

STATE OF CALIFORNIA
STATE WATER RIGHTS BOARD

In the Matter of Applications
16185, 16199, 16361, 16362, 16363,
16442, 16515, 16516, 16677, 16985,
17066, 17067, 17150 and 17210 of
B. W. Whitmire and Others to
Appropriate from Sacramento River,
Colusa Basin Drainage Canal, and
Sycamore Slough, in Butte, Glenn,
Sutter, Colusa, and Yolo Counties

Decision D 1045

Adopted November 13, 1961

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Nature of the Proceedings

A summary of the data contained in the 14 applications which are the subject of this decision is set forth in the tabulation "Data from Applications for Appropriation of Unappropriated Water from Sacramento River and Colusa Basin Drainage Canal" on the following page. These applications were filed between December 1954 and August 1956.

All of the applications are for water to be used for irrigation purposes. Stockwater is an additional use in Application 16199.

The points of diversion described in each application are depicted on the map which is attached to this decision.

Data from Applications for Appropriation of Unappropriated Water
from Sacramento River and Colusa Basin Drainage Canal

Applica- tion : number :	Applicant :	Source (a) :	Direct : diver- : sion : rate : (cfs) :	Season :
16185	B. W. Whitmire et al.	Black Borrow Pit	9.50	Apr. 1 -- Dec. 1
16199	Leslie A. and Minnie F. Butler	Sacramento River	5.25	May 1 - Nov. 1
16361	Davidella, Grace H., and Florence F. Hershey	Sacramento River and Sycamore Slough	65.36	Apr. 1 - Sept. 30
16362	do.	Sycamore Slough	14.52	Apr. 1 - Sept. 30
16363	do.	Sacramento River	10.85	Apr. 1 - Sept. 30
16442	James Iriart	Colusa Basin Drainage Canal	3.24	Mar. 1 - Nov. 30
16515	J. E. Taylor	do.	4.34	Mar. 1 - Nov. 30
16516	Tom Tolson	do.	5.73	Mar. 1 - Nov. 30
16677	Sutter Mutual Water Co.	Sacramento River	7.50	Apr. 1 - Nov. 1
16985	Tisdale Irrigation and Drainage Company	Sacramento River	15.00	Mar. 15 - Oct. 15
17066	Princeton-Codora-Glenn Irrigation District	Colusa Drain	50.00	Apr. 1 - Oct. 31
17067	do.	Sacramento River	80.00	Apr. 1 - Oct. 31
17150	William Crawford	Sacramento River	16.75	Mar. 1 - Nov. 1
17210	May B. Chaplin	Sacramento River	3.00	May 1 - Oct. 30

(a) Except for Sacramento River, all other sources indicated are in the Colusa Basin Drainage Canal

Protests and Hearing

Formal protests to all applications were received from the United States Department of the Interior, Bureau of Reclamation hereinafter referred to as the "Bureau". Formal protests to some of the applications were also received from Contra Costa County Water Agency, Olive Percy Davis, Lloyd M. Kahn, Clyde E. Coffman, A. J. Campbell, Frank J. Byington, Trustee, and M. C. Carey.

On May 23, 24, and July 11, 1961, after due notice to the applicants and protestants, a public hearing was held before Ralph J. McGill and W. A. Alexander, Members of the State Water Rights Board, in Sacramento at which times the parties appeared and evidence was received. Upon conclusion of the hearing, the matter was submitted upon a consolidated record.

The protestants, relying on prior vested rights, took the position that there is no surplus water in most years during the critical summer months to supply the applicants. The Bureau of Reclamation requested the inclusion of a special condition in any permits issued to provide that no water could be diverted until an agreement had been consummated between the permittee and the United States providing for the purchase of Central Valley Project water during periods when the natural regimen of the Sacramento River, its branch channels, sloughs, and drains, is required for prior rights.

M. C. Carey, appearing in pro per and on behalf of other landowners on Grizzly Island, took the position that the permits,

if granted, would cause further depletion of the natural flow of the river and thereby contribute to the causes of salinity intrusion in the Delta to the injury of downstream users.

In its brief, the Bureau argued that it is not a beneficial use of water during April, May, and June to germinate crops when water to mature the crops is not available during July, August, or September.

Watershed and Water Supply

The sources named in the applications are all within the Sacramento River Basin which occupies that portion of the State lying between the Sierra Nevada and Cascade Range on the east, the Coastal Range on the west, Mt. Shasta on the north, and the watersheds of the San Joaquin, Mokelumne, and Cosumnes Rivers on the south. The basin is approximately 250 miles long and 150 miles wide and has an area of about 26,150 square miles (Staff 9).

With its numerous tributaries, the Sacramento River drains the basin. It originates on the eastern slopes of Mount Eddy in Siskiyou County and flows in a southerly direction throughout the length of the valley. Immediately below the City of Sacramento the river flows through the Sacramento-San Joaquin Delta where much of the water enters the various channels and sloughs of the Delta. Finally, the Sacramento River discharges into Suisun Bay (Staff 9).

The runoff from the watershed of the Sacramento River Basin produces an abundant water supply. Typical of most California streams, this runoff does not coincide with the largest diversion

demands. During the late summer months, there is usually insufficient water to meet the irrigation requirements without the benefit of seasonal storage. This storage is provided by Lake Shasta which is created by Shasta Dam located about 14 miles upstream from the City of Redding (Staff 4 through 9).

Large quantities of water are diverted from the Sacramento River and used for irrigation on lands located on the floor of the Sacramento Valley. A portion of this diverted water returns to the river through various sloughs and drainage channels. One of the largest channels is the Colusa Basin Drainage Canal which collects most of the return flows from land on the west side of the valley, extending from the vicinity of Hamilton City on the north to Knights Landing on the south. The bulk of the water supply available in this canal is drainage or return flow water (Staff 3 through 9).

The channel itself is variously called "Colusa Trough," "Main Canal," or "Colusa Basin Drainage Canal," and by other names. Lower reaches or extensions are called "Back Levee Borrow Pit" and "Knights Landing Ridge Cut." Applications 16185, 16361, 16362, 16442, 16515, 16516 and 17066 contemplate diversions from this channel or its various branches and extensions. Although one source of water designated in Applications 16361 and 16362 is described as "Sycamore Slough," the evidence shows the source to be the "Colusa Basin Drainage Canal" (Staff 1 and RT 145).

Applications 16199, 16361, 16363, 16677, 16985, 17067, 17150, and 17210 are for permits to appropriate from the Sacramento River.

The Evidence Relied On

The introduction of tabulations showing what the applicants have been diverting and the acreage of crops irrigated in past years clearly establishes that water has been physically present in the named sources and that the applicants have been able to divert and use the quantities applied for. However, the physical presence of water which can be diverted from a stream is not of itself sufficient to overcome objections raised by downstream protestants who need the water to satisfy prior vested rights.

Applicants in these proceedings as well as the protestants frankly concede that the existence of surplus water cannot be definitely determined without a stream system adjudication of all existing rights. In the absence of such a determination, the Board must decide the issues from the available information.

During the hearing concerning these applications, the applicants and the protestants relied upon the record developed in hearing Applications 5625 et al. of the Bureau to appropriate from the Sacramento River and in the Sacramento-San Joaquin Delta (Delta). Decision D 990, adopted by the Board pursuant to that hearing, was introduced as an exhibit in these proceedings (Whitmire 9). Reliance upon the evidence furnished during the hearing on the Bureau's applications to appropriate from the Sacramento River and Delta, in the absence of objection from the parties, was considered proper because it avoided unnecessary repetition of extensive testimony and voluminous exhibits.

Applications to Appropriate Water
from Sacramento River

The matter of the existence of unappropriated water may best be studied by dividing the Sacramento River into three reaches: Reach 1, Keswick to Knights Landing; Reach 2, Knights Landing to Sacramento; and Reach 3, the Delta below Sacramento. Applications 16199, 16677, 16985, 17067, 17150, and 17210 propose appropriations from Reach 1 and Applications 16361 and 16363 propose appropriations from Reach 2.

The Bureau has submitted USBR Exhibits 6 and 7 which assume a repetition of the hydrologic conditions for the years 1924 through 1954. These exhibits present the quantities of water remaining in Reaches 1 and 2 "after the satisfaction, to the extent of available supply, of all assumed rights of the local users along the Sacramento River above Sacramento, in the Delta uplands and lowlands, and the assumed rights of the United States at Shasta Dam and in the Delta," (all assumed rights being pre-1954). The following tabulation presents the percentage of the time water would be remaining within Reaches 1 and 2 as indicated by USBR Exhibits 6 and 7:

Per cent of Time Water Remaining Within

	<u>Reach 1</u>	<u>Reach 2</u>
April	97	100
May	48	87
June	6	61
July	0	13
August	0	0
September	0	0
October	35	45

These exhibits, however, do not reflect the conditions imposed by Decision D 990 on permits issued the Bureau to appropriate from Sacramento River and in the Delta. Condition 22 of Decision D 990 provides:

"22. Direct diversion and storage of water under permits issued pursuant to Applications 5626, 9363, 9364, 9366, 9367 and 9368 for use beyond Sacramento-San Joaquin Delta or outside the watershed of the Sacramento River Basin shall be subject to rights initiated by applications for use within said watershed and Delta regardless of the date of filing said applications."

In light of this condition an analysis has been made of the available water supply within Reaches 1 and 2, utilizing for this purpose the reports of the 1956 Cooperative Study Program (Staff 4, 5, and 6) and "Central Valley Project Operation Study, Shasta Reservoir Operation*."

The analysis included the following matters 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,

* Exhibit USBR 164 received into evidence during hearing on Applications 5625 et al.

Cow Creek, and Yolo-Zamora units in Reach 1 were satisfied, first, by tributary and return flows accruing within the reach, and second, by the natural runoff flowing into Lake Shasta.

The inflow to Lake Shasta and the water remaining in each reach after the satisfaction of the local rights and the Bureau's requirement within the Sacramento Valley are considered as indications of the existence of unappropriated water.

From the analysis it is concluded that water subject to appropriation remains in Reaches 1 and 2 during the period April through October the following percentage of time:

	Per cent of Time Water Remaining within	
	Reach 1	Reach 2
April	100	100
May	85	100
June	48	91
July	0	55
August	0	21
September	79	94
October	100	100

The flow of the Sacramento River, like the flow of most California streams, recedes rapidly at the conclusion of spring runoff caused by spring rains and snow melt. The transition from flood flows caused by spring rains and snow melt to a sustained flow is very rapid and usually occurs during the month of June (Staff 8). 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.

The evidence discloses that water is available in Reach 1 for appropriation from April 1 to June 15 and during September and October. In Reach 2, the evidence indicates that water is available for appropriation during the months of April, May, June, September, and October.

In urging that permits be issued for the full season requested in their applications, the applicants rely on Decision D 990 which granted a year-round direct diversion season under permits issued to the Bureau to appropriate water from the Sacramento River and in the Delta. They further assert that none of the studies presently available determine the amount of unappropriated water of the Sacramento River. They point out that the assumptions made by these studies with respect to riparian rights and rights classified as "other" would probably be considerably different when determined by a court of law in an adjudication of the water rights of the stream system.

The assertions made by the applicants are correct, and in addition, the quantities of return flows within each reach are only estimates based on the information at hand. However, this is the only information available and is the same as that which was considered by the Board in adopting Decision D 990.

The basic evidence in support of Decision D 990 indicates that after development of the Central Valley Project additional return flows will be available for appropriation during the low flow season. Upon the assumption that these return flows would produce the quantities of water indicated by the evidence, the

Board issued to the Bureau permits with a year-round direct diversion season with the provision that the actual quantities would have to be determined prior to the time of licensing. All diversions of water by the Bureau for use outside of the watershed in the Sacramento River Basin and in the Delta are subject to depletions by appropriations for use within the Sacramento River Basin and Delta. However, diversions of water by the Bureau for use within the Sacramento River Basin and Delta are not subject to such depletions. The evidence in support of Decision D 990 discloses that pre-1954 rights and the Bureau requirements for use within the Sacramento River Basin will require all of the additional return flows made available through the operation of the Central Valley Project, and accordingly, unappropriated water is not available during certain periods of time within Reaches 1 and 2.

Applications to Appropriate from
Colusa Basin Drainage Canal

A study of the quantity of water discharged from the Colusa Basin Drainage Canal into the Sacramento River before and after December 1943, the beginning of operation of Shasta Reservoir, discloses a substantial increase (Hershey 12 and 13). This average monthly increase is as follows:

<u>Month</u>	<u>Average Increase (acre-feet)</u>
April	No data
May	12,046
June	4,019
July	3,009
August	17,178
September	36,607
October	18,105

The only explanation for this increase in the flow of the Colusa Basin Drainage Canal is that it results from the increased use of water in the Sacramento Valley after the operation of Shasta Reservoir. However, the previously described analysis by the Board in which the water supply was adjusted to reflect the increased return flows from use of project water indicates that unappropriated water would not be available to satisfy these applicants during the months of July and August because prior rights (below Reach 1) must first be satisfied from the flows in the canal.

The evidence shows and the Board finds that water in excess of the downstream rights along the Colusa Basin Drainage Canal is physically available at the proposed points of diversion during the months of July and August. This water may be diverted by the applicants provided that water from an alternate source is made available to satisfy the senior rights along the Sacramento River and in the Delta below the mouth of the Colusa Basin Drainage Canal.

A possible alternate source, from a practical standpoint, is stored water from the Central Valley Project, which could be made available to replace the natural flow otherwise needed to satisfy vested rights in the Delta and along the Sacramento River below Knights Landing. This "exchange" of project water during the months of July and August is a matter to be negotiated between the individual water users and the project operator. If such a contract is consummated, new applications to appropriate surplus water from the Colusa Drain during the months of July and August will be necessary.

Applicants whose points of diversion are along the Sacramento River are in a position to contract directly for stored project water without the necessity for an exchange. New applications to appropriate would not be required since delivery of project water would be made directly to them in the stream channel.

In its brief the Bureau maintains that it is not a beneficial use of water to germinate crops with water available during April, May, and June when water to mature the crops is not available during July, August, or September. The Bureau and some of the applicants are presently engaged in negotiations for contracts for the purchase of project water by the water users along the Sacramento River. In the light of these negotiations it would not be proper to deny the applicants surplus water during months when it is naturally available in the stream solely upon the contention that water is not naturally available during a part of the growing season.

It will be assumed that these negotiations will be completed and that the required supplemental supplies will be available to the applicants.

The Bureau also requests that the following condition be imposed in any permits issued pursuant to these applications:

"No water shall be diverted under this permit until an agreement has been consummated between the permittee and the United States providing for a concurrent exchange of water from the Central Valley Project for water diverted under this permit to the extent necessary to supply the prior rights of the Sacramento River and the Sacramento-San Joaquin Delta users."

A similar condition was imposed in a permit issued pursuant to the Board's Decision D 949. However, in that instance, the applicant was agreeable to the inclusion of such a term in its permit. None of the applicants in this proceeding have agreed to accept this type of condition, rather they have urged that permits be issued to them without any conditions in order that they may occupy an equal position with other water users negotiating contracts for supplemental water.

Obviously these applicants will have to secure a supplemental water supply. The most feasible source would appear to be stored water from the Central Valley Project. However, since there is no evidence that supplemental water could not be secured from another source, it does not appear appropriate for the Board to designate the source.

As previously noted in the "Data from Applications for Appropriation of Unappropriated water from Sacramento River and Colusa Basin Drainage Canal", the season requested by several of

the applicants extends beyond the usual irrigation season. Specifically, Application 16185 asks for diversion to December 1, Applications 16442, 16515 and 16516 request a season to November 30. None of these applicants, however, offered evidence of past beneficial use beyond October 31. Neither did they show how beneficial use for irrigation beyond October 31 could reasonably be expected. The season permitted pursuant to these applications will be limited accordingly, and the order will so provide.

Grizzly Island

The incursion of salt water to the Delta and its resultant deterioration of water quality to protestants on Grizzly Island is a matter of grave concern to this Board. The problem as presented in the testimony in this proceeding is essentially the same as that considered in Decision D 990. Upstream depletions of natural flow as well as diversions in the Delta during the irrigation season have contributed to the problem over the years. Ultimate salinity control is still under study by agencies of the State and Federal governments responsible for the development of a satisfactory plan. The Board's views with respect to responsibility, as expressed in Decision D 990, have not changed.

CONCLUSION AND ORDER

The evidence indicates and the Board finds that unappropriated water exists in the Sacramento River and the Colusa Basin Drainage Canal at times and in sufficient quantities to justify

the approval in part of Applications 16185, 16199, 16361, 16362, 16363, 16442, 16515, 16516, 16677, 16985, 17066, 17067, 17150, and 17210; 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 pursuant thereto, as set forth in the following Order.

IT IS HEREBY ORDERED that the applications be, and the same are, approved in part, and that permits be issued to the applicants limited to the amounts of water which can be beneficially used, 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 16185 shall not exceed 9.5 cubic feet per second by direct diversion to be diverted between about April 1 to about June 30 and between about September 1 to about October 31 of each year.

b. The amount to be appropriated under Application 16199 shall not exceed 5.25 cubic feet per second by direct diversion to be diverted between about May 1 to about June 15 and between about September 1 to about October 31 of each year.

c. The amount to be appropriated under Application 16361 shall not exceed 65.36 cubic feet per second by direct diversion to be diverted between about April 1 and about June 30 and between about September 1 to about September 30 of each year.

d. The amount to be appropriated under Application 16362 shall not exceed 14.52 cubic feet per second by direct diversion between about April 1 to about June 30 and between about September 1 to about September 30 of each year.

e. The amount to be appropriated under Application 16363 shall not exceed 10.85 cubic feet per second by direct diversion between about April 1 to about June 30 and between about September 1 to about September 30 of each year.

f. The amount to be appropriated under Application 16442 shall not exceed 3.24 cubic feet per second by direct diversion between about March 1 to about June 30 and between about September 1 to about October 31 of each year.

g. The amount to be appropriated under Application 16515 shall not exceed 4.34 cubic feet per second by direct diversion between about March 1 and about June 30 and between about September 1 and about October 31 of each year.

h. The amount to be appropriated under Application 16516 shall not exceed 5.73 cubic feet per second by direct diversion between about March 1 to about June 30 and between about September 1 to about October 31 of each year.

i. The amount to be appropriated under Application 16677 shall not exceed 7.5 cubic feet per second by direct diversion between about April 1 to about June 15 and between about September 1 to about October 31 of each year.

j. The amount to be appropriated under Application 16985 shall not exceed 15 cubic feet per second by direct diversion between about March 15 to about June 15 and between about September 1 to about October 15 of each year.

k. The amount to be appropriated under Application 17066 shall not exceed 50 cubic feet per second by direct diversion between about April 1 to about June 30 and between about September 1 to about October 31 of each year.

l. The amount to be appropriated under Application 17067 shall not exceed 80 cubic feet per second by direct diversion between about April 1 to about June 15 and between about September 1 to about October 31 of each year.

m. The amount to be appropriated under Application 17150 shall not exceed 16.75 cubic feet per second by direct diversion between about March 1 to about June 15 and between about September 1 to about October 31 of each year.

n. The amount to be appropriated under Application 17210 shall not exceed 3 cubic feet per second by direct diversion between about May 1 to about June 15 and between about September 1 to about October 30 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 amounts herein stated are 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, 1964.

5. Complete application of the water to the proposed use shall be made on or before December 1, 1965.

6. Permittess 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.

7. Progress reports shall be filed promptly by permittees on forms which will be provided annually by the State Water Rights Board until license is issued.

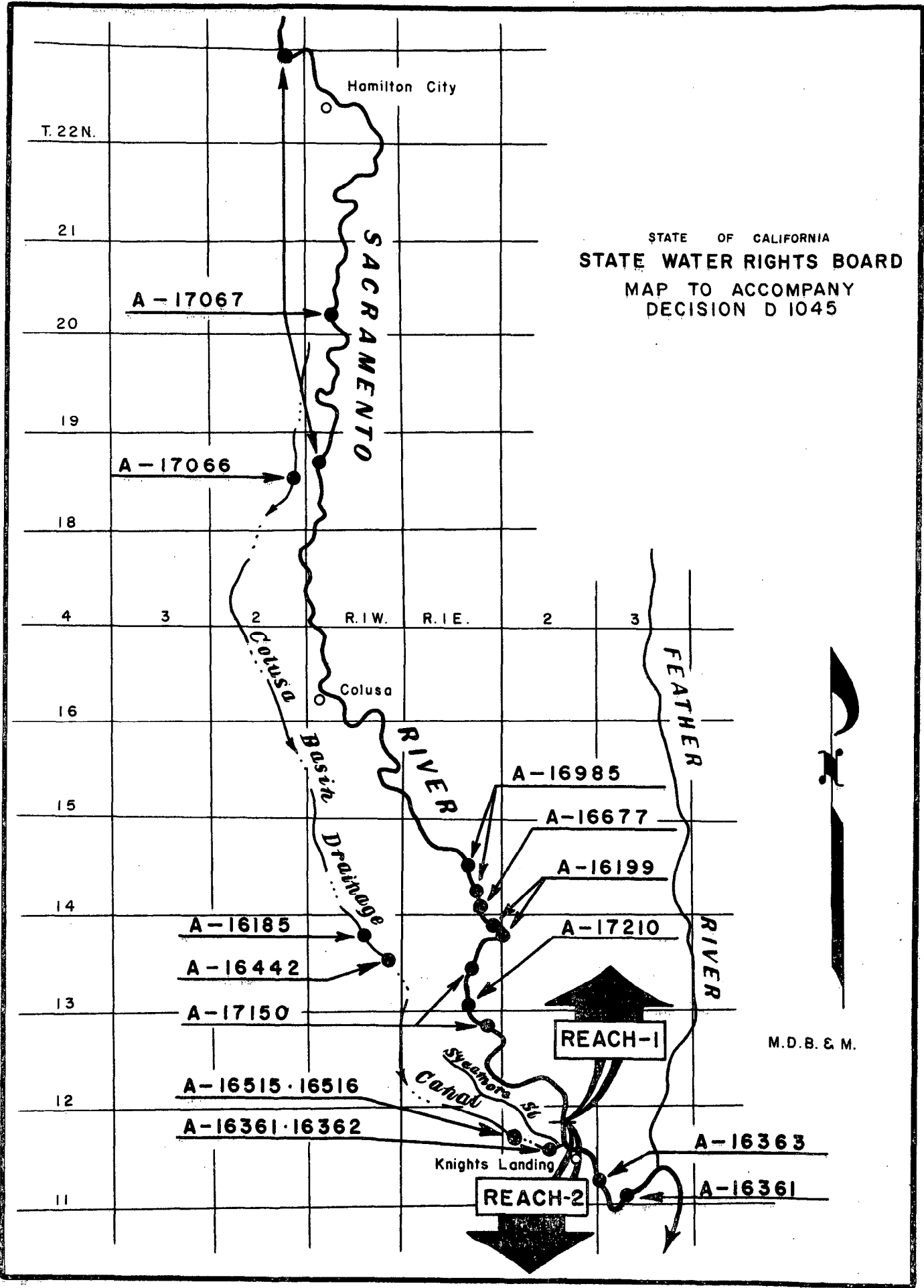
8. All rights and privileges under this permit including method of diversion, method of use, and quantity of water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

Adopted as the decision and order of the State Water Rights Board at a meeting duly called and held at Sacramento, California, on the 13th day of November, 1961.

Kent Silverthorne, Chairman

Ralph J. McGill, Member

W. A. Alexander, Member



STATE OF CALIFORNIA
 STATE WATER RIGHTS BOARD
 MAP TO ACCOMPANY
 DECISION D 1045

M.D.B. & M.