

STATE OF CALIFORNIA
STATE WATER RIGHTS BOARD

In the Matter of Application 20904
of G. B. Dorris to Appropriate from
Tributaries of Rattlesnake Creek in
Modoc County and

In the Matter of Petitions to Change
the Place of Use and to Extend the
Time for Beneficial Use of Water
under Permit 1768 (Application 3353)
of Hot Springs Valley Irrigation
District

Decision D. 1204

ADOPTED DEC 22 1964

DECISION APPROVING APPLICATION 20904 IN PART
AND GRANTING PETITIONS TO CHANGE PLACE OF USE
AND TO EXTEND TIME FOR BENEFICIAL USE OF WATER
UNDER PERMIT 1768 (APPLICATION 3353)

This decision concerns three independent but inter-related matters:

(1) A petition by the Hot Springs Valley Irrigation District (hereinafter referred to as the District) for an extension of time in which to apply water to beneficial use under Permit 1768 (Application 3353).

(2) A petition by the District to enlarge the place of use to include all lands within the recently enlarged District, which would include some lands now actually irrigated, although outside the authorized place of use under Permit 1768.

(3) Application 20904 by G. B. Dorris to appropriate water from two unnamed streams tributary to Rattlesnake Creek.

A hearing concerning the petition for extension of time was held in Alturas on August 7, 1963. The hearing was conducted by Board Member Ralph J. McGill. During the hearing it became evident that the District should also petition the Board to enlarge the place of use and that a combined hearing should be held concerning this petition and Application 20904.

A combined hearing was held in Alturas on October 29, 1963. This hearing was conducted by Board Members Kent Silverthorne (Chairman) and W. A. Alexander. The records of both hearings were consolidated and may be considered in arriving at a decision on each issue (Vol. 2, RT 4, 13, and 14).

Substance of the Petitions Under Permit 1768

Permit 1768 issued on Application 3353, filed April 12, 1923, authorizes the District to appropriate 50,000 acre-feet per annum (afa) from Big Sage Drainage Area, tributary to Rattlesnake Creek, for irrigation purposes. The storage season is from December 1 to April 1. The point of diversion is Big Sage Dam and the place of use consists of 9,640 acres as shown on the attached map, which are the lands included in the original District (Staff 1).

Five extensions of time to complete application of water to beneficial use have been granted. The last expired on December 1, 1956, at which time the District intended to have

its permit go to license. Later, the District reconsidered and filed a petition, dated October 15, 1962, for a further three-year extension of time to apply the water to beneficial use. The reason given for the need for additional time is that "all land owners require further time to prepare portions of their lands for irrigation and to prepare...facilities for proper and economical and efficient irrigation of the same, so that the full allotment of water can be applied to beneficial use," (Staff 1).

In addition, the District petitioned the Board to enlarge the place of use to a total of 15,292 acres, all within the District but partly outside the place of use now authorized.

Substance of Application 20904

Application 20904, filed on August 20, 1962, by G. B. Dorris, is for a permit to appropriate by off-stream storage in Ingalls Swamp Reservoir 1,920 afa for irrigation and stock-watering purposes. Water is to be collected to storage from two unnamed streams tributary to Rattlesnake Creek at a maximum rate of 50 cubic feet per second (cfs). The storage season requested is from September 15 to May 1. The points of diversion and the land to be irrigated, which consists of 700 acres located between Ingalls Swamp Reservoir and Big Sage Reservoir, are shown on the attached map (Staff 1).

Protests

Protests against the approval of the petitions under Permit 1768 were received from G. B. Dorris. Protests against the approval of Application 20904 were received from the District and Pacific Gas and Electric Company (Staff 1).

Stream System

The two streams which are described as the source in Application 20904 have their origin along the northern rim of the watershed of Rattlesnake Creek and flow in a general southerly direction. The flow of Rattlesnake Creek is controlled by Big Sage Dam, located 12 miles south of Ingalls Swamp Reservoir. Below Big Sage Dam, Rattlesnake Creek flows southeast 6 miles, then turns and flows southwest 3.5 miles and discharges into Pit River (Staff 5). Below the mouth of Rattlesnake Creek, Pit River meanders southwest 25 miles through Hot Springs Valley Irrigation District (Staff 5A).

Use of Water from Big Sage Reservoir

Hot Springs Valley Irrigation District was formed in 1919, and in 1921 the District completed the construction of the dam, forming Big Sage Reservoir with a capacity of 77,000 acre-feet. Water from Big Sage Reservoir provides a supplemental supply of water for lands within the District which were being served from the natural flow of Pit River.

The District has no conveyance facilities. District control of stored water ends when the water is released from Big Sage Reservoir during the irrigation season. It is then the responsibility of District members to divert the released water for their own use.

Prior to 1950, use of releases from Big Sage Reservoir for irrigation was limited to those lands which could be flooded by closing check dams located in the channel of Pit River and to those lands lying north of Rattlesnake Creek and Pit River, which were irrigated from the Kelly Ditch. In 1950, electric power became available and numerous pumps and pipelines were installed to provide for better irrigation of lands previously irrigated and also to irrigate lands located at elevations too high to be reached by the flooding method (Vol. 1, RT 18-20). According to a recent survey there are presently 8,858 acres irrigated within the boundaries of the District but only 6,200 acres of this area are within the original place of use under the permit (District 1).

Dorris Project

Ingalls Swamp Dam was originally completed in the fall of 1917. License 54 (Application 338), currently held by G. B. Dorris, confirms a right to store 550 afa in the reservoir created by the dam for irrigation of 400 acres. The license does not limit the storage season to any specific months.

Ingalls Swamp Dam was enlarged and additional water was diverted into the reservoir from two nearby unnamed streams. License 4410 (Application 1108), also held by G. B. Dorris, confirms a right to store an additional 380 afa for irrigation of 618 acres (inclusive of the 400 acres under License 54) between December 1 and April 30. These two streams are the sources under Application 20904.

The applicant proposes to again enlarge Ingalls Swamp Dam to create a reservoir having a total capacity of 2,850 acre-feet. Water is to be released from Ingalls Swamp Reservoir into a natural channel from which it is to be rediverted for use on 700 acres. This area includes places of use under Licenses 54 and 4410.

The place of use, known as Ingalls Swamp, is located in a depression in which water collected under natural conditions. Almost 200 acres were flooded before any water spilled over the low ridge creating the depression. At times, between 500 and 700 acres were flooded. Except during a very dry year, water remained on 75 to 100 acres (Vol. 2, RT 52-56).

In 1961, a canal was cut through the ridge to drain Ingalls Swamp. Later, other drainage ditches were constructed as part of a program which includes enlargement of Ingalls Swamp Reservoir. The area can now be effectively irrigated and drained, permitting the planting of better quality grasses (Vol. 2, RT 53, 56-57). The applicant claims that his drainage of Ingalls Swamp results in about 700 afa inflow to Big Sage Reservoir that did not occur under natural conditions (Dorris 16).

Water Supply

The total annual runoff of the Pit River near Canby, at the lower edge of the District, for the period 1931-32 through 1961-62 ranged from a minimum of 16,200 acre-feet to a maximum of 440,900 af, with a median runoff of 137,400 acre-feet (Dorris 3 and Staff 2). These quantities are in excess of the water used within the District's service area. However, summer flows are modified by reservoir releases and irrigation practices, and these flows are very erratic (Dorris 13).

Big Sage Reservoir has been operated since 1926 with its discharge valve opened about May 15 and closed about October 15 of each year. The winter inflows to Big Sage have varied between a maximum of 48,400 acre-feet and a minimum of zero and have averaged 15,200 acre-feet during the period of record. The reservoir releases plus evaporation and other losses during the irrigation season have averaged 14,800 acre-feet (District 5, Staff 1 and Dorris 13).

Effect of Dorris Project

The collection season requested in Application 20904 is September 15 to May 1. Generally, all water, if any, entering Big Sage Reservoir between September 15 and October 15 has been allowed to pass through Big Sage Reservoir for use downstream, as water is used for irrigation in the area until approximately this latter date. Collection of water into Ingalls Swamp Reservoir during this time would interfere with prior rights to divert directly from Rattlesnake Creek and Pit River.

The fact that the District has collected water in Big Sage Reservoir, later released it, and allowed it to pass through its irrigation facilities does not in and of itself establish a right to its use. Such a right is established only by collecting the water during the authorized storage season and later applying it beneficially upon the authorized place of use. Each year the District has collected water from about October 15 to about May 15, but the authorized collection season under Permit 1768 is from December 1 to April 1. Therefore, issuance of a permit to store additional water in Ingalls Swamp Reservoir during October, November, and April will not interfere with the District's authorized storage of water. The question remaining is whether the collection of water in Ingalls Swamp Reservoir during the period December 1 to April 1 will, in fact, adversely interfere with the District's right.

Ingalls Swamp Reservoir controls 7.85 per cent of the drainage area above Big Sage Reservoir. Assuming that the runoff is fairly uniform over the entire watershed, the estimated annual runoff from the drainage area controlled by Ingalls Swamp Reservoir between October 15 and April 30 for the period 1931-32 through 1961-62 would be as presented in Column 2, Table 1. This assumes that the runoff during May 1 to May 15 is proportional to the flow past the Canby gaging station. Although the summer flow past this gage is modified, the winter flow is probably proportional to the inflow to Big Sage Reservoir. The table is limited to this 31-year period because of

Table 1

Effect of Ingalls Swamp Reservoir Enlargement
on Big Sage Reservoir Entitlement

Year	Inflow to Ingalls Swamp Reservoir		Possible Infringement on Big Sage Reservoir Entitlement(3)
	Oct. 15 to Apr.30 (1)	Oct.15 to Nov. 30 plus Apr. 1 to Apr. 30 (2)	
1	2	3	4
1931-32	1,640	310	400
32-33	830	150	0
33-34	0	0	0
34-35	1,040	560	0
35-36	1,100	240	0
1936-37	800	290	0
37-38	3,430	1,210	710
38-39	770	200	0
39-40	1,530	360	240
40-41	1,340	220	190
1941-42	1,820	390	500
42-43	1,910	420	560*
43-44	180	70	0
44-45	750	260	0
45-46	1,080	340	0
1946-47	420	110	0
47-48	810	440	0
48-49	770	290	0
49-50	700	230	0
50-51	860	240	0
1951-52	2,990	1,620	300
52-53	1,240	290	20*
53-54	780	260	0
54-55	630	230	0
55-56	2,990	570	1,350*

* Big Sage Spilling

Table 1 (cont.)

Effect of Ingalls Swamp Reservoir Enlargement
on Big Sage Reservoir Entitlement

Year	Inflow to Ingalls Swamp Reservoir		Possible Infringement on Big Sage Reservoir Entitlement (3)
	Oct. 15 to Apr. 30 (1)	Oct 15 to Nov. 30 plus Apr. 1 to Apr. 30 (2)	
1	2	3	4
1956-57	1,120	340	0*
57-58	1,210	390	0*
58-59	0	0	0
59-60	910	170	0
60-61	270	70	0
1961-62	560	160	0

- (1) Computed as 7.85 per cent of inflow to Big Sage Reservoir (Dorris 5 and Staff 1) minus that portion occurring between May 1 and May 15 which was assumed to be proportional to the flow past the Canby gage during that time.
- (2) Computed by multiplying 7.85 per cent of inflow to Big Sage Reservoir by the percentage of flow past the Canby gage between October 15 and November 30 and during April.
- (3) Computed as Column 2 (limited to 2,850 acre-feet proposed capacity of Ingalls Swamp Reservoir) minus Column 3 minus 930 acre-feet (the entitlement under Licenses 54 and 4410).

* Big Sage spilling

availability of records of flow past the Canby gaging station and inflow records of Big Sage Reservoir. This period is considered reasonably representative of anticipated future conditions, since it contains both dry and wet periods.

That portion of the inflow to Ingalls Swamp Reservoir that would occur either between October 15 and November 30 or during the month of April, which is outside the authorized storage season of the District, is presented in Column 3, Table 1.

The possible infringement on Big Sage Reservoir entitlement by the enlargement of Ingalls Swamp Reservoir may be estimated by deducting from the inflow to Ingalls Swamp Reservoir (Column 2, Table 1) the inflow occurring outside of the District's authorized storage season (Column 3) and the 930 acre-feet which Dorris is entitled to under Licenses 54 and 4410. The results of this computation, limited by the reservoir capacity of 2,850 acre-feet, is presented in Column 4, Table 1.

In only 9 out of 31 years would construction and operation by Dorris of a 2,850 acre-foot reservoir possibly infringe on the District's prior right. The 31-year annual average of possible infringement would be less than 150 acre-feet. Consideration of several factors would reduce this amount to a vanishing point. In 3 of the 9 years of possible infringement are years in which Big Sage spilled unmeasured quantities of water. Reduction of the spill by the applicant would not prejudice the District. Some credit should be given

to the Dorris drainage of Ingalls Swamp. The annual amount of drainage now occurring may not be as high as claimed by the applicant (700 acre-feet), but is undoubtedly greater than the annual average of the amounts of possible infringement listed in Column 4 of Table 1.

The approval of Application 20904 to permit collection of water between October 15 and May 1 will not interfere with use of water by Pacific Gas & Electric Company at its powerplants in the Pit River because Big Sage Reservoir has almost completely controlled the runoff from this watershed since its construction in 1921.

Unappropriated water is available to supply the applicant, and subject to suitable conditions, such water may be diverted to storage between October 15 and May 1 and used in the manner proposed without causing substantial injury to any lawful user of the water.

The proposed use is beneficial.

From the foregoing findings, the Board concludes that Application 20904 should be approved in part and that a permit should be issued to the applicant, subject to the limitations and conditions in the Order set forth below.

Petitions by the District

The Board finds that recently increased use of water by the District justifies a three-year extension of time, and that the proposed change, by expanding the place of use, will not operate to the injury of any legal user of water.

ORDER

IT IS HEREBY ORDERED that Application 20904 be, and it is, approved in part, and that a permit be issued to the applicant subject to vested rights and to the following limitations and conditions:

1. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 1,920 acre-feet per annum by storage to be collected from about October 15 of each year to about May 1 of the succeeding year.

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

3. Actual construction work shall begin on or before June 1, 1965, and shall thereafter be prosecuted with reasonable diligence, and if not so commenced and prosecuted, this permit may be revoked.

4. Construction work shall be completed on or before December 1, 1967.

5. Complete application of the water to the proposed use shall be made on or before December 1, 1968.

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

7. All rights and privileges under this permit, including method of diversion, method of use, and quantity of water diverted are subject to the continuing authority

of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

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

9. This permit does not authorize collection of water to storage during the period from about May 1 to about October 15 of each season to offset evaporation and seepage losses or for any other purpose.

10. Permittee shall install and maintain an outlet pipe in his dam of such size and at such location as is specified by the State Department of Water Resources.

11. In accordance with the requirements of 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.

12. A separate application for approval of plans and specifications for construction of the dam 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 dam.

ORDER ON PETITIONS

The Board having made necessary findings of fact for approval of petitions of Hot Springs Valley Irrigation District on its Permit 1768 (Application 3353), as follows:

1. Petition for three-year extension of time for completion of construction work and complete application of water to beneficial use, and

2. Petition for change of place of use;

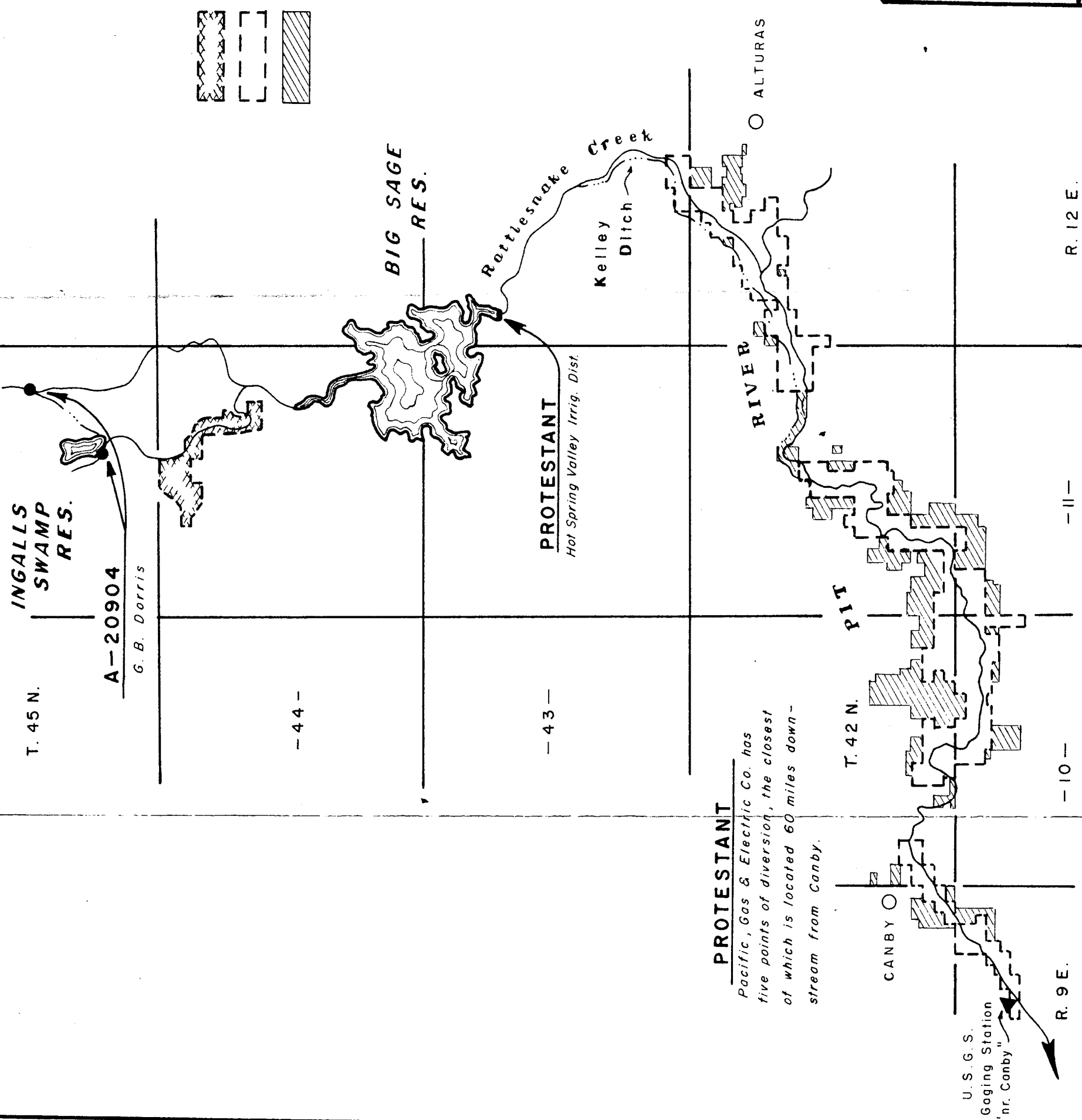
IT IS HEREBY ORDERED that the petitions be, and they are, approved. The Executive Officer is authorized to issue separate orders describing in detail the changes hereby allowed and extending the time to complete beneficial use of water under the permit to December 1, 1967.

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




/s/ Kent Silverthorne
Kent Silverthorne, Chairman

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

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



L E G E N D

-  PLACE OF USE APPLICATION 20904
-  PLACE OF USE PERMIT 1768
-  ENLARGEMENT PERMIT 1768



MODOC CO.
M.D.B & M.

STATE OF CALIFORNIA
STATE WATER RIGHTS BOARD

PERMIT 1768 (APPLICATION 3353)
APPLICATION 20904

SCALE
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DATE 10-2-54 DRAWN B.C.W. CHECKED D.E.K. DWG 2536 R