

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
BEFORE THE STATE ENGINEER AND
CHIEF OF THE DIVISION OF WATER RESOURCES

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In the Matter of Application 14316 by West Butte Farms Company, Application 14354 by McGowan Brothers and Application 14546 by E. E. and Virginia Fay McPherrin to Appropriate Water from Butte Creek Tributary to Sacramento River in Sutter, Glenn and Butte Counties, Respectively, for Irrigation Purposes.

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Decision A 14316, 14354 and 14546 D. 782

Decision December 23, 1953

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Appearances at Hearing Held at Colusa on January 22, 1953:

For the Applicants

West Butte Farms Company	No appearance
McGowan Brothers	(Clay McGowan (Bob McGowan
E. E. and Virginia Fay McPherrin	No appearance

For the Protestants

Reclamation District 833	(Neal Chalmers, Attorney at Law (L. V. Canfield, Secretary-Manager
California State Fish and Game Commission	(J. C. Fraser, Fisheries Management Supervisor (Robert D. Montgomery, Regional Manager (J. A. Aplin, Aquatic Biologist
McGowan Bros.	(Clay McGowan (Bob McGowan

EXAMINER - HARRISON SMITHERUM, Supervising Hydraulic Engineer,
Division of Water Resources, Department of Public Works, for
A. D. EDMONSTON, State Engineer.

Also present - W. R. Gianelli, Senior Hydraulic Engineer,
Division of Water Resources.

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OPINION

General Description of the Proposed Developments

The applications initiate appropriations from Butte Creek,
tributary to Sacramento River, as follows:

Application 14316, by West Butte Farms Company - 7.5 cubic feet per
second from April 15 to September 15 at a point within SW $\frac{1}{4}$ NW $\frac{1}{4}$ of
Section 14, T 16 N, R 1 W, MDB&M; the water to be diverted by pump-
ing and utilized in the irrigation of 670.7 acres within Sections 11,
12, 13 and 14 of T 16 N, R 1 W, MDB&M. Of the acreage to be irrigated
275 acres are to be in rice and the remainder, general crops. The
applicant claims also a right under Application 12437 in the amount
of 2,000 gallons per minute.

Application 14354, by McGowan Brothers - 9.0 cubic feet per second
from April 1 to October 31 at a point within the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of projected
Section 28, T 19 N, R 1 E, MDB&M. The project includes 3,500 lineal
feet of earth ditch and a 4500 gallon-per-minute pump. The water is
to be used in irrigating 280 acres of rice located within Sections 29,
30, 31 and 32 of the township mentioned. The applicants report no
other water right or source of water supply.

Application 14546, by E. E. and Virginia Fay McPherrin - 15 cubic feet per second from March 1 to November 1 at a point within the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, T 18 N, R 1 E, MDB&M. Diversion is to be effected by pumping and the project includes 18,000 lineal feet of earth ditch. The water is wanted for the irrigation of a total of 969 acres of rice or pasture, located within Sections 4, 5, 8 and 9 of the same T 18 N, R 1 E. Of that total the applicants plan to irrigate no more than 600 acres in any one season. They report no other water right or source of water supply.

Protests

Reclamation District No. 833 protests all three of the applications. In each of its protests, which are almost identically worded, it states as its reason for objection:

"Point of applicant's proposed diversion is above my point of diversion and in dry years there would not be sufficient water for me if applicant made proposed diversion."

The protestant claims a water right under Application 7925 Permit 4365 License 1797 and states that its use of water began in 1934, that it uses 12.2 cubic feet of water per second from April 1 to November 1, that it irrigates 700 acres, that its diversion heads at a point within Section 23 of T 16 N, R 1 W and that its protest may be disregarded and dismissed "if applicant does not at any time interfere with protestant's use and requirements of water."

The California State Fish and Game Commission (now Department of Fish and Game) filed a protest against Application 14546 only.

It contends that the appropriation under that application will result in "destruction of trout and salmon . . . because the amount of water to be diverted is greater than the total flow of the stream at times." It states that trout and salmon are present and spawn naturally in Butte Creek, and quotes a passage from Section 525 of the Fish and Game Code. It states finally that its protest may be disregarded and dismissed if such permit as may be issued contains the following clause:

"Permittee shall by-pass 10 c.f.s. or the natural flow of the stream whichever is less at all times during the period from November 1 through May 31 of the succeeding year past the point of diversion to maintain fish life."

McGowan Brothers protest Application 14546. They assert:

"Point of applicants' proposed diversion is above and in the vicinity of our points of diversion and in dry years there would not be sufficient water for us if applicant made proposed diversion."

They base their claim of a right to the use of water upon Applications 9625, 13008 and 14354 and upon riparian ownership. They state that they irrigate 1920 acres from April 1 to November 1 and that one of their diversions heads within the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 4, T 18 N, R 1 E. They state finally:

"This protest may be disregarded and dismissed if applicant does not at any time interfere with protestants' use and requirements of water and recognizes that protestants' license and applications are prior to his."

Answers

The applicants McPherrin answer the protest by Reclamation District 833 against Application 14546 by stating as follows:

"In seasons of water shortage, applicants' rights under any permit issued to them would have to give way to the rights of appropriators having priority over them. Consequently, applicants fail to perceive how any permit issued to them can invade or displace that issued to protestant at an earlier date or operate to the prejudice of protestant in any way. Applicants will give full recognition to prior rights legally and properly acquired."

Hearing Held in Accordance with the Water Code

Applications 14316, 14354 and 14546 were completed in accordance with the Water Code and the Rules and Regulations of the Division of Water Resources and being protested were set for hearing under the provisions of Article 13 of the California Administrative Code, Title 23, Waters, on Thursday, January 22, 1953, at 10:00 o'clock a.m. in the Board of Supervisors Room, Court House, Colusa, California. Of the hearing the applicants and the protestants were duly notified.

Hearing Testimony

L. V. Canfield, Secretary-Manager of Reclamation District 833, testified (pages 14 to 27 of transcript) in effect that he is an engineer, that he has been familiar with the flow of Butte Creek including diversions therefrom since about 1912, that there have been several years when the flow of Butte Creek was insufficient to fill the District's quota of water, that at times when there was trouble a watermaster has been sent into the area, that the water has then been distributed without regard to license dates, that he and the District object to that basis of distribution, that he has a record of years of deficient supply but not with him, that he will submit information as to such years by mail, that

his statements as to shortages apply to the area adjacent to his pump, below the Colusa road, and not to the Butte City area, that the water reaching the Colusa road area results from upstream irrigation, that increases in supply due to increased upstream irrigation have been offset by increased demand downstream, that supply was deficient in 1951 and in recent preceding years, that in diverting from Butte Creek by pumping it is usual to raise the surface of the water by means of dams, especially when supply is low.

Clay McGowan testified (pages 27 to 36 of transcript) to the effect that he has never actually visited the protestant District's pump, that he has no record of flows past his own property, that in his 12 years of ownership the water has never been too low to prevent a boat from moving past his ranch, that the flow past his pumps is always more than 9 second-feet, that in his area there are 22,000 acres in rice contributing drainage to Butte Creek, that after about the middle of May the flow of Butte Creek is mostly return flow from irrigated lands, that the time when shortage is most likely to occur is the week or two when natural flow has ceased and return flow has not begun, that as yet there has never been a serious water shortage on his property or within 6 or 8 miles upstream or within that distance downstream, that conditions may be different 15 miles downstream in Mr. Canfield's area, that McGowan Brothers operate from 4 to 6 pumps, that one of them is below McPherrins', that at the time when shortage is most apt to occur, usually in May, it is very difficult to determine whether the flow in Butte Creek is natural flow or return flow.

J. C. Fraser, Fisheries Management Supervisor, Department of Fish and Game, testified (pages 37 to 49 of transcript) to the effect that it is important to maintain salmon runs in streams where salmon can migrate and spawn, that the Department of Fish and Game believes that Butte Creek permits should have provisions designed to insure such salmon runs and therefore orally protests Applications 14316 and 14354 as well as Application 14546 (already covered by written protest), that "natural flow" as used in the condition under which the protest may be disregarded and dismissed was intended to mean the flow of the stream from any and all sources as it comes by an applicant's point of diversion but that in the matter at issue it may be considered to mean strictly natural flow and not to include foreign water, that the protestant claims a right to use of water under Section 525 of the Fish and Game Code, that the 10 second-feet mentioned in the condition represents the amount adjudged (by Fish and Game Department biologist) necessary to supply fish ladders and to allow for by-passes and fish screens, as well as to provide suitable temperatures and flows required for the passage downstream of migrant salmon fingerlings, that it takes into account the size of the streambed, the time of migration and temperatures and volumes necessary for the welfare of the fish on their migration to the ocean and that probably 75% to 80% of the migration takes place by May 31.

L. E. Mercer, State Fish and Game Warden, testified (pages 50 to 59 of transcript) to the effect that there have been occasional

seasons when fish could not pass the McGowan Brothers diversion or diversions below the McGowans, that in normal years fish are able to get by diversions equipped with fishways, that the periods when fish could not pass were usually from the middle to the end of May, that such periods have occurred in 2 or 3 of the last 14 years, that at such times there was no natural flow bypassing the Western Dam, that usually there is a natural flow of 10 second-feet, or thereabouts, in Butte Creek until May 31, that the fish that go upstream are both male and female, that none of them return downstream.

Statement Supplementing Testimony

An unsigned document date-stamped January 29, 1953, headed "Information supplied by Mr. Lewis V. Canfield of Reclamation District No. 833" and bearing the footnote "In the Matter of the Applications 14316, 14354 and 14546" is on file with Application 14316. Presumably the matter it contains is the information Witness Canfield said in his hearing testimony that he would later submit. The document reads:

"As we have been pumping water since 1922 from the same diversion I have started with the year after the big drought in 1924, when there was no water to waste anywhere, and stopped with 1939 as the examiner had the reports 1940 on.

<u>Year</u>	<u>Dates</u>	<u>Flow</u>
1925	June 31st thru Aug. 18th	Dry
1926	June 26th thru Sept. 10th	"
1928	June 31, July 24 thru Aug. 31st	"
1936	July 3 & 4th & Aug 3rd	"
1937	March 7th thru May 2, May 11, 16, 17	Dry
1938	March 1 thru June 11 except March 27	Dry
1939	Apr 25 thru May 16, May 19, June 8, June 9, 10, 11, and 15 thru Aug 17th, Sept. 28, 29 & 30th, Oct 3rd thru 20th	Dry

Also the years 1927, 29, 30, 31 and 34 were very low.

Further there was diverted from Butte Creek and Butte Slough, including McGowan Bros. and his neighbor Mr. Hulen down to outlet to Sutter Basin 53,418 acre feet of water March to Oct., 1951, all originating at the same sources.

Years 1921, 22, 27, 38, 40, 41, 43 and 51 show in our personal record as years with ample water that no dam was needed."

Stream Flow Data

The flow of Butte Creek has been measured and recorded by the United States Geological Survey at a point within Section 36, T 22 N, R 2 E, MDB&M, since November, 1930. Discharge at that station has averaged 373 cubic feet per second over the 19 years of published record. Because of the distance upstream of that station from the properties presently involved, the diversion, above the uppermost party, of practically all the flow that passes that station after irrigation begins, and the amount of return flow from irrigated lands served from tributaries that enter Butte Creek in the intervening reach, the USGS record is of little use in the matter now under discussion.

Certain records of flow at points other than on Butte Creek proper are significant. These are, first, the records of the flow of Butte Slough into Sacramento^{River}/and of the flow of Butte Slough into Sutter By-pass; and second, the records of the spillage from Sacramento River that occurs over Moulton and Colusa weirs during flood stages. Butte Creek enters Butte Slough. Tributaries entering Butte Creek from the west probably collect much of the nearby spillage from Sacramento River.

Water discharged from Butte Creek may flow westerly 0.6 mile to the junction of Butte Slough with Sacramento River or it may flow easterly and southeasterly to the entry of Butte Slough into Sutter By-pass. At the junction with Sacramento River outfall gates are installed and flow is recorded, by the Division of Water Resources. At mile 8.3(measured from Sacramento River) on Butte Slough the Division also maintains a gaging station. As to the former station (at junction with Sacramento River), the Report of Sacramento-San Joaquin Water Supervision for 1951 states:

"This is the discharge to the Sacramento River at Mile 84.06 and is measured at and regulated by the gravity culverts at the mouth of the slough. These flows together with those shown in Tables 54 and 55 are, during the summer months, made up almost entirely of return water from lands irrigated from Feather River diversions. Discharge from the Sacramento to Butte Basin over Moulton and Colusa Weirs is shown in Tables 41 and 42. This is a Division of Water Resources Station. Period of record 1924 to date."

As to the station at mile 8.3 on Butte Slough the same report states:

"This is discharge from Butte Slough to Sutter By-pass. During low flow periods gates at head of slough are regulated (Table 43) which forces water under Long Bridge as shown in this table. Normal summer flows are primarily from Feather River sources. During flood periods Sacramento River water enters Butte Basin above Butte City by bank spill and over Moulton and Colusa weirs. The purpose of the summer regulation is to make water available for use on Sutter By-pass lands (below Long Bridge) and Butte Slough Irrigation Company in RD 70. This is a Division of Water Resources station. Period of record 1939 to date."

Data pertaining to the stations on Butte Slough, abstracted from reports of water supervision, for months during which the applicants propose to divert (10 latest years of published record only) are as follows:

Mean Discharge in second-feet of Butte Slough into Sacramento River

<u>Year</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
1942	0	0	0	261	166	203	409	332
43	0	0	233	446	229	300	385	148
44	1036	456	543	488	229	269	419	78
45	619	794	444	545	263	264	559	217
46	439	386	316	476	242	265	537	197
47	622	516	418	594	224	272	495	584
48	501	314	158	156	407	218	367	255
49	135	380	533	290	109	244	670	63.6
50	332	582	219	334	55.7	103	310	142
1951	122	242	692	252	112	192	433	102

Mean Flow of Butte Slough into Sutter By-pass in c.f.s.

<u>Year</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
1942	1140	4790	849	299	120	107	53	13
43	6362	896	358	94	83	94	53	27
44	517	75	72	82	99	114	57	12
45	505	255	145	142	156	167	91	4
46	156	153	123	108	128	173	50	26
47	337	226	86	80	84	81	44	62
48	782	2171	2770	770	177	211	96	24.8
49	4607	251	146	144	167	181	89.4	33.8
50	265	178	162	183	203	147	76.9	38.1
1951	1038	185	178	148	190	197	66.6	25.3

Flows over Sacramento River weirs discharging into Butte Basin during the same years, according to the water supervision reports, have been as follows:

Mean Flows over Moulton Weir in c.f.s.

<u>Year</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June through November</u>	<u>December</u>
1942	2026	4762	0	0	0	0	0
43	1947	40	66	0	0	0	0
44	0	0	0	0	0	0	0
45	0	0	0	0	0	0	627
46	127	0	0	0	0	0	0
47	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0
49	0	0	194	0	0	0	0
50	0	0	0	0	0	0	95.7
1951	106	5	0	0	0	0	375

Mean Flows over Colusa Weir in c.f.s.

<u>Year</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June through November</u>	<u>December</u>
1942	15340	26890	0	2618	0	0	32
43	16970	2686	5086	0	0	0	0
44	0	13	0	0	0	0	0
45	0	1490	0	0	0	0	9590
46	5070	0	0	0	0	0	0
47	0	0	0	0	0	0	0
48	11.6	0	509	992	1102	0	0
49	0	0	3429	0	0	0	0
50	0	1776	0	0	0	0	5361
1951	2242	5624	0	0	0	0	3526

The only available record of the flow of Butte Creek itself other than the previously mentioned USGS record is a record of random measurements made on May 21, 1943 by an engineer of the Division. According to that record (filed with Application 9625) Butte Creek at Butte City - Oroville road (about 0.6 mile below the McGowans' uppermost diversion) was discharging 36.7 cubic feet per second. On the same date Butte Slough (according to Water Supervision records) was discharging 214 cubic feet per second into Sacramento River and 88 cubic feet per second into Sutter By-pass.

The USGS quadrangles of the locality show numerous sloughs entering Butte Creek. Such sloughs are so located as to intercept both waters draining from irrigated lands and high water overflow from Sacramento River, both of which augment the runoff resulting from precipitation within the watershed.

Prior Filings

Applications to appropriate from Butte Creek at points between the proposed intake of the uppermost applicant (in the matter at issue), inclusive, to Butte Slough, arranged in inverse order of scaled channel mileages from Sacramento River, include the following:

Application 14354, McGowan Brothers, for 9.0 cubic feet per second from April 1 to October 31, to be diverted at approximately Mile 23; one of the applications that are presently at issue.

Application 9625 Permit 5717 License 2984, McGowan Brothers, for 15.0 cubic feet per second from April 1 to October 1 to be diverted at one or another of 3 points between Mile 23 and Mile 21.

Application 13008 Permit 7747, McGowan Brothers, for 30 cubic feet per second from April 1 to October 1, to be diverted at 2 points located near Mile 23 and Mile 21 respectively.

Application 13323, Permit 7885, McGowan Brothers, for 7.0 cubic feet per second at a point on a drainage ditch tributary to Butte Creek and approximately 3/4 mile west of Mile 23 thereof, from April 1 to October 31.

Application 14546, McPherrin, for 15 cubic feet per second from March 1 to November 1 to be diverted at approximately Mile 21; one of the applications that are presently at issue.

Application 9802, Permit 5719, License 2809, Murdock Land Company, for 2.0 cubic feet per second from April 1 to November 1 to be diverted at about Mile 18.7.

Application 12437 Permit 7368 License 3458, West Butte Farms Company, for 4.46 cubic feet per second from May 1 to September 1; point of diversion at about Mile 4.0.

Application 14316, West Butte Farms Company, for 7.5 cubic feet per second from April 15 to September 15, also at about Mile 4.0; one of the applications now at issue.

Application 13675 Permit 8194, Colusa Shooting Club, for 3.5 cubic feet per second from April 1 to October 1; point of diversion at about Mile 3.9.

Application 13728 Permit 8195, Colusa Shooting Club, 12.5 cubic feet per second from October 1 to January 15; point of diversion at about Mile 3.9.

Application 7925 Permit 4365 License 1797, Reclamation District 833, 8.1 cubic feet per second from May 1 to September 15; point of diversion at about Mile 3.1.

Discussion

While Witness Canfield testified that Reclamation District 833 has suffered at times from lack of water, his testimony does not amount to a denial that unappropriated water at times exists. The supplemental statement submitted after the hearing (date-stamped January 29, 1953) in fact concedes that supply was ample in 8 of the 15 years considered in that statement and that shortages only occurred during portions of other seasons.

The stream flow records indicate that Butte Slough carries a substantial flow throughout the irrigation months and that Butte Slough is supplied mainly through Butte Creek. It follows that the flow of Butte Creek near its mouth roughly equals the flow in Butte Slough, and it may be supposed that the flow of Butte Creek at any other point along its course depends somewhat upon the area of productive watershed tributary to that point. The flow in Butte Slough, according to the records, is consistently in excess of the sum of the amounts sought under the three applications at issue. If the initiators of those applications sought to divert at or near the mouth of Butte Creek, the evidence indicates that there would be enough water for all. At the points where they propose to divert it cannot be stated with certainty, in the absence of streamflow records at those points, that unappropriated water exists in the amounts that they seek. It is incumbent upon them, if their applications are approved, to by-pass sufficient water to satisfy downstream requirements. The evidence indicates merely that there is unappropriated

water in the stream in excess of the amounts applied for and that there is probably unappropriated water at each of the points at which diversion is proposed.

As to the requirements of fish the testimony of Witnesses Fraser and Mercer is in line with representations by the Department of Fish and Game in connection with many other applications to appropriate. Applicant Clay McGowan on behalf of the applicant McGowan Brothers consented (page 61 of transcript) to the inclusion, in such permit as might be issued in connection with Application 14354, of the clause proposed by the Department of Fish and Game, i.e. a clause providing for the by-passing by the applicants of 10 cubic feet per second or the natural flow of the stream, whichever is less, from November 1 of each year to May 31 of the next. In view of the necessity for the by-passing by each applicant of considerably more than 10 cubic feet per second for the satisfaction of rights to divert at points below them, it appears that the employment of such permit clause will not injure any applicant. It is further apparent that in the interest of fish preservation the same provision should also be inserted in any permits issued in connection with Applications 14316 and 14546.

Application 14546 (McPherrin) was one of the applications to be heard at the same time and place as Applications 14316 and 14354 and that fact was duly advertised. However due to the inability of the McPherrins' attorney to attend the hearing the Examiner announced at the outset thereof (Page 3 of transcript) that the hearing of

Application 14546 would be suspended. Subsequent to the hearing the applicant McPherrins' attorney, by letter of March 16, 1953, expressed willingness that the Department proceed to final action on Application 14546 on the basis of the record and data now before it, i.e. without further hearing. The applicants McPherrin and the protestants against Application 14546 had already stipulated to proceedings in lieu of hearing and the information at hand appears sufficient for action on that application without further formality.

Summary and Conclusions

The applicants seek to appropriate, respectively, 7.5 cubic feet per second from April 15 to September 15, 9.0 cubic feet per second from April 1 to October 31 and 15.0 cubic feet per second from March 1 to November 1 from Butte Creek at points about 4 miles, 23 miles and 21 miles, respectively, above Sacramento River. The protestants contend that the flow of Butte Creek at times is insufficient to supply the diversions proposed in addition to satisfying their own prior rights; the protestant Department of Fish and Game urges the inclusion, in any permits issued, of a clause for the protection of trout and salmon. The available data indicate that the flow of Butte Creek usually is more than enough to satisfy existing rights and to support fish life but that at times it is deficient.

The evidence points to the conclusion that unappropriated water exists at times in the source from which the applicants seek to

appropriate and that such water may be taken and used in the manner proposed in the applications without injury to any protestant. They point to the conclusion also that for the welfare of migratory fish a flow of not less than 10 cubic feet per second should be maintained in Butte Creek from about November 1 to about May 31.

It is the opinion of this office in view of all the circumstances that the protests against Applications 14316, 14354 and 14546 are an insufficient basis for the denial of those applications and that said applications should therefore be approved and permits issued subject to the usual terms and conditions and subject to a special provision in the interests of fish conservation to the effect that 10 cubic feet per second or the natural flow of the stream, whichever is least, shall be allowed to by-pass each point of diversion at all times prior to May 31.

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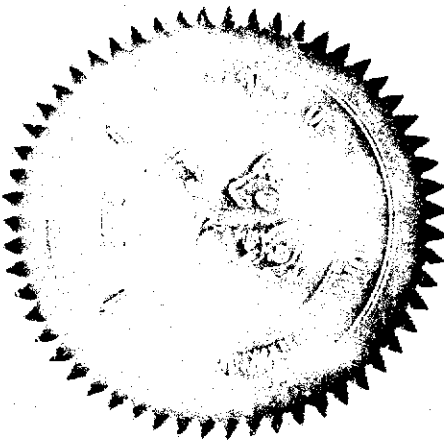
ORDER

Applications 14316, 14354 and 14546 having been filed with the Division of Water Resources as above stated, protests having been filed, a public hearing having been held and the State Engineer now being fully informed in the premises:

IT IS HEREBY ORDERED that Applications 14316, 14354 and 14546 be approved and that permits be issued to the applicants, subject to such of the usual terms and conditions as may be appropriate and subject to the following special term and condition, to wit:

Permittee shall by-pass 10 cubic feet per second or the natural flow of the stream, whichever is less, past the point of diversion at all times during the period from November 1 through May 31 to maintain fish life.

WITNESS my hand and the seal of the Department of Public Works of the State of California this 23rd day of December, 1953.



A. D. Edmonston
A. D. Edmonston
State Engineer