 203,000 acre-feet in 1938. The quantity of water
which could be diverted to underground storage will depend on the facilities to be provided by the Stockton District and the rate at which the water becomes available. This can only be determined after the project is in operation.

Nevertheless, we conclude that there is sufficient unappropriated water from flood releases at New Hogan Dam and accretions to Calaveras River below New Hogan which Stockton District could divert, to justify approval of Application 12839, subject to all other permits issued pursuant to this decision. Permit will be granted for the full amount applied for on the understanding that it will be reduced at the time of license to the amount found by inspection to have been placed to beneficial use.

City of Stockton

Application 17695 was filed on July 2, 1957, by the City of Stockton for a permit to appropriate 100,000 acre-feet per annum from the Calaveras River during the period November 1 of each year to June 15 of the succeeding year for municipal use within the City of Stockton and environs. The application named the point of diversion as being New Hogan Reservoir and was filed at a time when uncertainty existed as to how and by whom New Hogan Dam and Reservoir would be operated (RT 40). There being no evidence in support of the application and upon the admission of counsel that the city has no immediate plans to construct project works (RT 41), Application 17695 should be denied.
The Department of Fish and Game introduced evidence of the effect that the proposed projects would have on fish and wildlife resources.

The Department's evaluation of the New Hogan project and its downstream effects on fish and wildlife was initiated in 1958. The evaluation of effects of proposed projects upstream from New Hogan Reservoir was begun in 1961.

As a result of these studies the Department concluded that the projects would generally enhance fishery resources. With New Hogan Reservoir under operation, larger and more firm flows will be released below the dam from March through October. This will eliminate the "no flow" problem during August, September, and October and should greatly benefit the fishery. Due to diversions for irrigation, the benefit would not be realized below Bellota Dam. Below that point the river will continue to be dry several months of the year.

New Hogan Reservoir is considered to offer the potential for a good warm water fishery.

Of major concern to the Department, however, is the protection and enhancement of the fishery resources in tributaries on which Calaveras District proposes its developments. Detailed recommendations for minimum streamflows and reservoir pools for each of the proposed Calaveras project units were set forth in the Department study report of March 1963, "Proposed Water Development in the Calaveras River and Tributaries and Its Effects on Fish
The Department's evaluation of the existing fishery resources of the Calaveras River and its tributaries leads to the conclusion that the stream system supports relatively poor game fish populations. The lower drainage area contains a few warm water game fish, such as bass, catfish, and sunfish, while rainbow and brown trout are maintained in the major tributaries only where spring flows exist. The Calaveras District project works will enhance fishery resources within the river basin by providing storage reservoirs in areas which have only a nominal fishery value at present and by releasing water during the irrigation season into streams that normally have little or no flow.

With respect to wildlife, Department studies indicate that the construction of proposed reservoirs by the Calaveras District would result in the loss of approximately 1,200 acres of deer winter ranges. This loss, however, is expected to be offset by the prospect that the use of water in the winter range area as contemplated by the project would create range habitat of better quality than now exists.

Calaveras District and the Department of Fish and Game entered into an agreement on April 17, 1963 (F&G 3), which provides for minimum streamflows and reservoir pools for the project substantially in keeping with the recommendations set forth in the Department's studies. The parties further agreed that the provisions regarding project operations could be included as conditions in any permits or licenses issued pursuant to Calaveras District's applications.
The Department's aforementioned report of March 1963 provides a reasonable basis for the quantities of project water to be released into the stream system or to be retained as minimum reservoir pools. In view of the report and the stipulation of April 17, 1963, the permit issued to Calaveras District will be subject to the terms of the agreement and will provide that prior to construction Calaveras District shall petition the Board to include the preservation and enhancement of fish and recreation as purposes of use.

**SUMMARY**

1. New Hogan Dam and Reservoir have been constructed by the United States for operation by the United States with full approval and cooperation of the State of California. The State has assumed the obligation to repay to the Federal Government costs allocated to the conservation features of the project to the extent that such repayment is not secured by the Federal Government from local agencies.

2. The public interest requires that New Hogan Reservoir be maintained and operated so as to make maximum use of the available conservation storage space in accordance with criteria adopted by the United States. It would not be in the public interest to jeopardize the financial feasibility of the constructed Federal project and duplicate its conservation features at upstream locations.
3. In the Board’s judgment the appropriations proposed in Application 18812 of the Bureau, Application 11792 of Calaveras District at McCartys, Esperanza, Jesus Maria, O’Neil, and Scotts Reservoirs, and Application 12839 of Stockton District, will best develop, conserve, and utilize in the public interest the water sought to be appropriated.

4. The appropriations proposed by Calaveras District at Forks, Cedar, San Andreas, Calaveritas, and San Domingo reservoir sites would not best conserve the public interest, and applications of the District for such appropriations should be denied.

5. Applications 11792 and 18729 of Calaveras District and 12668 of Stockton District to appropriate water at New Hogan Reservoir should be denied because the Districts do not have access to the reservoir.

6. Application 17695 of the City of Stockton should be denied because the application was not supported by evidence and because of lack of plans to construct project works.

7. The New Hogan Project of the United States is consistent with the California Water Plan except for the enlarged service areas. It would not be in the public interest to impose restrictions on the area to receive water from the project within the place of use described in Application 18812.

8. Unappropriated water exists in the various sources named in the applications at times and in sufficient quantities to

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justify the approval in part of Application 11792 of Calaveras District, Application 12839 of Stockton, and Application 18812 of the Bureau as set forth in Table 3; these applications should be approved and permits issued subject to the limitations and conditions set forth in the following Order.

ORDER

IT IS HEREBY ORDERED that Application 11792 of Calaveras District be, and the same is, approved in part and that permit be issued subject to vested rights and the following limitations and conditions:

1. The amount of water to be appropriated shall be limited to the amount which can be beneficially used and shall not exceed 30 cubic feet per second (cfs) by direct diversion and 51,200 acre-feet per annum (afa) by storage, both direct diversion and collection to storage to be from about November 1 of each year to about May 1 of the succeeding year, in the amounts and at the locations as follows:

   (a) 2,200 afa by storage at McCartys Reservoir
   (b) 5 cfs by direct diversion and 6,600 afa by storage at Esperanza Reservoir
   (c) 5 cfs by direct diversion and 17,100 afa by storage at Jesus Maria Reservoir
   (d) 10 cfs by direct diversion and 5,300 afa by storage at O'Neil Reservoir
   (e) 10 cfs by direct diversion and 20,000 afa by storage at Scotts Reservoir
**TABLE 3**  
SUMMARY OF APPLICATIONS APPROVED BY THIS DECISION

<table>
<thead>
<tr>
<th>Appl. No.</th>
<th>Source</th>
<th>Dam</th>
<th>Direct Diversion</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11792</td>
<td>N. F. Calaveras</td>
<td>McCartys</td>
<td>-</td>
<td>2,200</td>
</tr>
<tr>
<td></td>
<td>Esperanza Creek</td>
<td>Esperanza</td>
<td>5</td>
<td>6,600</td>
</tr>
<tr>
<td></td>
<td>Jesus Maria Creek</td>
<td>Jesus Maria</td>
<td>5</td>
<td>17,100</td>
</tr>
<tr>
<td></td>
<td>O'Neil Creek</td>
<td>O'Neil</td>
<td>10</td>
<td>5,300</td>
</tr>
<tr>
<td></td>
<td>San Antonio Creek</td>
<td>Scotts</td>
<td>10</td>
<td>20,000</td>
</tr>
<tr>
<td>12839</td>
<td>Calaveras River</td>
<td>Movable Points</td>
<td>-</td>
<td>200,000</td>
</tr>
<tr>
<td>18812</td>
<td>Calaveras River</td>
<td>New Hogan</td>
<td>200</td>
<td>325,000</td>
</tr>
</tbody>
</table>
2. The maximum amounts herein stated may be reduced in the license if investigations warrant.

3. This permit does not authorize collection of water to storage during the period from about May 1 to about November 1 of each year to offset evaporation or seepage losses or for any other purpose.

4. Actual construction work shall begin on or before December 1, 1966, 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, 1985.

6. Complete application of the water to the proposed uses shall be made on or before December 1, 1995.

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 methods of diversion, methods of use, and quantities 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 waters.

9. In accordance with requirements of Water Code Section 1393, permittee shall clear the site of each of the proposed
reservoirs of all structures, trees and other vegetation which
would interfere with the use of the reservoir for water storage
and recreational purposes.

10. Separate applications for the approval of plans and
specifications for construction of the dams described in this
approved water right application shall be filed with and approved
by the Department of Water Resources prior to commencement of
construction of the dams.

11. Permittee shall install and maintain in each of its
dams an outlet pipe of such size and at such location as is speci-
fied by the State Department of Water Resources.

12. Permittee shall make such measurements and maintain
and furnish to the Board such records and information as may be
necessary to determine compliance with the limitations and con-
ditions of this permit, including the protection of vested rights,
and for the further purposes of determining the quantities of
water placed to beneficial use under the permit.

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

14. This permit is subject to the terms of the agree-
ment between the permittee and the California Department of Fish
and Game, dated April 17, 1963, which was filed of record at the
hearing of Applications 11792 et al., as Fish and Game Exhibit 3.
Before commencing construction permittee shall petition the Board to add to this permit the following purposes of use: The preservation and enhancement of fish and recreation.

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

IT IS FURTHER ORDERED that Application 18812 of the United States Bureau of Reclamation be, and the same is, approved in part and that permit be issued subject to vested rights and the following limitations and conditions:

1. The amount of water to be appropriated shall be limited to the amount which can be beneficially used and shall not exceed 200 cubic feet per second by direct diversion and 325,000 acre-feet per annum by storage to be diverted and collected from about November 1 of each year to about May 1 of the succeeding year at New Hogan Reservoir.

2. The maximum amounts herein stated may be reduced in the license if investigations warrant.

3. This permit does not authorize collection of water to storage during the period from May 1 to November 1 of each year to offset evaporation or seepage losses, or for any other purpose.

4. Complete application of the water to the proposed uses shall be made on or before December 1, 1990.
5. 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.

6. All rights and privileges under this permit including methods of diversion, methods of use and quantities 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 waters.

7. In accordance with requirements of the Water Code, Section 1393, permittee shall clear the site of the proposed reservoir of all structures, trees and other vegetation which would interfere with the use of the reservoir for water storage and recreational purposes.

8. Diversions shall be made under this permit only during such times as surface flow exists in the stream channel between New Hogan Dam and a point on the Calaveras River Channel below its confluence with the Stockton Diversion Canal within projected Section 26, T2N, R6E, MDB&M.

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

10. This permit and all rights acquired or to be acquired thereunder are and shall remain subject to appropriations of water above New Hogan Reservoir under permits issued or to be
issued pursuant to applications filed with the State Water Rights Board prior to December 1, 1963, and to subsequent applications for reasonable quantities of water for stockwatering within the Calaveras River watershed.

IT IS FURTHER ORDERED that Application 12839 of Stockton and East San Joaquin Water Conservation District be, and the same is, approved and that a permit be issued subject to vested rights and the following limitations and conditions:

1. The amount of water appropriated shall be limited to the amount which can be beneficially used and shall not exceed 200,000 acre-feet per annum by underground storage to be collected between about November 1 of each year to about May 1 of the succeeding year.

2. The maximum amount herein stated may be reduced in the license if investigation warrants.

3. Construction work shall be completed on or before December 1, 1968.

4. Complete application of the water to the proposed use shall be made on or before December 1, 1973.

5. 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.

6. 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.

7. 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.

8. Before diverting any water pursuant to this permit, permittee shall file with the Board an operation plan including location of measuring devices for determining the quantities of water placed to underground storage and a method for determining the quantities of water extracted for beneficial use.

9. Rights acquired under this permit shall be junior to rights acquired under permits issued pursuant to Applications 11792 and 18812.

IT IS FURTHER ORDERED that Applications 14250, 14251, and 18729 of Calaveras County Water District, Application 12668 of Stockton and East San Joaquin Water Conservation District, Application 17695 of City of Stockton, and Application 18813 of the United States Bureau of Reclamation be, and the same are, denied.
Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held at San Diego, California, this 21st day of April, 1964.

/s/ Kent Silverthorne
Kent Silverthorne, Chairman

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

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