

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Petitions to)
Add Uses of Water to Licenses 465,)
466, and 4822 and Permit 854)
(Applications 760, 1042, 12263)
and 1321),)

U.S. FISH AND WILDLIFE SERVICE,)
Licensee and Permittee)

ORDER: WR 95-1
SOURCE: Parker Creek
Pine Creek
Stockdill Slough
COUNTY: Modoc

ORDER AMENDING LICENSES AND PERMIT TO
INCLUDE ADDITIONAL PURPOSES OF USE AND
TO CORRECT PLACE OF USE

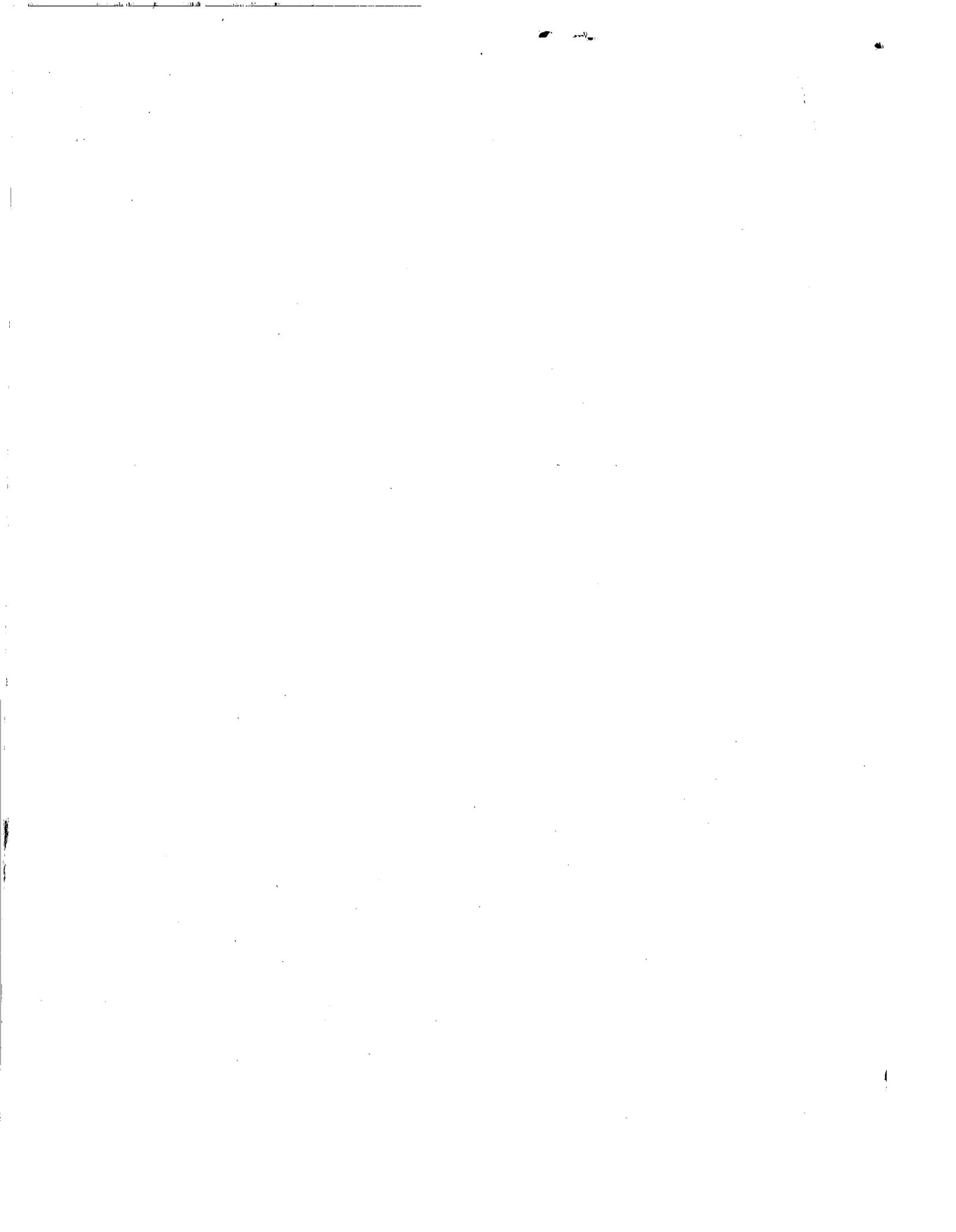


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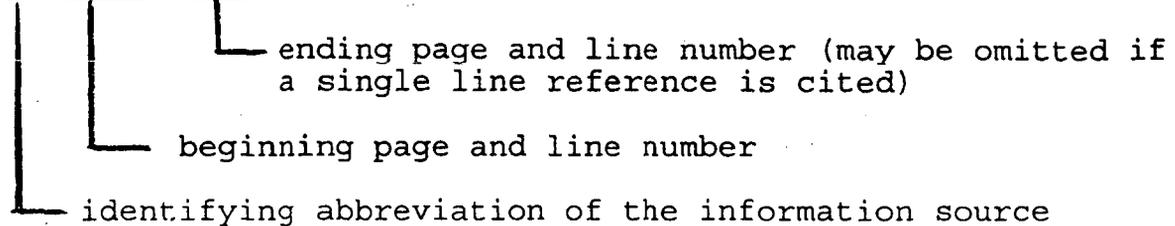
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CITING THE RECORD

When citing evidence in the hearing record, the following convention has been adopted:

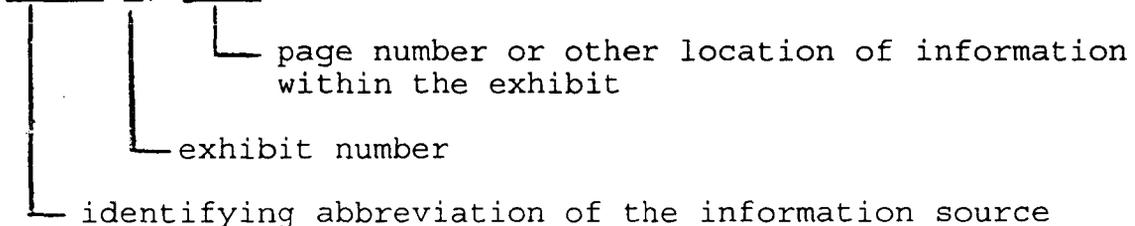
Information derived from the hearing transcript:

T, 12:1-15:17



Information derived from an exhibit:

STAFF 5, p. 4



Abbreviations of the information sources are:

| | |
|---------|--|
| T | Hearing Transcript |
| FWS | U.S. Fish and Wildlife Service Exhibits |
| YOUNGER | John Younger Exhibit |
| HSVID | Hot Springs Valley Irrigation District Exhibits |
| MALACHA | Malacha Hydro Limited Partnership Exhibits |
| STAFF | State Water Resources Control Board Staff Exhibits |

Other abbreviations and shortened names used in this order are:

| | |
|---------|--|
| cfs | cubic feet per second |
| af | acre-feet |
| afa | acre-feet annually |
| MDB&M | Mount Diablo Base and Meridian |
| EIR | Environmental Impact Report |
| Service | U.S. Fish and Wildlife Service |
| HSVID | Hot Springs Valley Irrigation District |
| Malacha | Malacha Hydro Limited Partnership |
| SWRCB | State Water Resources Control Board |

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STATE WATER RESOURCES CONTROL BOARD

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| In the Matter of Petitions to) | ORDER: WR 95-1 |
| Add Uses of Water to Licenses 465,) | |
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ORDER AMENDING LICENSES AND PERMIT TO
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1.0 INTRODUCTION

The U.S. Fish and Wildlife Service (Service) owns and operates the Modoc National Wildlife Refuge located in Modoc County in the Pit River Watershed (Figure 1). In 1960, the Service purchased the land comprising the refuge and the accompanying water rights. The water rights held by the Service fall into four categories:

- (1) direct diversion rights from the North Fork Pit River;
- (2) direct diversion rights from the South Fork Pit River;
- (3) direct diversion rights from Pine Creek; and
- (4) storage rights to divert water from Parker Creek, Pine Creek, and Stockdill Slough to Dorris Reservoir.

The Service's direct diversion rights to water during the irrigation season are based upon judicial decrees and legal agreements which are not subject to the permitting and licensing process administered by the State Water Resources Control Board (SWRCB) pursuant to Water Code Section 1200 et seq. The Service's rights to divert water to storage from Parker Creek,

Pine Creek, and Stockdill Slough are held under appropriative Water Right Licenses 465, 466, and 4822 and Permit 854.¹

The Service realized that the present uses of water at the refuge do not fully conform with the uses authorized in its licenses and permit. Consequently, on April 3, 1986, the Service filed petitions requesting authorization from the SWRCB to:

- (1) Add wildlife preservation and enhancement, recreation (fishing, hunting, and wildlife observation) and stockwatering as authorized uses of water diverted under Licenses 465 and 466 and Permit 854; and
- (2) Add wildlife preservation and enhancement as authorized uses of water diverted under License 4822.

The SWRCB received 27 protests against the Service's change petitions. A pre-hearing conference was held on December 7, 1989 in Alturas, California to discuss unresolved issues related to the protests. As a result of the prehearing conference, the Service prepared a revised map showing present places of use for water diverted under the specified licenses and permit. A pre-hearing field tour was held on May 27, 1992 to acquaint the Hearing Officer, the parties and SWRCB staff with water use on the refuge. A hearing was held on June 17, 1992, to receive evidence related to the unresolved protests. The key issues addressed at the hearing can be summarized as follows:

¹ The decree entered in the North Fork Pit River Adjudication included the appropriation from Parker Creek under water right Permit 854 (Application 1321) and the appropriation from Stockdill Slough under License 466 (Application 1042). Entry of the decree placed the incomplete appropriation under Permit 854 (Application 1321) under the jurisdiction of the Superior Court pursuant to existing law at that time. (Modoc County, Superior Court No. 4074, decree dated December 14, 1939.) The appropriation under Permit 854 was deemed complete by the Superior Court in a supplemental decree entered November 28, 1950, but a water right license confirming the right has not been issued by the SWRCB. The law was amended in 1965 to give the SWRCB the authority to administer incomplete appropriations included in adjudications. (Water Code Section 2819.)

- (1) Would approval of the proposed changes result in appropriation of water in excess of or at different times than the diversions authorized under the Service's existing rights?
- (2) Would approval of the proposed changes injure other legal users of water?
- (3) Would approval of the proposed changes create an unreasonable problem with mosquitos that cannot be adequately mitigated?
- (4) Should the place of use authorized under the Service's water right licenses and permit be amended or corrected?

The diversion and use of water under the Service's direct diversion rights were not considered at the hearing and are not affected by this order. This order is limited to addressing diversion of water to storage under the Service's water right permit and licenses. The sections below provide a brief description of the Modoc National Wildlife Refuge and the appurtenant water rights, followed by a summary of the applicable law governing changes in purpose of use of appropriated water and analysis of issues raised by the protestants. The order then addresses the need for corrections in the places of use identified in the Service's water rights and compliance with the California Environmental Quality Act.

Based on the evidence presented at the hearing and applicable law, the SWRCB concludes that the petitions to change Licenses 465, 466, 4822 and Permit 854 should be approved subject to the terms and conditions set forth in this order.

2.0 THE MODOC NATIONAL WILDLIFE REFUGE

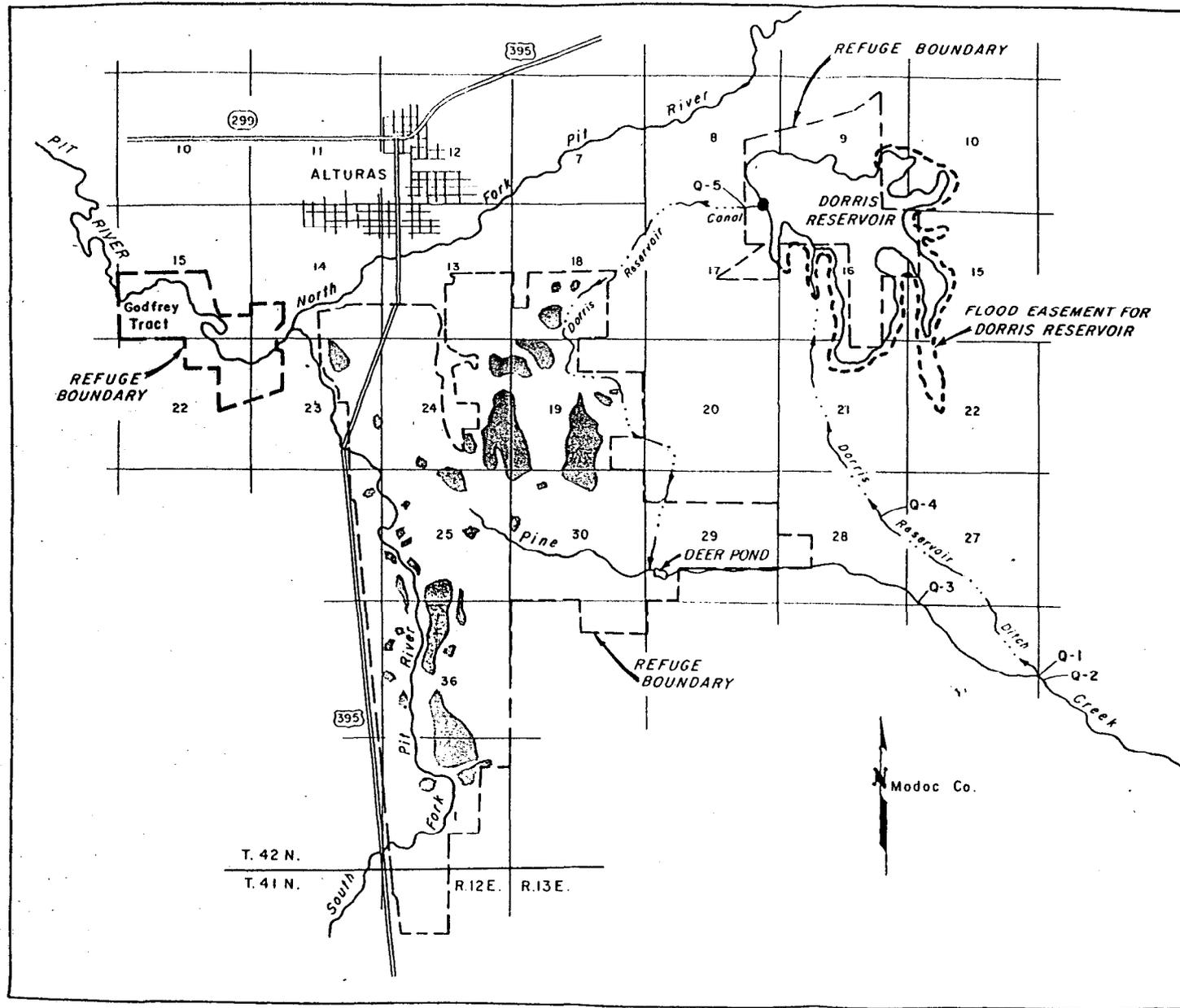
2.1 Description of Refuge

The Modoc National Wildlife Refuge encompasses 6,283 acres in the northeast corner of California in Modoc County at the base of the

Warner Mountains. The refuge consists of three separate areas as shown on Figure 1. The largest of these areas, referred to as the main refuge, is about one mile south to southeast of the city of Alturas along the South Fork Pit River and Pine Creek. The other two areas consist of a portion of Dorris Reservoir and surrounding land located about 2 miles east of Alturas, and a parcel of land referred to as the Godfrey Tract along the Pit River just west of the confluence of the North and South Forks of the Pit River.

The refuge consists primarily of land formerly known as the Dorris Ranch which was purchased by the Service in 1960 to restore wetlands that historically supported significant waterfowl populations. The refuge includes ponds, marsh, wet meadows, Dorris Reservoir and surrounding juniper-sagebrush habitats. Although much of the original wetlands had been drained for livestock and agricultural purposes, the property still had important waterfowl use at the time it was purchased by the Service. (FWS, 2.a.4.)

The refuge is located in the Pacific Flyway and is used by migratory birds on their southern and northern migrations. (FWS, 2.a.8.) The refuge is managed to provide waterfowl habitat, primarily for ducks, geese, and greater sandhill cranes. Other wildlife species such as deer, pronghorn antelope, and bald eagles benefit from refuge management. The refuge also provides hunting, fishing, and wildlife observation opportunities; livestock grazing and hay production; and recreation at Dorris Reservoir. Current uses of water on the refuge include stockwatering, irrigation, wildlife habitat and recreation. (STAFF, 1, U. S. Fish and Wildlife Service Petition dated March 31, 1986.) Additional information about the history of the refuge and the wildlife which it benefits is provided in the staff analysis of the record dated May 1994.



2.2 Use of Water on the Refuge

Water supply and distribution on the main part of the refuge was described at the hearing by Refuge Manager, Clark Bloom. According to Mr. Bloom, water from Parker Creek is diverted through a canal that empties into Dorris Reservoir on the north side. The Dorris Reservoir dam is situated across Stockdill Slough and captures the runoff generated in the Stockdill Slough drainage basin. Water from Pine Creek is diverted to storage in Dorris Reservoir through the Dorris Reservoir ditch. The head of the ditch is shown as point Q-1 on Figure 1. Downstream of the Dorris Reservoir ditch diversion, Pine Creek enters the refuge, is used to irrigate the fields in Section 29, then is impounded, along with return flow from field irrigation, for regulatory control at Deer Pond. (T, 28:23-29:21; and 30:16-30:19.)

Water is released from Dorris Reservoir through the Dorris Reservoir canal (point Q-5 on Figure 1). The canal enters the main part of the refuge at the northeast corner. The canal winds through the eastern part of the main refuge and terminates in Deer Pond where it commingles with the natural flow of Pine Creek and irrigation return flow. Between Dorris Reservoir and Deer Pond, there are several turnouts on the Dorris Reservoir canal which supply water for irrigation and to the refuge pond system. (T, 29:22-30:15.)

From Deer Pond, the commingled Dorris Reservoir water, natural flow from Pine Creek and irrigation return flow are used to irrigate fields throughout the refuge. Return flow from the fields is collected for reuse in the channel of Pine Creek and in the Pine Creek overflow ditch which terminates in the South Fork Pit River. Water discharged from the pond system and return flow from the refuge's northern fields collect in the Pine Creek channel from where the water is used to irrigate fields in the south and west portions of the refuge. Tail water from the northwestern fields goes into the South Fork Pit River. (T, 30:20-32:4 and 33:4-33:9.)

2.3 Summary of Water Right Licenses and Permit

Major provisions of the Service's three water right licenses and permit for the Modoc National Wildlife Refuge are summarized below.

License 465 (Application 760)

Licensee: U.S. Fish and Wildlife Service
Source: Pine Creek
Tributary to: Pit River
Amount: 2,709 afa
Season: December 1 to May 15
Purpose: Agricultural Use²
Point of Diversion: Pine Creek diversion within the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$, Section 34, T42N, R13E, MDB&M.
Point of Rediversion: Dorris Reservoir Dam on Stockdill Slough within the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 8, T42N, R13E, MDB&M.
Place of Use: 4,170 acres located within Sections 18, 19, 30, 31, T42N, R13E, MDB&M; Sections 13, 14, 15, 22, 23, 24, 25, 26, 36, T42N, R12E, MDB&M; and Section 1, T41N, R12E, MDB&M as shown on a map filed with the SWRCB's predecessor on August 30, 1920.
Priority Date: August 16, 1917
Date Permitted: April 8, 1921
Date Licensed: February 5, 1926

License 466 (Application 1042)

Licensee: U.S. Fish and Wildlife Service
Source: Pine Creek and Stockdill Slough
Tributary to: Pit River
Amount: 391 afa from Pine Creek at a maximum rate of diversion to storage of 250 cfs; 800 afa from Stockdill Slough.
Season: December 1 to May 15 (Pine Creek); January 1 to December 31 (Stockdill Slough).
Purpose: Agricultural Use
Points of Diversion: SW $\frac{1}{4}$ of the NE $\frac{1}{4}$, Section 34, T42N, R13E, MDB&M (Pine Creek).

² Older Licenses like 465 and 466 refer to the purpose of use as "agricultural use." More recent water right permits and licenses refer to "irrigation."

SE¼ of the SE¼, Section 8, T42N, R13E,
MDB&M (Dorris Reservoir Dam on Stockdill
Slough).

Point of
Rediversion: Dorris Reservoir Dam on Stockdill Slough
within the SE¼ of the SE¼, Section 8, T42N,
R13E, MDB&M
Place of Use: 4,170 acres located within the same area as
in License 465.
Priority Date: August 7, 1918
Date Permitted: April 8, 1921
Date Licensed: February 5, 1926

Permit 854 (Application 1321)

Permittee: U.S. Fish and Wildlife Service
Source: Parker Creek
Tributary to: Pit River
Amount: 6,100 afa
Season: January 1 to May 15
Purpose: Irrigation
Point of
Diversion: Parker Creek diversion within the NE¼ of
the NE¼, Section 11, T42N, R13E, MDB&M.
Point of
Rediversion: Dorris Reservoir Dam on Stockdill Slough
within the SE¼ of the SE¼, Section 8, T42N,
R13E, MDB&M.
Place of Use: 4,170 acres located within the same area as
in License 465.
Priority Date: June 11, 1919
Date Permitted: April 6, 1921

License 4822 (Application 12263)

Licensee: U.S. Fish and Wildlife Service
Source: Pine Creek
Tributary to: Pit River
Amount: 1,100 afa with a maximum rate of diversion
to storage of 30 cfs.
Season: October 1 to April 1
Purpose: Irrigation, Recreation, and Stockwatering.
Point of
Diversion: Pine Creek Diversion within the SW¼ of the
NE¼, Section 34, T42N, R13E, MDB&M.
Point of
Rediversion: None identified in License, however, water
is rediverted at Dorris Reservoir Dam on
Stockdill Slough within the SE¼ of the SE¼,
Section 8, T42N, R13E, MDB&M.
Place of Use: 3,612.1 acres located within Sections 18,
19, 29, 30, 31, T42N, R13E, MDB&M; Sections

14, 15, 22, 23, 24, 25, 26, 36, T42N, R12E,
MDB&M; and Section 1, T41N, R12E, MDB&M.

Priority Date: January 26, 1948

Date Permitted: March 10, 1949

Date Licensed: October 24, 1957

Changes: March 1, 1985, stockwatering and recreation
added as uses; Dorris Reservoir added to
place of use.

3.0 STATUTORY PROVISIONS GOVERNING CHANGE IN PURPOSE OF USE

Water Code Section 1701 provides that a permittee or licensee may change the point of diversion, place of use, or purpose of use from that specified in the permit or license upon permission of the SWRCB. The primary standard applicable to review of a petition to change point of diversion, place of use or purpose of use is set forth in Water Code Section 1702 which states:

"Before permission to make such a change is granted the petitioner shall establish to the satisfaction of the board, and it shall find, that the change will not operate to the injury of any legal user of the water involved."

The Service's petitions to add wildlife preservation and enhancement, recreation, and stockwatering as additional purposes of use were filed in 1986. The SWRCB has long recognized those uses as beneficial uses of water and has issued permits and licenses accordingly in many instances. In 1991, however, the Legislature enacted Water Code Section 1707 which specifically addresses the subject of changing the purposes of use under various types of water rights to environmental, wildlife and recreational uses. Section 1707 states:

"(a) Any person entitled to the use of water, whether based upon an appropriative, riparian, or other right may petition the board...for a change for purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water.

"(b) The board may approve the petition filed pursuant to subdivision (a), subject to any terms and conditions which, in the board's judgment, will best develop, conserve, and utilize, in the public interest, the water proposed to be used as part of the change, whether or not the proposed use involves a diversion of water, if the board determines that the proposed change meets all of the following requirements:

- (1) Will not increase the amount of water the person is entitled to use.
- (2) Will not unreasonably affect any legal user of water.
- (3) Otherwise meets the requirements of this division."

4.0 SUMMARY OF PROTESTS

The SWRCB received 27 protests against the change petitions. All of the protests were unresolved at the time of the hearing. The protests are of two general types: (1) protests based on alleged injury to other legal users of water; and (2) public interest protests based on concern about mosquito problems.

The 25 prior rights protests can be divided into two groups. The first group involves seven protestants who appear to divert water near the Service's uppermost point of diversion on Pine Creek. The Service's point of diversion on Pine Creek is labeled Q-1 and the protestants' point of diversion is labeled Q-2 on Figure 1. The other 18 prior rights protestants are located downstream of the Service's refuge. All of the downstream protestants except the Hot Springs Valley Irrigation District (HSVID) are located in Big Valley, over 40 miles downstream.³

Of the seven Pine Creek protestants, only John and Evelyn Younger, Sr., appeared or were represented at the hearing. Of the 18 downstream protestants, only HSVID appeared or was

³ Malacha Hydro Limited Partnership (Malacha) filed a late protest claiming injury to vested rights. Although its protest was not accepted, Malacha participated in the hearing as an interested party.

represented at the hearing. The other six Pine Creek protestants and the other 17 downstream protestants did not appear at the hearing and did not provide the SWRCB with good cause for failure to appear. In accordance with Section 766 of Title 23 of the California Code of Regulations, the SWRCB concludes that the failure of these protestants to appear at the hearing constitutes an abandonment of interest in the matter.

The effect of the changes described in the Service's change petitions on the use of water by other water users is addressed in Sections 5.1 through 5.2.2 below.

The protests concerning mosquito production at the refuge were filed by the City of Alturas and the Modoc County Farm Bureau. Neither of those parties appeared and presented evidence at the hearing regarding the issues raised by their protests. The evidence presented by the Service regarding mosquito control at the refuge is discussed below in Section 6.0.

5.0 EFFECT OF CHANGE ON OTHER WATER USERS

5.1 Effect on Pine Creek Water Users

John and Evelyn Younger, Sr., filed a protest which states that they believe that approval of the proposed changes of use of water from Dorris Reservoir would adversely affect the use of Pine Creek by the users during the irrigation season. John and Evelyn Younger, Sr., were represented at the hearing by their son, John Younger, Jr. The written testimony designated as Younger Exhibit 1 indicates that the Youngers are concerned about use in the refuge ponds of tail water resulting from the direct diversion and irrigation use of Pine Creek water. John Younger, Jr. testified that he believes use of Pine Creek tail water in the ponds is a violation of the Pine Creek agreement. (T, 164:14-164:16.) He is concerned that legitimizing the use of Pine Creek tail water in the ponds will lead to the Service shifting the demand for water for the ponds from Dorris Reservoir to Pine Creek, thus using more of the available Pine Creek supply. (YOUNGER, 1 and T, 150.3 150.11.)

Mr. Younger asked the SWRCB to establish a set of operating guidelines to assure that water from Pine Creek, whether direct diversion or tailwater, is not impounded in the refuge ponds. (T, 160:18-161:17 and 165:10-166:4; YOUNGER, 1.) Mr. Younger testified that he was never directed by the watermaster to restrict their Pine Creek diversions as a result of refuge operations, and that he was not aware of any instances when the Service had diverted water in excess of amounts specified in the Pine Creek Agreement. (T, 163:10-163:13 and 164:11-164:13.)

Water diverted under pre-1914 appropriative rights or riparian rights is not subject to the permitting and licensing program administered by the SWRCB. Four agreements to the use of Pine Creek water under riparian and pre-1914 appropriative rights were signed by the Dorrises (predecessors to the Service) and other parties between 1888 and 1904. The document referred to as the "Pine Creek Agreement" is a private contract signed in 1934 by the Dorrises and other Pine Creek diverters. The Pine Creek Agreement supersedes all previous agreements and was executed to establish a state watermaster district for enforcement of the agreement. The local watermaster and the Modoc County Superior Court have jurisdiction to settle disputes regarding diversions under the Pine Creek Agreement. The SWRCB lacks authority to enforce contractual provisions of the Pine Creek Agreement.

Mr. Younger did not identify any specific injury to himself as a result of the Service's diversion and use of water under its Dorris Reservoir storage rights. If, in the future, Mr. Younger can show that the Service's direct diversion and use of Pine Creek water under the Pine Creek Agreement interferes with the exercise of his water rights, then the issue should be brought to the attention of the watermaster or the Superior Court. There is no basis in the record, however, for the SWRCB to conclude that the change in purpose of use of stored water as proposed by the Service's petition would interfere with the Youngers' direct diversion rights to water in Pine Creek.

5.2 Effect on Downstream Water Users

The Service's change in water use could affect water availability to downstream water users in two ways. First, the changes in use of water at the refuge could affect the quantity and timing of return flow or tail water which becomes available to downstream users. Second, the Service's use of water at the refuge on a year round basis raises the potential for diverting more water than is allowed under its water rights. Each of these issues is discussed below.

5.2.1 *Changes in Return Flows Available to Downstream Water Users*

HSVID was the only downstream protestant to appear at the hearing. Malacha Hydro Limited Partnership (Malacha) also appeared as an interested party concerned about the effect of the change on downstream water users. HSVID contends that the Service's management of water on the Modoc National Wildlife Refuge has resulted in a decrease in return flow to the Pit River System as compared to return flows during the period when the refuge area was managed as a ranch. Additionally, HSVID and Malacha are concerned that water in the refuge ponds constitutes illegal storage of water and a new appropriation.

Mr. Gordon Dick represented the HSVID and testified that downstream users in Big Valley have been injured by the change in refuge water management because of reduced return flows to the Pit River. Mr. Dick estimated that pre-refuge releases from Dorris Reservoir were in the range of 40 to 60 cfs in the spring. Mr. Dick testified that since 1960, the maximum release has been about 26 cfs and that the smaller releases have meant less return flow to the Pit River. (T, 182:22-183:9.) According to Mr. Dick the Service releases:

"about half the water out of the reservoir and they are using it more efficiently, and the water sits in the reservoir where in the old system the water was turned out with a big flush and we got part of it and this was anticipated as we were adjudicating

water down through the thirties [1930s] down below the reservoir." (T, 206:16-206:22.)

Mr. Dick's testimony indicates that the allocation of flows mandated by the Pit River Adjudication for diverters downstream of the Dorris Ranch was based on anticipated return flows from the Dorris brothers' ranching operation. Mr. Dick explained that if the Service's water use on the refuge results in return flows lower than historic levels, HSWID must release more water from Big Sage Reservoir into the Pit River to satisfy downstream demand. (T, 175:3-175:8.) Mr. Dick testified that, since the refuge came into being, water releases from Big Sage Reservoir are needed earlier in the year to satisfy water rights on the Pit River downstream of the refuge. (T, 202:7-202:21.) Mr. Dick's testimony was based on his personal knowledge. He offered no flow data to support his testimony.

Mr. Dick also believes that taking acreage out of hay production and putting in ponds for wildlife management has resulted in less irrigated acreage on the refuge and, therefore, less return flow to downstream diverters. (T, 181:25-182:3.)

The SWRCB files on License 4822 (Application 12263; STAFF, 1) contain information related to the effect of Dorris Reservoir operations on the availability of water to downstream users. Pages 4 and 5 of an inspection report dated July 14, 1955 state that:

"The year of maximum use occurred in 1954. The reservoir was filled to 11,100 acre-feet capacity by May 1, 1954. Releases began about April 15 and the reservoir was empty by October 1. To irrigate the large area, releases were made continuously until the reservoir was empty. The irrigation head is shifted from field to field and the entire area received about 6 irrigations during the season.

"This large amount of water used per acre is not characteristic of the region, and the Dorris ranch could probably be adequately irrigated with less. Dorris Reservoir is located in an ideal site and has a very good water supply which leads the owners

to use a larger amount of water than they would with a less dependable reservoir. However, the project is beneficial to the entire Hot Springs Valley downstream because these ranchers are able to use the drainage from the Dorris ranch to good advantage. With the entire area suffering from a lack of irrigation water and a lack of good undeveloped dam sites, it is very definitely of public benefit to utilize all existing reservoirs to the fullest extent possible."

Refuge Manager Clark Bloom stated that with the exception of the 30 refuge ponds, the Service uses about the same amount of water that the Dorris brothers used when they owned the property. (T, 134:2-134:11.) According to Mr. Bloom, the farming practice before the refuge was established was to irrigate the fields through haying, cut the hay, then reirrigate the fields and graze cattle. (T, 146:17-146:22.) Mr. Bloom testified that the only basic difference between the refuge and the former Dorris Ranch is the presence of 30 ponds on the refuge where there used to be meadow. (T, 134:2-134:6.)

To determine the effect of the pond system, the Service submitted a study by hydrologist David J. Langman which compared the consumptive water use of the ponds to the consumptive water use of meadow grasses. (FWS, C.) The report concludes that maintaining ponds for wildlife management purposes is less water consumptive than irrigating meadow pasture. Furthermore, the report states that operation of the ponds for wildlife purposes requires a nearly continuous flow through the ponds for circulation and freshening. This water provides return flows for downstream uses in the Pit River during the irrigation season. (FWS, C, p. 9.)

Flow measurements made by Mr. Langman in December 1989 and May 1990 show that inflow to a series of observation ponds covering 184 acres was 1.74 cfs and 4.55 cfs, and outflow from the ponds was 1.52 cfs and 2.92 cfs respectively. These data cannot be used to calculate an overall "return flow" from pond maintenance, however, because the routing of the observation pond outflow is

unknown. In other words, it is not known if the outflow from the observation ponds became the inflow to another series of ponds, or was used as irrigation water, or was returned to the Pit River System.

The protestants claim that they are injured by a reduction in return flow resulting from the Service's water management practices. HSVID presented testimony that increased irrigation efficiency by the Service and the conversion of about 600 acres from irrigated meadow to wildlife ponds have resulted in a decrease in return flows to downstream users. HSVID did not produce evidence to quantify the change in return flows from the refuge.

As discussed in Section 3.0 above, Water Code Section 1702 requires that before approving a petition to change a license or permit, the SWRCB must find that the change will not operate to the injury of any legal user of the water involved. The evidence presented at the hearing is inadequate to determine the extent to which the change in uses of water on the refuge has affected the quantity and timing of return flow available to downstream users. The SWRCB does not believe, however, that Water Code Section 1702 was intended to ensure that return flows from stored water used for irrigation always be maintained to downstream users of that flow.

To require that a specified, relatively high rate of return flow continue to be available to downstream users would mean that upstream water users would have less incentive to use water more efficiently. In addition, there are limits to the obligations of upstream water users to downstream diverters who become dependent upon return flow from the upstream use. In the case of foreign water imported from another watershed, for example, the fact that downstream water users may acquire a right to appropriate return flow from imported water does not give them a legal right to

demand that the owner of the upstream project continue to import water.⁴

Similarly, a party holding the right to divert water to storage would ordinarily be entitled to abandon the project, even if the effect would be to reduce the return flow available to downstream users during the irrigation season. In this instance, the Service would not infringe on downstream users' rights if it ceased to store water in Dorris Reservoir entirely, even if so doing eliminated the irrigation season return flows attributed to the Service's operations. If the project can be abandoned completely with the elimination of all return flow, then it is reasonable to allow for a change in project operation that may effect the timing or quantity of return flows available to downstream users.

In the circumstances of this case, the SWRCB does not believe that the requested change would result in injury to other legal users of water within the meaning of Water Code Section 1702. Rather, the evidence presented indicates that the changes in purpose of use requested by the Service will not unreasonably affect any legal user of water.

5.2.2 Use of Water at Refuge Ponds and Operational Limitations Applicable to Dorris Reservoir

HSVID and Malacha raised the issue that the residence time of water in the ponds is more than 30 days and that the combined volume of the ponds and Dorris Reservoir is in excess of the total diversion limitation of 11,100 acre-feet authorized in the permit and licenses. Therefore, they reasoned that the ponds constitute "illegal storage" and should be considered a "new appropriation." (T, 178:24-179:6, 224:6-224:19, and 227:3-

⁴ Standard Permit Term 25 is used when some or all of the water applied for is return flow, imported water, or waste water. Standard Permit Term 25 states "to the extent that water available for use under this permit is return flow, imported water, or waste water, this permit shall not be construed as giving any assurance that such supply will continue."

227:10.) Further, Malacha claims to be injured by the timing of releases of water from Dorris Reservoir for pond maintenance. Mr. Robert Looper, testifying on behalf of Malacha, pointed out that the Service releases water from Dorris Reservoir year-round unlike the previous owners of the property. (T, 227:20-228:9.) Each of these issues is addressed below.

Use of Water in Refuge Ponds

The Service testified that there are 30 ponds on the refuge covering about 600 surface acres. (T, 28:13-28:15.) According to Mr. Bloom, the ponds are kept full on a year-round basis. In the wintertime, very little water from Dorris Reservoir is needed to maintain the ponds because of the amount of precipitation. In the summer, the ponds require a significant amount of water to keep them full. Mr. Bloom testified that the water levels in the ponds must be stabilized to control botulism, a virulent disease of waterfowl. (T, 36:7-37:4.)

The Service roughly estimated that the total volume of the ponds is between 1,400 and 1,700 acre-feet and that, in the winter months, flow from Dorris Reservoir into the pond system is about 2.5 cfs. (T, 96:21-96:25 and 98:13-98:22.) There is no evidence that the Dorris brothers released water from Dorris Reservoir during the winter months. Therefore, pond maintenance at the refuge probably has resulted in a change in operation of the reservoir from what occurred previously.

The assertion that the ponds constitute storage of water is based on the Service's testimony that the winter flow into the ponds is 2.5 cfs and that the volume of the ponds is between 1,400 and 1,700 acre-feet. The flow rate of 2.5 cfs is not great enough to refill the ponds in a 30 day time period. (T, 96:21-96:25 and 98:13-98:22.) HSVID and Malacha therefore contend that the ponds constitute unauthorized storage of water. (T, 178:24-179:6, 224:6-224:19, and 227:3-227:10.)

Based on the evidence regarding refuge operations in this particular case, the SWRCB concludes that the purpose of the refuge ponds is wildlife enhancement and recreation, not to hold water for some other future use during times of deficient stream flow. Therefore, in this case, the presence of water in the ponds is itself the use of the water and it does not constitute storage of water to be applied to a beneficial use at a future time.⁵

Dorris Reservoir Operations

The release of water from Dorris Reservoir for pond maintenance at the same time the reservoir is filling creates the potential for diverting more than 11,100 acre-feet per year into Dorris Reservoir. The Service's Exhibit 19 indicates that in several years the total inflow to Dorris Reservoir exceeded 11,100 acre-feet. For example, during the 1977-1978 season, approximately 11,625 acre-feet were diverted into Dorris Reservoir. During the 1979-80 season, approximately 12,073 acre-feet were diverted into the reservoir. Diversions in excess of the 11,100 acre-feet storage limit are reported in other years as well. (FWS, 19.) Because the inflow from Stockdill Slough is estimated visually, however, the figures for diversions to Dorris Reservoir reported in FWS Exhibit 19 are approximate values. (T, 111:5-112:13.) Any diversion of water into Dorris Reservoir in excess of the 11,100 acre-feet per year covered by its licenses and permit must be supported by some other basis of right.⁶

Direct diversion of water for pond maintenance is not authorized under the Service's permit and licenses which authorize diversion of water to storage. However, some of the Service's direct

⁵ In reaching the conclusion that the presence of water in the refuge ponds is the use of water rather than storage of water for future use, the SWRCB need not address the subject of the relationship between the rate of inflow and the volume of water held in the ponds.

⁶ Temporary retention of water in Dorris Reservoir for flood control purposes is not subject to limitation based on the extent of the Service's water rights.

diversion and regulation of water may be covered under the Service's pre-1914 appropriative rights, or as a proper riparian use of water on those refuge lands which are riparian to Pine Creek, Stockdill Slough, and the North Fork Pit River. To exercise a riparian right, water must be directly diverted from the natural flow of a stream for beneficial use on a parcel of land contiguous to and within the watershed of the source stream.

The Service diverts water from Parker Creek which is tributary to the North Fork Pit River. Direct diversions from Parker Creek through Dorris Reservoir under claim of riparian right to the North Fork Pit River would be permissible if the diverted water would otherwise flow to the Service's riparian land on the North Fork Pit River and if no rights of intervening riparian diverters on Parker Creek or the North Fork Pit River are impaired.

To determine if direct diversion of water for pond maintenance can be accomplished under claim of riparian right, the Service must determine if the land on which the ponds are located has retained its riparian character. If any parcel on which a pond is located has lost its riparian character through subdivision or severance, the Service will need to file an appropriative water right application for direct diversion of water for pond maintenance.

The Modoc County Superior Court decree entered in the North Fork Pit River water right adjudication did not address the issue of activating dormant riparian rights, but did retain continuing jurisdiction over the parties and subject matter of the adjudication proceeding for the purpose of enforcing its judgments, orders and decrees. Exercise of a riparian right not covered in the North Fork Pit River decree may require the Service to petition the Court for an amendment to the decree.

Any diversion of water to Dorris Reservoir which is not covered under the Service's existing water right permit or licenses, or by another basis of right, would require the Service to obtain an

additional appropriative water right permit. In Order 89-257, the SWRCB declared the North and South Fork Pit Rivers and all their tributaries fully appropriated from April 1 through November 30 of each year. If applications to appropriate winter flows for pond maintenance are filed by the Service, the potential diversion season would be restricted to December 1 through March 30.

As shown in Table 1 below, the seasons for diverting water to storage authorized in the Service's four water rights are not the same. The Service's Exhibit 19 shows that water has been diverted from Parker Creek to storage in Dorris Reservoir outside of the collection season of January 1 through May 15 authorized in Permit 854. An example from Exhibit 19 is the period of October 31, 1981 to December 31, 1981 when the Service diverted 2,800 acre-feet into Dorris Reservoir from Parker Creek. The outflow for this period (counted as direct diversion) was approximately 480 acre-feet, therefore, approximately 2,320 acre-feet was diverted to storage outside of the season of diversion authorized by Permit 854.

TABLE 1: DIVERSION SEASONS AND AMOUNTS AUTHORIZED
IN THE SERVICE'S PERMIT AND LICENSES

| Water Right | Diversion Season | Amount (afa) | Source |
|--------------|----------------------------------|---------------|--------------------------------|
| License 465 | 12/01 to 05/15 | 2,709 | Pine Creek |
| License 466 | 12/01 to 05/15 01/01 to 12/31 | 391 800 | Pine Creek Stockdill Slough |
| Permit 854 | 01/01 to 05/15 | 6,100 | Parker Creek |
| License 4822 | 10/01 to 04/01 | 1,100 | Pine Creek |
| | | TOTAL: 11,100 | |

The SWRCB has declared the North Fork Pit River and Parker Creek to be fully appropriated from April 1 through November 30 of each

⁷ Order Adopting Declaration of Fully Appropriated Stream Systems and Specifying Conditions for Acceptance of Applications and Registrations.

year. Therefore, prior to accepting any application to appropriate water during that period, the SWRCB would require the applicant to make a showing that water is available for the proposed appropriation.

The North Fork Pit River decree authorizes direct diversions from Parker Creek for irrigation on Service property from April 1 through September 30. Diversions from Pine Creek, regulated in Dorris Reservoir, are permissible under the Pine Creek Agreement from April 1 through September 30 in accordance with the provisions and restrictions of that agreement. The responsibility for enforcing the North Fork Pit River Decree and the Pine Creek Agreement is with the watermaster and the Modoc County Superior Court.⁸

The Service's permit and licenses should be conditioned to ensure that the diversion limits are not exceeded and to ensure that diversion to storage does not occur outside of the authorized periods. Therefore, the Service should be required to measure and report the volume and timing of diversion to storage in Dorris Reservoir from Parker Creek, Pine Creek and Stockdill Slough. Further, the Service should be required to measure and report the volume and timing of releases from Dorris Reservoir, and to make any other measurements needed to demonstrate compliance with the diversion limits and diversion seasons authorized in the permit and licenses.

If inflow from Stockdill Slough cannot be measured, it should be calculated by determining a water budget for the reservoir that includes evaporation estimates and changes in the volume of water in Dorris Reservoir. To accurately and consistently measure the

⁸ Water Code Section 1707 provides that any person entitled to use of water, "whether based on an appropriative, riparian or other right," may petition the SWRCB for approval of a change for purposes of preserving or enhancing wetlands habitat, fish, and wildlife resources, or recreation. The only petitions before the SWRCB in this case involve the permit and licenses issued by the State and not any pre-1914 or riparian rights which the Service may hold.

change in volume of water in the reservoir during the diversion season, the Service will need a device or method to measure water levels in Dorris Reservoir. Service witnesses did not know how long ago the area capacity curves for the reservoir had been calculated. (T, 122:23-124:5.) Due to the effect of sedimentation on storage capacity, the area capacity curves for the reservoir should be recalculated.

The SWRCB has limited information about the existing measuring and operational practices at Dorris Reservoir. The Service should be required to submit a monitoring plan which identifies the flow measurements and other measurements and calculations needed to demonstrate compliance with the diversion limits and the diversion seasons authorized in the permit and licenses. The plan should specify the measuring and monitoring methods to be used and the time of the measurements. The plan should be subject to approval by the Chief of the Division of Water Rights, and the Service should be required to implement the plan once approved.

6.0 MOSQUITO ABATEMENT ISSUE

The City of Alturas and the Modoc County Farm Bureau filed protests against the petition based on the concern about the production of mosquitos at the refuge and the potential of the mosquitos as a public nuisance and health concern. Mosquitos are not a problem that arrived with the purchase of the Dorris Ranch by the Service. Exhibits presented by the Service indicate mosquitos historically have been a nuisance to the Alturas community and that the efficacy of the control efforts were short-term at best. (FWS, 3.a.6) Several exhibits (FWS, 3.a.1; 3.a.2; and 3.a.4) document the use of DDT in the 1950s as the agent of control. The use of DDT in the United States was banned in 1972.

Mosquitos first appear on the refuge in late April or early May. The mosquito population level is relatively stable through June and into July until the meadows are dried up for haying. Meadow

flooding again in September results in a second production of mosquitos which may persist into the fall until a hard frost eliminates further production. (FWS, B.)

The Service policy concerning pest control on refuges is that

"...control programs must be designed to maintain environmental quality and conserve and protect the nation's wildlife resource."

"Population reduction methods are chosen on the basis of effectiveness, cost, and minimal ecological disruption, which includes minimum hazard to nontarget organisms and the refuge environment. Chemical pesticides should be used only where physical, cultural and biological alternatives, or combinations thereof, are impractical or incapable of providing adequate damage control."

All use of chemicals on refuges must conform with U.S. Environmental Protection Agency regulations, State pesticide laws, and Department of Interior Pesticide Use Policy. (FWS, 3.a.1.)

The Service submitted a letter dated July 6, 1990 from the State Department of Health Services which addresses the subject of potential mosquito-borne diseases in the Alturas area. The letter states that despite production of large numbers of mosquitos at various sources adjacent to Alturas, the potential for mosquito-borne illnesses in the area appears to be quite low. During 45 years of testing since 1945, the Department of Health Services has "no records of confirmed cases in humans of WEE, SLE viruses, or malaria in Modoc County." Although there are three reported cases of WEE viruses in horses recorded for Modoc County, it is not known if the horses resided exclusively in the county during the time of infection. Based on the past history of disease records and environmental factors such as average daily temperatures below 80 to 85 degrees Fahrenheit, a Department of Health Services Senior Public Health Biologist

concluded that the potential for transmission of mosquito-borne viruses in the Alturas area is very low. (FWS, 3.b.3.)

Currently, there is no mosquito abatement district in the Alturas area. (T, 21:11-21:14.) However, the Service has expressed its willingness to enter into an appropriate mosquito abatement program if one were established. (T, 21:15-22:4.)

Due to the contribution of the refuge to the mosquito problem in the Alturas area, the SWRCB concludes that the Service's water right permit and licenses should be amended to require the Service to participate in an areawide mosquito abatement program if one is established. Any required participation by the Service should be consistent with State and Federal pesticide laws, the Service's Pest Control Policy and the Department of Interior Pesticide Use Policy. The required participation of the Service in any areawide mosquito abatement program shall be limited to controlling the refuge's contribution to the mosquito problem in the Alturas area.

7.0 PLACE OF USE CHANGES

Following a December 7, 1989 prehearing conference, the Service prepared a revised map showing the places of use for water diverted under the specified licenses and permit. In response to comments from the SWRCB staff, the Service submitted additional maps dated December 18, 1991, and requested administrative changes to the place of use authorized in its permit and licenses to include the following areas:

- (1) Goose Pond: add 4.5 acres in the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 24, and 0.2 acres in the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 25.
- (2) Subheadquarters Pond: add 3.4 acres in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and 0.7 acres in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 25.

- (3) South 395 Pond: add 2.0 acres in the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 35 and 4.2 acres in the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 36.
- (4) Nelson Pond: add 4.6 acres in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 1.
- (5) Deer Pond: add 2.9 acres in the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 29.

In the case of Goose Pond, the Service contends that the original irrigation map boundary was in error and that the 4.7 acres identified in Item 1 above were originally intended to be in the place of use. The Service reports that Subheadquarters Pond and Deer Pond are natural marsh areas enhanced with Dorris Reservoir water behind structures used to regulate water for flood irrigation purposes. The size of South 395 Pond was apparently increased by the State when the area was used as a borrow pit during construction of Route 395. Nelson Pond is also reported to be a natural marsh area. The boundary line for the designated place of use originally specified in the water rights, however follows the quarter-quarter section line instead of the natural contours of the land. This appears to have been an error since flood irrigation waters would not be restricted by artificial section lines, but would flow according to topographic gradients.

The question of whether the areas discussed above should be added to the place of use authorized in the Service's permit and licenses was specified as "Key Issue No. 4" in the hearing notice. The Service submitted no additional information at the hearing in support of its position that the permit and licenses should be corrected to add the areas discussed above to the authorized place of use, and the protestants did not address the issue. Based on the information previously submitted by the Service in its letter of December 18, 1991 (STAFF, 1), the SWRCB concludes that the places of use specified in Permit 854 and

Licenses 465, 466, and 4822 should be corrected to include the areas specified above.

The Service presented testimony that approximately 102.3 acres of land were purchased and joined to the Modoc National Wildlife Refuge in 1992. (T, 27:17-27:25.) This land is outside the place of use authorized in the Service's permit and licenses. (STAFF, 1, Folder 2 - Maps.) Consequently, water diverted to storage under its water right permit and licenses may not be used on this land. If such use is contemplated, the Service should submit petitions to add the land to the authorized place of use under its permit and licenses. Use of water on the property under the Service's direct diversion rights, however, would not require an amendment to the place of use specified in its permit and licenses.

8.0 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

The water right permit and licenses before the SWRCB in this proceeding were acquired before the enactment of the California Environmental Quality Act ("CEQA," Public Resources Code Section 21000, et seq.) in 1970. The additional purposes of use specified in the Service's petition, however, have not previously been authorized in the Service's water rights.

The SWRCB's action to amend the Service's water rights permit and licenses to include the additional purposes of use and to correct the place of use to conform with present conditions is categorically exempt from the CEQA process under Sections 15300 and 15301 of Title 14 of the California Code of Regulations. Section 15300 provides that specified classes of project do not have a significant effect on the environment and are categorically exempt from the preparation of environmental documents required by CEQA. Section 15301 defines "Class 1" categorical exemptions from CEQA as follows:

"Class 1 consists of the operation, repair, maintenance or minor alteration of existing public or private

structures, facilities, mechanical equipment or topographical features, involving negligible or no expansion of use beyond that previously existing, including but not limited to:....

(i) Maintenance of fish screens, fish ladders, wildlife habitat areas artificial wildlife waterway devices, streamflows, springs and waterholes, and stream channels (clearing of debris) to protect fish and wildlife resources;...."

In this instance, the changes in operation of the Dorris Ranch for wildlife purposes began shortly after the U.S. Fish and Wildlife Service acquired the property in 1960. The evidence at the hearing indicates that the Service does not plan any significant changes in refuge operations in the event that the SWRCB approves the pending change petitions. Thus, SWRCB approval of the change petitions falls within the categorical exemption provision of Section 15301.⁹

9.0 SUMMARY AND CONCLUSIONS

The Service has filed a petition and supporting documentation to add fish and wildlife protection and enhancement, recreation, and stockwatering to the purposes of use authorized under its water right permit and licenses. The Service actually began using water released from Dorris Reservoir for the additional uses specified in its petition shortly after purchasing the Dorris Ranch in 1960, but its water rights were never amended accordingly.

The use of water in the refuge ponds for waterfowl habitat and other purposes changes the timing and amounts of return flow from what occurred under the previous flood irrigation practices on

⁹ As noted previously, the change in operations at Dorris Ranch to serve as a wildlife refuge began in 1960, well before the enactment of CEQA. Thus, this case should be distinguished from the situation where a person might have an incentive to take an action prior to obtaining regulatory approval in order to avoid compliance with CEQA. In addition to the categorical exemption under Section 15301, Sections 15307 and 15308 of Title 14 of the California Code of Regulations also provide bases for concluding that the change in purpose of use of water at the refuge is categorically exempt from CEQA.

the Dorris Ranch, although there is insufficient evidence in the record to closely define and quantify the changes that have occurred. In the absence of any diversion to storage under the Service's water rights, however, the irrigation season return flow available to downstream water users would be less than under present operations.

The SWRCB does not believe that the changes in return flow which have occurred due to the additional uses of water at the refuge constitute an injury to other legal users of water within the meaning of Water Code Section 1702. Therefore, if the Service diverts water in accordance with the terms of its permit and licenses, the SWRCB concludes that the additional purposes of use requested by the Service should be added to its permit and licenses.

Under the facts in this instance, the SWRCB does not regard the presence of water in the refuge ponds as unauthorized storage of water, but rather as the use of water for the purposes for which it was diverted to storage and later released from Dorris Reservoir. The evidence discussed in Section 5.5.2 above, however, establishes that the Service has previously diverted water to Dorris Reservoir in excess of the amounts authorized under its appropriative water right permit and licenses, and outside of the authorized diversion seasons. Therefore, the permit and licenses should be conditioned to require the Service to measure and report the volume and time of inflow to storage in Dorris Reservoir from Parker Creek, Pine Creek and Stockdill Slough.¹⁰ In addition to these measurements, the Service should be required to measure the volume and time of releases from Dorris Reservoir and to make any other measurements needed to demonstrate compliance with the terms of its permit and licenses. In order to ensure that accurate water storage and release data are maintained, the Service should be required to measure water

¹⁰ Inflow from Stockdill Slough to storage in Dorris Reservoir may be estimated if direct measurement is not possible.

levels in the reservoir and to prepare updated area capacity curves for the reservoir. The Service also should be required to prepare, submit, and implement a water measuring and monitoring plan acceptable to the Chief of the Division of Water Rights. This plan will be made available for review and comment by the protestants and interested parties prior to approval.

In view of the mosquito problem in the Alturas area and the contribution of the refuge to that problem, diversion of water under the Service's permit and licenses should be conditioned upon the Service participating in an areawide mosquito abatement program, if such a program is established.

For the reasons discussed in Section 7.0 above, the place of use authorized in the Service's permit and licenses should be corrected to include the additional 22.5 acre area specified in Section 7.0 and shown on the map filed on May 13, 1992 with the Division of Water Rights.

All diversion and use of water in California is subject to the mandate of Article X, Section 2 of the California Constitution to maximize the reasonable and beneficial use of water. The evidence establishes that the use of water at the Modoc National Wildlife Refuge serves important wildlife preservation and enhancement functions. Curtailing the use of water on the Modoc National Wildlife Refuge would result in a decline in waterfowl populations and Greater Sandhill Cranes due to loss of habitat. Curtailing the use of water on the refuge for habitat purposes would result in a significant environmental impact and could be considered a taking pursuant to the California Endangered Species Act. Denial of the Service's petition would also reduce hunting, fishing, and wildlife observation opportunities and the economic benefits which such activities on the refuge provide the local economy.

Based on the facts discussed above, the SWRCB concludes that: (1) approval of the Service's change petition to add the additional purposes of use will not increase the amount of water which the Service is entitled to use; (2) will not injure or unreasonably affect any legal user of water within the meaning of Water Code Sections 1702 and 1707; and (3) that the requested changes meet other applicable requirements. Therefore, the SWRCB concludes that the Service's water right permit and licenses should be amended in accordance with the provisions specified below.

ORDER

IT IS HEREBY ORDERED that Water Right Licenses 465, 466, and 4822 and Water Right Permit 854 be amended to include the additional terms specified below:

Term to be added to License 465, License 466, and Permit 854

1. The purposes of use for water diverted under this permit/license shall include wildlife preservation and enhancement, recreation and stockwatering, in addition to previously approved purposes of use.

Term to be added to License 4822

2. The purposes of use for water diverted under this permit of license shall include wildlife preservation and enhancement, in addition to previously approved purposes of use.

Terms to be added to License 465, License 466, License 4822 and Permit 854

3. In addition to the previously authorized place of use under this permit/license, the place of use shall be amended to include the areas designated on a revised map dated December 18, 1991 and described as follows:

- (a) Goose Pond: add 4.5 acres in the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 24, and 0.2 acres in the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 25.
 - (b) Subheadquarters Pond: add 3.4 acres in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ and 0.7 acres in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 25.
 - (c) South 395 Pond: add 2.0 acres in the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 35 and 4.2 acres in the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 36.
 - (d) Nelson Pond: add 4.6 acres in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 1.
4. Permittee/licensee shall recalculate the stage capacity curve of Dorris Reservoir and submit the new stage capacity curves to the Division of Water Rights within three years of the date of this order.
5. Permittee/licensee shall measure and report the volume and time of inflow to Dorris Reservoir from (1) Parker Creek, (2) Pine Creek and (3) Stockdill Slough. If inflow from Stockdill Slough cannot be directly measured, the inflow shall be calculated using a method satisfactory to the Chief of the Division of Water Rights. Permittee/licensee shall measure and report the volume and time of releases and bypasses from Dorris Reservoir, the elevation of water levels, the volume of water held in Dorris Reservoir and evaporation from Dorris Reservoir. Using these measurements and any other measurements that may be necessary, permittee/licensee shall calculate the volume of water stored in Dorris Reservoir, the volume of water directly diverted through Dorris Reservoir, and the contributions to storage and direct diversion from (1) Parker Creek, (2) Pine Creek and (3) Stockdill Slough.

6. Permittee/licensee shall submit a monitoring plan within 90 days of the adoption of this order which identifies the types of measurements, and the proposed methods, timing and frequency of measurements needed to calculate the volume of water stored in Dorris Reservoir, the volume of water directly diverted through Dorris Reservoir, and the contributions to storage and direct diversion from (1) Parker Creek, (2) Pine Creek and (3) Stockdill Slough. Records of these measurements and the calculations of storage and direct diversion shall be submitted to the Division of Water Rights in an annual report at the end of each calendar year to demonstrate compliance with the diversion and storage limits, and the diversion seasons authorized in Licenses 465, 466 and 4822, and any permit or license issued pursuant to Application 1321. Permittee/licensee shall implement the monitoring plan upon approval by the Chief of the Division of Water Rights. The plan shall be implemented in accordance with a proposed implementation schedule approved by the Chief of the Division of Water Rights.

7. Permittee/licensee shall participate in any areawide mosquito abatement program instituted by the City of Alturas, Modoc County, or State health officials, provided that permittee/licensee's participation in the program is conditioned upon the program conforming with State and Federal pesticide laws, the U.S. Fish and Wildlife Service's Pest Control Policy, and the Department of the Interior's Pesticide Use Policy. Permittee/licensee's participation in the program may be limited to controlling the refuge's contribution to the mosquito problem in the Alturas area.

8. Pursuant to California Water Code Sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this permit/license, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the SWRCB in accordance with law and in the interest of the public welfare

to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the SWRCB may be exercised by imposing specific requirements over and above those contained in this permit/license with a view to eliminating waste of water and to meeting the reasonable water requirements of permittee without unreasonable draft on the source.

Permittee/licensee may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the SWRCB determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the SWRCB also may be exercised by imposing further limitations on the diversion and use of water by the permittee/licensee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the SWRCB determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Section 2, is consistent with the public interest, and is

necessary to preserve or restore the uses protected by the public trust.

9. The quantity of water diverted under this permit/licensee is subject to modification by the SWRCB if, after notice to the permittee/licensee and an opportunity for hearing, the SWRCB finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the SWRCB finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full and correct copy of a decision duly and regularly adopted at a meeting of the State Water Resources Control Board held on January 19, 1995.

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

NO: None

ABSENT: None

ABSTAIN: None


Maureen Marché
Administrative Assistant to the Board

