

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WR 99 - 001

In the Matter of Water Right Permit 16584
UNITED STATES BUREAU OF RECLAMATION,
Permittee.

SOURCES: Fresno River Tributary to the San Joaquin River

COUNTIES: Madera and Merced

ORDER DIRECTING PERMITTEE TO COMPLY WITH THE
TERMS AND CONDITIONS OF ITS PERMIT

1.0 INTRODUCTION

On May 19 and 20, 1998, the State Water Resources Control Board (SWRCB) held a hearing to determine whether the USBR violated Permit 16584 by diverting water to which water users on the Fresno River downstream from Hidden Dam have senior rights. Based on the record, the SWRCB finds that the USBR has violated its permit by depriving prior right holders of water. The USBR's permit violations appear to have stemmed from a good faith but erroneous understanding of the USBR's obligations to complainants Menefee River Ranch Company, Inc. (Menefee River Ranch) and Lawrence and Richard Harman (the Harmans). This order provides the USBR with guidance concerning its obligations to complainants, and directs the USBR to release sufficient flows from Hidden Dam to satisfy their rights.

2.0 FACTUAL AND PROCEDURAL BACKGROUND

The Fresno River flows from the Sierra Nevada west through the City of Madera until it reaches the San Joaquin River. The San Joaquin River originates in the Sierra Nevada south of the Fresno River, flows roughly parallel to the Fresno River until it reaches Mendota Dam, then

turns and flows northwest until it reaches the Fresno River, then on to the Sacramento-San Joaquin Delta.

The SWRCB issued Permit 16584 to the USBR on April 3, 1973, pursuant to Decision 1407. The permit authorizes the USBR to store up to 74,000 acre-feet per annum at Hidden Reservoir, also known as Lake Hensley, on the Fresno River. The authorized purposes of use under Permit 16584 are recreation, domestic, and irrigation. The collection season is from December 1 of each year to April 30 of the succeeding year. The season may be extended to include the months of May and November, provided that the USBR releases equivalent exchange water from the Madera Canal¹ to satisfy prior rights, and provided that a minimum pool of 5,000 acre-feet is maintained. The Madera Irrigation District (MID) has contracted with the USBR for the entire yield of Hidden Reservoir.

The USBR's right to appropriate water under Permit 16584 is subject to prior water rights. Complainants Menefee River Ranch and the Harmans own property adjacent to the Fresno River downstream from Hidden Dam. Menefee River Ranch's property is located at the confluence of the Fresno and San Joaquin Rivers, and the Harmans' property is located immediately upstream on the Fresno River from Menefee River Ranch. Complaints claimed that they have riparian rights that are senior to the USBR's permit, and complainant Menefee River Ranch also holds an appropriative right (License 7561) that is senior to USBR's permit. Complainants asserted that the USBR has violated its permit by diverting water to which they are entitled.²

¹ The Madera Canal flows north from the San Joaquin River below Friant Dam, and crosses the Fresno River between Hidden Dam and the town of Madera.

² The complainants also asserted that the USBR's failure to enter into an agreement with them concerning the satisfaction of their prior rights itself constitutes a violation of the USBR's permit. Similarly, the USBR argued that its permit obligates it to enter into such agreements, but only when it seeks to extend its season of diversion and so must release equivalent exchange water from Madera Canal. Both interpretations are incorrect.

At the time the SWRCB issued Permit 16584, the SWRCB contemplated that the USBR would satisfy prior rights by furnishing prior right holders with substitute water supplies pursuant to private agreements. Accordingly, Condition 20 of Permit 16584 reserves jurisdiction over the permit pending review of the agreements. Condition 20 provides:

(footnote continues next page)

A third party to this proceeding, Triangle T Ranch, Inc. (Triangle T Ranch) owns property immediately upstream on the Fresno River from the Harmans. Triangle T Ranch claimed to have acquired complainants' water rights by prescription.

A short distance upstream from Triangle T Ranch, the Fresno River is intersected by the Eastside Bypass, or Chowchilla Canal Bypass. The bypass is a part of the Lower San Joaquin River Flood Control Project, and is designed to carry flood flows from a point on the San Joaquin River near Gravelly Ford north to a point on the San Joaquin River downstream from the confluence of the Fresno and San Joaquin Rivers. (R.T. pp. 50-51; USBR Exhibit 5, Letter from R. L. Schafer, Schafer & Associates, to Raymond Barsch, The Reclamation Board, dated Oct. 3, 1995, Attachment 1.) An outlet, commonly referred to as the Road 9 Structure, is designed to divert Fresno River flows out of the bypass and back into the Fresno River channel. (USBR Exhibit 5, Letter from R. L. Schafer, Schafer & Associates, to Raymond Barsch, The Reclamation Board, dated Oct. 3, 1995, Attachments 1, 8 & 10.) The bypass and the turnout were designed and constructed by the Department of Water Resources, Reclamation Board, and are or should be operated and maintained by the Lower San Joaquin Levee District. (R.T. pp. 50-51, 73-74; USBR Exhibit 5, Letter from R. L. Schafer, Schafer & Associates, to Raymond Barsch, The Reclamation Board, dated Oct. 3, 1995, Attachments 1, 8 & 10.)

Whether the USBR has violated its permit can be determined by defining the nature and extent of senior downstream rights, then ascertaining whether the USBR has released sufficient water to

"The Board reserves jurisdiction over this permit for the purpose of approving terms and conditions of agreements authorizing substitution of Madera Canal water for Fresno River water which have been formulated by the parties for protection of existing downstream water rights. Permittee shall submit to the Board agreements reached with owners of downstream rights to the flow of the Fresno River. The Board may, at any time, on its own motion or at the request of protestants or interested parties, hear, review, and make such further order as may be necessary."

The purpose of Condition 20 was to ensure that any agreements entered into between the USBR and prior right holders would protect downstream prior right holders in a manner consistent with the laws administered by the SWRCB, not necessarily to ensure that the USBR entered into such agreements. The USBR's failure to enter into an agreement with a prior right holder does not per se constitute a violation of Condition 20. Rather, the USBR's fundamental obligation is to bypass sufficient flows to satisfy prior right holders, during both the regular and extended seasons of diversion. Condition 20 requires only that the USBR provide the SWRCB with a copy of any agreement that the USBR and a prior right holder opt to enter into concerning a substitute water supply.

satisfy those rights. Though other senior right holders likely exist, this order addresses only whether any permit violations have taken place with respect to the participants in this proceeding, Triangle T Ranch, the Harmans, and Menefee River Ranch.

3.0 TRIANGLE T RANCH'S RIPARIAN RIGHTS

Riparian rights extend to the smallest parcel contiguous to a watercourse held under one title in the chain of title leading to the present owner. (*Pleasant Valley Canal Co. v. Borrer* (1998) 61 Cal.App.4th 742, 774-775 [72 Cal.Rptr.2d 1, 23].) For purposes of determining what constitutes the smallest parcel, parcels acquired from the state or federal government by separate patents are considered distinct parcels of land. (*Boehmer v. Big Rock Creek Irrigation Dist.* (1897) 117 Cal. 19, 27 [48 P. 908, 910-911].) Riparian rights are lost when a parcel is severed so that it is no longer contiguous to the watercourse unless express language in the conveyance or some other form of evidence indicates that the parties to the conveyance intended to retain the riparian rights attached to the severed parcel. (*Pleasant Valley Canal Co., supra*, at p. 780.) Another limitation to riparian rights is that they exist only with respect to land within the watershed of the watercourse. (*Id.* at pp. 774-775.)

Triangle T Ranch submitted patents and a substantially complete chain of title in support of its claim of riparian rights. Based on the evidence submitted by Triangle T Ranch, the SWRCB finds that Triangle T Ranch has 2,676 acres of land that are riparian to the Fresno River. Attachment 1 is a map which depicts Triangle T Ranch's riparian acreage. Triangle T Ranch claimed to have 2,900 acres of riparian land. (R.T. pp. 352-353.) Exhibits 4 and 5 of MID Exhibit 7, which are exhibits to an agreement between Triangle T Ranch and MID, depict the area that Triangle T Ranch claims is riparian. Complainants also submitted an analysis of Triangle T Ranch's riparian acreage. They concluded that Triangle T Ranch has 1,748 acres of riparian land. (Declaration of Richard L. Schafer in Support of Protests and Complaints of Menefee River Ranch and Harman Brothers Ranches (July 17, 1998).) The SWRCB disagrees in part with all three parties, for the reasons explained below.

First, the following lands claimed by Triangle T Ranch were severed from adjacent riparian lands by patent: a portion of the south half of the south half of section 7; the south half of the northwest quarter of section 14; the north half of section 15; a portion of the northwest quarter and all of the northeast quarter of section 21; the north half of section 22; and the northwest quarter of section 23; all in Township 11 South, Range 14 East, Mount Diablo Base and Meridian (MDB&M). Second, Triangle T Ranch failed to provide a complete chain of title for the west half of section 8, Township 11 South, Range 14 East, MDB&M, and the SWRCB is unable to make a definitive determination with regard to the riparian status of that land.

Third, though Triangle T Ranch does not appear to claim riparian status with respect to this land, Triangle T Ranch did submit sufficient evidence to support a finding that the following lands are riparian: all of section 6; and a portion of the north half of section 7; all in Township 11 South, Range 14 East, MDB&M; and a portion of the northeast quarter of section 1, Township 11 South, Range 13 East, MDB&M. Judging from the 1998 crop map that it submitted, these lands have not been irrigated historically. Triangle T Ranch may not have claimed that these lands are riparian because it may not plan to irrigate these lands in the near future. Nonetheless, as a general rule riparian rights are not lost through nonuse, and Triangle T Ranch may at some point choose to exercise the riparian rights attached to these lands.

3.0.1 *The Effect of Channel Modifications on Triangle T Ranch's Riparian Rights*

Another issue concerning Triangle T Ranch's riparian acreage stems from the fact that the Fresno River channel has been realigned through the northwestern portion of Triangle T Ranch. Both the old and the new channels are depicted on Attachment 1. Complainants have conceded the riparian status only of parcels contiguous to the old channel. However, riparian rights may attach to an artificial channel where it is permanent in nature and has been used as though it were the natural channel for a long period of time without objection from any interested party.

(Chowchilla Farms, Inc. v. Martin (1933) 219 Cal. 1, 18-20 [25 P.2d 435, 441-442].)

In this case, the record indicates that the Fresno River channel was realigned sometime in the 1960s for flood control purposes, and since that time it has carried substantially all of the flow of

the Fresno River. The record does not indicate that any party has ever complained about the realignment of the channel. The artificial channel is substantial and permanent enough to be depicted as the Fresno River on the most current United States Geological Survey topographic map of the area. In addition, the SWRCB's hearing team visually inspected a segment of the artificial channel during the course of a field orientation tour conducted on April 9, 1998. Based on the record and on the hearing team's observations, the SWRCB finds that the artificial channel has all the attributes of a natural channel and should be considered a natural channel for purposes of determining Triangle T Ranch's riparian rights.

It should be noted that Triangle T Ranch's riparian rights remain the same in every township and range section within the ranch's boundaries, regardless which channel is used as a basis, with the exception of the following lands which are riparian only if riparian rights attach to the artificial channel: all of section 6; and the southeast quarter of section 8, Township 11 South, Range 14 East, MDB&M.³

One final issue that merits note is that Triangle T Ranch's predecessor-in-interest, Grover Turnbow, conveyed a strip of land along the artificial channel to the Sacramento and San Joaquin Drainage District in 1959, which was subsequently reconveyed to Triangle T Ranch in 1970. Mr. Turnbow retained the riparian rights attached to the lands adjacent to the strip, however, as evidenced by express language in the deed. The deed reserved to Mr. Turnbow "[a]ny water rights which [Mr. Turnbow] may now have to the extent only that those rights are applicable to his remaining real property located adjacent to [the strip conveyed], including any riparian rights which said remaining lands may now possess."

³ The west half of section 8 may also be riparian to the artificial channel, but Triangle T Ranch did not submit a complete chain of title for this land. In addition, if riparian rights attach to the artificial channel, then, as stated above, a portion of the south half of the south half of section 7, Township 11 South, Range 14 East, MDB&M, a parcel that Triangle T Ranch claimed was riparian, was severed from adjacent riparian lands by patent.

3.1 TRIANGLE T RANCH'S APPROPRIATIVE RIGHT

Triangle T Ranch also has an appropriative right that is senior to the USBR. In accordance with License 9073, dated April 30, 1969, Triangle T Ranch is authorized to divert 17.5 cubic feet per second (cfs) between about February 1 to July 15 of each year. The priority of this right dates from March 9, 1945. The authorized purposes of use are irrigation and stockwatering, and the authorized place of use is depicted in Attachment 1. (A copy of the license was entered into the record as Menefee Exhibit 15.) The right extends to natural flows and does not include the right to stored water or water otherwise provided by the USBR in excess of natural flows.

As illustrated by Attachment 1, 555 acres within Triangle T Ranch's licensed place of use are also riparian. Triangle T Ranch may use water on the area of overlap under either basis of right, but the fact that water could be used on that area under more than one basis of right does not entitle Triangle T Ranch to more water than it can put to reasonable, beneficial use.

Accordingly, for purposes of quantifying demand, either 555 acres should be subtracted from Triangle T Ranch's total riparian acreage, or its appropriative right should be reduced by approximately 21 percent, which is the percentage of acres within the licensed place of use that are also riparian.

3.2 TRIANGLE T RANCH'S CLAIMED PRESCRIPTIVE RIGHT

Triangle T Ranch also claimed to have acquired a prescriptive right. For the reasons discussed in section 3.8 below, however, the SWRCB finds that Triangle T Ranch did not prove its claim of a prescriptive right.

3.3 WATER CODE VIOLATIONS BY TRIANGLE T RANCH

Evidence presented in this case indicates that Triangle T Ranch has violated both division 2 of the Water Code and the doctrine of reasonable use. The hearing notice did not include the possibility of enforcement against Triangle T Ranch as an issue to be addressed at the hearing, however, and the SWRCB therefore does not propose to take any enforcement action against Triangle T Ranch at this time. Rather, by this order the SWRCB affords Triangle T Ranch clear guidance regarding the legal limitations to its diversions and water use. The SWRCB assumes

that Triangle T Ranch will act in conformance with the SWRCB's guidance in the future. The SWRCB will initiate enforcement proceedings if upon future investigation it appears that enforcement is warranted.

The use of water on nonriparian land or the use of water inconsistent with the terms and conditions of a permit or license constitutes a trespass against the State of California which can be enjoined by the SWRCB. (Wat. Code, § 1052.) Evidence in the record indicates that Triangle T Ranch has applied Fresno River water to lands that are not riparian to the Fresno River and are outside the authorized place of use under its license. (R.T. pp. 384-388 [Ranch Supervisor, David J. Riley, testified that Triangle T Ranch used Fresno River water under basis of riparian right in sections 9, 10, 20, 21, 22, 23, 27, 28, 29, 33 & 34, Township 11 South, Range 14 East, MDB&M, which are not riparian; sections 9, 10, 23, 27, 33 & 34 are also completely outside the licensed place of use]; see also Triangle T Ranch Exhibit D [crop map for Fresno River water].)

The SWRCB also has the authority to prohibit the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water. (Cal. Const., art. X, § 2; Wat. Code, §§ 100, 275.) Pursuant to this authority, the SWRCB could require Triangle T Ranch to cease operating the Road 9 Structure to the detriment of complainants, or to modify or remove earthen berms that it has placed in the Fresno River channel on its property.

James Wickersham, President of Triangle T Ranch, testified that the ranch operates the Road 9 Structure, and Erick Brandin, the ranch manager, testified that Triangle T Ranch has closed the gate at the Road 9 Structure on occasion in order to allow cattle to cross the channel or when high flows threatened the stability of their levees. (R.T. pp. 376, 410-411.) Nothing in the record indicates that reducing the already limited capacity of the Road 9 Structure is necessary to avoid substantial flood damage on Triangle T Ranch, that other protective measures are not feasible, or that the benefit of closing the gate to Triangle T Ranch outweighs the harm to complainants. The earthen berms serve as channel crossings and enable Triangle T Ranch to divert all available Fresno River flows. (MID Exhibit 1; R.T. pp. 401-405.) Nothing in the

record indicates that the berms could not be modified in order to bypass flows sufficient to satisfy downstream rights.

Obstructing the natural flows of the Fresno River, both by closing the gate at the Road 9 Structure and by placing earthen berms in the river channel, in a manner that interferes with complainants' rights probably constitutes both a waste of water and the unreasonable method of diversion of water. (See SWRCB Decision 1460 (1976) [holding that diversion of substantially all water from creeks for flood control purposes constituted waste and unreasonable method of diversion where diversion would adversely impact wildlife and other natural resources and where flood control objectives could be met with a low flow bypass].)

Triangle T Ranch should cease obstructing Fresno River flows except to the extent that it is diverting water and applying it to reasonable, beneficial use consistent with its water rights. It should install pipes sufficient to bypass enough water to satisfy complainants' rights in full, assuming that at times flows will be sufficient to satisfy the rights of all three parties. In addition, in light of the SWRCB's finding in section 3.8 below that Triangle T Ranch has not acquired any water rights by prescription, Triangle T Ranch should not divert water under its license unless downstream riparian rights are fully satisfied. At times when flows are insufficient to satisfy all three parties' riparian rights, Triangle T Ranch should divert only its correlative share of those flows.

3.4 THE HARMANS' RIPARIAN RIGHTS

The Harmans submitted patents and a substantially complete chain of title in support of their claim of riparian rights. Based on the evidence submitted by the Harmans, the SWRCB finds that they have 1,497 acres of land that are riparian to the Fresno River.

Attachment 2 is a map which depicts the Harmans' riparian acreage. The SWRCB's map of riparian acreage is consistent with the map of claimed riparian acreage submitted by the Harmans, with the exception of the north half and southeast quarter of the southwest quarter and the southwest quarter of the southeast quarter of Section 35, Township 10 South, Range 13 East,

MDB&M, which were served by patent. Although the SWRCB's boundary line is more restrictive, by the SWRCB's calculations the Harmans have 154 acres in excess of their claim of 1,343 acres. (Schafer Exhibit A, Testimony of Richard L. Schafer, p. 6; Schafer Exhibits 4, 14(a).)

3.5 MENELEE RIVER RANCH'S RIPARIAN RIGHTS

Menefee River Ranch submitted patents and a substantially complete chain of title in support of its claim of riparian rights. Based on the evidence submitted by Menefee River Ranch, the SWRCB finds that it has 495 acres of land that are riparian to the Fresno River. In addition, the SWRCB finds that Menefee River Ranch has 845 acres of land that are riparian to the San Joaquin River. The SWRCB further concludes that because the lands riparian to the San Joaquin River are below the confluence of the Fresno River and the San Joaquin River, and because the Fresno River is a tributary to the San Joaquin River, Menefee River Ranch is entitled to its correlative share of whatever Fresno River water would under natural conditions flow past those lands.

The SWRCB finds that Menefee River Ranch has a total of 1,330 acres of riparian land. Attachment 3 is a map which depicts Menefee River Ranch's riparian acreage. The SWRCB's map of riparian acreage is consistent with the map of claimed riparian acreage submitted by Menefee River Ranch, with the exception of the northwest quarter east of the San Joaquin River of Section Sixteen, Township 10 South, Range 13 East, MDB&M, which was severed by patent. Although the SWRCB's boundary line is more restrictive, by the SWRCB's calculations Menefee River Ranch has 70 acres in excess of its claim of 1,260 acres. (Schafer Exhibit A, Testimony of Richard L. Schafer, at p. 6; Schafer Exhibits 3, 13(a).)

3.5.1 Menefee River Ranch Lands Riparian Only to the San Joaquin River

Both MID and Triangle T Ranch argued that no rights to Fresno River water attach to Menefee River Ranch's lands that are riparian to the San Joaquin River because they are not riparian to the Fresno River proper. To the contrary, a right to a correlative share of whatever Fresno River water would under natural conditions flow past those lands is attached to them by virtue of the

fact that those lands are riparian to the San Joaquin River. (Hutchins, *The California Law of Water Rights* (1956) p. 217; *Crum v. Mt. Shasta Power Corp.* (1934) 220 Cal. 295, 300-302 [30 P.2d 30, 32-34] aff'd (1937) 9 Cal.2d 751 [73 P.2d 217] [lands that did not abut Fall River, but did abut a pool on Pit River, into which a substantial amount of Fall River water flowed during summer months, considered riparian to Fall River during summer months]; *Miller & Lux, Inc. v. Enterprise Canal & Land Co.* (1915) 169 Cal. 415, 421, 434 [147 P. 567, 569, 574-575] [lands that did not abut San Joaquin River, but did abut the Fresno Slough, to which San Joaquin River was tributary, considered riparian to San Joaquin River at times when Fresno Slough received flow from San Joaquin River].)

That the rights of a riparian to a given stream extend to waters originating in tributaries to the stream is a well-settled rule of law, notwithstanding Triangle T Ranch's assertions to the contrary. Triangle T Ranch also contended that recognizing the rights of the lands in question to Fresno River water would foster great uncertainty, as every riparian would then have a claim to water from every upstream tributary. It bears emphasis that the riparian right only extends to whatever water would under natural conditions flow past the riparian lands in question. (*Miller & Lux, Inc. v. Enterprise Canal & Land Co.*, *supra*, 169 Cal. 415 at p. 441.) In addition, not recognizing the right to water originating in tributaries would in many cases eviscerate the riparian right, and would engender equal or greater uncertainty than the current rule, as every riparian would be put to the task of ascertaining what percentage of the natural flow originated in tributaries, and what percentage did not.

Finally, Triangle T Ranch's discussion of the rule that riparian rights must be exercised within the watershed is inapposite, as is a corollary to the rule to which MID alluded in its closing brief. It is true, as Triangle T Ranch asserted, that the rule is a limitation on the exercise of riparian rights, and the fact that lands are within a stream's watershed does not by itself mean that the lands are riparian to the stream. The corollary to the rule provides that a main stream and its tributary are considered to be within the same watershed, except as between a riparian on either the main stream or the tributary and a downstream riparian located above the confluence of the

main stream and the tributary. (*Rancho Santa Margarita v. Vail* (1938) 11 Cal.2d 501, 529-533 [81 P.2d 533].) It is not claimed, however, that the right to Fresno River water stems solely from the fact that the lands in question are within the watershed of the Fresno and San Joaquin Rivers; rather, the right stems from the fact that the lands are riparian to the San Joaquin River. In addition, the corollary to the rule does not apply because the lands in question are below the confluence of the Fresno and San Joaquin Rivers.⁴

3.5.2 *The 1945 Chowchilla Farms Agreement*

The USBR and MID also argued that Menefee River Ranch sold all riparian rights attached to the lands riparian to the San Joaquin River pursuant to an agreement, dated October 31, 1945, between Menefee River Ranch's predecessor-in-interest, Chowchilla Farms, Inc., and the USBR. (USBR Exhibit 2.) The SWRCB disagrees, however, with the USBR's and MID's interpretation of that agreement.

The language of the agreement must be interpreted consistent with the intent of the parties, which was to enable the USBR to construct and operate Friant Dam on the San Joaquin River upstream of the Menefee River Ranch free of interference with downstream water right holders. (USBR Exhibit 2 at pp. 2-3.) Accordingly, Chowchilla Farms, Inc. agreed to convey "all of its rights to divert and use the waters of the San Joaquin River, its channels, sloughs, including Fresno Slough, and its tributaries *except as hereinafter provided . . .*" (*Id.* at p. 3, paragraph 7(a), emphasis added.) In a later part of the agreement, Chowchilla Farms, Inc. expressly excepted its rights to Fresno River water from this conveyance. The agreement provides:

"Nothing herein contained shall be deemed to affect any right of [Chowchilla Farms, Inc.] in and to natural streams known as Cottonwood Creek, *Fresno River*, Berenda Slough, Ash Slough and Chowchilla River; *nor in or to the waters thereof . . .*" (*Id.* at p. 4, paragraph 7(c), emphasis added.)

⁴ Moreover, nothing in the record indicates that any of Menefee River Ranch's acres that the SWRCB determines to be riparian are outside the watershed of the Fresno and San Joaquin Rivers.

In accordance with the clear language of this exception, Chowchilla Farms, Inc. retained its right to a correlative share of whatever Fresno River water would under natural conditions flow past the lands that it owned that were riparian to the San Joaquin River.

This interpretation is also consistent with the parties' intent, which was to permit the USBR to divert the water of the San Joaquin River and its tributaries *upstream* of the confluence of the Fresno River with the San Joaquin River. The USBR had no reason to buy the rights of Chowchilla Farms Inc. to Fresno River water, as the use of Fresno River water by Chowchilla Farms, Inc. would not interfere with the operation of Friant Dam. MID's assertion that the retention of riparian rights to Fresno River water was intended only to benefit lands abutting the Fresno River finds no support in the language of the agreement and is an overly restrictive interpretation of the parties' intent.

3.6 MENELEE RIVER RANCH'S APPROPRIATIVE RIGHT

Menefee River Ranch also has an appropriative right that is senior to the USBR. In accordance with License 7561, dated March 7, 1965, Menefee River Ranch is authorized to divert 3.2 cubic feet per second between about February 1 to June 15 of each year. (A copy of the license was entered into the record as Menefee Exhibit 3.) The authorized purpose of use is irrigation. The authorized place of use is depicted in Attachment 3. The right extends to natural flows and does not include the right to stored water or water otherwise provided by the USBR in excess of natural flows.

As illustrated by Attachment 3, 146 acres within Menefee River Ranch's licensed place of use are also riparian. Menefee River Ranch may use water on the area of overlap under either basis of right, but the fact that water could be used on that area under more than one basis of right does not entitle Menefee River Ranch to more water than it can put to reasonable, beneficial use. Accordingly, for purposes of quantifying demand, either 146 acres should be subtracted from Menefee River Ranch's total riparian acreage, or its appropriative right should be reduced by

approximately 11 percent, which is the percentage of acres within the licensed place of use that are also riparian.

3.7 MID'S CLAIM THAT COMPLAINANTS' RIGHTS WERE LOST BY VIRTUE OF A CHANGE IN THE FRESNO RIVER CHANNEL

MID argued that complainants have lost their rights by virtue of the fact that Triangle T Ranch has modified the Fresno River channel such that flows no longer reach complainants. It is true that riparian rights may be lost by acquiescence in a channel change for a sufficient period. (*Paige v. Rocky Ford Canal & Irr. Co.* (1889) 83 Cal. 84, 93 [21 P. 1102, 1104].) In this case, however, it appears that complainants have been deprived of flows by obstructions in the river channel and by upstream diversions, not by any change in the channel's course.

The record indicates that Triangle T Ranch has modified the channel within its property boundaries, as discussed above in conjunction with Triangle T Ranch's riparian rights. Based on the most recent United States Geological Survey map of the area, observations made during the course of a field orientation tour conducted on April 9, 1998, and other evidence in the record, however, the SWRCB concludes that a continuous channel runs through Triangle T Ranch's boundaries and connects to the old river channel near the northwest corner of Triangle T Ranch's property. (MID Exhibit 1; Triangle T Ranch Exhibit B; Declaration of Richard L. Schafer in Support of Protests and Complaints of Menefee River Ranch and Harman Brothers Ranches (July 17, 1998) Exhibits B & C; Menefee Exhibit 9 [video tape showing aerial view of channel]; R.T. pp. 127-128, 423-424.) The channel, though narrow and shallow in sections, continues in its historic course through complainants' property until it reaches the confluence of the San Joaquin River. (MID Exhibit 1; Menefee Exhibit 9; R.T. pp. 28-29, 35, 127-128, 423-424.) In sum, complainants' have not lost their rights by virtue of any change in the Fresno River channel as the channel has not been diverted away from their property or modified so that their property is no longer in contact with it.

3.8 TRIANGLE T RANCH'S CLAIM TO HAVE PRESCRIPTED THE HARMANS' AND MENEFEE RIVER RANCH'S RIGHTS

Triangle T Ranch, MID, and the USBR all claimed that complainants have lost their rights through prescription by Triangle T Ranch. The SWRCB finds, however, that Triangle T Ranch did not submit sufficient evidence to prove its claim of a prescriptive right.

The seminal case on prescriptive rights is *People v. Shirokow* (1980) 26 Cal.3d 301 [605 P.2d 859, 162 Cal.Rptr. 30]. In that case, the California Supreme Court held that the use of water in violation of the statutory appropriation procedures set forth in division 2 of the Water Code (commencing with section 1000) cannot ripen into a prescriptive right as against the state. (*Id.* at pp. 304, 309-310.) The court also stated that, with the exception of riparian rights or appropriative rights perfected prior to December 19, 1914 (which are excepted from the statutory appropriation procedures by Water Code section 1201), all water use is conditioned upon compliance with division 2. (*Id.* at p. 309.)

Consistent with *People v. Shirokow*, Triangle T Ranch cannot have acquired prescriptive rights by using water on nonriparian lands without having obtained a permit from the SWRCB. Likewise, Triangle T Ranch cannot have acquired prescriptive rights by using water in violation of the terms and conditions of its license. Like the unpermitted diversion and use of water subject to appropriation, the diversion and use of water in violation of the terms or conditions of a permit or license is inconsistent with division 2 of the Water Code. Thus, to the extent that Triangle T Ranch used water on nonriparian land or used water outside the authorized place of use under its license, such use could be enjoined by the SWRCB and cannot ripen into a prescriptive right.

For similar reasons, the possibility that Triangle T Ranch may have acquired a prescriptive right through any water use whatever under its license is problematic. Although the license itself does not expressly provide that it is subject to senior water rights, all SWRCB permits and licenses are issued subject to senior rights as a matter of law. (*See Modesto Properties Co. v. State Water Rights Board* (1960) 179 Cal.App.2d 856, 862 [4 Cal.Rptr. 226, 230] [stating that the SWRCB's

predecessor, the State Water Rights Board, had the power to issue a permit only for unappropriated water, and could not affect prior rights by issuing a permit].) The complainants' riparian rights are senior to Triangle T Ranch's appropriative right under its license. Thus, the SWRCB could seek to enforce the requirement of the license that diversions be limited as necessary to protect complainants' senior rights. A claim that those rights have been lost by prescription could not be asserted as a defense to the SWRCB's action where the claim of prescription is based on diversions in violation of the very requirement that the SWRCB seeks to enforce.

People v. Shirokow left open the possibility that the use of water that does not violate division 2 of the Water Code may ripen into a prescriptive right in accordance with the common law. As discussed below, however, Triangle T Ranch has not met its burden of proof under the common law. To establish a prescriptive right, the use must have been (1) actual, (2) open and notorious, (3) adverse to the original owner's title, (4) continuous and uninterrupted for a five-year period, and (5) under claim of right. (*Pleasant Valley Canal Co. v. Borrer* (1998) 61 Cal.App.4th 742, 784 [72 Cal.Rptr.2d 1, 29]; *Peck v. Howard* (1946) 73 Cal.App.2d 308, 325-326 [167 P.2d 753, 764].) Several of these elements operate to limit or altogether bar Triangle T Ranch's claim of a prescriptive right.

The common law recognized that an upstream riparian may acquire prescriptive rights against downstream riparians. (See *Moore v. California Oregon Power Co.* (1943) 22 Cal.2d 725, 735 [140 P.2d 798, 804].) As stated above, however, the use must be adverse, and Triangle T Ranch can have acquired a prescriptive right through the exercise of its riparian rights only to the extent that it used more than its correlative share of the natural flow of the Fresno River. (*Pabst v. Finmand* (1922) 190 Cal. 124, 128-129 [211 P. 11, 13].) Similarly, the use of surplus water is not adverse, nor is the use of foreign water, to which the complainants have no claim of right. In summary, Triangle T Ranch cannot claim to have prescribed against the complainants to the extent that it used (1) its correlative share of water under basis of riparian right, (2) water in excess of complainants' needs, (3) water that originated outside the Fresno River watershed, or (4) water in excess of the natural flow of the Fresno River.

Perhaps the most significant problem with Triangle T Ranch's claim of a prescriptive right is that Triangle T Ranch did not meet the open and notorious element. The complainants must have had actual notice of Triangle T Ranch's adverse claim, or the circumstances must have been such that they must be presumed to have known of the claim. (*Morgan v. Walker* (1933) 217 Cal. 607, 615 [20 P.2d 660, 664].)

The parties presented evidence at the hearing that for the last two or three decades substantially all Fresno River flow has been diverted prior to reaching the complainants' property. (Menefee Exhibit A, Testimony of Dr. Jerry Menefee, at pp. 2-3; Triangle T Exhibit A, Testimony of James E. Wickersham, at p. 1; Triangle T Exhibit E, Testimony of David J. Riley; R.T. pp. 21, 32.) Normally, the diversion of substantially all of the flow of a stream would be sufficient to put a downstream right holder on notice of an adverse claim. (See *Morgan v. Walker, supra*, 217 Cal. at pp. 616-617.) In this case, however, complainants had no way of knowing whether the lack of flow was attributable to diversions by Triangle T Ranch, the Road 9 Structure, the operations of Hidden Dam, or some combination of the three.

The record indicates that all three factors contributed to the lack of flow in degrees which varied from month to month and from year to year. (R.T. pp. 56-67, 383, 412.) Consistent with these circumstances, complainants attempted to resolve the problem by contacting at various times all of the parties who were potentially responsible: Triangle T Ranch, the State Reclamation Board, which designed and constructed the Road 9 Structure, and the USBR. (See, e.g., R.T. pp. 21, 27, 34, 235-238; Menefee Exhibit 7 [letter dated April 4, 1967, from George W. Nickel, Jr., Member of the Reclamation Board, to Colonel A. E. McCollam, General Manager of the Reclamation Board, concerning complaint from Dr. Virgil Menefee regarding Road 9 Structure and apparent lack of operating instructions for the structure]; Harman Exhibit 2 [letter from Reclamation Board dated Aug. 5, 1970]; Schafer Exhibit 20 [letter to Reclamation Board dated Oct. 3, 1995]; letter from SWRCB files of Permit 16584, dated April 5, 1988, from R. L. Schafer to Robert Stanfield, MID [addressing stalled negotiations]; Schafer Exhibit 22 [letter to USBR, dated Dec. 1, 1995]; Harman Exhibit 3 [letter from Triangle T Ranch, dated Mar. 27, 1978]; Schafer Exhibit 21 [letter to Triangle T Ranch, dated Mar. 24, 1995].)

Yet another problem with Triangle T Ranch's claim is that a prescriptive right is limited to the amount of water actually put to reasonable, beneficial use (*Moore v. California Oregon Power Co.*, *supra*, 22 Cal.2d at pp. 737-740). Triangle T Ranch did not present competent evidence of its actual use of water consistent with division 2 of the Water Code for the prescriptive period. As to its actual use of water, Triangle T offered only the vague testimony of James E. Wickersham, President of Triangle T Ranch, and David J. Riley, Ranch Supervisor, who stated that for the last 25 to 40 years Triangle T has been using all available Fresno River water. (Triangle T Ranch Exhibit A; Triangle T Ranch Exhibit E.)

The record shows, however, that the amount of available water was frequently less than the natural flow. For instance, at times an amount less than the natural flow was released from Hidden Dam, or an amount less than the natural flow reached the Road 9 Structure, due to unknown diversions between Hidden Dam and the structure. (See Table 4 [e.g., amount less than natural flow released from Hidden Dam in Feb. 1992; sufficient releases from Hidden Dam but amount less than natural flow reached Road 9 Structure in Oct. 1993.]) At other times, a significant amount of water reached the Road 9 Structure, but it appears to have been foreign water which originated outside the Fresno River watershed, as little or no water had been released from Hidden Dam. (See Table 4 [e.g., amount of water at Road 9 Structure greatly exceeded water released from Hidden Dam in April 1993.]) Finally, at times the gate at the Road 9 Structure was partially or totally closed, further reducing the amount of water available. (R.T. pp. 342, 410-411; MID Exhibit 5.)⁵

Triangle T Ranch argued that complainants' rights were lost because they have been deprived of substantially all Fresno River flows for several decades. The claim that complainants had been

⁵ Due to the requirement that water be put to actual, reasonable and beneficial use, Triangle T Ranch cannot get credit for diverting water that it did not use, or for upstream diversions for which it was not responsible. Moreover, neither the State Reclamation Board nor the USBR would prevail in a claim of prescriptive right. Any claim by the State Reclamation Board based on the operation of the Road 9 Structure would fail because the water was diverted for flood control purposes, and was not applied to reasonable, beneficial use. And to the extent that USBR interfered with the complainants' senior rights, doing so was a clear violation of its permit, which cannot be the basis of a prescriptive right under *People v. Shirokow*.

deprived of water indicates that any water use by Triangle T Ranch was adverse to complainants, but is insufficient to prove a claim of prescription. Triangle T Ranch failed to establish that it diverted and applied to reasonable, beneficial use a quantity of natural flows in excess of its share consistent with its riparian (and, possibly, appropriative) rights for the statutory period, and that complainants' were on notice throughout that period that it was Triangle T Ranch, and not the USBR or the Road 9 Structure, that was responsible for the diminishment in flows to which they were entitled.⁶

3.8.1 Prescription Would Not Change the USBR's Obligations

The USBR argued that it has no obligation to complainants because they have lost their rights through prescription. The USBR's obligation to all three parties, however, would be the same even if Triangle T Ranch had acquired complainants' rights by prescription, and the USBR's assumption that its obligations would be diminished if complainants' rights had been lost is incorrect. Common law prescriptive rights are acquired by use adverse to another water right holder; they can only be obtained by taking water rights away from another water right holder. (*People v. Shirokow, supra*, 26 Cal.3d at pp. 307, 312 [605 P.2d at pp. 864, 867, 162 Cal.Rptr. at pp. 34, 37-38]; *City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 926-927 [207 P.2d 17, 29].) In contrast to the loss of an appropriative right for nonuse, where the right reverts to the public and the water is regarded as unappropriated (see Wat. Code, § 1241),⁷ a water right that is lost through prescription is effectively shifted from one water user to another.

⁶ In connection with its argument that complainants' rights had been lost, MID cited to *Miller & Lux v. Enterprise Canal & Land Co.* (1915) 169 Cal. 415, 441 [147 P. 567, 577] for the rule that a riparian's rights attach only to the natural flow that touches his land. That rule limits a riparian's right to divert water upstream from his land. It does not follow from the rule that riparian rights are extinguished when natural flow ceases for whatever reason, or an unlawful interference with riparian rights could never be enjoined.

⁷ No party argued that complainants' right have been forfeited through nonuse, and the SWRCB finds that no forfeiture has taken place. Riparian rights are not subject to forfeiture through nonuse. (*In Re Waters of Long Valley Creek Stream System* (1979) 25 Cal.3d 339, 347 [599 P.2d 656, 660, 158 Cal.Rptr. 350, 354].) As for Menefee River Ranch's appropriative right, a right is not forfeited where nonuse is attributable to a reduction in flows outside the control of the right holder. (*Bloss v. Rahilly* (1940) 16 Cal.2d 70, 78 [104 P.2d 1049, 1053].) The record shows only that in many years Menefee River Ranch was deprived of flows due to upstream diversions, the Road 9 Structure, or natural conditions. Nothing in the record indicates that Menefee River Ranch did not exercise its right at times when water was available.

Therefore, the collective rights of Triangle T Ranch and the complainants remain the same, regardless whether Triangle T Ranch has perfected prescriptive rights against the complainants. Likewise, because the riparian and appropriative rights of both Triangle T Ranch and the complainants are all senior to the USBR's right, the USBR's obligation to all three parties remains the same, regardless whether Triangle T Ranch has perfected prescriptive rights. Accordingly, whether the USBR has violated its permit can be determined by ascertaining whether the USBR has released sufficient water to satisfy the rights of all three parties.

4.0 CUMULATIVE DEMAND OF TRIANGLE T RANCH, THE HARMANS, AND MENELEE RIVER RANCH

As depicted in Table 3, the SWRCB finds that the collective, monthly demand of Triangle T Ranch, the Harmans, and Menefee River Ranch varies from zero to a maximum of 3,096 acre-feet, with a corresponding rate of flow from zero to 53.5 cfs. The SWRCB's determination of monthly demand is based on the parties' riparian acreage and a percentage of the face value of Triangle T Ranch's and Menefee River Ranch's appropriative rights that corresponds to the percentage of acres within the licensed places of use that are not also riparian. The riparian demand is calculated using the percentage of acreage planted to a type of crop, based on the parties' submittals (Menefee Exhibits 13b, 14b; Triangle T Exhibit D), and the applied water duty according to Department of Water Resources Bulletin 113-4. It should be noted that the average rate of flow required to satisfy the parties demands assumes a constant flow over a 30-day period, and it is likely that the quantity of water available within a given month would not be available as a constant flow for the entire month.^{8 9}

⁸ It is also important to bear in mind that Triangle T Ranch, the Harmans, and Menefee River Ranch, as riparian right holders, do not have a right to a specific amount of water. Riparian rights are correlative. When the natural flow is insufficient to satisfy the demands of all three parties, they must restrict their diversions proportionally. (*Prather v. Hoberg* (1944) 24 Cal.2d 549, 560 [150 P.2d 405, 411].) In addition, the amount of water reasonably required for beneficial use on the parties' riparian acres may vary depending on various factors including crop patterns, the time of year, and the weather. The purpose of estimating the demands of the parties is to afford the USBR with a practical guide as to the quantity of water it should release to satisfy the parties' prior rights, and the SWRCB does not mean to imply thereby that the parties' rights are fixed.

⁹ Although the SWRCB finds that Triangle T Ranch failed to prove that it had acquired rights by prescription, it merits note that even if Triangle T Ranch had proved its case, under no circumstances could its prescriptive right have exceeded approximately 0-29.6 cfs, depending on the month, due to the requirement that prescriptive rights be (*footnote continues next page*)

5.0 PROBABLE PERMIT VIOLATIONS BY RELEASING INSUFFICIENT FLOWS TO SATISFY PRIOR RIGHTS

As stated earlier, whether the USBR has violated its permit can be determined by ascertaining whether the USBR has released sufficient water to satisfy the rights of all three parties. These rights are all rights for direct diversion, and in combination cannot exceed the natural flow of the Fresno River. Although the record does not contain data sufficient to reach a definitive determination as to the extent of violations that have taken place, evidence in the record does indicate that permit violations occurred during at least one month in the last several years.

Preliminarily, the USBR argued that Menefee River Ranch and the Harmans have been deprived of water by the Road 9 Structure and Triangle T Ranch, not the USBR. While it is true that the USBR is not responsible for the actions of Triangle T Ranch, the actions of Triangle T Ranch do not exonerate the USBR from its obligation to release adequate flows. Similarly, although the USBR is not responsible for the design and operation of the Road 9 Structure, at times when the demands of the parties meet or exceed the capacity of the Road 9 Structure, the USBR is obligated to release at least as much water as will pass through the structure in order to meet those demands. As discussed in more detail in section 7.0 below, the record indicates that the designed capacity of the Road 9 Structure is 100 cfs, which probably is sufficient to satisfy the collective demands of all three parties, but the capacity has been impaired by accumulated sediment. The current, impaired capacity is approximately 60 cfs, which may or may not be adequate, depending on the circumstances.

The SWRCB concludes that permit violations likely took place when the actual flow at the Road 9 Structure was less than both the collective demand of the three parties and the natural flow.¹⁰ Times when this occurred are depicted in Table 4. The flow data are computed in

acquired by putting water to reasonable, beneficial use consistent with division 2 of the Water Code. (In addition, *Modesto Properties, supra*, 179 Cal.App.2d at p. 862, calls into question whether Triangle T Ranch could have prescribed more than approximately 0-15.8 cfs, depending on the month, the demand associated with its riparian rights.) Any natural flows in excess of that amount would still be available to satisfy complainants' rights.

¹⁰ The USBR cannot be expected to release more water than can pass through the Road 9 Structure. The SWRCB concludes that no permit violation took place when actual flows met or exceeded 60 cfs at the Road 9 Structure.

acre-feet by month for the period between January 1992 and September 1997. The data were developed in the following manner.

First, channel losses between Hidden Dam and the Road 9 Structure and the demands of water users between those two points were subtracted from natural flows at Hidden Dam. The losses, demands, and the method of computation were taken directly from the U-1 Routing, a study performed by the United States Corps of Engineers for the period from 1922 to 1951, prior to the construction of Hidden Dam. (Schafer Exhibit 9.) The result represents an estimate of what the flow of the Fresno River would have been at the Road 9 Structure if Hidden Dam did not exist. For ease of discussion, this is referred to as the natural flow, even though it takes into account upstream water users. One problem with using these data is that current demands may vary from the demands as they existed between 1922 and 1951. The SWRCB is unaware of any major user whose demands were not taken into account in the U-1 Routing, however, and it appears reasonable to assume that demands have not changed considerably since the time of the study.

Actual flows at the Road 9 Structure were estimated by subtracting channel losses between Road 16 and the Road 9 Structure from the actual flow at Road 16. Actual flows were calculated by subtracting a channel loss of 240 acre-feet a month from the flows measured at the Road 16 gage, which assumes that there were no diversions between the gage and the structure.

Due to the limited data in the record, the SWRCB had to make a number of assumptions in making the computations described above. Perhaps the most significant deficiency in the record is the absence of current information concerning the demands of water users between Hidden Dam and the Road 9 Structure. MID Exhibit 6, which contains information regarding the computer model developed by MID in order to satisfy downstream prior right holders, does not specify the demands of the water users between the dam and the Road 9 Structure. Accordingly, the U-1 Routing was used to determine the "natural" flow at the Road 9 Structure.

In sum, using the data in the record, it is impossible to determine definitively how many violations took place and when. During at least one month, however, the discrepancy between

the demands of the three parties, the estimated "natural flow," and the estimated actual flow is significant enough to justify the conclusion that permit violations occurred. It appears safe to conclude that violations occurred in February 1992. During that month, estimated natural flows of 1,560 acre-feet could have met the parties' demands for 990 acre-feet. The release from Hidden Dam, however, was only 47 acre-feet, and the actual flow at the Road 9 Structure was zero. During this month, storage in Hidden Reservoir increased by 8,326 acre-feet.

6.0 PROBABLE PERMIT VIOLATIONS BY DELIVERING STORED WATER OUTSIDE THE AUTHORIZED PLACE OF USE

During the course of this proceeding, the complainants brought to the SWRCB's attention the fact that the USBR also may have violated its permit by delivering stored water to Triangle T Ranch. Water cannot be seasonally stored under basis of riparian right (*People v. Shirokow, supra*, 26 Cal.3d at p. 307, fn. 7 [605 P.2d at p. 864, fn. 7, 162 Cal.Rptr. at p. 34, fn. 7]), and Triangle T Ranch does not have a storage right under its license. MID and Triangle T Ranch have entered into an agreement, however, which provides for the delivery of water, at MID's option, in a later year in satisfaction of Triangle T Ranch's riparian demand in a prior year where Triangle T Ranch's demand for the prior year was equal to or less than 250 acre-feet. (MID Exhibit 7, p. 15, Paragraph 5.4; R.T. pp. 298-302, 330, 336-337.) In other words, the agreement authorizes delivery of water that has been stored from one season to the next.

Triangle T Ranch has no right to stored water, and the USBR may not deliver water to Triangle T Ranch under its permit because Triangle T Ranch is outside the authorized place of use. The USBR should not deliver stored water to Triangle T Ranch in satisfaction of Triangle T Ranch's prior rights, unless the USBR files and the SWRCB approves a petition to expand the authorized place of use to incorporate Triangle T Ranch's property.

7.0 THE CAPACITY OF THE ROAD 9 STRUCTURE

One of the issues raised in this proceeding is whether the capacity of the Road 9 Structure is sufficient to accommodate the rights of Triangle T Ranch, the Harmans, and Menefee River Ranch. For the reasons set forth below, the SWRCB finds that the designed capacity of the

Road 9 Structure is 100 cfs, which probably is sufficient to satisfy the collective demands of all three parties, but the capacity has been impaired by accumulated sediment. The current, impaired capacity is approximately 60 cfs, which may or may not be adequate, depending on the circumstances.

According to a report by Murray, Burns & Kienlen, Inc., an engineering firm, the designed capacity of the Road 9 Structure is 100 cfs with a head differential of 0.7 feet. (SWRCB Files for Permit 16584, Murray, Burns & Kienlen, Inc. (1980) Preliminary Report, Fresno River Water Rights, pp. 41-61.) At the time the report was written in 1980, the current capacity of the structure was 60 cfs with a head differential of 0.25 feet, but Murray, Burns & Kienlen concluded that a capacity of 100 cfs could be restored by removing sediment deposits between the outlet and the Road 9 culverts and downstream of the outlet. (*Id.* at pp. 41, 61.) The current capacity of the structure probably remains approximately 60 cfs.

The findings contained in the Murray, Burns & Kienlen report are consistent with the testimony of James E. Wickersham, President of Triangle T Ranch. Mr. Wickersham testified that at the point where the weir in the bypass is about to spill, the Road 9 Structure can bypass 60 cfs, and when flows are greater and head is greater over the weir, the Road 9 Structure can bypass greater flows. (R.T. pp. 133, 262, 412-413; see Murray, Burns & Kienlen report, *supra*, at p. 41.)

The designed capacity of the structure is probably adequate to meet the parties' maximum total demand of 53.5 cfs. While in theory the impaired capacity could meet the parties' demand as well, in practice the impaired capacity may well be insufficient. As explained earlier, the average rate of flow of 53.5 cfs that would satisfy the parties' demands assumes a constant rate of flow for a 30-day period. In actuality, flows may not be constant, and parties may seek to meet their demands by diverting more water over a shorter period of time. In addition, at times when the total demand is very close to the capacity of the Road 9 Structure, diversions made by upstream parties would have to be made in a prudent manner such that sufficient flows are bypassed to meet downstream demands.

At present, the circumstances do not warrant the initiation by the SWRCB of additional proceedings involving the State Reclamation Board and the Lower San Joaquin Levee District concerning the Road 9 Structure, as requested by complainants. If the parties do not feel that the current capacity of the structure is adequate to accommodate their demands, they may wish to pursue the possibility of restoring the structure's designed capacity with the Reclamation Board and the levee district. The clarification of the parties' water rights in this order may facilitate resolution of this matter.

8.0 CONCLUSION

In conclusion, the SWRCB finds that the USBR has violated Permit 16584 by depriving complainants and Triangle T Ranch of water to which they were entitled. The complainants requested that the SWRCB modify the USBR's permit to require the USBR to negotiate, execute, and implement an agreement with complainants within six months, to require the USBR to appoint a watermaster, and to require the USBR to maintain a real-time accounting of inflows and outflows at Hidden Dam. The SWRCB declines to modify the USBR's permit at this time. The USBR's permit violations appear to have stemmed from the USBR's good faith but erroneous conclusion that complainants' water rights had been lost. By this order, the SWRCB affords the USBR with clear guidance concerning its obligations to complainants.¹¹ In addition,

¹¹ In comments to the proposed order, complainants also requested the SWRCB to afford the USBR with guidance concerning a dispute between the complainants and MID over the extent of MID's water rights as determined under a 1916 Superior Court decree. We need not resolve the dispute at this time, because resolution of the dispute would not affect the USBR's obligations to complainants. The amount of MID's entitlement will not affect the amount to which complainants are entitled except when the natural flow is insufficient to satisfy the claimed entitlements of both MID and the complainants. As stated earlier, however, the USBR is not required to release flows in excess of the natural flow. If the USBR releases flows equivalent to the natural flow and MID diverts an amount that the complainants claim is excessive, the complainants' dispute lies with MID, not the USBR.

At other times, when natural flows are sufficient to do so, the USBR must release enough water to satisfy the undiminished water rights of both the complainants as set forth in this order and the prior rights of MID. If the USBR releases enough water to satisfy what it determines to be the combined rights of the parties, the complainants would be harmed only if the USBR releases less water in satisfaction of MID's rights under the 1916 decree than MID in fact diverts based on MID's interpretation of the decree. Such a discrepancy is unlikely, however, because MID operates Hidden Dam on behalf of the USBR. Presumably MID's interpretation of the decree for purposes of deciding how much to release to satisfy its prior rights and its interpretation for purposes of deciding how much to divert under those prior rights will be consistent. In the unlikely event that a discrepancy were to occur, the SWRCB could consider a complaint against MID and the USBR at that time.

The SWRCB also notes that, unlike Triangle T Ranch, which placed its water rights at issue by advancing a claim of prescription and introducing evidence of its actual water use, MID did not place its water rights directly at issue in this proceeding. Accordingly, the record contains no evidence of MID's recent, actual water use, other than evidence of MID's interpretation of the decree. In view of the fact that it does not appear to be necessary to afford
(footnote continues next page)

the SWRCB concludes that the USBR shall be required to submit a report within six months of final SWRCB action in this matter that details how the USBR is meeting its obligations to complainants.¹² If in the future the USBR still fails to fulfill its obligations, then the SWRCB will consider what modifications to make to the USBR's permit, and whether to take enforcement action pursuant to Water Code sections 1831-1836.

Complainants also requested that the SWRCB expand the authorized place of use under the USBR's permit to include complainants' property so that they can benefit from the USBR's storage capabilities. The complainants suggested that they would also be willing to accept Central Valley Project water delivered through the San Joaquin River in exchange for Fresno River flows. The SWRCB defers to the USBR to determine whether to satisfy complainants rights with natural Fresno River flows or with some substitute supply that is acceptable to complainants. The SWRCB will consider whether to approve an expansion in the USBR's permitted place of use if and when the USBR files a change petition pursuant to California Code of Regulations, title 23, sections 791-799.

Finally, complainants requested that the SWRCB direct the USBR to invalidate the agreement between Triangle T Ranch and MID. The complainants asserted that the agreement is inconsistent with the USBR's permit obligations because it authorizes delivery of water to nonriparian land, and water delivery is based on a computer model designed by MID to quantify the demands of prior right holders which does not recognize complainants' rights. Complainants also pointed out that insufficient evidence has been introduced in this proceeding to determine whether the computer model is flawed.

the USBR with guidance on the proper interpretation of the 1916 decree, and the fact that the administrative record was not thoroughly developed on these issues, the SWRCB concludes it would be best not to interpret the decree unless and until a more concrete dispute makes such an interpretation necessary.

¹² Within this period, the parties may submit to the SWRCB new evidence concerning the calculations of riparian acreage contained in this order, and the SWRCB will consider whether further proceedings should be initiated to revise those figures.

The SWRCB concurs that the agreement authorizes the delivery of water in violation of the USBR's permit. As noted in section 3.0 above, the number of acres identified as riparian in Exhibit 4 to the agreement is inconsistent with the SWRCB's finding in this order. In addition, the agreement authorizes the delivery of stored water outside the permitted place of use, as discussed in section 6.0. Either the agreement must be revised, or the USBR must make other arrangements to ensure that water is not delivered in violation of its permit. Accordingly, the SWRCB concludes that the USBR shall be required to submit to the SWRCB, in conjunction with the report concerning releases discussed above, a revised agreement, or an explanation how it intends to ensure that water is not delivered to Triangle T Ranch in violation of the USBR's permit. Otherwise, the agreement is not on its face inconsistent with the USBR's permit obligations.

Presumably, the computer model will be revised in light of this order to recognize complainants' rights. At this time, consideration whether releases made in accordance with a revised version of the model would satisfy complainants' rights would be premature.

ORDER

IT IS HEREBY ORDERED THAT:

1. The USBR shall release sufficient water to satisfy the rights of Triangle T Ranch, the Harmans, and Menefee River Ranch, as defined herein, provided that the parties' rights, singly or in combination, cannot exceed the natural flow of the Fresno River, and provided that the USBR is not required to release flows that exceed the capacity of the Road 9 Structure.
2. The USBR shall submit to the SWRCB within six months of final SWRCB action in this proceeding a report that details how the USBR is calculating the releases required to satisfy the Harmans' and Menefee River Ranch's rights.

3. The USBR shall submit to the SWRCB within six months of final SWRCB action in this proceeding either a revised agreement for the supply of water to Triangle T Ranch in satisfaction of its prior rights, or an explanation how the USBR intends to ensure that water is not delivered to Triangle T Ranch in violation of the USBR's permit.

CERTIFICATION

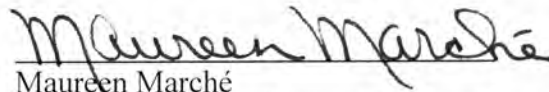
The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 3, 1999.

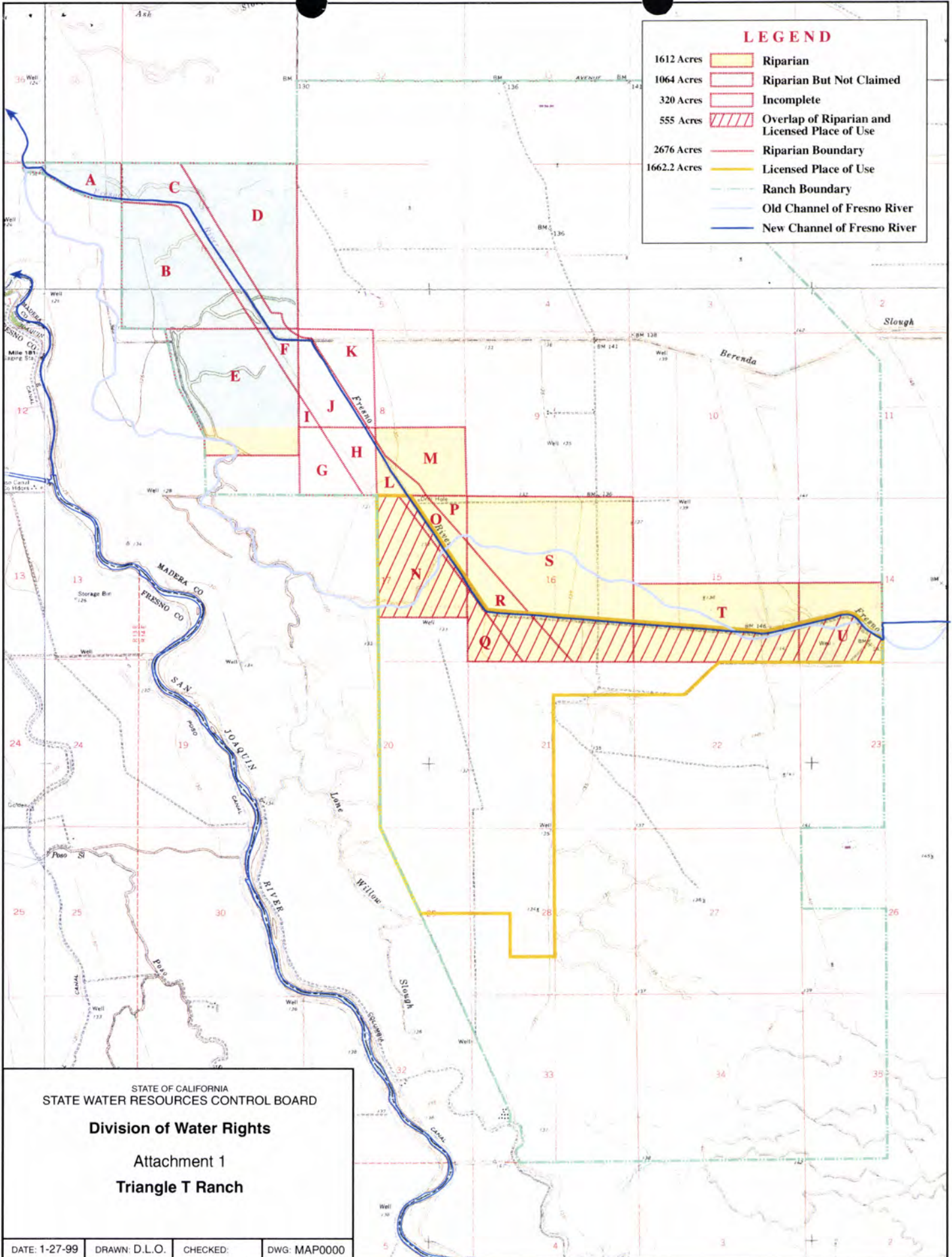
AYE: James M. Stubchaer
Mary Jane Forster
Marc Del Piero
John W. Brown

NO: None

ABSENT: None

ABSTAIN: None


Maureen Marché
Administrative Assistant to the Board



STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

Division of Water Rights

Attachment 1

Triangle T Ranch

**TRIANGLE T RANCH
CHAIN OF TITLE**

Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
Martin Doyle	F. P. F. Temple	02/16/1860	
California	F. P. F. Temple, assignee of Martin Doyle	06/18/1866	
F. P. F. Temple	Henry Miller & Charles Lux	12/29/1869	
Henry Miller & Charles Lux	William Chapman	05/16/1872	
William Chapman	Isaac Friedlander	07/05/1872	
Isaac Friedlander		08/31/1874	Declaration that Isaac Friedlander held 1/3 interest in property in trust for Henry Dalbiac Harrison.
Isaac Friedlander	Henry Dalbiac Harrison (1/3)	02/27/1876	Conveyance unreadable with respect to Parcel A but presumably property conveyed was the same as that described in 08/31/1874 declaration of trust.
Isaac Friedlander (2/3) & William Chapman	The Nevada Bank of San Francisco	05/11/1877	
The Nevada Bank of San Francisco (2/3) & Henry Dalbaic Harrison (1/3)	The California Pastoral and Agricultural Company, Inc.	05/22/1882	
The California Pastorial and Agricultural Company, Inc.	The California Pastorial and Agricultural Company, Limited, Inc.	10/10/1901	
The California Pastorial and Agricultural Company, Limited, Inc.	Henry Johnston & Alexander Fleming, as joint tenants	12/09/1901	
Henry Johnston	Alexander Buist Fleming & David Johnston	12/03/1906	Alexander Fleming died on 01/08/1906, and the property passed to Henry Johnston, the surviving joint tenant.
Alexander Buist Fleming & David Johnston	The California Pastoral and Agricultural Company, Limited	04/24/1912	

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California Pastoral and Agricultural Company Limited, Inc.	Union Colonization Company, Inc.	05/22/1912	
Union Colonization Company, Inc.	Chowchilla Farms, Inc.	04/30/1917	
Chowchilla Farms, Inc.	Nellie C. Harris & Elmer B. Stone	07/20/1944	
Nellie C. & Matthew A. Harris & Elmer B. & Eleanor G. Stone	William F. Cook	07/05/1946	
William F. & Frieda Cook	Cook Land & Cattle Co., Inc.	07/06/1948	
Cook Land & Cattle Co., Inc.	Grover D. Turnbow	11/21/1956	
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document number 3404 recorded 03/19/1959 in vol. 739 of Official Records at p. 472. Presumably property conveyed was the same as property subsequently conveyed from Sacramento and San Joaquin Drainage District to Triangle T Ranch per 08/25/1970 deed and therefore Parcel A was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim
Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel A - NW 1/4 of NE 1/4 of Section 1, T 11 S, R 13 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
Alex Kennedy	F. P. F. Temple	09/09/1866	
California	F. P. F. Temple	02/14/1870	
F. P. F. Temple	Triangle T Ranch, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.

**TRIANGLE T RANCH
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Parcel A - NE 1/4 of NE 1/4 of Section 1, T 11 S, R 13 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
California	F. P. F. Temple	02/14/1870	
F. P. F. Temple	Triangle T Ranch, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Parcel B - Section 6 of T 11 S, R 14 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
California	F. P. F. Temple	02/14/1870	
F. P. F. Temple	Henry Miller & Charles Lux	09/20/1870	Conveyance unreadable but survey numbers 311, 401, 402, 340, 341, 342, and 365, T 11 S, R 14 E, MDB&M match survey numbers listed in patent.
Henry Miller & Charles Lux	Grover D. Turnbow		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property per 08/25/1970 deed and therefore Parcel B was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel B was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel B was not exempted.

**TRIANGLE T RANCH
CHAIN OF TITLE**

Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel C - Section 6, T 11 S, R 14 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
California	Henry Miller & Charles Lux		See Parcel B.
Henry Miller & Charles Lux	Grover D. Turnbow		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Grover D. Turnbow	Sacto. and San Joaquin Drainage Dist.	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel C was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel C was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel C was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel D - Section 6, T 11 S, R 14 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
California	Henry Miller & Charles Lux		See Parcel B.
Henry Miller & Charles Lux	Grover D. Turnbow		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.

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Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel D was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel D was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel D was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel E - N 1/2, N 1/2 of SE 14, and NE 1/4 of SW 1/4 of Section 7, T 11 S, R 14 E, MDB&M			The N 1/2 of Section 7 was not claimed by Triangle T Ranch.
California	F. P. F. Temple	02/14/1870	
F. P. F. Temple	Henry Miller & Charles Lux	09/20/1870	Conveyance unreadable but survey numbers 311, 401, 402, 340, 341, 342, and 365, T 11 S, R 14 E, MDB&M match survey numbers list in patent.
Henry Miller & Charles Lux	Grover D. Turnbow		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel E was not conveyed.

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Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel E was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel E was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel F - Section 7 , T 11 S, R 14 E, MDB&M			This parcel was not claimed by Triangle T Ranch.
California	Grover D. Turnbow		See Parcel E.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel F was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel F was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel F was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim

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Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel G - N 1/2 of SW 1/4 of Section 8, T 11 S, R 14 E, MDB&M			Incomplete chain of title.
California	F. P. F. Temple	02/14/1870	
			Missing chain of title from F. P. F. Temple to Henry Miller & Charles Lux.
Henry Miller & Charles Lux	Grover D. Turnbow		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel G was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel G was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel G was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel G - S 1/2 of SW 1/4 of Section 8, T 11 S, R 14 E, MDB&M			Incomplete chain of title.
N. S. Harrold & J. F. Harrison	F. P. F. Temple	22/26/1867	
California	Harrold and Harrison	09/22/1878	

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			Missing chain of title from F. P. F. Temple to Henry Miller & Charles Lux.
Henry Miller & Charles Lux	Triangle T Ranch, Inc.		See Parcel G - N 1/2 of SW 1/4 of Section 8, MDB&M.
Parcel H - SW 1/4 of Section 8, T 11 S, R 14 E, MDB&M			Incomplete chain of title.
California	Grover D. Turnbow		See Parcel G.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel H was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel H was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel H was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel I - N 1/2 of NW 1/4 of Section 8, T 11 S, R 14 E, MDB&M			In complete chain of title. This parcel was not claimed by Triangle T Ranch, Inc.
Samuel Langdon	W. S. Chapman	09/05/1872	Missing chain of title from California to Samuel Langdon.

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W. S. Chapman	Grover D. Turnbow		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel I was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel I was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel I was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel I - S 1/2 of NW 1/4 of Section 8, T 11 S, R 14 E, MDB&M			Incomplete chain of title. This parcel was not claimed by Triangle T Ranch, Inc.
			Missing chain of title from California to William Chapman.
William Chapman	Triangle T Ranch, Inc.		See Parcel I - N 1/2 of NW 1/4 of Section 8, MDB&M.
Parcel J - NW 1/4 of Section 8, MDB&M			Incomplete chain of title. This parcel was not claimed by Triangle T Ranch, Inc.
			Missing chain of title from California to William Chapman.
William Chapman	Grover D. Turnbow		See Parcel I.

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Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel J was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel J was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel J was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Sacram. and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel K - NW 1/4 of Section 8, T 11 S, R 14 E, MDB&M			Incomplete chain of title. This parcel was not claimed by Triangle T Ranch, Inc.
			Missing chain of title from California to William Chapman.
William Chapman	Grover D. Turnbow		See Parcel I.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel K was not conveyed.

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Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel K was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel K was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel L - SE 1/4 of Section 8, T 11 S, R 14 E, MDB&M			
United States	David Alsup	05/15/1876	
David Alsup	H. W. Hoagland	12/31/1875	
H. W. Hoagland	W. S. Chapman	01/06/1876	
W. S. Chapman	Chowchilla Farms, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Chowchilla Farms, Inc.	William F. Cook	07/20/1944	
William F. Cook & Frieda Cook	William F. Cook & Frieda Cook	07/17/1946	
William F. Cook & Frieda Cook	Cook Land & Cattle Co., Inc.	07/06/1948	
Cook Land & Cattle Co., Inc.	Grover D. Turnbow	11/21/1956	
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel L was conveyed.

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Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel L was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel L was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel M - SE 1/4 of Section 8, T 11 S, R 14 E, MDB&M			
United States	Grover D. Turnbow		See Parcel L.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel M was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel M was not exempted.

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Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel M was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim.
Parcel N - NE 1/4 of Section 17, T 11 S, R 14 E, MDB&M			
United States	William G. Rightmier	01/05/1876	
William G. Rightmier	California Pastoral Agricultural Company, Inc.	02/16/1884	
The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	Deed purports to convey W 1/2 of Section 17.
The California Pastoral and Agricultural Company, Limited, Inc.	Henry Johnston & Alexander Fleming, as joint tenants	12/09/1901	Deed purports to convey W 1/2 of Section 17.
Henry Johnston	Alexander Buist Fleming & David Johnston	12/03/1906	Alexander Fleming died on 01/08/1906, and the property passed to Henry Johnston, the surviving joint tenant. Deed states that 12/09/1901 deed erroneously purported to convey W 1/2 of Section 17 rather than E 1/2 of Section 17.
	California Pastoral and Agricultural Company Limited, Inc.	10/28/1911	Madera County Superior Court Decree quiet title in favor of California Pastoral and Agricultural Company Limited, Inc.
Alexander Buist Fleming & David Johnston	The California Pastoral and Agricultural Company, Limited	04/24/1912	
California Pastoral and Agricultural Company Limited, Inc.	Union Colonization Company, Inc.	05/22/1912	

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Union Colonization Company, Inc.	Chowchilla Farms, Inc.	04/30/1917	
Chowchilla Farms, Inc.	Grover D. Turnbow		See Parcel L.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel N was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel N was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel N was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel N - N 1/2 of SE 1/4 of Section 17, T 11 S, R 14 E, MDB&M			
United States	James Jordin	01/30/1877	
James Jordin	W. S. Chapman	03/10/1876	
W. S. Chapman	California Pastoral and Agricultural Company, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
The California Pastoral and Agricultural Company, Inc.	Chowchilla Farms, Inc.		See Parcel N - NE 1/4 of Section 17, MDB&M.
Chowchilla Farms, Inc.	Grover D. Turnbow		See Parcel L.
Grover D. Turnbow	Triangle T Ranch, Inc.		See Parcel N - NE 1/4 of Section 17, MDB&M.

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Parcel O - NE 1/4 and N 1/2 of SE 1/4 of Section 17, T 11 S, R 14 E, MDB&M			
United States	Grover D. Turnbow		See Parcel N.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel O was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel O was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel O was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel P - NE 1/4 of Section 17, T 11 S, R 14 E, MDB&M			
United States	Grover D. Turnbow		See Parcel N.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel P was not conveyed.

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Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel P was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel P was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel Q - W 1/2 of Section 16, T 11 S, R 14 E, MDB&M			
California	Harrold & Harrison, assignees of J. W. Smith	04/23/1874	
Nathaniel S. Harrold, Joseph P. Harrison & Norval Harrison	Nathaniel S. Harrold (1/2)	05/07/1874	
Nathaniel S. Harrold, Joseph P. Harrison & Norval Harrison	Joseph Harrison & Norval Harrison (1/2)	05/07/1874	
Nathaniel S. Harrold (1/2), Joseph Harrison (1/4) & Norval Harrison (1/4)	Henry Miller & Charles Lux	02/15/1886	
Henry Miller & Charles Lux	California Pastoral & Agricultural Company	02/17/1887	
California Pastoral & Agricultural Company	Chowchilla Farms, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Chowchilla Farms, Inc.	Grover D. Turnbow		See Parcel L.

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Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel Q was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel Q was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel Q was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Parcel R - W 1/2 of Section 16, T 11 S, R 14 E, MDB&M			
California	Grover D. Turnbow		See Parcel Q.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel R was conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel R was exempted.

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CHAIN OF TITLE**

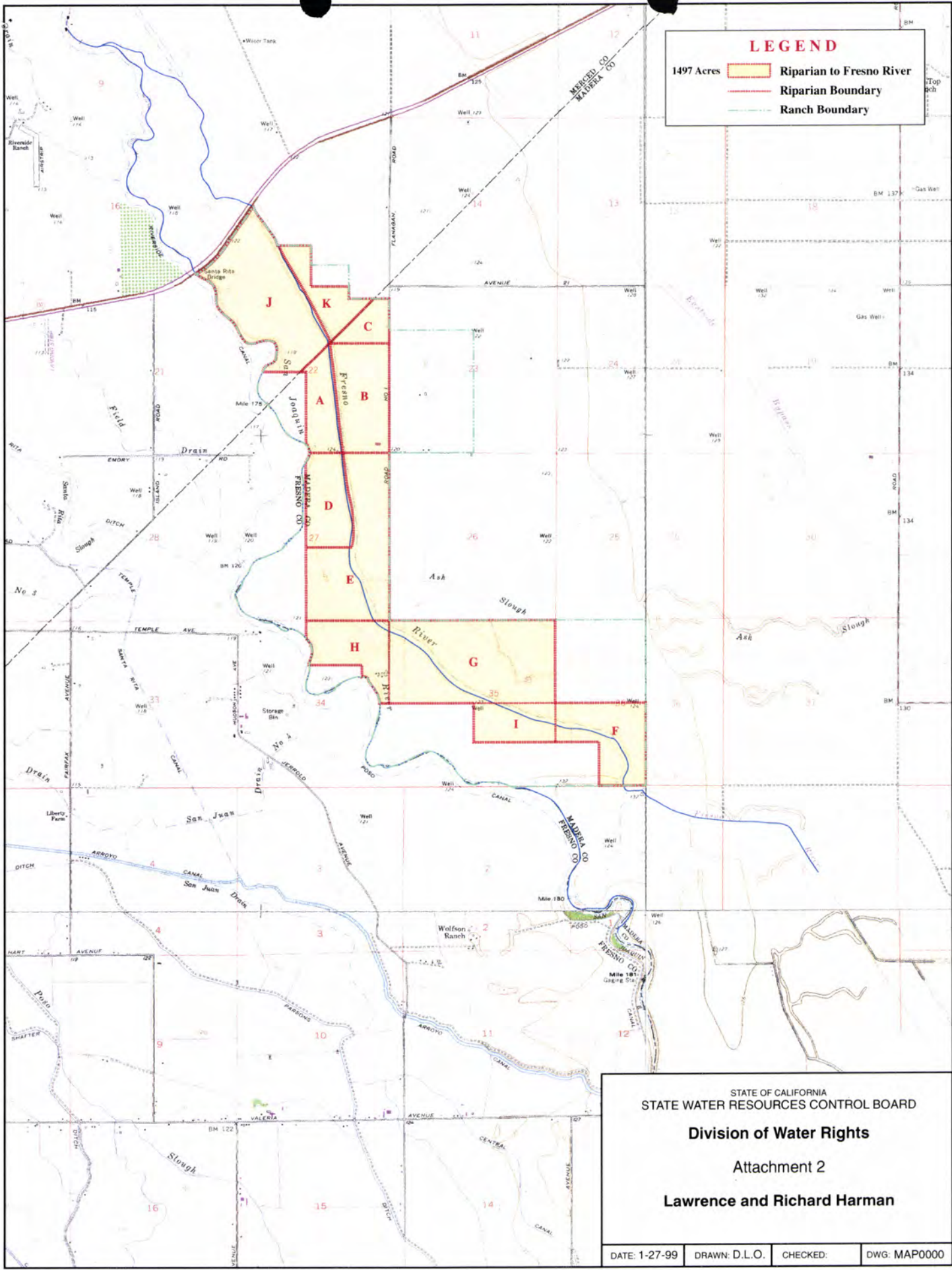
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel R was exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim
Sacramento and San Joaquin Drainage District	Triangle T Ranch, Inc.	08/25/1970	
Parcel S - E 1/2 of Section 16, T 11 S, R 14 E, MDB&M			
California	Grover D. Turnbow		See Parcel Q.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel S was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel S was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel S was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim

**TRIANGLE T RANCH
CHAIN OF TITLE**

Parcel S - W 1/2 of Section 16, T 11 S, R 14 E, MDB&M			
California	Harrold & Harrison, assignees of Charles M. Harrison	04/23/1874	
Harrold & Harrison	Grover D. Turnbow		See Parcel Q - E 1/2 of Section 16.
Grover D. Turnbow	Triangle T Ranch, Inc.		See Parcel S - W 1/2 of Section 16.
Parcel T - S 1/2 of Section 15, T 11 S, R 14 E, MDB&M			
California	William S. Chapman	09/04/1873	
William S. Chapman	Chowchilla Farms, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Chowchilla Farms, Inc.	Grover D. Turnbow		See Parcel L.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel T was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel T was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel T was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim

**TRIANGLE T RANCH
CHAIN OF TITLE**

Parcel U - SW 1/4 of Section 14, T 11 S, R 14 E, MDB&M			
California	William S. Chapman	09/04/1873	
William S. Chapman	Chowchilla Farms, Inc.		See Parcel A - NE 1/4 of NW 1/4 of Section 1, T 11 S, R 13 E, MDB&M.
Chowchilla Farms, Inc.	Grover D. Turnbow		See Parcel L.
Grover D. Turnbow	Sacramento and San Joaquin Drainage District	03/09/1959	Conveyance unreadable without document no. 3404. Presumably property conveyed was the same as property conveyed per 08/25/1970 deed and therefore Parcel U was not conveyed.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	02/29/1960	Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel U was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	11/15/1967	Quitclaim. Exemption from conveyance unreadable without document no. 3404. Presumably property exempted was the same as property conveyed per 08/25/1970 deed and therefore Parcel U was not exempted.
Grover D. & Ruth H. Turnbow	Triangle T Ranch, Inc.	01/12/1968	Quitclaim



LEGEND

1497 Acres Riparian to Fresno River

Riparian Boundary

Ranch Boundary

STATE OF CALIFORNIA
 STATE WATER RESOURCES CONTROL BOARD

Division of Water Rights

Attachment 2

Lawrence and Richard Harman

DATE: 1-27-99	DRAWN: D.L.O.	CHECKED:	DWG: MAP0000
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**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

E 1/2 of SE 1/4 of Section 16 E of the San Joaquin River, T 10 S, R 13 E , MDB&M			
United States	California	03/04/1904	
California	N.B. Stoneroad	02/24/1870	
N.B. Stoneroad	William S. Chapman	09/10/1872	
Isaac Friedlander & William S. Chapman	The Nevada Bank	05/11/1877	
William S. Chapman	The Nevada Bank	02/27/1879	Superfluous conveyance.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	California Pastoral and Agricultural Company, California	05/22/1882	
The California Pastoral and Agricultural Company, California	The California Pastoral and Agricultural Company, Limited, United Kingdom of Great Britain and Ireland	10/10/1901	
The California Pastoral and Agricultural Company, Limited, United Kingdom of Great Britain and Ireland	Henry Johnston & Alexander Fleming	12/09/1901	Grantees acquired property as joint tenants. Alexander Fleming died on 01/08/1906 and property passed to Henry Johnston.
Henry Johnston	Alexander Buist Fleming & David Johnston	12/03/1906	
Alexander Buist Fleming & David Johnston	The California Pastoral and Agricultural Company, Limited, United Kingdom of Great Britain and Ireland	04/24/1912	
The California Pastoral and Agricultural Company, Limited, United Kingdom of Great Britain and Ireland	Union Colonization Company	05/22/1912	

NOTE: Chain of title from patents to Chowchilla Farms broken down by section. Chain of title from Chowchilla Farms to the Harmans broken down by assessor's parcel.

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

Union Colonization Company	Chowchilla Farms	04/30/1917	
SW 1/4 of Section 15, T 10 S, R 13 E, MDB&M			
United States	California	02/25/1869	
California	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M			
Betussio Spencer	J. W. Adams	04/29/1864	
California	J. W. Adams	02/03/1869	
United States	California	02/25/1869	Presumably this parcel corresponds to lot one of Section 21 and lots 2, 3, 4 of Section 22 listed in the patent.
J. W. Adams	William Chapman	06/08/1869	
William Chapman	J. M. Montgomery (1/2)	03/18/1871	
John Montgomery (1/2)	William Chapman	05/29/1872	
William Chapman	Isaac Friedlander	07/05/1872	
Isaac Friedlander	Henry Dalbiac Harrison (1/3)	11/27/1876	
Isaac Friedlander (2/3) & William Chapman	The Nevada Bank	05/11/1877	
Nevada Bank of San Francisco (2/3) & Henry Dalbiac Harrison(1/3)	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
NE 1/4 of Section 22, T 10 S, R 13 E, MDB&M			
Betussio Spencer	J. W. Adams	04/29/1864	
California	J. W. Adams	02/03/1869	

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

United States	California	02/25/1869	
J. W. Adams	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	California Pastoral and Agricultural Company, California	05/22/1882	
California Pastoral and Agricultural Company, California	W. Rightmeir	11/16/1883	
W. Rightmeir	James Rightmeir	02/6/1891	
James Rightmeir	Mary Rightmeir (1/2); William Rightmeir (1/4); Charity Bowden (1/4)	03/04/1894	James Rightmeir died intestate and his property passed to his heirs.
William Bowden	Charity Bowden	11/21/1898	
Mary Rightmeir (1/2); William Rightmeir (1/4); R. A. Rightmeir; Charity Cusak (1/4); & Charles Cusak	J. A. Mackenzie	01/02/1901	
J. A. Mackenzie & Tara Mackenzie	The California Pastoral and Agricultural Company, California	01/05/1901	
The California Pastoral and Agricultural Company, California	The California Pastoral and Agricultural Company, Limited, United Kingdom of Great Britain and Ireland	12/26/1902	
The California Pastoral and Agricultural Company, Limited, United Kingdom of Great Britain and Ireland	Henry Johnston & Alexander Fleming	01/27/1903	
Henry Johnston	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

SE 1/4 of Section 22, T 10 S, R 13 E, MDB&M			
Lyman Sherwin	F. P. F. Temple	01/04/1860	
California	F. P. F. Temple	06/18/1866	
United States	California	02/25/1869	
F. P. F. Temple	Henry Miller & Charles Lux	12/29/1869	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
E 1/2 of Section 27, T 10 S, R 13 E, MDB&M			
Antonio Martinet	F. P. F. Temple	06/18/1866	
California	F. P. F. Temple	06/18/1866	
United States	California	02/25/1869	
F. P. F. Temple	Henry Miller & Charles Lux	12/29/1869	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

N 1/2 and SE 1/4 of NE 1/4 of Section 34 E of San Joaquin River, T 10 S, R 13 E, MDB&M			
Charles Kraus	F. P. F. Temple	01/04/1860	
California	F. P. F. Temple	06/18/1866	
United States	California	02/25/1869	
F. P. F. Temple	Henry Miller & Charles Lux	12/29/1869	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
NW 1/4 of Section 35, T 10 S, R 13 E, MDB&M			
California	F. P. F. Temple	06/18/1866	The N 1/2 and SE 1/4 of the NW 14 were conveyed by patent number A-61 and the SW 1/4 of the NW 1/4 was conveyed by patent number A-64.
United States	California	02/25/1869	
F. P. F. Temple	Henry Miller & Charles Lux	12/29/1869	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
NE 1/4 of Section 35, T 10 S, R 13 E, MDB&M			
James A. Harris	F. P. F. Temple	03/07/1866	
California	F. P. F. Temple	06/18/1866	
United States	California	02/25/1869	
F. P. F. Temple	Henry Miller & Charles Lux	09/20/1870	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaq. River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
N 1/2 of SE 1/4 of Section 35, T 10 S, R 13 E, MDB&M			
United States	California	02/25/1869	
California	F. P. F. Temple	02/14/1870	
F. P. F. Temple	Henry Miller & Charles Lux	09/20/1870	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

N 1/2 and SE 1/4 of SW 1/4 of Section 36, T 10 S, R 13 E, MDB&M			
Alex Kennedy	F. P. F. Temple	03/07/1866	
California	F. P. F. Temple	02/14/1870	
United States	California	03/04/1904	
F. P. F. Temple	Henry Miller & Charles Lux	09/20/1870	
Henry Miller & Charles Lux	William Chapman	05/06/1872	
William Chapman	The Nevada Bank		See NE 1/4 of Section 21 E of San Joaquin River; and NW 1/4 of Section 22 E of San Joaquin River, all in T 10 S, R 13 E, MDB&M.
Nevada Bank of San Francisco & Henry Dalbiac Harrison	Chowchilla Farms		See E 1/2 of SE 1/4 of Section 16 E of San Joaquin River, T 10 S, R 13 E, MDB&M.
Parcels F & I			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	Hugo Harman	10/04/1948	
Alice & Hugo Harman	Alice & Hugo Harman, co-trustees of the Harman Living Trust	04/01/1991	
Alice Harman, surviving trustee	Alice Harman, trustee of Harman Survivor's Trust & Harman Family Trust	06/13/1996	
Parcel G			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	Vernon Ashworth (1/3)	12/20/1951	
Nellie Harris (1/3)	Elmer Stone (1/3)	09/10/1954	

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

Elmer & Eleanor Stone (2/3) & Vernon Ashworth (1/3)	Elmer & Eleanor Stone (2/3)	10/11/1954	Quitclaim
Elmer & Eleanor Stone (2/3) & Vernon Ashworth (1/3)	Vernon Ashworth (1/3)	10/12/1954	Quitclaim
Elmer & Eleanor Stone (2/3)	Vernon Ashworth (1/6)	03/ /1955	Quitclaim
Vernon & Ann Ashworth (1/2)	Palace-New Montgomery Garage, Inc.	08/20/1968	
Stone Enterprises, Inc. (formerly Palace-New Montgomery Garage, Inc.) (1/2)	Eleanor Stone (9.36%)	12/21/1972	
Eleanor Stone	Stone Enterprises, Inc.	03/07/1975	
Warren & Irene Stone, Hugh & Beverly Temple & Eleanor Klopfenstein	Stone Enterprises, Inc.	03/31/1976	Presumably grantors inherited an interest in the property from Elmer Stone.
Stone Enterprises, Inc.	Carol Stone, Kristine Stone Field, Hugh & Beverly Temple, & Robert Bostick, as co-trustees	12/31/1986	Quitclaim
Carol Stone, Kristine Stone Field, Hugh & Beverly Temple, & Robert Bostick, as co-trustees	Lawrence & Peggy Harman	02/14/1990	
Parcel H			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	Vernon Ashworth (1/3)	12/20/1951	
Nellie Harris (1/3)	Elmer Stone (1/3)	09/10/1954	
Elmer & Eleanor Stone (2/3) & Vernon Ashworth (1/3)	Elmer & Eleanor Stone (2/3)	10/11/1954	Quitclaim
Elmer & Eleanor Stone (2/3) & Vernon Ashworth (1/3)	Vernon Ashworth (1/3)	10/12/1954	Quitclaim

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

Elmer & Eleanor Stone (2/3)	Vernon Ashworth (1/6)	03/ /1955	Quitclaim
Vernon & Ann Ashworth (1/2)	Palace-New Montgomery Garage, Inc.	08/20/1968	
Stone Enterprises, Inc. (formerly Palace-New Montgomery Garage, Inc.) (1/2)	Eleanor Stone (9.36%)	12/21/1972	
Eleanor & Warren Stone, Beverly Temple & Eleanor Klopfenstein	Stone Enterprises, Inc.	01/03/1975	Presumably grantors inherited an interest in the property from Elmer Stone.
Stone Enterprises, Inc.	John Harman Jr. & Dana Harman	01/04/1975	
Dana Harman	John Harman Jr.	12/04/1979	Quitclaim
Mary Harman	John Harman Jr.	02/04/1982	Quitclaim
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Robin Harman	Richard Harman	12/12/1990	
Parcel E			
Chowchilla Farms	John Harman Jr.		See Parcel H.
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Robin Harman	Richard Harman	12/12/1990	
Parcel D			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	Vernon Ashworth (1/3)	12/20/1951	
Nellie Harris (1/3)	Elmer Stone (1/3)	09/10/1954	
Elmer & Eleanor Stone (2/3) & Vernon Ashworth (1/3)	Elmer & Eleanor Stone (2/3)	10/11/1954	Quitclaim

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

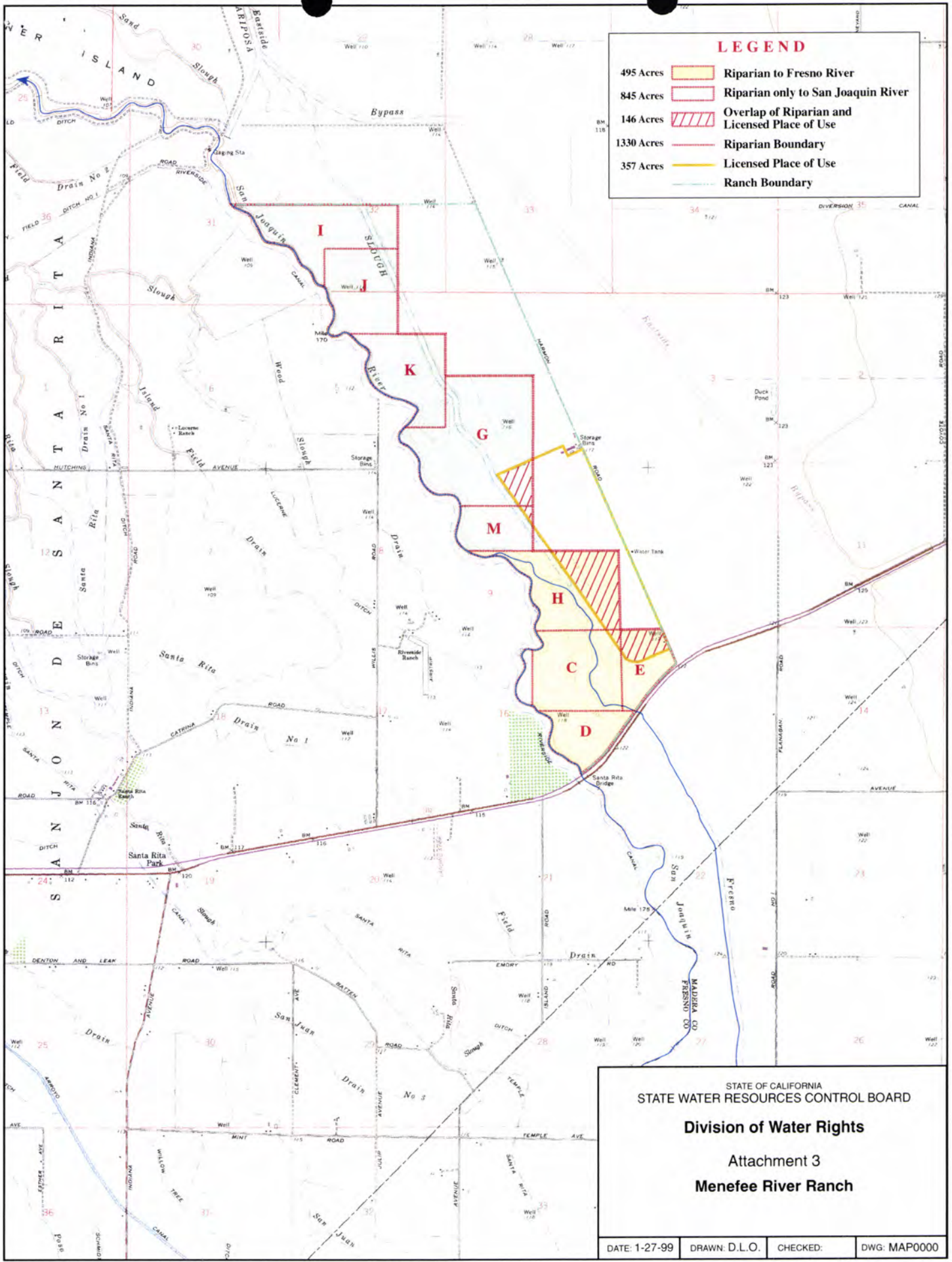
Elmer & Eleanor Stone (2/3) & Vernon Ashworth (1/3)	Vernon Ashworth (1/3)	10/12/1954	Quitclaim
Elmer & Eleanor Stone (2/3)	Vernon Ashworth (1/6)	03/ /1955	Quitclaim
Vernon & Ann Ashworth (1/2)	Palace-New Montgomery Garage, Inc.	08/20/1968	
Eleanor Stone (1/4 plus 61%), Warren Stone (13%), Beverly Temple 13%), Eleanor Klopfenstein (13% of 1/4) & Stone Enterprises, Inc. (formerly Palace-New Montgomery Garage, Inc.) (1/2)	John Harman Jr.	10/25/1971	Presumably grantors inherited an interest in the property from Elmer Stone.
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Robin Harman	Richard Harman	12/12/1990	
Parcel B			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	John Harman	12/01/1946	
H. G. Harman	John Harman	02/08/1954	Quitclaim
Elmer & Eleanor Stone	John Harman	12/09/1960	Quitclaim
John & Alma Harman	Hugo & Alice Harman	3/11/1955	
Alice & Hugo Harman	Alice & Hugo Harman, co-trustees of the Harman Living Trust	04/01/1991	
Alice Harman, surviving trustee	Alice Harman, trustee of Harman Survivor's Trust & Harman Family Trust	06/13/1996	
Parcel A			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

Nellie Harris & Elmer Stone	John Harman	12/01/1946	
Elmer & Eleanor Stone	John Harman	12/09/1960	Quitclaim
John Harman	John Harman Jr. & Dana Harman	02/26/1975	
Dana Harman	John Harman Jr.	12/04/1979	Quitclaim
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Robin Harman	Richard Harman	12/12/1990	
Parcel C			
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	John Harman	12/01/1946	
Elmer & Eleanor Stone	John Harman	12/09/1960	Quitclaim
John Harman	John Harman Jr. & Dana Harman	02/21/1974	
Dana Harman	John Harman Jr.	12/04/1979	
Mary Harman	John Harman Jr.	02/04/1982	Quitclaim
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Robin Harman	Richard Harman	12/12/1990	
Parcel J			
Chowchilla Farms	Western Meat (1/50)	05/25/1934	
Western Meat	Chowchilla Farms (1/50)	12/14/1934	
Chowchilla Farms	Nellie Harris & Elmer Stone	07/20/1944	
Nellie Harris & Elmer Stone	John Harman	12/01/1946	
Elmer & Eleanor Stone	John Harman	12/09/1960	Quitclaim

**LAWRENCE AND RICHARD HARMAN
CHAIN OF TITLE**

John Harman	John Harman Jr. & Dana Harman	02/28/1975	
Dana Harman	John B. Harman Jr.	12/04/1979	
Mary Harman	John Harman Jr.	02/04/1982	Quitclaim
John Harman	John Harman Jr. (37.77%), Lilly Ann Huppert (23.33%), Kathleen Marie Greiten (23.33%) & Beverly Jean Dudley (15.56 %)	08/26/1983	Superfluous conveyance.
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Alma Mary Harman	John B. Harman	04/25/1984	Quitclaim
Robin Harman	Richard Harman	12/12/1990	
Parcel K			
Chowchilla Farms	John Harman		See Parcel J.
John Harman	John Harman Jr. & Dana Harman	02/21/1974	
Dana Harman	John Harman Jr.	12/04/1979	Quitclaim
Mary Harman	John Harman Jr.	02/04/1982	Quitclaim
John Harman	John Harman Jr. (37.77%), Lilly Ann Huppert (23.33%), Kathleen Marie Greiten (23.33%) & Beverly Jean Dudley (15.56 %)	08/26/1983	Superfluous conveyance.
John Harman Jr.	Richard & Robin Harman (1/2) & Lawrence & Peggy Harman (1/2)	03/02/1984	
Alma Mary Harman	John B. Harman	04/25/1984	Quitclaim
Robin Harman	Richard Harman	12/12/1990	



LEGEND

495 Acres		Riparian to Fresno River
845 Acres		Riparian only to San Joaquin River
146 Acres		Overlap of Riparian and Licensed Place of Use
1330 Acres		Riparian Boundary
357 Acres		Licensed Place of Use
		Ranch Boundary

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

Division of Water Rights

Attachment 3
Menefee River Ranch

DATE: 1-27-99	DRAWN: D.L.O.	CHECKED:	DWG: MAP0000
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**MENEFEE RIVER RANCH
CHAIN OF TITLE**

Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M			
California	J. Pickins Anderson	07/11/1872	
J. P. Anderson	Lizzie Anderson (1/2), James P. Anderson (1/6), Benjamin Anderson (1/6) and Madison Anderson (1/6)	05/02/1911	
Benjamin Anderson	James Wilson Furness	07/03/1912	
James Furness	Union Colonization Company, Inc.	12/24/1912	
Union Colonization Company, Inc.	Chowchilla Farms, Inc.	04/30/1917	
Chowchilla Farms, Inc.	V. A. Rodden	07/20/1944	
V. A. Rodden, Inc.	Virgil H. and Elva G. Menefee	12/07/1951	
Virgil H. and Elva G. Menefee	Virgil H. and Elva G. Menefee, as community property	12/17/1954	
Elva G. Menefee	Virgil H. Menefee, as trustee (1/2)	09/15/1959	
Virgil H. Menefee, as trustee	Menefee River Ranch Company, Inc. (1/2)	01/07/1959	
Virgil H. Menefee	Menefee River Ranch Company, Inc. (1/2)	01/07/1959	
Elenor S. Menefee	Menefee River Ranch Company, Inc.	11/07/1962	Quitclaim
Parcel I - N 1/2 of SW 1/4, SW 1/4 of SW 1/4 East of San Joaquin River, and NW 1/4 of SE 1/4 of Section 32, T 9 S, R 13 E, MDB&M			
California	Menefee River Ranch Company, Inc.		See Parcel I.
Parcel J - SE 1/4 of SW 1/4 and SW 1/4 of SE 1/4 of Section 32, T 9 S, R 13 E, MDB&M			
California	William S. Chapman	08/23/1872	
William S. Chapman	Isaac Friedlander	07/05/1872	

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

Isaac Friedlander	Harrison (1/3)	11/27/1876	
Isaac Friedlander (2/3) and William S. Chapman	The Nevada Bank of San Francisco	03/11/1877	
Nevada Bank of San Francisco (2/3) and Henry Dalbiac Harrison (1/3)	California Pastoral and Agricultural Company	05/22/1882	
California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel J - N 1/2 of NW 1/4 East of San Joaquin River and NW 1/4 of NE 1/4 of Section 5, T 10 S, R 13 E, MDB&M			
California	William S. Chapman	08/23/1872	
Isaac Friedlander and William S. Chapman	The Nevada Bank of San Francisco	03/11/1877	
Nevada Bank of San Francisco and Henry Dalbiac Harrison	California Pastoral and Agricultural Company	05/22/1882	
California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel K - S 1/2 of N 1/2 East of San Joaquin River and N 1/2 of S 1/2 East of San Joaquin River of Section 5, T 10 S, R 13 E, MDB&M			
California	The Nevada Bank of San Francisco	09/18/1880	
Nevada Bank of San Francisco and Henry Dalbiac Harrison	California Pastoral and Agricultural Company, Inc.	05/22/1882	
California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel G - S 1/2 of SE 1/4 East of San Joaquin River, T 10 S, R 13 E, MDB&M			
California	Henry Miller & Charles Lux	02/28/1870	
Henry Miller & Charles Lux	William S. Chapman	06/15/1872	
William S. Chapman	California Pastoral and Agricultural Company, Inc.		Parcel J - SE 1/4 of SW 1/4 and SW 1/4 of SE 1/4 of Section 32, T 9 S, R 13 E, MDB&M
The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.

of Section 5

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel G - SW 1/4 of Section 4, T 10 S, R 13 E, MDB&M			
California	The California Pastoral and Agricultural Company, Inc.		See Parcel G - S 1/2 of SE 1/4 East of San Joaquin River, T 10 S, R 13, E, MDB&M.
The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel G - NE 1/4 of NE 1/4 East of San Joaquin River of Section 8, T 10 S, R 14 E, MDB&M			
California	Henry Miller & Charles Lux	02/28/1870	
Henry Miller & Charles Lux	William S. Chapman	06/15/1872	
William S. Chapman	California Pastoral and Agricultural Company, Inc.		Parcel J - SE 1/4 of SW 1/4 and SW 1/4 of SE 1/4 of Section 32, T 9 S, R 13 E, MDB&M.
The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel G - N 1/2 of NW 1/4 East of San Joaquin River of Section 9, T 10 S, R 14 E, MDB&M			
California	Henry Miller & Charles Lux	02/28/1870	
Henry Miller & Charles Lux	William S. Chapman	06/15/1872	
William S. Chapman	California Pastoral and Agricultural Company, Inc.		Parcel J - SE 1/4 of SW 1/4 and SW 1/4 of SE 1/4 of Section 32, T 9 S, R 13 E, MDB&M.
The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel M - S 1/2 of NW 1/4 East of San Joaquin River of Section 9, T 10 S, R 14 E, MDB&M			
California	The Nevada Bank of San Francisco	05/13/1882	
Nevada Bank of San Francisco and Henry Dalbiac Harrison	California Pastoral and Agricultural Company	05/22/1882	

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel H - SW 1/4 East of San Joaquin River and SE 1/4 of Section 9, T 10 S, R 13 E, MDB&M			
California	B. Johnson	06/28, 1871	
B. Johnson	Henry Miller & Charles Lux	03/22/1869	
Henry Miller & Charles Lux	William S. Chapman	03/22/1869	
William S. Chapman	The California Pastoral and Agricultural Company, Inc.		See Parcel J - N 1/2 of NW 1/4 East of San Joaquin River and NW 1/4 of NE 1/4 of Section 5, T 10 S, R 13 E, MDB&M.
The California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	The description of this parcel unreadable but conveyance includes catch-all.
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

Parcel C - NE 1/4 East of San Joaquin River of Section 16, T 10 S, R 13 E, MDB&M			
California	G. W. Stoneroad	02/14/1870	
George W. Stoneroad	William S. Chapman	09/10/1872	
Isaac Friedlander and William S. Chapman	The Nevada Bank of San Francisco	03/11/1877	
William S. Chapman	The Nevada Bank of San Francisco	02/07/1879	
Nevada Bank of San Francisco and Henry Dalbiac Harrison	California Pastoral and Agricultural Company, Inc.	05/22/1882	
California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel E - NW 1/4 of Section 15, T 10 S, R 13 E, MDB&M			
California	Menefee River Ranch Company, Inc.		See Parcel C.
Parcel D - SE 1/4 East of San Joaquin River of Section 16, T 10 S, R 13 E, MDB&M			
California	Napoleon B. Stoneroad	02/14/1870	
N. B. Stoneroad	William S. Chapman	9/10/1872	
Isaac Friedlander and William S. Chapman	The Nevada Bank of San Francisco	03/11/1877	

**MENEFEE RIVER RANCH
CHAIN OF TITLE**

William S. Chapman	The Nevada Bank of San Francisco	02/07/1879	
Nevada Bank of San Francisco and Henry Dalbiac Harrison	California Pastoral and Agricultural Company, Inc.	05/22/1882	
California Pastoral and Agricultural Company, Inc.	The California Pastoral and Agricultural Company, Limited, Inc.	10/10/1901	
The California Pastoral and Agricultural Company, Limited, Inc.	Union Colonization Company	05/22/1912	
Union Colonization Company	Menefee River Ranch Company, Inc.		See Parcel I - S 1/2 of NE 1/4 East of San Joaquin River and NE 1/4 of SE 1/4 East of San Joaquin River of Section 31, T 9 S, R 13 E, MDB&M.
Parcel D - SW 1/4 of Section 15, T 10 S, R 13 E, MDB&M			
California	Menefee River Ranch Company, Inc.		See Parcel D - SE 1/4 East of San Joaquin River of Section 16, T 10 S, R 13 E, MDB&M.

Table 1
Triangle T Ranch

Calculation of crop acreage:

2676	Total Acres Riparian
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Crop Type:	From Triangle T Exh. D		
	Acres	Percentage	Acres
Cotton	1340	45%	1193
Alfalfa	1161	39%	1034
Wheat & Barley	464	15%	413
Corn	40	1%	36
Total	3005	100%	2676

Calculation of monthly riparian demand for water based upon riparian acreage:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Alfalfa (1)	0.00	0.00	0.16	0.38	0.72	0.82	0.83	0.72	0.55	0.66	0.00	0.00	4.84
Acres	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	
Demand (AF)	0	0	165	393	744	848	858	744	569	682	0	0	5004
Corn (1)	0.00	0.00	0.00	0.00	0.32	0.69	1.09	0.96	0.41	0.02	0.00	0.00	3.49
Acres	36	36	36	36	36	36	36	36	36	36	36	36	
Demand (AF)	0	0	0	0	11	25	39	34	15	1	0	0	124
Cotton (2)	0.00	0.00	0.91	0.00	0.00	0.00	2.46	2.70	0.00	0.00	0.00	0.00	6.07
Acres	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	1193	
Demand (AF)	0	0	1086	0	0	0	2935	3222	0	0	0	0	7243
Barley & Wheat (1)	0.00	0.00	0.15	0.68	0.44	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.29
Acres	413	413	413	413	413	413	413	413	413	413	413	413	
Demand (AF)	0	0	62	281	182	8	0	0	0	0	0	0	533
Tot. Rip. Demand (AF)	0	0	227	674	938	881	897	779	583	683	0	0	5661
Tot. Demand (CFS)(3)	0.00	0.00	3.83	11.34	15.78	14.83	15.10	13.11	9.82	11.50	0.00	0.00	

Appropriative Demand (4)

Acres-feet	0	821	821	821	821	821	411	0	0	0	0	0	0
CFS (3)	0.00	13.83	13.83	13.83	13.83	13.83	13.83	0.00	0.00	0.00	0.00	0.00	0.00

Total Appropriative and Riparian Demand for Triangle T Ranch

Acres-feet	0	821	1049	1495	1759	1702	1308	779	583	683	0	0	5661
CFS (3)	0.00	13.83	17.65	25.17	29.61	28.65	28.93	13.11	9.82	11.50	0.00	0.00	

(1) Demand in Acre-feet/acre from Table II-18, DWR Bulletin 113-4, April 1984

(2) Demand in Acre-feet/acre from Table II-19, DWR Bulletin 113-4, April 1984

(3) This is the constant rate needed for 30 day period to meet the total demand, rate could be greater if monthly demand were met during a shorter period of time.

(4) This is the face value of the diversion rate reduced by the percentage of overlap between appropriative place of use and riparian acreage.

Table 2
Lawrence & Richard Harman

Calculation of crop acreage:

1497 Total Acres Riparian

Crop Type:	From exhibit 14(b)		Acres
	Acres	Percentage	
Cotton	615.2	46%	686
Alfalfa	575.7	43%	642
Wheat	86.1	6%	96
Corn	66.3	5%	74
Total	1343.3	100%	1497

Calculation of monthly riparian demand for water based upon riparian acreage:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Alfalfa (1)	0.00	0.00	0.16	0.38	0.72	0.82	0.83	0.72	0.55	0.66	0.00	0.00	5
Acres	642	642	642	642	642	642	642	642	642	642	642	642	
Demand (AF)	0	0	103	244	462	526	533	462	353	423	0	0	3105
Corn (1)	0.00	0.00	0.00	0.00	0.32	0.69	1.09	0.96	0.41	0.02	0.00	0.00	3
Acres	74	74	74	74	74	74	74	74	74	74	74	74	
Demand (AF)	0	0	0	0	24	51	81	71	30	1	0	0	258
Cotton (2)	0.00	0.00	0.91	0.00	0.00	0.00	2.46	2.70	0.00	0.00	0.00	0.00	6
Acres	686	686	686	686	686	686	686	686	686	686	686	686	
Demand (AF)	0	0	624	0	0	0	1687	1851	0	0	0	0	4162
Barley & Wheat (1)	0.00	0.00	0.15	0.68	0.44	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1
Acres	96	96	96	96	96	96	96	96	96	96	96	96	
Demand (AF)	0	0	14	65	42	2	0	0	0	0	0	0	124
Tot. Demand (AF)	0	0	117	309	528	579	613	533	383	425	0	0	3487
Tot. Demand (CFS)(3)	0.00	0.00	1.97	5.20	8.89	9.75	10.32	8.97	6.45	7.15	0.00	0.00	

(1) Demand in Acre-feet/acre from Table H-18, DWR Bulletin 113-4, April 1984

(2) Demand in Acre-feet/acre from Table H-19, DWR Bulletin 113-4, April 1984

(3) This is the constant rate needed for 30 day period to meet the total demand, rate could be greater if monthly demand were met during a shorter period of time.

Table 3
Menefee River Ranch & Total Demand Below Road 9

Calculation of crop acreage:

1330 Total Acres Riparian

Crop Type:	From exhibit 13(b)		
	Acres	Percentage	Acres
Cotton	410	33%	433
Alfalfa	810	64%	855
Wheat	0	0%	0
Corn	40	3%	42
Total	1260	100%	1330

Calculation of monthly riparian demand for water based upon riparian acreage:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Alfalfa (1)	0.00	0.00	0.16	0.38	0.72	0.82	0.83	0.72	0.55	0.66	0.00	0.00	4.84
Acres	855	855	855	855	855	855	855	855	855	855	855	855	
Demand (AF)	0	0	137	325	616	701	710	616	470	564	0	0	4138
Corn (1)	0.00	0.00	0.00	0.00	0.32	0.69	1.09	0.96	0.41	0.02	0.00	0.00	3.49
Acres	42	42	42	42	42	42	42	42	42	42	42	42	
Demand (AF)	0	0	0	0	14	29	46	41	17	1	0	0	147
Cotton (2)	0.00	0.00	0.91	0.00	0.00	0.00	2.46	2.70	0.00	0.00	0.00	0.00	6.07
Acres	433	433	433	433	433	433	433	433	433	433	433	433	
Demand (AF)	0	0	394	0	0	0	1065	1169	0	0	0	0	2627
Barley & Wheat (1)	0.00	0.00	0.15	0.68	0.44	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.29
Acres	0	0	0	0	0	0	0	0	0	0	0	0	
Demand (AF)	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot Demand (AF)	0	0	137	325	629	730	756	656	488	565	0	0	4286
Tot Demand (CFS)(3)	0.00	0.00	2.30	5.47	10.59	12.29	12.72	11.05	8.21	9.51	0.00	0.00	

Appropriative Demand (4)

Acres-feet	0	169	169	169	169	85	0	0	0	0	0	0	0
CFS	0.00	2.85	2.85	2.85	2.85	2.85	0.00	0.00	0.00	0.00	0.00	0.00	

Total Appropriative and Riparian Demand for Menefee River Ranch

Acres-feet	0	169	306	494	798	815	756	656	488	565	0	0	4286
CFS	0.00	2.85	5.15	8.32	13.44	15.14	12.72	11.05	8.21	9.51	0.00	0.00	

Total Demand Below Road 9 Structure:

AF	0	990	1472	2298	3085	3096	2676	1968	1454	1673	0	0	13434
CFS (3)	0.00	16.67	24.77	38.69	51.93	53.54	51.97	33.12	24.48	28.17	0.00	0.00	

(1) Demand in Acres-feet/acre from Table H-18, DWR Bulletin 113-4, April 1984

(2) Demand in Acres-feet/acre from Table H-19, DWR Bulletin 113-4, April 1984

(3) This is the constant rate needed for 30 day period to meet the total demand, rate could be greater if monthly demand were met during a shorter period of time.

(4) This is the face value of the diversion rate reduced by the percentage of overlap between appropriative place of use and riparian acreage.

Table 4 Analysis of Water Availability using U-1 Routing

	(1)	Riv. Perc.	(2)	(2)	(2)	(2)	Unt2	Unt2	NQ	NQ	NQ Perc.	Avail NQ	(3)	Dwnstrm		(4)	Hidden Reservoir (5)				Schafer			
	Nat Q	HVD	Irr. Dmd.	Irr. Serv	Rvr Perc	NQ	ID MID	Serv. frm	Serv. frm	Perc in	bel.	thru MID	for ID	ID	I rr.	Excess	Q at Rd 9	Chg in	Inflow	Outflow	Evap	Exh 11	Exh 12(a)	Exh 12(b)
	@Dam	-MC (2)	abv DD	abv DD	MC- DD	@ DD	Unit 2	NQ P-1 (2)	NQ P=3 (2)	Unt2 Sys (2)	DD (2)	(2)	Dwnstrm (2)	Dwnstrm	Service	Q avail.	Rd16-Perc	Stor.				Q to SJR	flow avail	flow avail
Col ref. U-1	2	3	4	5	6	7	13	14	15	18	24	25	26									(6)	(7)	(8)
Units	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	Days	Days
Jan-92	0.90	0.20	0.00	0.00	0.80	0.00	0.00	0.00	0.00	1.10	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.88	0.90	0.01	0.02	0.00	0.00	0.00
Feb-92	8.46	0.30	0.00	0.00	1.00	7.16	0.00	0.00	0.00	1.10	6.06	4.50	1.56	0.99	0.99	0.57	0.00	8.33	8.46	0.05	0.09	0.00	4.00	3.00
Mar-92	6.06	0.30	0.30	0.30	1.20	4.26	5.30	3.16	0.00	1.10	0.00	4.50	0.00	1.47	0.00	0.00	0.00	5.86	6.06	0.04	0.16	0.00	0.00	0.00
Apr-92	4.37	0.30	0.40	0.40	1.40	2.27	5.30	1.17	0.00	1.10	0.00	4.50	0.00	2.30	0.00	0.00	0.00	4.02	4.37	0.01	0.35	0.00	0.00	0.00
May-92	1.70	0.40	0.50	0.50	1.40	0.00	6.40	0.00	0.00	1.10	0.00	4.50	0.00	3.08	0.00	0.00	0.00	1.10	1.70	0.00	0.59	0.00	0.00	0.00
Jun-92	0.15	0.40	1.30	0.00	1.40	0.00	19.10	0.00	0.00	1.10	0.00	0.00	0.00	3.10	0.00	0.00	0.00	-2.80	0.15	2.34	0.61	0.00	0.00	0.00
Jul-92	0.01	0.40	1.90	0.00	0.90	0.00	27.60	0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	-12.04	0.01	11.48	0.57		0.00	0.00
Aug-92	0.14	0.40	1.70	0.00	0.00	0.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.00	-6.21	0.14	5.95	0.38		0.00	0.00
Sep-92	0.15	0.30	1.10	0.00	0.00	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	-0.12	0.15	0.00	0.25		0.00	0.00
Oct-92	0.27	0.20	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	0.00	0.00	0.00	0.09	0.27	0.00	0.17	0.00	0.00	0.00
Nov-92	0.42	0.30	0.00	0.00	1.10	0.00	0.00	0.00	0.00	1.10	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.33	0.42	0.00	0.07	0.00	0.00	0.00
Dec-92	1.86	0.20	0.00	0.00	1.00	0.66	0.00	0.00	0.00	0.00	0.66	4.50	0.00	0.00	0.00	0.00	0.00	1.82	1.86	0.00	0.04	0.00	0.00	0.00
Jan-93	42.62	0.20	0.00	0.00	0.80	41.62	0.00	0.00	0.00	1.10	40.52	4.50	36.02	0.00	0.00	36.02	21.47	25.63	42.62	16.92	0.07	31.00	17.00	14.00
Feb-93	26.66	0.30	0.00	0.00	1.00	25.36	0.00	0.00	0.00	1.10	24.26	4.50	19.76	0.99	0.99	18.77	22.19	6.60	26.66	19.92	0.14	14.50	15.00	12.00
Mar-93	24.91	0.30	0.30	0.30	1.20	23.11	5.30	5.30	0.00	1.10	16.71	4.50	12.21	1.47	1.47	10.74	-13.65	15.53	24.91	9.11	0.26	17.00	17.00	9.00
Apr-93	14.75	0.30	0.40	0.40	1.40	12.65	5.30	5.30	0.00	1.10	6.25	4.50	1.75	2.30	1.75	0.00	7.99	11.69	14.75	2.57	0.49	0.00	5.00	2.00
May-93	9.86	0.40	0.50	0.50	1.40	7.56	6.40	6.40	0.00	1.10	0.06	4.50	0.00	3.08	0.00	0.00	2.91	-2.03	9.86	11.10	0.80	0.00	0.00	0.00
Jun-93	7.60	0.40	1.30	1.30	1.40	4.50	19.10	3.40	0.00	1.10	0.00	0.00	0.00	3.10	0.00	0.00	0.78	-6.04	7.60	12.67	0.97	0.00	0.00	0.00
Jul-93	4.19	0.40	1.90	1.90	0.90	0.99	27.60	0.99	0.00	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.85	-16.86	4.19	19.99	1.07		0.00	0.00
Aug-93	1.32	0.40	1.70	0.92	0.00	0.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.62	-12.20	1.32	12.65	0.88		0.00	0.00
Sep-93	0.32	0.30	1.10	0.02	0.00	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.26	-0.42	0.32	0.02	0.71		0.00	0.00
Oct-93	2.03	0.20	0.00	0.00	0.50	1.33	0.00	0.00	0.00	0.00	1.33	0.00	1.33	1.67	1.33	0.00	0.63	-3.16	2.03	4.72	0.46	0.00	0.00	0.00
Nov-93	1.40	0.30	0.00	0.00	1.10	0.00	0.00	0.00	0.00	1.10	0.00	3.00	0.00	0.00	0.00	0.00	0.11	-2.19	1.40	3.36	0.23	0.00	0.00	0.00
Dec-93	1.50	0.20	0.00	0.00	1.00	0.30	0.00	0.00	0.00	0.00	0.30	4.50	0.00	0.00	0.00	0.00	0.00	0.45	1.50	1.03	0.08	0.00	0.00	0.00
Jan-94	1.22	0.20	0.00	0.00	0.80	0.22	0.00	0.00	0.00	1.10	0.00	4.50	0.00	0.00	0.00	0.00	0.00	1.12	1.22	0.01	0.09	0.00	0.00	0.00
Feb-94	3.31	0.30	0.00	0.00	1.00	2.01	0.00	0.00	0.00	1.10	0.91	4.50	0.00	0.99	0.00	0.00	0.00	3.18	3.31	0.01	0.12	0.00	0.00	0.00
Mar-94	2.54	0.30	0.30	0.30	1.20	0.74	5.30	0.00	0.00	1.10	0.00	4.50	0.00	1.47	0.00	0.00	0.00	2.32	2.54	0.00	0.23	0.00	0.00	0.00
Apr-94	3.02	0.30	0.40	0.40	1.40	0.92	5.30	0.00	0.00	1.10	0.00	4.50	0.00	2.30	0.00	0.00	0.00	2.67	3.02	0.01	0.34	0.00	0.00	0.00
May-94	3.15	0.40	0.50	0.50	1.40	0.85	6.40	0.00	0.00	1.10	0.00	4.50	0.00	3.08	0.00	0.00	0.00	2.69	3.15	0.00	0.46	0.00	0.00	0.00
Jun-94	1.24	0.40	1.30	0.84	1.40	0.00	19.10	0.00	0.00	1.10	0.00	0.00	0.00	3.10	0.00	0.00	0.00	-9.48	1.24	9.96	0.75	0.00	0.00	0.00
Jul-94	-0.08	0.40	1.90	0.00	0.90	0.00	27.60	0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	-14.16	0.40	13.92	0.64		0.00	0.00
Aug-94	0.70	0.40	1.70	0.30	0.00	0.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.00	-7.32	0.70	7.65	0.37		0.00	0.00
Sep-94	0.14	0.30	1.10	0.00	0.00	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	-0.10	0.14	0.00	0.23		0.00	0.00
Oct-94	0.23	0.20	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	0.00	0.00	0.00	0.07	0.23	0.00	0.14	0.00	0.00	0.00
Nov-94	0.76	0.30	0.00	0.00	1.10	0.00	0.00	0.00	0.00	1.10	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.70	0.76	0.00	0.05	0.00	0.00	0.00
Dec-94	1.32	0.20	0.00	0.00	1.00	0.12	0.00	0.00	0.00	0.00	0.12	4.50	0.00	0.00	0.00	0.00	0.00	1.23	1.32	0.00	0.02	0.00	0.00	0.00
Jan-95	36.76	0.20	0.00	0.00	0.80	35.76	0.00	0.00	0.00	1.10	34.66	4.50	30.16	0.00	0.00	30.16	5.21	30.33	36.76	6.39	0.04	29.00	20.00	18.00
Feb-95	15.56	0.30	0.00	0.00	1.00	14.26	0.00	0.00	0.00	1.10	13.16	4.50	8.66	0.99	0.99	7.67	8.71	4.32	15.56	11.15	0.09	3.00	7.00	2.00
Mar-95	80.28	0.30	0.30	0.30	1.20	78.48	5.30	5.30	0.00	1.10	72.08	4.50	67.58	1.47	1.47	66.11	71.07	28.19	80.28	51.88	0.21	68.24	26.00	24.00
Apr-95	20.48	0.30	0.40	0.40	1.40	18.38	5.30	5.30	0.00	1.10	11.98	4.50	7.48	2.30	2.30	5.18	16.96	8.88	20.48	11.15	0.45	3.00	19.00	5.00
May-95	19.66	0.40	0.50	0.50	1.40	17.36	6.40	6.40	0.00	1.10	9.86	4.50	5.36	3.08	3.08	2.28	15.72	6.49	19.66	12.51	0.65	1.20	14.00	7.00
Jun-95	6.23	0.40	1.30	1.30	1.40	3.13	19.10	2.03	0.00	1.10	0.00	0.00	0.00	3.10	0.00	0.00	3.32	-8.62	6.23	13.87	0.98	0.00	0.00	0.00
Jul-95	2.08	0.40	1.90	1.68	0.90	0.00	27.60	0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00	0.00	1.38	-16.03	2.08	16.90	1.19		0.00	0.00
Aug-95	0.93	0.40	1.70	0.53	0.00	0.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00	1.76	-12.99	0.93	12.79	1.13		0.00	0.00
Sep-95	1.04	0.30	1.10	0.74	0.00	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.59	-1.30	1.04	1.43	0.90		0.00	0.00

Table 4 Analysis of Water Availability using U-1 Routing

Col ref. U-1	(1)	Riv. Perc.	(2)	(2)	(2)	(2)	Unit2	Unit2	NQ	NQ	NQ Perc.	Avail NQ	(3)	Dwnstrm		(4)	Hidden Reservoir (5)					Schafer			
	Nat Q	HVD	Irr. Dmd.	Irr. Serv	Rvr Perc	NQ	ID MID	Serv. frm	Serv. frm	Perc in	bel.	thru MID	for ID	ID	I rr.	Excess	Q at Rd 9	Chg in	Inflow	Outflow	Evap	Exh 11	Exh 12(a)	Exh 12(b)	
	@Dam	-MC (2)	abv DD	abv DD	MC- DD	@ DD	Unit 2	NQ P-1 (2)	NQ P=3 (2)	Unit2 Sys (2)	DD (2)	(2)	Dwnstrm (2)	Dwnstrm	Service	Q avail.	Rd16-Perc	Stor.					Q to SJR	flow avail	flow avail
	2	3	4	5	6	7	13	14	15	18	24	25	26				TAF	TAF	TAF	TAF	TAF	TAF	(6)	(7)	(8)
Units	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF	TAF
Oct-95	0.92	0.20	0.00	0.00	0.50	0.22	0.00	0.00	0.00	0.00	0.22	0.00	0.22	1.67	0.22	0.00	1.40	-8.41	0.92	8.68	0.65	0.00	0.00	0.00	
Nov-95	0.50	0.30	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00	0.00	0.43	-3.70	0.50	3.89	0.32	0.00	0.00	0.00	
Dec-95	2.82	0.20	0.00	0.00	1.00	1.62	0.00	0.00	0.00	0.00	3.87	0.00	0.00	0.00	0.00	0.00	6.88	-7.12	2.82	9.81	0.11	0.00	1.00	0.00	
Jan-96	5.97	0.20	0.00	0.00	0.80	4.97	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.99	0.99	19.07	13.97	14.52	26.96	12.39	0.14	5.00	15.00	8.00	
Feb-96	26.96	0.30	0.00	0.00	1.00	25.66	0.00	0.00	0.00	0.00	1.10	0.00	0.00	1.47	1.47	9.33	49.16	4.65	23.50	18.55	0.30	0.00	5.00	0.00	
Mar-96	23.50	0.30	0.30	0.30	1.20	21.70	5.30	5.30	0.00	0.00	1.10	0.00	0.92	2.30	0.92	0.00	1.69	13.39	13.92	0.04	0.49	0.00	0.00	0.00	
Apr-96	13.92	0.30	0.40	0.40	1.40	11.82	5.30	5.30	0.00	0.00	1.10	0.00	0.00	3.08	0.00	0.00	0.94	2.39	8.08	4.86	0.82	0.00	0.00	0.00	
May-96	8.08	0.40	0.50	0.50	1.40	5.78	6.40	4.68	0.00	0.00	1.10	0.00	0.00	3.10	0.00	0.00	0.00	-10.20	3.49	12.66	1.03	0.00	0.00	0.00	
Jun-96	3.49	0.40	1.30	1.30	1.40	0.39	19.10	0.00	0.00	0.00	1.10	0.00	0.00	2.68	0.00	0.00	0.00	-15.53	1.50	15.80	1.19		0.00	0.00	
Jul-96	1.50	0.40	1.90	1.10	0.90	0.00	27.60	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.00	-12.24	1.30	12.57	0.97		0.00	0.00	
Aug-96	1.30	0.40	1.70	0.90	0.00	0.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	-8.13	1.32	8.79	0.66	0.00	0.00	0.00	
Sep-96	1.32	0.30	1.10	1.02	0.00	0.00	17.00	0.00	0.00	0.00	0.44	0.00	0.44	1.67	0.44	0.00	0.00	-3.06	1.14	3.82	0.38	1.00	2.00	0.00	
Oct-96	1.14	0.20	0.00	0.00	0.50	0.44	0.00	0.00	0.00	0.00	0.44	0.00	0.44	1.67	0.44	0.00	0.00	8.72	9.08	0.24	0.12	1.00	2.00	0.00	
Nov-96	9.08	0.30	0.00	0.00	1.10	7.68	0.00	0.00	0.00	0.00	1.10	0.00	6.58	3.00	0.00	3.58	0.00	8.72	9.08	0.24	0.12	1.00	2.00	0.00	
Dec-96	48.05	0.20	0.00	0.00	0.80	114.84	0.00	0.00	0.00	0.00	1.10	0.00	46.85	4.50	0.00	42.35	40.73	6.50	48.05	41.46	0.08	36.50	20.00	20.00	
Jan-97	115.84	0.20	0.00	0.00	1.00	22.34	0.00	0.00	0.00	0.00	1.10	0.00	113.74	4.50	0.00	109.24	104.55	24.25	115.84	91.49	0.11	92.60	31.00	31.00	
Feb-97	23.64	0.30	0.00	0.00	1.20	10.59	5.30	5.30	0.00	0.00	1.10	0.00	21.24	4.50	0.00	16.74	34.04	-17.87	23.64	41.34	0.16	11.50	23.00	12.00	
Mar-97	12.39	0.30	0.30	0.30	1.40	6.19	5.30	5.09	0.00	0.00	1.10	0.00	4.19	4.50	0.00	15.75	10.04	4.30	12.39	0.00	0.40	0.00	1.00	0.00	
Apr-97	8.29	0.30	0.40	0.40	1.40	2.83	6.40	1.73	0.00	0.00	1.10	0.00	0.00	2.30	0.00	0.00	0.00	-7.64	5.13	12.01	0.91	0.00	0.00	0.00	
May-97	5.13	0.40	0.50	0.50	1.40	0.16	19.10	0.00	0.00	0.00	1.10	0.00	0.00	3.10	0.00	0.00	0.00	-10.11	3.16	12.51	0.86	0.00	0.00	0.00	
Jun-97	3.26	0.40	1.30	1.30	1.40	0.16	19.10	0.00	0.00	0.00	1.10	0.00	0.00	2.68	0.00	0.00	0.00	-12.44	2.05	13.61	0.88				
Jul-97	2.05	0.40	1.90	1.65	0.90	0.00	27.60	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.00	-7.73	1.30	8.34	0.69				
Aug-97	1.30	0.40	1.70	0.90	0.00	0.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	-3.36	0.92	3.80	0.48				
Sep-97	0.92	0.30	1.10	0.62	0.00	0.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	-3.36	0.92	3.80	0.48				

INDEX TO ABBREVIATIONS:

MC : Madera Canal	NQ : Natural Flow
HVD : Hidden Valley Dam	P-1,P-2,P-3 : Priority 1,2,3
DD : Diversion Dam for Madera Irrigation District	ID : Irrigation Demand
Del : Water Delivered	IS : Irrigaion Service
MID : Madera Irrigation District	bel. : below
Q : Flow	Rd16 : Road 16 gage
Perc : Percolation Loss	TAF : Thousand Acre-Feet

- (1) U.S. Army Corps of Engineers data for natural flow at Hidden Dam. (Schafer Exhibit 7.)
- (2) U-1 Routing Study, Application 18733. (USBR Exhibit 12.)
- (3) Irrigation demand, from Tables 1-3.
- (4) Flows at Road 16 (MID Exhibit 3), minus 240 AF (4 cfs for 30 days) for seepage (MID Exhibit 4).
- (5) Hidden Dam inflows and releases. (MID Exhibit 2.)
- (6) Flow to the San Joaquin River. (Schafer Exhibit 11.)
- (7) Number of days flow available. (Schafer exhibit 12(a).)
- (8) Number of days flow available. (Schafer exhibit 12(b).)