Attached & Specialles Remits. from U.S. Dept of agre culture: JULY 26 1913 - JOHN O. HAXFIELD ACTING FOREST SUPERVISOR -RE: POUERTY QUICH RESERVOIR CLEVEZHNO NATE FOREST JULY 28, 1914: COERT DE BOIS-DIST. FORESTER. RE: BOULDER CREEK NOV 11, 1919: S. W. WYNNE-R: TELEPHONE LING

Boulder prech Recevoir & Garal

## UNITED STATES DEPARTMENT OF AGRICULTUR

FOREST SERVICE

, i	
Cleveland (Name of Forest.)	, Water Power.
Murray James A. and Ed. Fleto (Name of applicant.)	ther
Reservoir, Conduit & Power Ho (Use applied for.)	Duse June 2, 1913 (Date of priority of application.)
POWE	R STIPULATION.
Thex James A. Murray and Ed	Fletcher
naving on the sixth day ofJu	ne, 1914., filed with the District Forester at
	an application, in accordance with the regulations of ecupy and use certain lands of the United States within the
Cloveland	
made a part thereof, upon which to construct said application for the purpose of storing, con- purpose of transmitting said power, does here	by the maps and plans accompanying said application and t, maintain, and operate certain project works described in ducting and, or, using water for developing power, and for the by, in consideration of and as a prerequisite to the approval permit applied for, stipulate and agree as follows, to wit:
DEFI	NITION OF TERMS.
ARTICLE 1. That the following terms whereby in this article assigned to them, viz:	therever used in this Stipulation shall have the meanings
"Permitted' meanethe James A. 1	Jurray and Ed. Fletcher
CfrpSARoPigKnzedCalliferniander-ar	nd by virtue of the laws of the State of
and having its office and principal place of bus	iness at
his duly authorized representative, or such of designated.	iculture of the United States of America, or his successor, or ther officer or agent of the United States as may be legally
"National Forest lands" means public lands March 3, 1891 (26 Stat., 1095), as amended l	nds of the United States reserved under the terms of the Act by the Act of June 4, 1897 (30 Stat., 11). neans the Final Power Permit applied for by the Permitteq

upon the sixth day of June 1914, in accordance with the regulations of the Secretary under the Act of February 15, 1901 (31 Stat., 790), and in consideration of which this Stipulation is filed with the District Forester.

"Municipal purposes" means and includes all purposes within municipal powers as defined by the charter of the municipal corporation, where any such purpose is directly pursued by the municipal corporation itself with the primary object of promoting the security, health, good government, or general corporations of its inhabitants. convenience of its inhabitants.

"Power business" means the entire business of the Permittee in the generation, distribution, and delivery of power by means of any one power system, together with all works and tangible property involved therein, including freeholds and leaseholds in real property.

"Power system" means all interconnected plants and works for the generation, distribution, and

delivery of power.

"Power project" means a complete unit of power development, consisting of a power house, conduit or conduits conducting water thereto, all storage or diverting or forebay reservoirs used in connection

Copy for Mesers Murray & Fletcher

therewith, the transmission line delivering power therefrom, any other miscellaneous structures used in connection with said unit or any part thereof, and all lands the occupancy and use of which are necessary or appropriate in the development of power in said unit.

"Project works" means the physical structures of a power project.

"Construction of the project works" means the actual construction of dams, water conduits, power houses, transmission lines, or some permanent structure necessary to the operation of the complete power project, and does not include surveys or the building of roads and trails, or the clearing of reservoir sites or other lands to be occupied, or the performance of any work preliminary to the actual construction of the permanent project works.

"Operation period" means the period covered by final permit subsequent to the actual beginning of

"Survey-construction period" means the period covered by preliminary and final permits prior to

the operation period.

"Nominal stream flow" means the sum of (a) the flow determined by averaging the values estimated for the natural mean flow for the two-month (calendar) minimum flow period in each successive five-year period or major fraction thereof and (b) the stream flow made available from storage not by the project

"Load factor" means the ratio of average power output to maximum power output.

"Total capacity of the power site" means the continued product of (1) the factor 0.08; 1 (2) the average effective head, in feet; (3) the stream flow estimated to be available at the intake (in secondfeet and in amount not to exceed the maximum hydraulic capacity of the project works) considered as the sum of (a) the nominal stream flow and (b) stream flow made available from storage by project works; and (4) a factor, not less than the average load factor of the power system, representing the degree of practicable utilization of the stream flow estimated to be available, and based on the extent of practicable forebay storage and the load factor of the power system.

"Rental capacity of the power site" means the capacity on which the rental charges are based. Unless otherwise ordered by the Secretary, it will be determined by making the following deductions

from the total capacity of the power site:

(a) Whenever power projects include conduit sites not wholly on National Forest lands, a deduction will be made from that part of the total capacity of the power site which is due to the use of the nominal stream flow. This deduction will be, in per cent, the sum of (1) the product of the proportion of the average effective head obtained from the dam by the per cent of submerged lands below the flow line fixed by the average effective head that are not National Forest lands, and (2) the product of the proportion of the average effective head obtained from the water conduit (from intake to failrace outlet) by the per cent of the length of said conduit which is not located on National Forest lands.

(b) Whenever power projects include reservoir sites not wholly on National Forest lands, a deduction will be made from that part of the total capacity of the power site which is due to the use of stream flow made available from storage by the project works. This deduction will be the per cent of the total

area of the reservoir sites that is not National Forest land.

(c) From the total capacity of the power site which remains after deductions (a) and (b) have been made will be made a further deduction, which, in per cent, will be the product of the square of the distance of primary transmission in miles and the factor 0.001; but in no case will deduction (c) exceed 25 per cent.

#### AMENDMENT OF MAPS AND PLANS.

ART. 2. To construct the works on the locations shown upon the maps and in accordance with the plans specifically described in its final application for Permit, filed with the District Forester at

San Francisco, California on the sixth day of June 19\_14, which said maps and plans are hereby made a part of this Stipulation, and to take no material deviation from said locations or from said plans unless and until maps or plans showing such deviation shall have been filed with the District Forester and approved by the Secretary; and no deviation or amendment will be allowed which will interfere with the occupancy and use of National Forest lands

under existing permits, or conflict with prior rights under pending applications.

ART. 3. To file, within six (6) months after the completion of each part of the project works, as required in Article 5 hereof, in the manner prescribed for original maps of location, maps showing the final location of each part of the project works as constructed, if such final location varies from that shown upon maps originally filed or upon approved amendments thereof; and to file also within six (6) months of the completion of each part of the project works as aforesaid, in such manner as may be prescribed by the Secretary, detailed working plans of each part of the project works as constructed, except of such parts as have been constructed in compliance with the plans originally filed or approved amendments thereof.

#### BEGINNING AND COMPLETION OF CONSTRUCTION AND BEGINNING OF OPERATION.

months from the date of execution of the	the aforesaid project works within the period of One Permit and thereafter diligently and continuously to prose- fuction is temporarily interrupted by climatic conditions or by the control of the Permittee.
within the governal naminds in this article r	of the following several parts of the aforesaid project works provided, which periods shall begin on the date of execution of continuously to prosecute such construction, unless such continuously to prosecute such construction of the continuously to prosecute such construction.
(1) Within	months, Part I, consisting of
	<u> </u>
within a period of twenty-four  ART. 5.* To complete the construction aforesaid project works within the severe the date of execution of the Permit.	months from the date of execution of the Permit. on and begin the operation of the following several parts of the periods in this article provided, which period shall begin on
(1) Within	months, Part I, consisting of
ART. 6. That it is understood, if at th	ne date of the termination of any one of the periods specified in
the Permitteesatisfactory to the Secretary	ded by the written approval of the Secretary, after a showing by that such beginning of construction of that part of the project

<sup>1</sup> The factor 0.08 represents the horsepower at 70 per cent efficiency of a second-foot of water falling through a head of 1 foot.

<sup>\*</sup> Use the first form of Articles 4 and 5 when but one complete power project is to be constructed and it is inadvisable to separate it into two or more units of construction. When several distinct power projects are involved, or where it may be desirable to divide a single power project into two or more units of construction, use the second form or Articles 4 and 5. Cancel form not

works required to have been begun within such period has been prevented by the act of God, or by the public enemy, or by engineering difficulties that could not reasonably have been foreseen, or by other special and peculiar cause beyond the control of the Permitter, that thereupon the permission to occupy and use National Forest lands for all parts of said project works the construction of which has not been begun on said date shall terminate and become void; and that the Permit, in so far as such parts of said project works are concerned, shall become of no effect.

ART. 7. That it is understood that the periods specified in Article 5 hereof for the completion of construction and the beginning of operation of the several parts of the project works will be extended only upon the written approval of the Secretary, after a showing by the Permittee satisfactory to the Secretary that the completion of construction and beginning of operation has been prevented by the act of God, or the public enemy, or by engineering difficulties that could not reasonably have been foreseen, or by other special and peculiar cause beyond the control of the Permittee; and if such extension be not approved, that thereupon the permission to occupy and use National Forest lands for such parts of said project works shall terminate and become void; and that the Permit, in so far only as such parts of said project works are concerned, shall become of no effect.

ART. S. That, except when prevented by the act of God, or by the public enemy, or by unavoidable accidents or contingencies, the Permittee will, after the beginning of operation, continuously operate for the development of power the project works constructed, maintained, and, or, operated, in whole or in part, under the Permit, unless upon a full and satisfactory showing of the reasons therefor this requirement shall be temporarily waived by the written consent of the Secretary.

#### CAPACITIES OF POWER SITE.

ART. 9. That the total capacity of the power site, permission for the occupancy and use of which, in whole or in part, has been applied for, shall, for the purposes of this Stipulation, be deemed and
taken to be 650 horsepower distributed as follows:
and that the part of the aforesaid total capacity which is due to the use of the nominal stream flow shall, for the purposes of this Stipulation, be deemed and taken to be
distributed as follows:
and that the part of the aforesaid total capacity which is due to the use of stream flow made available from storage by the project works shall, for the purposes of this Stipulation, be deemed and taken to
be
(not shown on plans), shall, for the purposes of this Stipulation,
be deemed and taken to be 617 horsepower

it being understood, that if any approved alterations or amendments of the maps of location or plans of project works, as provided for in Article 2 and Article 3 hereof, or any permanent change in the nominal stream flow, due to storage or otherwise, shall result in an increase or decrease in the total capacity of the power site, or of either part thereof, or of both, as said capacities are hereinbefore taken, said increased or decreased power capacities shall, from the beginning of the calendar year next succeeding the date of such approval, or of such change in nominal stream flow, be deemed and taken to be, for the purposes of this Stipulation, the capacities of the power site occupied and used, in whole or in part, under the Permit; and it being further understood, that if at any time not less than ten (10) years after the original or after the last preceding determination of the said total capacity of the power site, or of either part thereof, or of both, either the Permittes or the Secretary, on the ground of the inaccuracy, insufficiency, or inapplicability of the data upon which said original or said last preceding determination of said capacities was made, shall apply for or give notice of review of said original or said last preceding determination, then and thereupon such review shall be taken by the Secretary and a redetermination of the capacities shall be made, and the said redetermined capacities shall, for the purposes of this Stipulation, and from the beginning of the next calendar year, be deemed and taken to be the capacities of the power site occupied and used in whole or in part under the Permit.

#### RENTAL CHARGES.

ART. 10. To pay annually in advance from the first day of January, 1915, to the Anglo. &.....

London Paris... National Bank of San Francisco. Cal..... (United States Depository), or such other Government depository or officer as may be hereafter legally designated, to be placed to the credit of the United States, a rental charge for the occupancy and use of the lands of the United States described and shown upon the maps hereinbefore referred to, which rental charge shall be calculated from the "rental capacity of the power site," as defined in Article 1 hereof, at the following rates per horsepower per year:

For the unexpired portion of the calendar year and for the first full calendar year of the surveyconstruction period, and similarly for the operation period. \$0. 10

For the second full calendar year of each of said periods. 20

For the third year. 30

For the fourth year. 40

For the sixth year. 50

For the seventh year. 60

For the seventh year. 70

For the eighth year. 80

For the ninth year. 90

For the tenth and each succeeding year. 1.00

it being understood that said estimated rental capacity may be adjusted annually by the Secretary to provide for changes in ownership of lands in reservoir sites and on water conduit lines and for changes in length of primary transmission; and it being further understood that at any time not less than ten (10) years after the issuance of the Permit, or after the last revision of rates of rental charge thereunder, the Secretary may review such rental rates and impose such new rental rates as he may decide to be reasonable and proper; provided, that such rental rates shall not be so increased as to reduce the margin of income (including appreciation in land values) from the power project or projects under the Permit over proper actual and estimated expenses (including reasonable allowance for renewals and sinkingfund charges) to an amount which, in view of all the circumstances (including fair development expenses and working capital) and risks of the enterprise (including obsolescence, inadequacy, and supersession), is unreasonably small; but the burden of proving such unreasonableness shall rest upon the Permittee.

ART. 11. That it is understood, if the Permittes completes the construction and begins the operation of each of the several parts of the aforesaid project works, within the periods provided for in Article 5 hereof or any approved extension thereof, that then and thereupon all charges for the occupancy and use of National Forest lands for said part of said project works so completed and operated which have been paid prior to the date of such completion and operation will be credited to the Permitteesand will be applied to the payment of charges due at the date of such completion and operation, or to become due thereafter.

ART. 12. That it is understood if any part of the power developed by the project works under the Permitted by the Permitted or for the temporary development of power to be used in the construction of permanent project works under permit to the Permitted, that such a proportional part of the full schedule charge for any calendar year will be credited to the Permitted as the power developed by the project works and used for the purposes above named bears to the total output of the project works for said year; and that all amounts so credited will be applied to the cancellation of charges as they may thereafter become due.

ART. 13. That it is understood, if any part of the aforesaid rental charge, payable as hereinbefore provided, shall, after due notice has been given, be in arrears for six (6) months, that then and thereupon the Permit and the authority granted thereunder to occupy and use National Forest lands shall terminate and be void.

ART. 14. That the decision of the Secretary shall be final as to all matters of fact upon which the calculation of the capacities or charges depends.

#### RECORDS AND ACCOUNTS.

ART. 15. Upon demand of the Secretary to install at such places and maintain in good operating condition in such manner as shall be approved by the Secretary, free of all expense to the United States, accurate meters, measuring weirs gauges, and, or, other devices approved by the Secretary and adequate for the determination of the amount of power developed by the project works and of the flow of the streams from which the water is to be diverted for the operation of said works, and of the amount of water used in the operation of said works, and of the amounts of water held in and drawn from storage; to keep accurate and sufficient records of the foregoing to the satisfaction of the Secretary; and to make a return during January of each year, under oath, of such of the records of measurements for the year ended on December 31, preceding, made by or in the possession of the Permittee, as may be required by the Secretary.

ART. 16. That the books and records of the Permittee is so far as they contain information concerning the power project the project was under the Permit, or the power business conduction in connection therewith,

shall be open at all times to the inspection and examination of the Secretary.

ART. 17. Upon demand of the Secretary to maintain in such form as the Secretary may prescribe or approve a system of accounting of the entire power business transacted in connection with the power project or projects under the Permit, and to render annually such reports of said power business as the Secretary may direct: Provided, however, that if the laws of the State in which the said power business or any part thereof is transacted require periodical reports from public utility corporations under a uniform system of accounting, copies of such reports so made will be accepted as fulfilling the requirements of this article.

#### MISCELLANEOUS REQUIREMENTS.

ART. 18. To protect all Government and other telephone, telegraph, and power transmission lines at crossings of and at all places of proximity to the Permittee's transmission lines in a workmanlike manner according to the usual standards of safety for construction, operation, and maintenance in such cases; and to maintain the transmission lines in such manner as not to menace life or property.

ART. 19. To clear, and keep clear all lands of the power project for such width and in such manner

as the Secretary may direct.

ART. 20. To dispose of all brush, refuse, or unused timber on National Forest lands resulting from

the construction and maintenance of the project works as may be required by the Secretary.

ART. 21. To build and repair roads and trails as required by the Secretary, whenever any existing roads or trails are destroyed or injured by the construction work or flooding under the Permit, and to build and maintain necessary and suitable crossings, as required by the Secretary, for all roads and trails which intersect the water conduit, if any, constructed, maintained, and operated under the Permit.

ART. 22. To do everything reasonably within its power and to require of its employees, contractors and employees of contractors to do all reasonably within their power, both independently and upon the request of the Forest officers, to prevent and suppress forest fires upon and near the lands to be occupied

under the Permit.

ART. 23. To pay in advance, as required by the Secretary, to the United States depository or officer as above set forth in Article 10 hereof, to be placed to the credit of the United States, the full value as fixed by the Secretary, of all timber cut, injured, or destroyed on National Forest lands in the con-

struction, maintenance, or operation of the project works.

ART. 24. To pay, on demand of the Secretary, to the United States depository or officer, as above set forth in Article 10 hereof, to be placed to the credit of the United States, full value for all damage to the lands or other property of the United States resulting from the breaking of, or the overflowing, leaking, or seeping of water from the project works constructed, maintained, and, or, operated under the Permit, and for all other damage to the lands or other property of the United States caused by the neglect of the Permitteesor that of the employees, contractors, or employees of contractors.

ART. 25. To indemnify the United States against any liability for damages to life or property

arising from the occupancy or use of National Forest lands by the Permittees

ART. 26. To sell power to the United States, when requested, at as low a rate as is given to any other purchaser for a like use at the same time and under similar conditions, if the Permitteg can furnish the same to the United States without diminishing the quantity of power sold before such request to any other customer by a binding contract of sale: *Provided*, that nothing in this article shall be construed to require the Permitteg to increase its permanent works or to install additional generating machinery.

ART. 27. To abide by such reasonable regulation of the service rendered and to be rendered by the Permittes to consumers of power furnished or transmitted by the Permittes and of rates of payment therefor, as may from time to time be prescribed by the State or any duly constituted agency of the

State in which the service is rendered.

ART. 28. That upon demand therefor in writing from the Secretary the Permittee will surrender the Permit to the United States or transfer the same to such State or municipal corporation as the Secretary may designate, and on the conditions specified in this article, and will also give, grant, bargain, sell, and transfer with the Permit (upon such demand and upon said conditions) all works, equipment, structures, and property then owned or held and then valuable or serviceable in the generation, transmission, or distribution of electrical or other power, and which are then dependent in whole or in part

for their usefulness upon the continuance of the Permit, together with all interest in any leaseholds of operating property used in connection with the works under the Permit, and all contracts for the sale and delivery of electrical or other power; that the Secretary may require such surrender, if the United States shall desire to take over the Permit and properties or, whenever a substantial part of such property is situated elsewhere than on National Forest lands, he may designate as such transferee any State or municipal corporation which shall desire such transfer, provided, however, that no municipal corporation shall be so designated unless by condemnation it shall have acquired, or unless by proceedings in a court of competent jurisdiction it shall have been determined that such municipality has the right to acquire, such property situated elsewhere than on National Forest lands, and provided further, that no such municipal corporation shall be so designated unless it also has the power to acquire the said property and rights of the Permitte Sunder the conditions named in this article; that such surrender or transfer shall be on condition precedent that the United States or such transferee shall first pay to the Permittee the reasonable value of all said works, equipment, structures, and other tangible property, and in addition thereto a bonus of three-fourths of one per cent of such reasonable value for each full year of the unexpired term of the Permit; that such reasonable value shall not include any sum for the Permit, or for any other franchise or right granted by the United States, by any State or by any municipal corporation, in excess of the amount (exclusive of any tax or annual charge) actually paid to the United States, or to such State or municipal corporation, as the compensation for the granting of such franchise or right, or any sum for any other intangible properties or values whatsoever, it being understood that all such intangible values shall be covered by the bonus herein provided for; that such reasonable value shall be determined by mutual agreement between the parties in interest, and in case they can not agree by a Board of Arbitration of three members, one of whom shall be named by the Permittees and one by the transferee, the third shall be either the Secretary or some representative whom he may name; and that the reasonable value for the purposes of such determination, of such works, equipment, structures, and other tangible property shall be the cost of reproduction of such works, equipment, structure, and other tangible property under substantially the same conditions as existed at the time of the original construction and at prices for labor and material which shall be the average of such prices for the five years next preceding the date of valuation, less a percentage of such reproduction cost equal to the per cent of physical and functional depreciation of the existing work, equipment, structures, and other tangible property.

ART. 29. That in respect to the regulation by any competent public authority of the service to be rendered by the Permittecs or the price to be charged therefor, and in respect to any purchase or taking over of the properties or business of the Permittecs or any part thereof by the United States, or by any State within which the works are situated or business carried on in whole or in part, or by any municipal corporation in such State, no value whatsoever shall at any time be assigned to or claimed for the Permit, or for the occupancy or use of National Forest lands granted thereunder, nor shall the Permit or such occupancy and use ever be estimated or considered as property upon which the Permittes shall

be entitled to carn or receive any return, income, price, or compensation whatsoever.

ART. 30. That the works constructed, or to be constructed, maintained, and, or, operated under the Permit will not be owned, leased, trusteed, possessed, or controlled by any device or in any manner so that they form part of, or in any way effect, any combination in the form of an unlawful trust, or form the subject of any unlawful contract or conspiracy to limit the output of electric energy, or are in restraint of trade with foreign nations or between two or more States or within any one State in the generation, transmission, distribution, or sale of electrical or other power.

In witness whereof the Permitted	have executed this Stipulation on the day
of Oct ,1014	
-[spal.]	Ed Flet cher
	red tet cher

ATTEST:

Secretary.

Form 889 (Bevised March 22, 1912)

# UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE

## SPECIAL USE PERMIT

Reservoir & Conduit	6-26-14	Cleveland	
· · · (Kind of um)	(Date)		
Permission is hereby	granted to Murray 8	Fletcher	
of San Diego C			, to use the following-
the WE WE sec 20	same Twp.	of sec.19 T 14 S	R 3 E., and in road or stream or well-known landmark;
right of way by terminal points, direct	on, and lands occupied)	er of secl 7, then	ce southerly for
14,700 ft. thro	ugh secs.18 & 19	to the head of r	eservoir in NW NW
sec.20,all in	T 14 S,R 3 E. S.H	3.M.	
	ounding water in  (Briefly but clearly describe the u	se, giving area of inclosures, length and	
works as shown b	y blue prints and	l maps filed by s	pplicent,
subject to the following  1. The permittee sha	all pay to the no charg	ge for irrigation	projectational Bank of placed to the credit of the
Treasurer of the United	States, in consideration i	or this use, the sum of	
permit shall have no for 2. The permittee sha	ce or effect until the first all comply with all the labject to all valid claims.	annual payment is mad	e. orning National Forests.
shall do all in their pow suppress forest fires.  5. The permittee sh		ther refuse as required l	
7. Construction wor	k under this permit shall	ll begin withinsi	x months, be com-
each year, unless the tire. 8. This permit is no	ne is extended or shortene	U. S. Rev. Stat.), and sl	the State law.

being under the State law, to use the water is forfeite				right
to use the water is foriette	o tor non use (	order 1	699009	
ll. Applicants shall clear, ar	nd keep clear, th	eir right	of way	of 8
inflammable debris.				
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	\$			
	•	***************************************		
[25] [[[전문] 12:24 [15:1] [[[[[[2] 2] 2] 2] [[[[2] 2] 2] [[[2] 2] 2] [[[2] 2] 2] [[[2] 2] 2] [[[2] 2] 2] [[[2] 2		*******	************	

Forest Supervisor.

(Title)

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#### UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE



## SPECIAL USE PERMIT

Telephone Line	, 11/11/14 ,	Oleveland	National Forest.
Permission is hereby g	ranted toThe .Cuy	amaca Water Co.	
of San Diego	A	California	to use the following-
	e lands to be occupied, if unsurveyed	amaca dam in Sec. by meterand bounds with reference to a  lrection through	road or stream or well-known landmark;
right of way by terminal points, direction,	and lands occupied)		
		nd 3 E., to the S	
and along said	river to the p	oint where it cro	sses the west
boundary of the	Forest in Sec	. 12. T 15 S. R 1	E.
for the purpose of _MSIN	(Briefly but clearly describe the	hone line to supe	rvise their width of right of way, etc.)
	pay to the No Oh		enterprise all Bank of placed to the credit of the
Treasurer of the United St			
dollars (\$ ), as permit shall have no force	nnually in advance from or effect until the first comply with all the l	om	, 191 ; and this
shall do all in their power suppress forest fires.  5. The permittee shall	dispose of brush and		[4대] [[보호] [[전화] [[D] [[D] [[D] [[D] [[D] [[D] [[D] [[
7. Construction work	under this permit she	all begin within complet	months, be com-
pleted within each year, unless the time 8. This permit is not to of any of the conditions he	is extended or shorten ransferable (Sec. 3737,	ed. U. S. Rev. Stat.), and sh	at least 300 days

9. Timber shall be obtained	(State whether by purchase or under free-use permit)
(An	line free to all Forest officers,
both within the Forest and	beyond its boundaries, and by
connecting lines to the he	adquarters of the Forest' at San Diego
	service to make connections with the
line free of charge, and t	o charge no toll for any message
over connecting lines buil	t and maintained by the Forest Service
	•
***************************************	•••••••••••••••••••••••••••••••••••••••
	ONOV
November 11, 1914.	Signature of officer lasting profit)

Forest Supervisor.

Filed with Histrick Forestur- Office Copy Mathews ! Granted by Sees of Interior, Die 00PY ' Form 60-Page 1. (Revised to March 1, 1913.)

UNITED STATES DEPARTMENT OF AGRICULTURE

#### FOREST SERVICE

(Name of Forest.)	, W	ater Power.			
(Name of applicant.)					
 (Use applied for.)			· (Date of	priority of application	on.)
	(Above blanks not t	o be filled by applicant	:.)		

APPLICATION FOR FINAL POWER PER	MIT.
* The second of the second of	
a corporation organized and existing under ant by virtue of the laws of the	State of state
and having its office and principal place of business at	,
in the State of	
*.We, James A. Murray and Ed. Fletcher	,citizen 8 of the
United States andresident. sof the State of California	
dohereby make application for permission to occupy and use certa	in lands of the United States
within the Cleveland N	ational Forest in the State of
California by constructing,	maintaining, and, or, operating
thereon for the main purpose of the development of power, the followin	g project works:
(Cancel such of the four following items, (a), (b), (c), (d), as may not	be applicable.)
(a)One Diverting and one storage (Masonry, earth, etc., diverting or storage.)	respectively
dams approximatelyforty.and.seventy-five	feet in maximum height
and approximately 540 and 1100	respectively.
to formtwo	reservoirs to
flood approximately8.55 and 58.15	acres at
spillway level, respectively (*), in Section S. 10. and 15. Township	ip 14 South.
Range 3 East and Sections 19 and 20,	

Form 60—Page 2.	
Township14 .South	, Range 3 East
San Bernardin	Meridian, of which total of
66.7	acres, approximately66.47acres
are National Forest land, said de	ams and said reservoirs being designated, respectively, as follows:
Во	ulder Creek Reservoir
an	d Tule Reservoir
(b) One	vater conduité approximately 7.16
	가장 살이 생물하는 것이 가장이 되었다. 그 아이는 아이는 아이는 사람들은 사람들이 살아서 되었다.
miles in length, respectively (*	), crossing Sections 10.9.8.7.18.17 and 20. in Townshi
14 South, Renge 2 Eas	t and Section 12 in
Township 14 South	, Range 2 East
San Bernardino	Meridian, of which total of
7.16 will cross National Forest land,	miles, approximately 7.16 miles said water conduits being designated, respectively, as follows:
Boulder Creek	Conduit and Power Drop
	ouses and appurtenant structures to occupy approximately 2.18
N. Carlotte and Ca	18 : 18 <u></u>
acres, respectively (*), in Section	on #2
Township 14 South	, Range 2 East

Form 60-Page 4.
Exhibit E-1-cc, Plan of Tule Dam: Exhibit E-2-a, Sheets 1,2,3,4,5,
& 6. Contour map and profile of Boulder Creek Conduit and Power
Drop; E-2-b, Forebay and types of conduit; Exhibit E-3, Map showing
Power Plant Site; Exhibit E-5. General Map of Boulder Creek Power
Project.
which maps and plans, together with certain field notes, estimates and data, evidence of water rights,
articles of incorporation, etc., designated, respectively, as "Exhibit," "Exhibit,"
are hereby made a part of this application
This application has been prepared to be filed in accordance with the regulation of the Secretary of
Agriculture, in order that may obtain the benefits of the Act of Congress approved February 15, 1901, entitled "An Act Relating to Rights of Way Through Certain Parks, Reservations, and Other Public Lands"; and the use and occupancy of National Forest lands for which this application is made is desired in order to construct, maintain, and, or, operate thereon the afore-
said project works for the purpose of developing power for pumping for irrigation (Add use to which power is to be put and any other purpose for which land may be desired.  and for commercial purposes, and for the use of water for irrigation
다 마다는 사람들이 얼마나 되는 것이 살려면 하는 것 같아. 그렇게 되어야 하는 것이 없는 것이 없는 것이 없는 것은 것은 것은 것이 없는 것이 없는 것이 없는 것이 없다면 없다면 없다.
and domestic purposes.
In witness whereof have caused this instru-
ment to be executed this 26th day of May , 1914
James A. Murray
[SEAL OF CORPORATION.] Ed Fletcher
Attest:
Secretary.
Subscribed and sworn to before me this 26th day of
[SEAL.] Lou B. Mathews
(Copies of this form may be obtained from the District Forester.)

Yack

B

y

e

Map shows water line of Boulder Creek Reservoir of Murray & Fletcher

Exhibit E-10(aa)

Map showing water line of Tule Reservoir of

Murray & Fletcher

∠ Exhibit E-1-(b)

Longitudinal cross section of Boulder Creek Dam

∠ Exhibit E-1-(bb)

Longitudinal cross section Tule Dam

Exhibit E-1-(c)

Details of construction of Boulder Creek Dam

(Use S.D.Diverting Dam rock fill with table

of materials)

Exhibit E-1-(cc)
Same for Tule Reservoir of Murray & Fletcher

Exhibit E-2-(a) Sheet 1.

Contour map of location of Boulder Creek conduit of Murray & Fletcher. Scale of 400' = 1"

(Showing 10 ft. contours or cover a difference of elevation of 25 on each side) (Original transit line to be shown and final location including curves) (Showing what is flume, ditch, tunnel, pipe, etc. & grade)

Exhibit E-2-(a) Sheet 2.
Profile

Plans, elevations and cross sections of each type of conduit, etc. and plans of intakes, etc.

Contour map 50 ft. to 1 inch of power house, and capacity of wheels, etc.

General map of Boulder Creek power project.

Copies of field notes in triplicate of all final surveys.

Exhibit G

Estimates in triplicate for each power project (See Page 15 directions)

Exhibit I

Exhibit J

EXHIBIT "F"

Field Notes

Water Line of

## Boulder Creek Reservoir

of

## Murray and Flotcher

STATION		BEA	RING		DISTANCE	REMARKS
0	S	49°	061	E	283.6	Station O. initial point, whence the quarter corner between Sections 9 and 10, T. 14 S., R. 3 E., S.B.M.
1 2 3 3A	S	46° 87° 65° 65°	30' 40'	E	290.0 554.2 31.6 522.1	Station 3A, intersection of water
						line with section line between Sections 10 and 15, T. 14 S., R. 3 E., S.B.M. whence the corner of Sections 9.10.15 & 16, bears N. 89° 44' W., 1880.5 feet.
4 5 6 7	H	70° 66° 53° 32°	201	WWWE	250.0 330.0 260.0 23.4	
7A	n	32°	021	E	76.6	Station 7A, intersection of water line with section line between sections 10 and 15, T. 14 S., R. 3 E., S.B.M., whence the corner of Sections 9,10,15 & 16, bears N. 89° 44' W. 670.5 feet.
8	N	32°	021	E	416.6	Station 8 is also Station 0+00 of Boulder Creek Conduit, whence the section corner of Sections 9,10, 15 & 16, T. 14 S., R. 3 E., S.B.M., bears S. 85° 02' W., 713.5 feet, and whence the quarter section corner between sections 9 and 10, T. 14 S.R. 3 E., S.B.M., bears N. 15° 25'
0						W., 2682.3 feet.

# of Water Line of

## TULE RESERVOIR

of

		Murray & F	
STATION	BEARING	DISTANCE	REMARKS
0	N 59° 16' E	116.5	Station 0, initial point, whonce the southeast corner of section 19, T. 14 S., R. 5 E., S.B.M., bears S. 22° 54' E., 2128.0 feet
12345678	S 83° 40' E S 59° 51' E N 11° 03' E N 42° 04' W N 4° 59' E H 45° 58' E N 75° 14' E S 48° 58' E	222.8 203.0 67.3 161.8 205.8 231.9 118.1 167.2	
<b>A.8</b>	S 48° 58' E	56.1	Station 8A, intersection with section line between Sections 19 and 20, T. 14 S., R. 5 E., S.B.M., whence the southeast corner Section 19 bears S. 0° 15' M., 2568.6 feet.
9 10 11 12 13 14	N 0° 49' W N 72° 56' E N 85° 29' E N 40° 45' W N 68° 47' W N 79° 51' W	140.3 133.6 152.7 76.8 150.6 132.9	
144	N 79° 51' W	73.1	Station 14A. intersection with section line between sections 19 and 20. T. 14 S., R. 3 E., S.B.M., whence the southeast corner of section 19. bears S. 0° 13' E., 2658.1 feet.
15 16 17 18 19 20 21	H 22° 36' H H 36° 05' E H 50° 37' W H 62° 44' E H 56° 28' W H 8° 30' E H 58° 55' E	171.7 70.3 109.8 119.3 213.4 126.5 269.6	
22	s 79° 11' W	185.5	Station 22, intersection with section line between sections 19 and 20, T. 14 S., R. 3 E., S.B.M., whence the southeast corner of section 19 bears S. 0° 13' E., 3594.0 feet.
23	N 27° 13' E	137.3	

					-	경영 경기 시간 사람들은 이 사람들이 되었다면 가장 하는 것이 되었다면 하는데 하는데 되었다면 하는데 없었다.
STATION		BEAL	RING		DISTANCE	RIMARKS
24 24A		46° 46°			165.2	Station 24A intersection with section line between Sections 19 and 20, T. 14 S., R. 3 E., S.B.M., whence the southeast corner of section 19, bears S. 0° 13' E., 3593.3 feet.
25		33°	The Continue		256.2	
26 27		43°		M	425.5	Station 27, which is also station 333+95.0 of Boulder Creek Conduit whence the southeast corner of Section 19, T. 14 S., R. 3 E., S.B.M. bears S 68 25' W. 4185.0 feet.
28 28A		79°			25.7 244.4	Station 28A, intersection with section line between sections 19 and 20, T. 14 S., R. 5 E., S.B.H. whence the southeast corner of section 19, bears S. 0° 13' E., 3994.2 feet.
29 30 31 32 35 35 36 37 38 39 40 41	2	22° 13° 54° 45° 45° 85° 1° 0°	56' 38' 15' 35' 06' 28' 54' 05' 21'	NAMARARA MARA	158.0 248.1 152.1 282.8 109.8 277.2 145.9 237.8 200.9 257.4 250.4 91.7 592.9	
42 42A 0	3	69°	25'	Е	385.5	Station 42 terminal point, whence the quarter section corner on the south line of section 19, T. 14 S. R. 3 E., S.B.M., bears S. 20° 09' W., 2674.0 feet. Station 42A, point at angle in dam. Station 0 point of beginning.

REMARKS

77 17 47 47 47 77	70 999	10 TT 27
EXHIB		uBu
and the little death of the	main miles	

# FIELD NOTES

# of Center Line

# of Location of

## BOULDER CREEK CONDUIT.

of

## Emrray and Fletcher

# Within Cleveland National Forest.

## Survey No 1.

						하는 것이 되었다.
STATION		BEAL	RING		DISTANCE	REMARKS
0+00	H	540	01:	W	90.5	O+00 initial point of conduit, whence the 1/4 corner between sections 9 and 10, T. 14 S., R. 3 E., S.B.M., bears N. 15° 23' W., 2682.3 feet.
0+90.5 1+80.5 3+95.0 5+12.9 6+19.0 7+09.3 8+51.5 9+90.1 10+50.3 11+11.4 11+76.6 12+75.1 13+44.3 15+17.3 16+46.0 18+09.2 20+08.1 20+79.4 21+91.2 22+86.2 23+76.5 24+87.0 26+26.0 26+26.0 26+26.0 26+78.5 29+75.0 30+28.7 31+14.7	HUMINGHUM CHMUNICHMONICH	39° 63° 70° 82° 70° 64° 70° 55° 62° 76° 58° 58° 58° 58° 58° 58° 58° 58° 58° 58	17: 35: 16: 46: 46: 46: 46: 46: 46: 46: 46: 46: 4	<b>建                                    </b>	90.0 120.8 93.7 117.9 106.1 90.3 142.2 138.6 60.2 61.1 65.2 98.5 69.2 173.0 128.7 163.2 198.9 71.3 111.8 95.0 90.3 110.5 129.0 52.5 104.2 104.8 87.5 53.7 86.0 114.0	

STATION	BEARING	DISTANCE
32+28.7 32+76.7 32+76.7 32+76.7 32+76.7 32+76.7 32+34.6 35+09.2 35+09.2 35+09.2 41+06.7 42+44.5 43+57.2 45+24.9 45+24.9 45+24.9 50+40.2 51+39.6 53+08.9 55+82.0 56+73.1 58+92.8 58+92.8 58+92.8 58+92.8 58+69.2 68+43.5 68+63.5 68+63.6 68+71.8 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0 78+63.0	N 13° 46' E N 23° 21' E N 2° 54' W N 26° 17' W N 26° 17' W N 20' 32' E N 7° 23' W N 21° 36' W N 57° 54' W N 54° 32' W N 54° 32' W N 68° 52' W N 50° 56' W S 11° 24' E S 16° 24' E S 16° 24' E S 16° 24' E S 16° 24' W N 80° 52' W N 52° 56' W N 74° 32' W N 52° 56' W N 55° 56' W	48.0 97.7 60.2 75.2 80.4 218.1 90.4 132.5 75.6 137.8 112.7 167.7 208.9 161.1 145.3 65.2 169.3 133.0 140.1 127.8 52.9 34.8 132.3 49.0 164.3 114.9 112.2 27.0 80.8 111.5 124.0 145.3 65.2 78.8 111.5 127.0 80.8 111.5 127.0 80.8 111.5 127.0 80.8 111.5 127.0 80.8 111.5 127.0 80.8 80.8
78+71.8	N 59° 26' W	127.9

STATION	BEARING	DISTANCE	REMARKS				-4-	
87+96.5 88+74.1	S 84° 07' W S 81° 07' W	77.6 158.0			STATION	BEARING	DISTANCE	REMARKS
90+32.1	S 66° 41' W	152.2			153+56.9	H 46° 40' W N 70° 05' W	89.6	
92+91.0 93+43.2	N 48° 52' W N 80° 11' W	52.2 166.5			155+49.4	S 66° 50' W	36.2	
95+09.5 96+06.1	N 48° 00' W S 89° 11' W	96.6 52.9			157+62.7	N 57° 15' W	176.5	
96+59.0 97+85.0	S 78° 29' W	126.0			159+39.2	N 75° 10' W	71.0	
98+93.0	N 369 10' W	108.0			162+94.5	N 34° 42' W	47.7 188.1	
100+32.7	N 53° 52' W N 61° 45' W	85.7 103.2			165+30.3	N 43° 45' W	255.6 199.5	
102+21.6	N 21° 38' W	202.0			169+85.4	N 54° 04' W N 63° 53' W	502.2 86.9	
105+38.2	N 33° 21' E	129.8			175+74.5	H 70° 32' W S 87° 40' W	88.4 88.4	
107+17.7	N 23° 05' E N 25° 56' W	68.2		N	177+51.5	S 74° 14' W	146.2	
108+88.2	N 28° 28' W	74.2			180+65.0	S 85° 32' W N 84° 31' W	167.5	
111+14.4	N 77° 51' W	42.6			181+59.5	S 85° 42' W	62.7 79.5	
111+56.7	S 62° 48' W S 48° 22' W	28.6			183+01.7	S 19° 36' W	72.8	
112+44.5	S 28° 07' W S 57° 24' W	264.8			185+24.7	S 3° 59' W	173.7	186+98.4 = 0+00 of power
117+01.2	S 54° 58' W	87.8 218.6			187+42.4	S 25° 31' E	68.1	drop - Survey No 2.
120+07.6	S 78° 340 W	217.8			188+10.5	S 50° 08' E S 61° 13' E	828.5 513.8	
125+97.8	S 58° 24' W S 63° 05' W	219.5 72.8			201+52.2	S 82° 38' E N 79° 39' E	184.1	
126+90.1	S 50° 48' W S 39° 33' W	129.5		()		N 59° 27' E S 9° 36' W	170.4	
128+52.5	S 16° 32' W S 73° 51' W	68.2 65.0			208+54.6	8 21° 44' E	175.2	
129+85.7	S 39° 491 W	97.4			210+27.8	S 45° 12' E S 80° 54' E	75.2 91.1	
130+83.1	N 86° 35' W	87.5 51.7			214+28.2	N 81° 36' E S 22° 00' W	232.1	
132+22.3	S 46° 54' W S 69° 40' W	139.8 87.4			216+19.1	S 41° 17' W S 23° 37' W	310.7	
	S 38° 10' W	172.5			220+75.0	S 9° 50' E S 0° 50' E	194.8	
138+02.4	N 60° 49' W	93.1		-	224+74.0 226+54.2	S 37° 22' E S 0° 54' E	180.2	
140+11.5	3 87° 48' W	115.8			228+28.5 228+92.6	S 58° 02' E S 69° 07' E	64.1	
142+04.5	S 72° 07' W N 73° 45' W	81.0 158.7			250+51.2	S 52° 40' E	361.8	
144+44.2	N 69° 24' W N 77° 21' W	132.0			255+24.1	S 20° 18' W	131.1	
146+85.3	N 70° 15' W	37.1			239+30.1	S 26° 26' E S 21° 50' W	190.9	
148+68.0	N 79° 23' W	145.6 238.7				S 1° 25' E S 36° 35' E	514.5	
151+06.7	H 37° 10' W	250.2				S 44° 16' E S 55° 46' E	166.3	
		-3-					-4-	

STATION	BRARING	DISTANCE	REMARKS
252+51.5 255+15.6 256+51.6 257+69.1 258+58.2 259+88.6 260+82.2 261+89.8 263+19.5 266+51.9 268+37.7 269+46.5 271+05.1 272+60.3 275+34.2 277+23.3 280+27.9 281+26.1 286+92.2 287+69.5 291+37.8 293+42.5 294+59.4 296+51.7 298+95 300+82.0 301+82.9 302+80.5 304+19.0 306+10.0 309+06.0 309+06.0 309+91.9	5 56° 04' E 5 69° 24' E 5 69° 24' E 6 60° 35' E 8 40° 42' E 8 26° 58' E 8 26° 58' E 8 42° 51' E 8 42° 51' E 8 46° 50' W 8 58° 15' W 8 58° 15' W 8 58° 59' W	313.0 264.1 136.0 117.5 89.1 130.4 93.6 107.6 129.7 332.4 185.8 108.8 158.6 155.2 273.9 189.1 304.6 98.2 566.1 77.5 368.3 204.7 116.9 171.8 263.8 187.0 100.9 97.6 138.5 191.0 196.0 196.0 196.0 196.0 196.0	Terminal of conduit - Survey No 1., from which the south west corner of section 20, 1 14 S., R. S E., bears south 6° 25' west, 4,185.0 feet.

## EXHIBIT "P"

## Field Notes of Power Drop of

## Boulder Creek Project

of

# Murray & Fletcher.

## Survey No. 2.

STATION	BEARING	DISTANCE	REMARKS
0+00	H 71° 57' W	4290.3	0+00 initial point of power drop = Station 186+98.4 of Boulder Crock Conduit.
42+90.5	N 20° 12' W	135.4	BOULEGE GEORE COMMELS.
44+25.7			44.25.7 - terminal point of power drop from whence the north west corner of Sec. 12. T. 14 S. R. 2 H., S.B.M., bears N. 77° 04' W., 2588 feet.

EXHIBIT "F"

FIELD NOTES

of

POWER PLANT SITE

of

Emrray & Fletcher

Containing 9.185 acros.

STATION	BEARING	DISTANCE	REMARKS
0	East	1000	Initial point from which the northeast corner of Section 12, T. 14 S., R. 2 E., S.B.M., bears N. 78° 14' W., 2959 feet.
1	South	400	
2	West	1000	
3	North	400	
0			Point of beginning.

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### EXHIBIT "G"

- (1). The total average effective head to be utilized will be: 95% of the static head of the pipe line which is 1623 feet, or 1540 feet. The head utilized will not be affected by the dams.
- able for use. The present stream flow is already regulated by the Cuyamaca Reservoir of Murray and Fletcher for irrigation uses and there will be no substantial change in this regulation. The Boulder Creek Reservoir will serve only in a very slight degree as a storage reservoir, but will serve to equalize flood rushes.

# MEAN DISCHARGE OF BOULDER CREEK IN SECOND FEET SAN ESTIMATED UTILIZATION BY PROJECT WORKS

1911	Mean Flow	Regulation by Boulder Creek Reservoir	Diverted by Nater Conduit
July August September Sotober November December	5.95 5.90 3.70 .00 .00		5.9 5.9 5.7 0.0 0.0
January February March April May June July August September October Hovember December	0.59 .80 13.20 29.70 10.50 5.55 9.40 6.67 4.20 4.40 3.72 2.18		.6 .8 13.2 20. 11.8 5.5 9.4 6.7 4.2 4.4 3.7 2.2

1913	Nean Flow	Regulation by Boulder Creek Reservoir	Diverted by Water Conduit
January February March April May June July August September October Hovember December	3.75 7.55 12.10 6.17 2.20 5.42 6.08 3.68 3.68 3.01 1.71 1.51		3.7 7.5 12.1 6.2 2.2 5.4 6.1 3.7 3.0 1.7
January February March April	18.00 35.60 5.95 5.62	1.5	18.0 20.0 7.2 5.6

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#### SUMMARY

Season	Character of Seasonal Rainfall	Hean Flow	Boulder Creek Reservoir Regulation	Diverted by Water Conduit
1911-12	98%	6.8	0.1	5.6
1912-13	20%	5.6	0.0	5.6
1913-14	108%	7.2	0.1	6.0

The per cent of stream flow made available by storage is 1/2 of 1%.

- (3). The area to be flooded by dam below the flow line fixed by the average head will vary from 8 acres in winter to substantially no acres flooded during the dry season.
- (4). The length of the proposed water conduit from intake to tailrace is 4.40 miles. A conduit having the duty of an overflow, if water is not used for power, extends from forebay to Tule Reservoir, a distance of 2.75 miles.

(5). The area of Boulder Creek Reservoir is 8.55 acres, and its available capacity is 78 acre feet.

The area of Tule Reservoir is 58.15 acres, and its available capacity is 1346 acre feet.

- (6). An emlargement of the conduit at the head of pipe line constitutes a forebay of small storage capacity less than one acre foot.
- (7). The probable load factor of the power plant is estimated to be 25%.
- (9). The probable use of power will be on the pumping plants of Murray and Fletcher on the San Diego River, and at La Mesa, and for commercial uses in the region of Lakeside and San Diego.

STATE OF CALIFORNIA)
) SS.
COUNTY OF SAN DIEGO)

Engineer of Murray & Fletcher; that he surveyed all the water conduits, reservoirs, and power-house sites as shown upon the maps filed together herewith and described as follows:

Exhibits E-1-a, Map showing water line of Boulder Creek Reservoir; E-1-as, Map showing water line of Tule Reservoir; E-1-b, Cross-section of Boulder Creek Damsite; E-1-bb, Cross-section of Tule Damsite; E-1-c, Plan of Boulder Creek Dam; E-1-cc, Plan of Tule Dam; E-2-a, Sheets 1,218,4,5 & 6, Contour map and profile of Boulder Creek Conduit and Power Drop; E-2-b, Forebay and types of conduit; E-3, Map showing Power Plant Site; E-5, General Map of Boulder Creek Power Project; being a total length of water conduit of 7.16 miles, a total area of reservoir sites of 66.7 acres, and a total area of powerhouse site of 9.18 acres, was made under his direction under authority of said Murray & Flotcher; that said survey was commenced on July 12, 1913, and completed on August 31, 1913; that said survey represents the proposed final location of said water conduits, reservoir sites, and power-house sites, and that said survey is accurately represented upon the maps herein described; he further says that the notes of survey filed together herewith as "Exhibit F" are the notes of the above described survey; that said notes are true and complete copy of an actual location survey made upon the ground under his direction within the dates

above nemed; and that all of said notes and no others were used in the preparation of the maps herein described; he further says that the plans of structures filed together herewith and described as follows: Exhibit E-1-c, Plan of Boulder Creek Dam; Exhibit R-1-cc. Plan of Tule Dam; Exhibit R-2-b, Forebay and types of conduit; were prepared under his direction under suthority of said Murray & Fletcher; that the designs as shown upon said plans represent safe, proper, and adequate structures for the full economic utilization of the power available for development at the location shown upon the maps herein described; and he further says that the date and estimates filed together herewith as "Exhibit G" are based upon the said data, being all the data available therefor; and that said estimates represent, in his best judgment and belief, the amount of power that can be developed, under the condition specified, by the works shown upon the maps and plans herein described.

> William S. Post. Chief Engineer.

Subscribed and sworn to before me this lat day of June 1914.

Lou B. Mathews
Notary Public.

(SEAL)

#### EXHIBIT "I"

Statement by Applicants of the Time Desired For Making Financial Arrangements, etc.

The terms under which the permit of the Water Commission is issued requires the commencement of work on July 15, 1914, and the applicants will make such a beginning. It is, however, proper to draw attention to the peculiar situation of the present intake in that it does not occupy the most desirable location. It is the intention of your applicants to condemn the more desirable location about one-half mile down stream from the point where it is now located. This more desirable location has upon it certain mining claims which will have to be condemned in all probability, or which will, subsequent to this application, be taken up with the United States Forest Service.

In relation to finances, your applicants have expended approximately \$130,000. in the past year upon the San Diego flume. They have found it extremely difficult to finance during this period, and anticipate a greater difficulty for some months to come.

Because of the foregoing, your applicants beg that they be allowed until July 1, 1915 to complete their financial arrangements, and that the time for the "Construction of the project works" be four years after that date.

James A. Murray
By A. H. Sweet, His Attorney

Ed Fletcher

#### EXHIBIT "J"

We, James A. Murray and Ed. Fletcher, do hereby certify that William S. Post, who subscribed to the foregoing affidavit, is our engineer; that the survey of the water conduits, reservoirs, and power-house site, as shown upon the maps filed together herewith and designated as follows: Exhibits E-1-a, Map showing water line of Boulder Creek Reservoir: E-1-as, Map showing water line of Tule Reservoir; E-1-b, Cross-section of Boulder Creek Damsite; E-1-bb, Cross-section of tule Damsite; E-1-c, Plan of Boulder Creek Dam; E-1-cc, Plan of Tule Dam; E-2-a, Sheets 1, 2, 3, 4, 5 & 6, Contour map and profile of Boulder Creek Conduit and Power Drop; E-2-b, Forebay and types of conduit; E-3, Map showing Power Plant Site; E-5, General Map of Boulder Creek Power Project; being a total length of water conduit of 7.16 miles, a total area of reservoir sites of 66.7 scres, and a total area of power-house site of 9.18 acres; the notes of survey as given in Exhibit "F" filed together herewith, the designs of structures as shown upon the plans filed together herewith and designated as follows: Exhibit E-1-c, Plan of Boulder Creek Dam; Exhibit E-1-cc, Plan of Tule Dam; Exhibit E-2-b, Forebay and types of conduit: the collection of data and the estimates of power as given in Exhibit "G" filed together herewith, were made under authority of said James A. Murray and Ed. Fletcher; that the said locations and said designs have been adopted by them as the approximate final locations and the approximate final designs of said water condities, reservoirs

and power houses; that said estimates as shown by said Exhibit
"G" have been approved by them; and that in accordance with the
regulations of the Secretary of Agriculture, the maps, plans,
estimates and data herein described have been prepared as a part
of their application dated May 26, 1914, and bearing our
signatures.

Ja	nes	A.	Murray		
Ву	<b>A.</b>	H.	Sweet,	His	Attorney
	Ed	Flo	etcher		

cofy

June 26, 1914.

District Forester, 114 Sansome Street,

San Francisco, Cal.

Dear Sir:

As we understand that those portions of our Boulder Creek System which will be used only for irrigation cannot be included in the Final Water Power Permit for which we have filed an application in your office, we would be glad to have you issue us a Special Use Permit for the same. These parts of the system will probably later be the subject of an application to the Interior Department for an easement in accordance with the Act of Congress approved March 3, 1891, (26 Sta.1095).

Very truly,

MURRAY and FLETCHER,

By Lon B Malluns

#### REVOCATION OF PERMIT

WHEREAS, by an instrument entitled "Final Power Permit", executed by the Secretary of Agriculture on December 10, 1914, James A. Murray and Ed. Fletcher, of San Diego, California, were authorized to use rights of way for a certain reservoir and conduit, and a site for a powerhouse on lands of the United States within the Cleveland National Forest, California, located as shown on the maps filed with the application for said permit; and

WHEREAS, by a certain power stipulation, executed on October 5, 1914, as a prerequisite to the issuance of said permit, the Permittee agreed to complete the construction and begin the operation of the project works within twenty-four months from the date of issuance of the permit; and

WHEREAS, the Permittees have done a small amount of work consisting of the clearing of a part of the dam site and grading and excavating a part of the conduit line, but have failed to complete the construction and begin the operation of the project works; and

WHEREAS, notice has been given the Permittees of this failure to meet the conditions under which the permit was issued and they have replied thereto but were unable to state when the work could be resumed and carried on to completion; and

WHEREAS, this Department considers it contrary to the public interest to allow permits of this kind to be held for an indefinite time without use:

NOW, THEREFORE, by virtue of the authority in me vested by the Act of

February 15, 1901, (31 Stat., 790) and the Act of February 1, 1905 (33 Stat., 628), the said final power permit, executed on December 10, 1914, is hereby revoked and canceled.

Dated at Washington, D. C., this the 5th of December 1917.

ODANA

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Secretary of Agriculture.

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San Diego, California, May 1, 1913.

The Southern Title Guaranty Company, a corporation organized and existing under the laws of the State of California, and having its principal place of business at the City of San Diego, County of San Diego, State of California, hereby certifies that all water, water rights and privileges, and all rights to empound, collect, take, divert, sell, or otherwise dispose of water, and all water rights, privileges, and flooding, and flood rights, and all rights and privileges to flood or cover any land in San Diego County with water, or to empound water, or collect water thereon, owned, controlled or claimed by the San Diego Flume Company, a corporation, prior to June 1, 1910, are now owned and controlled by James A. Murray, and Ed. Fletcher in the following proportions, towit;— James A. Murray an undivided five-sixths (5/6), and Ed. Fletcher an undivided one-sixth (1/6).

IN WITNESS WHEREOF said Southern Title Guaranty Company
has hereunto caused its name to be signed by its President, and
its corporate seal attached, the day and year first above written.

SOUTHERN TITLE GUARANTY COMPANY.

BY Fesident.

## UNITED STATES DEPARTMENT OF AGRICULTURE.

## FOREST SERVICE.

Cleveland National Forest.

James A. Murray and Ed. Flatcher, Applicants.

Irrigation Reservoir and Mon-Commercial Power.

April 30th, 1913.

# APPLICATION FOR IRRIGATION RESERVOIR PERMIT AND PRELIMINARY WATER POWER PERMIT.

James A. Murray and Ed. Fletcher citizens of the United States and residents of the State of California, do hereby make application for a preliminary permit for six months. covering certain lands of the United States within the Cleveland National Forest in the State of California. of Township 14 South, Ranges 2 and 3 East, San Bernardino Meridian, as such lands are approximately shown upon a cortain map executed by Ed. Fletcher on the 1st day of May, 1913, which map is filed herowith and made a part hereof. This application is made in order that we may secure a special permit for the reservoir for irrigation use and also may. upon the filing of a complete and final application in accordance with the regulations of the Secretary, secure a priority for said final application for non-commercial power from the date of the filing of this preliminary application. We also do hereby request permission for construction work upon said lands as may be necessary to maintain water rights.

In witness whereof, we have caused this instrument to be executed this \_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_ May \_\_\_\_\_\_ 1915.

Ed Fletcher (Signed)

SEAL \*

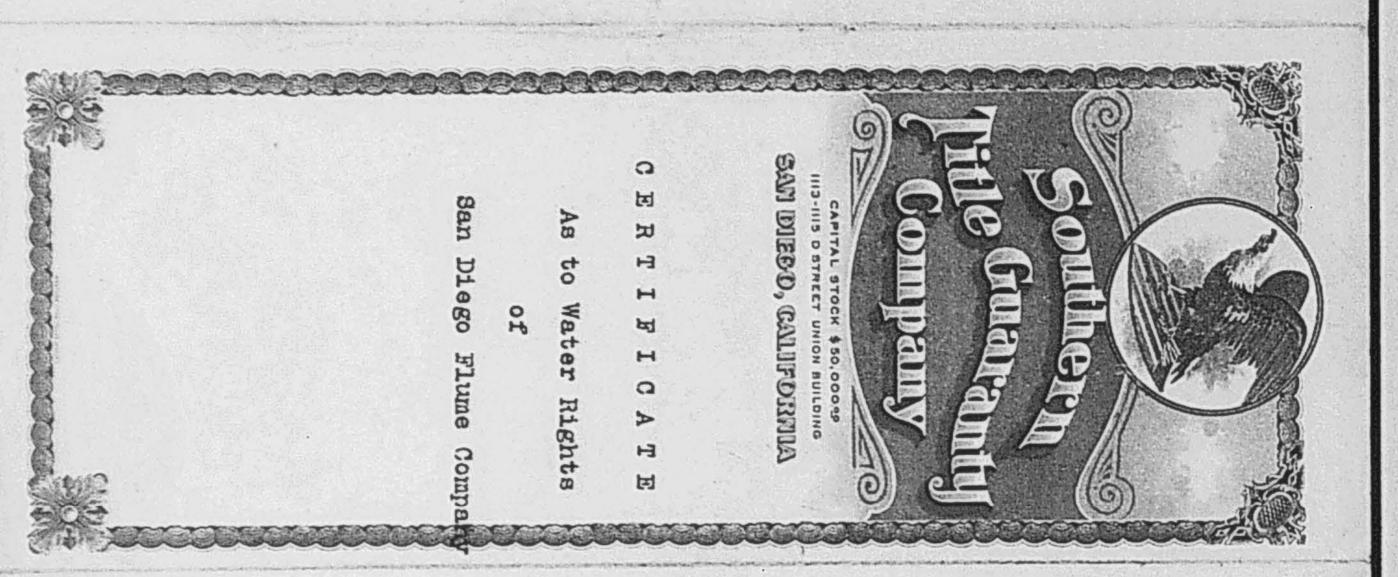
A. H. Sweet,

Attorney for Petitioner.

James A. Murray (Signed)

By A. H. Sweet,

His Attorney.



#### GTATITUET.

Estimate of amount of Power that may be developed at proposed power house.

The mean flow of Boulder Creek for the year 1912 is 7.57 second-feet. The year 1912 is thought to have had a rainfall about 90% of the normal, therefore the mean flow is entimated to be  $\frac{7.57}{90}$  = 8.4 second-feet for a normal year.

The theoretical mean horse power will be approximately that due to 8.4 second-foot with a fall of 1,000 feet, or 955 theoretical horse power in a year of normal rainfall.

# STATEMENT, ESTIMATING THE AMOUNT OF WATER AVAILABLE

FOR USE AND THE TOTAL HEAD AT THE POWER HOUSE.

Mean Monthly Discharge of Boulder Crock.

## in Second-foot.

1912	
January 0.59	
February80	
March 13.20	
April 29.70	
May 10.50	
June 5.55	
July 9.40	
August 6.67	
September 4.20	
October 4.40	
November 3.72	
December 2.10	
1913	
January 3.75	
Fobruszy 7.55	
March 12.10	
Approximate elevation of Reservoir	- 2100
Approximate elevation of Power House	- 950
	1000
Losses in grade	- 50
Water And Land of Course House and course	- 1000
Estimated head at Power House	2000
THE CHINES OF THE PARTY CLASS TO STATE ASSESSMENT	4000

ED FIRTCHER (Signed)

JAMES A. MURRAY (Signed)

By A. H. Sweet, His Attorney.

#### STATEMENT.

Estimated Capacity and acres flooded of Boulder Creek Reservoir, applied for herewith. - Maximum capacity 1.342 Acre-feet. - Maximum seres flooded 313 Acres.

#### TABLE OF CAPACITY.

DEPTH	ACRES FLOODED	ACRE-FEET
0	0	0
10	5	5
20	16	21
30	30	51.
40	48	98
50	67	166
60	93	268
70	129	587
80	171	558
90	213	772
100	258	1030
110	31.3	1842
		Se like the state of the state of the

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JAMES A. MURRAY (Signed)

By A. H. Sweet, His Attorney.

### NOTICE OF APPROPRIATION OF WATER.

The San Diego Flume Company hereby claims and appropriates all the waters of Boulder Creek in the County of San Diego, California, to the extent of two thousand Miner's Inches measured under a four inch pressure, whether above or below ground, and now flowing, or hereafter to flow at the following point on said stream, the same being the point where this notice is posted and the point at which the company intends to divert said water to-wit:

The narrow gorge between the most northern peaks of the Cuyamaca Mountains where the creek leaves the meadows between the Laguna and the mountains, said water is claimed to the head of said creek.

Said water is appropriated claimed and intended for irrigation and domestic use and mechanical purposes.

The places where it is intended to use said water are the City of San Diego, Ex-Mission Ranche, Rancho of El Cajon and

The Company intends to divert said water by means of a dam in said stream and by a flume, ditch, tunnel or other aqueduct, three feet wide and two feet deep or less if the fall will permit and by iron pipes twenty inches in diameter or less if the fall will permit.

The water is claimed as part of the water and flume system already begun on the San Diego River by Wm. E. Robinson and others, whose rights the company has acquired and as a branch of said system, the main work upon which is now being done upon the main line on said river to be connected to this with a flume or pipe.

The San Diego Flume Company

Geo. D. Copeland,

President.

A. C. Platt, Secretary.

Posted July 31st, 1886.

Received for record August 4, 1886 at 9 o'clock A M. at request of T. S. Van Dyke.

S. A. HeDowell,

County Recorder

By J. J. Sandeman,

Deputy.

San Diego, California, May 1, 1913.

The Southern Title Guaranty Company, a corporation, hereby certifies that the above and foregoing is a true, correct and complete copy of that certain Notice of Appropriation of Water recorded in the office of the Recorder of said San Diego County, California, in Book 1 Page 159 of Water Claims.

SOUTHERN TITLE GUARANTY COMPANY.

BY A. P. JOHNSON, JR. (Signed)
President.

SEAL . .

#### NOTICE OF APPROPRIATION OF WATER.

The San Diego Flume Company hereby claims and appropriates all the waters of Boulder Creek in the County of San Diego, California to the extent of two thousand Miner's Inches measured under a four inch pressure, whether above or below ground, and now flowing or hereafter to flow, at the following point on said stream, the same being the point where this notice is posted, and the point at which the Company intends to divert said water, to-wit: About 3/4 of a mile about its junction with the North Fork of the San Diego River at Coleman Creek, (said Boulder and Coleman Creeks uniting forming the head waters of said North Fork of the San Diego River) and about one mile above the San Diego Flume Company's Diverting Dam at what is known as Rocky Bar as near as may be - said water is appropriated, claimed and intended for irrigation and domestic use and mechanical purposes.

The places where it is intended to use said water are the City of San Diego, Ex-Mission Rancho, Rancho of El Cajon and other places between the point of diversion and the seaboard.

The Company intends to divert said water by means of a dam in said stream, and by a flume, ditch, tunnel or other aqueduct four feet wide and three feet deep, or less if the fall will permit, and by iron pipes two feet in diameter, or less if the fall will permit.

This water is claimed as a part of the water and flume system already begun in the San Diego River by Wm. E. Robinson and others, whose rights the Company has acquired and as a branch of said system, the main work upon which is now being done upon the main line on said river to be connected to this with a flume or pipe.

The San Diego Flume Company

By Geo. D. Copeland,

President.

L. F. Doolittle, Secretary.

Claims.

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SKAL. \*

Posted July 28th, 1887.

Witness as to posting, C. Robinson, James McLaughlin.

Received for record August 2, 1887 at 3 o'clock P.H. at request of Flume Co.

E. G. Haight,

Gounty Recorder.

By J. H. Groresteen Jr.,

Deputy.

San Diego, California,

May 1, 1913.

The Southern Title Guaranty Company, a corporation, hereby certifies that the above and foregoing is a true, correct and complete copy of that certain Notice of Appropriation of Water recorded in the office of the Recorder of San Diego County, California, in Book 1 Page 263 of Water

SOUTHERN TITLE GUARANTY COMPANY.

BY A. P. JOHNSON; JR. (Signed).

President.

San Diego, California.

May 1, 1913.

The Southern Title Guaranty Company, accorporation organized and existing under the laws of the State of California. and having its principal place of business at the City of San Diego, County of San Diego, State of California, hereby certifies that all water, water rights, and privileges, and all rights to empound, collect, take, divert, sell, or otherwise dispose of water, and all water rights, privileges, and flooding, and flood rights, and all rights, and privileges to flood or cover any land in San Diego County with water, or to empound water, or collect water thereon, owned, controlled or claimed by the San Diego Flume Company, a corporation, prior to June 1, 1910, are now owned and controlled by James A. Murray, and Ed. Fletcher in the following proportions, to-wit: -- James A. Murray an undivided five-sixths (5/6) and Ed. Fletcher an undivided one-sixth (1/6).

IN WITNESS WHEREOF said Southern Title Guaranty Company has hereunto caused its name to be signed by its President, and its corporate seal attached, the day and year first above written.

BY A. P. JOHNSON, JR. (Signed)
President.

SEAL \*

Filed with Sepervisor May 20/1913

UNITED STATES DEPARTMENT OF AGRICULTURE FOREST BERVIOE.

Poverty Gulch.

## APPLICATION FOR PESERVOIR PERMIT.

We. James A. Murray and Ed. Fletcher, citizens of the United States and residents of the State of California, do hereby make application for permission to occupy and use certain lands of the United States within the Cleveland National Forest in the State of California, by constructing, maintaining and operating thereon for the main purpose of irrigation, the following works.

Rock-Fill Storage Dam, approximately 150 feet in maximum height and approximately 800 feet in maximum length to form an irrigation reservoir to flood approximately 90 scree at spillway level, in Sections 2 and 3, Township 15 South, Range 5 East, S.B.M., of which total of 90 scree, approximately 20 acres are Mational Forest land, said reservoir being designated Poverty Gulch Reservoir.

all as approximately shown upon a certain map executed on the 16th day of May. 1915, which map is filed together herowith and designated Exhibit "A"., together with certain data, evidence of water rights, citizenship, etc., designated respectively. Exhibits B. C. D. E. F and G.

This application has been prepared to be filed in accordance with the regulations of the Secretary of Agriculture in order that we may use and occupy said lands for the construction of said dam and reservoir for irrigation and demestic use in connection with the present irrigation and demestic system owned by the applicants, known as the San Diego Flume System and also that we may obtain the necessary data to make application to the Department of the Interior for an easement under the act approved March S. 1891, and Section 2 of the act of May 11, 1898.

James A. Murray by A. H. Sweet, his Attorney.

Ed Fletcher

#### EXHIBIT "O".

### STATEMENT OF STREAM FLOW.

King Creek, the source of supply to this reservoir is a tributary of South Fork of San Diego River, upon which the San Diego Flume System, owned by the applicants, maintain the South Fork Flume for diversion into their system, and where these stored waters will be diverted after leaving this proposed reservoir. Observations of stream flow have been maintained at this point in cooperation with U. S. Geological Survey since January, 1913. The drainage area is 48 square miles, while the drainage area of King Creek into the reservoir applied for is 12 square miles.

River and probable stream flow at proposed reservoir, assuming the smount of flow to be in the ratio of 48 to 12 (sq. miles)

1918	South Fork	King Creek at Reservoir Sec.Ft.
Jenuary February March April May June July August September October Hovember December	0.5 15.0 10.0 2.0 0 0	0 1.6 3.8 2.5 0.5 0 0 0
1915		
January February	0.5	0.13

The following tables is extracted from the testimony of C. H. Lee before State Refilroad Commission Application No. 118. exhibit for Murray & Fletcher, Page 28, entitled "Present Yield and Actual Consumption of the Flume System."

This presents the yield of the Main San Diego River (104 square miles) being the adjoining drainage on the north for the past 14 years.

Season	Sec.Ft.
1898-99	1.69
1899-00	0.92
1900-01	6,50
1901-02	7.50
1902-03	15.10
1903-04	2.30
1904-05	50.30
1905-06	50.10
1906-07	47.40
1907-08	19.50
1908-09	32,00
1909-10	25.40
1910-11	16.80
1911-12	24.1
Poriod	19.64

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#### HXHIBIT "D"

#### HOTICE OF APPROPRIATION OF WATER.

The San Diego Flume Company hereby claims and appropriates all the waters of the South Fork of the San Diego River in the County of San Diego, California, to the extent of Four Thousand Minor's Inches measured under a four inch pressure whether above or below ground, and now flowing, or hereafter to flow, at the following point on said stream, the same being the point where this notice is posted and the point at which the company intends to divert said water, to-wit:-

On the South Fork of the San Diego River at a point about one mile above the junction with the main river and as near as can be told in section thirty six or thereabouts Township 14 North, Range two East, San Bernardino Meridian.

Said water is appropriated, claimed and intended for irrigation and domestic use and mechanical purposes.

The places where it is intended to use said water are the city of San Diego. Ex Mission Rancho. Rancho of El Cajon and other places between the point of diversion and the scaboard.

The company intends to divert said water by means of a dam in said stream and by a flume, ditch, tunnel or other aqueduct four wide and three doep or less if the fall will permit and by iron pipes inches in diameter or less if the fall will permit.

This water is claimed as a part of the water and Flume system already begun on the San Diego River by Wm E Robinson and others, whose rights the company has acquired and as a branch of said system, the main work upon which is now being done upon the main line on said river to be connected to this with a flume or pipe.

THE SAN DIEGO FLUME COMPANY.

George D. Copeland, President.

A. C. Platt, Secretary Witness to posting, R. H. Stretch, June 29th, 1886.

Received for record July 2, 1886 at 9 o'clock A. M. at request of T. S. Van Dyke.

S. A. McDowell, County Recorder. By J. J. Sandeman, Deputy. State of California. ) SS. County of San Diego.

Lou B. Mathews being first duly sworn, deposes and says: That he is the secretary of James A. Murray and Ed Fletcher and was for many years the secretary of the San Diego Flume Company and continued to be secretary of said company up to the time it transferred its property to said Murray and Fletcher. That the said San Diego Flume Company, a corporation organized and existing under the laws of the State of California, and the said James A. Murray and Ed Fletcher have continuously used and made continuous use of the vaters of the south fork of the San Diego River in the County of San Diego, State of California, since the completion of the flume line built by said company in the year 1888.

Lou B. Mathews

Subscribed and sworn to before me this 20th day of May, 1915.

Arthur Nelson

Notary Public in and for the County of San Diego, State of California.

State of California. } SS. County of San Diego.

Ed Flotcher the applicant in the petition hereto attached, being duly sworm for himself says:

That he is a citison of the United States and a resident of California:

That James A. Murray who joins in this application is a citison of the United States and resident of California:

That there are no articles of association between

Ed Fletcher and James A. Murray.

Ed Fletcher

Subscribed and aworn to before me this 20th day of May. 1913.

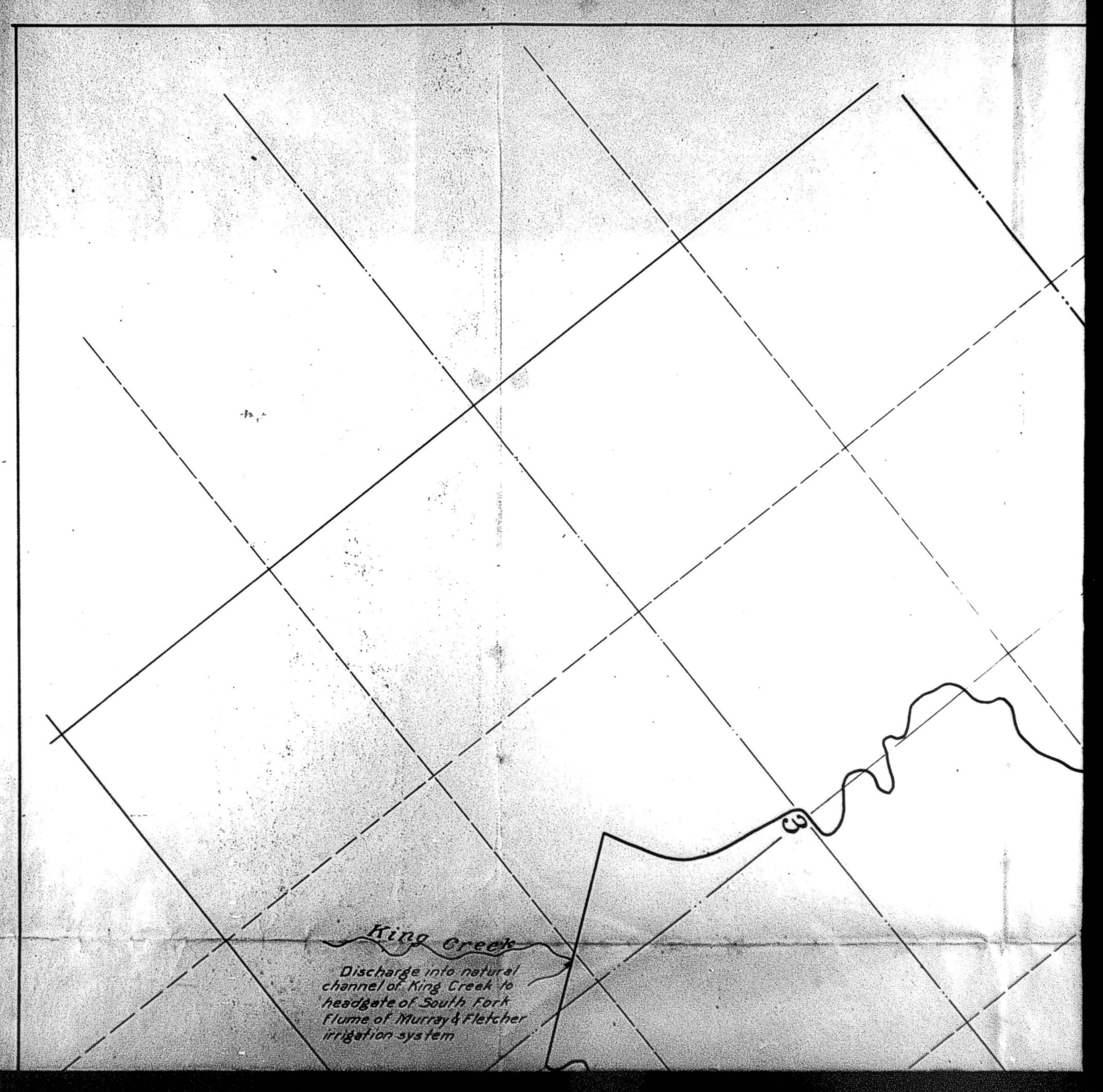
Lou B. Mathews

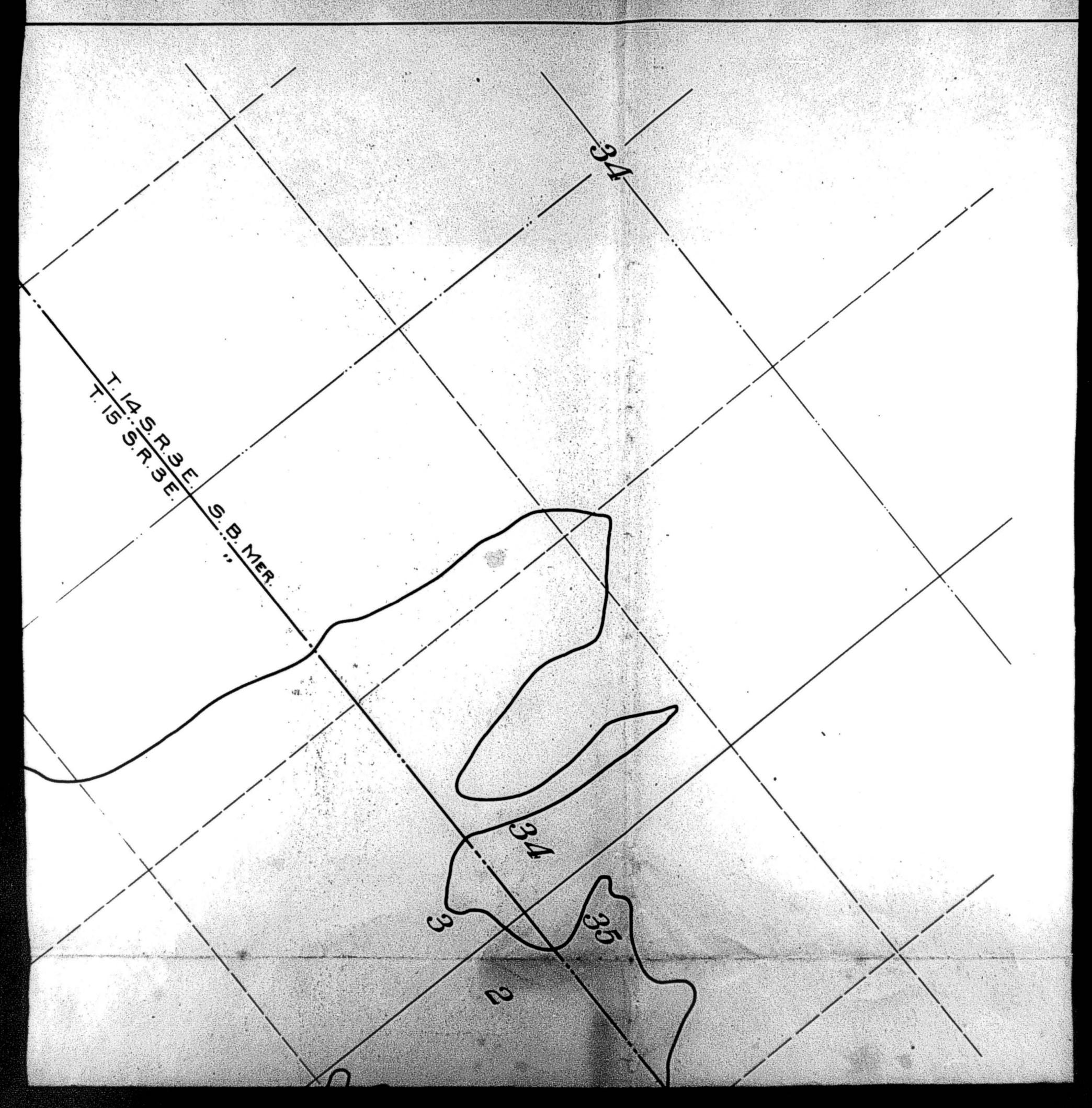
Motary Public in and for
the County of San Diego.
State of California.

### EXHIBIT "G".

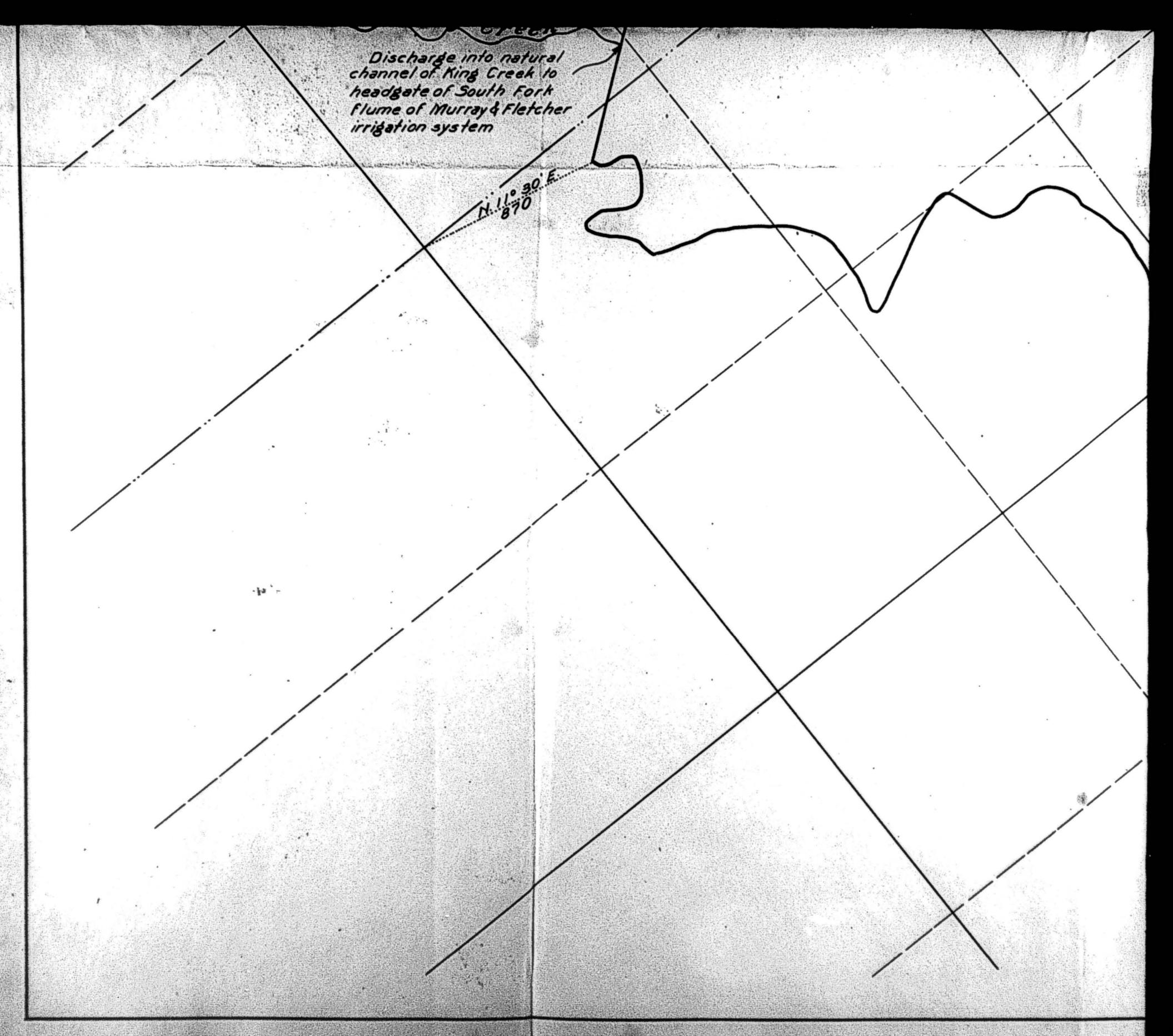
# POVERTY GULCH RESERVOIR.

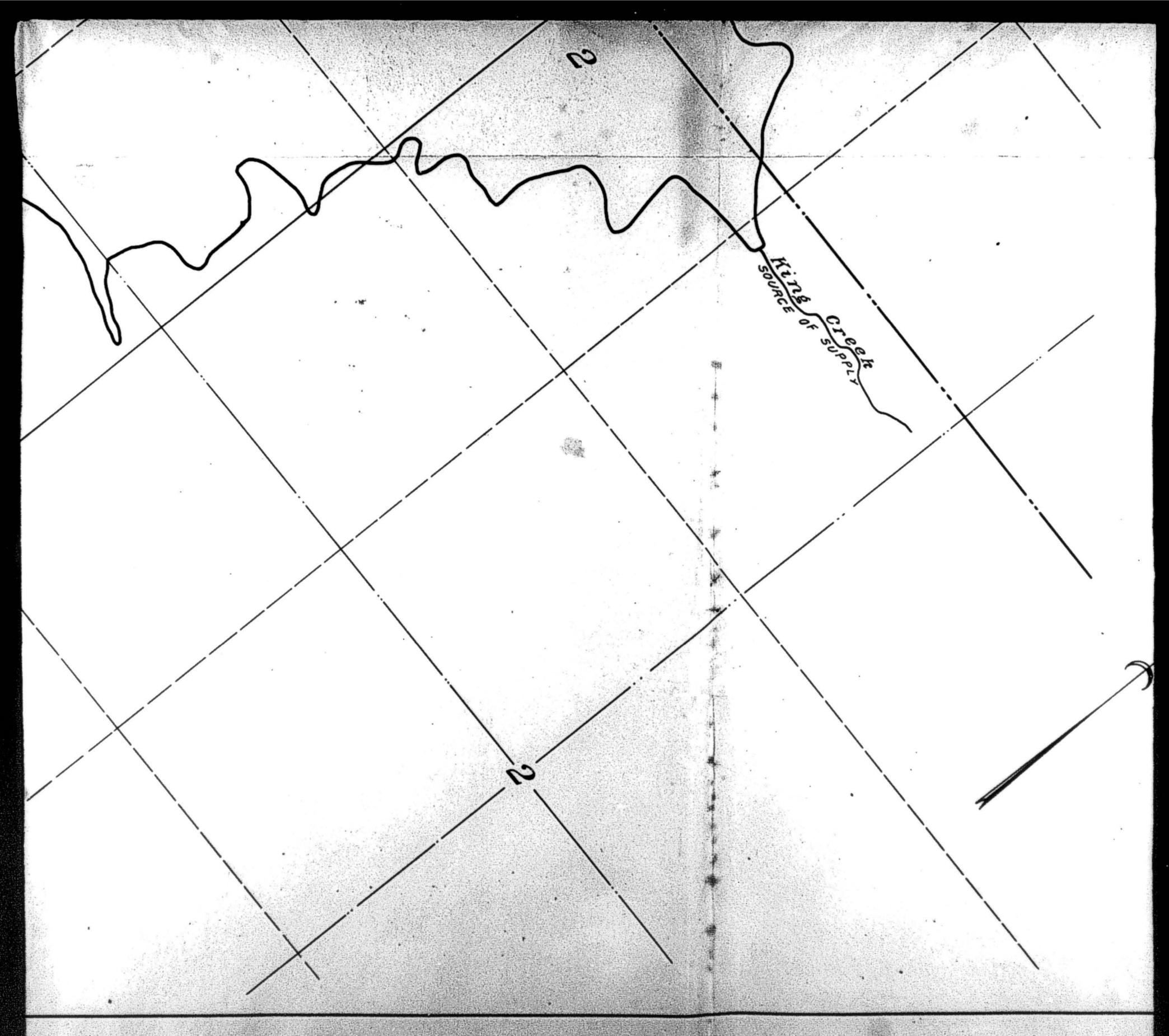
Dopth	Aores flooded.	Capacity Agre-feet.
10	0.3	1
30	2.	23
50	5	90
70	11	230
90	25	570
110	55	1310
130	88	2030





We, James A. Murray and Ed. Fletcher, do hereby certify that the survey of the reservoir as accurately represented on this map, was made under our authority, and that we have adopted the location of said reservoir as represented on this map as the approximate final location of said reservoir. Ed Hetcher May 16, 1913 James A. Murey By Atthewell Kischtloring.





MAP SHOWING

APPROXIMATE FLOOD LINE

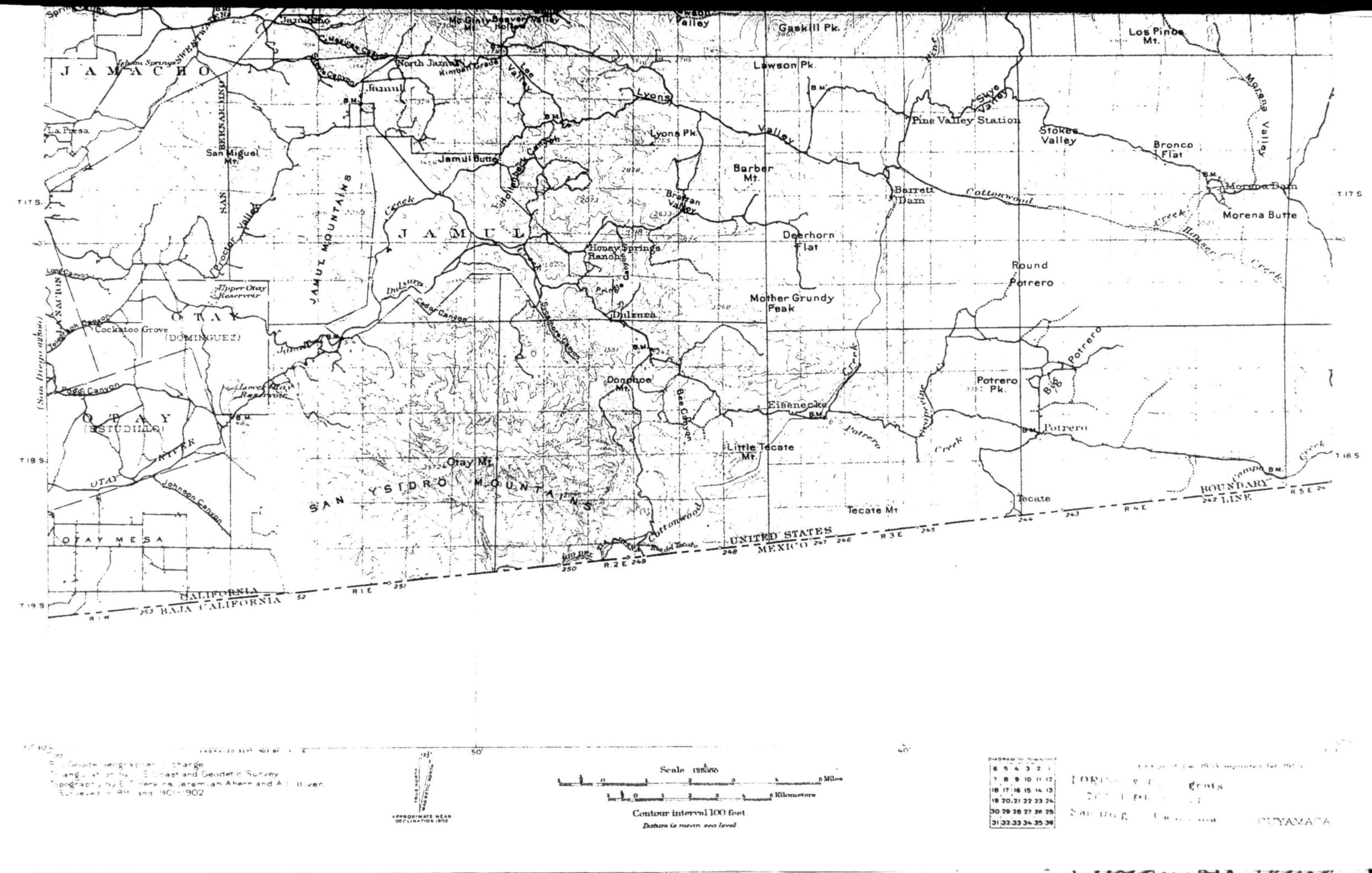
OF

POVERTY GULCH RESERVOIR

OF

MURRAY & FLETCHER

SCALE: I'M. = 4000 FT.



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# "Permits"

From the papers of Ed Fletcher, the following letters were remove to the alphabetized correspondence files:

"SPECIAL PERMITS -- U.S. DEPARTMENT OF AGRICULTURE"

TILLOTSON, M. R. (U.S. DEPT. OF AGRICULTURE FOREST SERVICE, CLEVELAND NATIONAL FOREST):

to Fletcher, December 19, 1918 to Fletcher, December 30, 1918 from Fletcher, December 27, 1918

DU BOIS, Coert (Forest Service)
to Fletcher, April 3, 1914
to Fletcher, July 28, 1914

HEADLEY, Roy to Fletcher, Dec. 13, 1917 WYNNE, S.W. to Fletcher, Nov. 11, 1914

Doc 1 Pg 1 Ln 1.17" Pos 1"

#### **Ed Fletcher Papers**

1870-1955

**MSS.81** 

Box: 56 Folder: 21

Business Records - Water Companies -Cuyamaca Water Company - U.S. Department of Agriculture Forest Service Special Use Filings



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