

PROPERTY OF
DIVISION OF WATER RESOURCES
ADMINISTRATIVE OFFICE
LAS VEGAS, NEVADA

STATE OF NEVADA

BIENNIAL REPORT

OF THE

STATE ENGINEER

1927-1928

GEO. W. MALONE
State Engineer of Nevada



CARSON CITY, NEVADA

STATE PRINTING OFFICE

JOE FARNSWORTH, SUPERINTENDENT

1929

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STATE ENGINEER



WALTER W. JONES
State Engineer of Nevada



PRINTED AT THE STATE PRINTING OFFICE

1911

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LETTER OF TRANSMITTAL

STATE OF NEVADA,
OFFICE OF THE STATE ENGINEER,
CARSON CITY, JANUARY 1, 1929.

To His Excellency, F. B. BALZAR, Governor, Carson City, Nevada.

SIR: I herewith submit to you my report as State Engineer of the State of Nevada for the years 1927 and 1928.

Respectfully submitted,

GEO. W. MALONE,
State Engineer.

STATE ENGINEERS SINCE CREATION OF THE OFFICE

A. E. CHANDLER.....	May 29, 1903, to May 1, 1905
HENRY THURTELL.....	May 1, 1905, to May 1, 1907
FRANK R. NICHOLAS.....	May 1, 1907, to March 2, 1910
EMMET D. BOYLE.....	March 8, 1910, to March 21, 1911
W. M. KEARNEY.....	March 21, 1911, to May 15, 1917
J. G. SCRUGHAM.....	May 16, 1917, to January 10, 1918
SEYMOUR CASE.....	January 25, 1918, to March 28, 1919
J. G. SCRUGHAM.....	March 28, 1919, to October 7, 1922
ROBERT A. ALLEN.....	October 7, 1922, to March 28, 1927
GEO. W. MALONE.....	March 29, 1927—

PERSONNEL

DEPARTMENT OF STATE ENGINEER

Carson City Office

Geo. W. Malone.....	State Engineer
H. W. Reppert.....	Assistant State Engineer
G. F. Engle.....	Deputy State Engineer
Ada F. Pointer.....	Chief Clerk
Charles K. McClelland.....	Office Engineer
Wm. J. Kilmarth.....	Office Engineer
Chas. E. Theix.....	Clerk
Susan Blackwell.....	Stenographer
Otto L. Hussman.....	Special Assistant to the State Engineer, Little Humboldt Adjudication

WATER DISTRIBUTION

Humboldt River, 1927

J. A. Millar, Supervising Water Commissioner.....	Entire River
S. Krummes, Commissioner.....	Elko District
Albert Quill, Commissioner.....	Battle Mountain District
Alfred Uren, Commissioner.....	Winnemucca District
J. A. Runner, Commissioner.....	Lovelock District
B. O. Stephensen, Hydrographer.....	Battle Mountain District
C. B. White, Hydrographer.....	Elko District
J. Higginbotham, Hydrographer.....	Elko District
Lona Abel, Filing Clerk.....	Winnemucca Office

1928

J. A. Millar, Supervising Water Commissioner.....	Entire River
Albert Quill, Commissioner.....	Elko District
Alfred Uren, Commissioner.....	Battle Mountain District
C. C. Taylor, Commissioner.....	Winnemucca District
O. L. Hussman, Commissioner.....	Lovelock District
Ralston Crew, Hydrographer.....	Battle Mountain District
W. H. Smiley, Hydrographer*.....	Elko District
J. Higginbotham, Hydrographer.....	Elko District
C. B. White, Hydrographer.....	Elko District
Bruce Connelly, Hydrographer.....	Elko District
Wm. Downey, Hydrographer.....	Elko District
Ruth Redford, Filing Clerk*.....	Winnemucca Office
Lona Abel, Filing Clerk.....	Winnemucca Office

*Resigned May 1, 1928. †Resigned April 1, 1928.

Carson River, 1927

F. N. Dondero, Supervising Water Commissioner.....	Entire River
C. F. W. Daugberg, Commissioner.....	West Fork

1928

F. N. Dondero, Supervising Water Commissioner.....	Entire River
C. F. W. Daugberg, Commissioner.....	West Fork
M. A. Guisti, Commissioner.....	Empire, Dayton and Churchill Districts
H. T. McQuiston, Commissioner*.....	East Fork
C. B. White, Hydrographer†.....	East and West Forks
A. F. McGee, Headgate Watchman‡.....	Churchill District

*July 25 to September 11. †July 13 to July 25. ‡August 18 to September 20.

Muddy River, 1927-1928

S. D. Conger, Commissioner..... Entire District

Currant and Duckwater Creeks, 1927-1928

A. A. Schole, Commissioner*..... Both Creeks

Ralston Crew, Commissioner†..... Both Creeks

*Until July 9, 1928. †From July 9 to October 1, 1928.

Pahrangat Lake, 1927-1928

H. T. McQuiston, Commissioner*..... Entire District

A. A. Schole, Commissioner†..... Entire District

*Until July 9, 1928. †July 9, 1928, to September 13, 1928.

Six Mile Creek, 1928

T. C. Plunkett, Commissioner..... Entire Creek

NOTE—No commissioner appointed for season of 1927.

IN COOPERATION WITH THE DEPARTMENT OF STATE ENGINEER**U. S. Geological Survey, Water Resources Branch**

A. B. Purton..... District Engineer in Charge

Nevada Cooperative Snow Surveys

J. E. Church, Jr..... In Charge

**BUREAUS AND COMMISSIONS OF WHICH STATE ENGINEER
IS A MEMBER****Nevada Colorado River Commission**

Hon. F. B. Balzar, Governor..... Chairman

Geo. W. Malone, State Engineer..... Secretary

Chas. P. Squires..... Member

Roy W. Martin..... Member

E. W. Clark..... Member

Chas. R. Henderson..... Member

Nevada Public Service Commission

J. F. Shaughnessy..... Chairman

Geo. W. Malone, State Engineer..... Member

W. H. Simmons*..... Member

*Deceased.

State Irrigation District Bond Commission

Hon. F. B. Balzar, Governor..... Chairman

E. J. Seaborn, Bank Examiner*..... Member

Geo. W. Malone, State Engineer..... Member

*Vice Trust Vencill, deceased.

Bureau of Industry, Agriculture and Irrigation

Hon. F. B. Balzar, Governor..... Chairman

Thos. A. Lotz, Surveyor-General*..... Member

Geo. W. Malone, State Engineer..... Member

*Vice Geo. C. Watt, deceased.

BIENNIAL REPORT OF STATE ENGINEER, 1927-1928

CHAPTER I—INTRODUCTORY AND GENERAL

The Legislative Act of 1903 created the office of the State Engineer primarily for the purpose of providing a method for determination and regulation of existing water rights in line with the then modern theory evolved in the western and semiarid states. This Act, while providing a method for adjudication of water rights which had become vested or were then in the process of initiation, neglected to provide a specific method by which future rights could be legally acquired; hence the Twenty-second Session of the Legislature passed an amendatory law approved March 1, 1905, providing the exclusive method of subsequently initiating and perfecting a water right by application to the State Engineer for permission to appropriate and apply water to beneficial use.

Other amendments to the water law have since been made from time to time, however, they have been primarily for the purpose of facilitating the administration of the fundamental Act of 1903 as amended in 1905.

To begin with, constructive results under the new law were slow of accomplishment, as might be expected, due to the necessity of working out details of administration. Later the State Engineer was hampered by court actions seeking to restrain him from proceeding under the water law, and vigorously attacking its constitutionality. These actions are a matter of record and will not be dwelt upon in detail. Throughout this period of constructive evolution, however, the water law emerged triumphant thus leaving the State Engineer free to carry out the provisions of the statute without further question as to its validity.

From a state officer charged primarily with administering the water law, the State Engineer's duties have gradually increased and expanded to embrace many activities not originally contemplated when the office was created. Thus, in addition to being a member of the Public Service Commission, a post which requires a great deal of extra work and travel, he is secretary of the Irrigation District Bond Commission, member of the Bureau of Industry, Agriculture and Irrigation, and member of the Colorado River Commission. These related activities of the State Engineer are covered in detail in Chapter VIII of this report.

In general, the activities of the office of the State Engineer may be divided into four classes, each of which is more or less separate and distinct.

1. Water Right Applications.
2. Adjudication of vested water rights.
3. Distribution of water on adjudicated streams.
4. Related activities and miscellaneous.

The office and field personnel has therefore been organized to accord with the aim of placing limited responsibility upon various individuals in conformity with the above grouping. Thus, the Assistant

State Engineer, in addition to exercising general supervision over the work included in all groups, handles and is responsible for the department of water right applications; the Deputy State Engineer conducts the adjudication of vested water rights, the various supervising water commissioners are directly responsible for the distribution of water on the larger streams such as the Humboldt and Carson Rivers; while the State Engineer, in addition to supervising all the above, personally conducts work in connection with his related activities.

The considerable volume of miscellaneous work which cannot be grouped exclusively under any one of the above heads is accomplished jointly by the entire office force.

The potential possibilities of the office of the State Engineer as a departmental agency contributing to the permanent economic development of the state water and range resources are limited only by the lack of adequate funds with which to carry on. There can be no question as to the value of the ultimate complete development of the State's water resources, and this can best be accomplished by the speedy and full determination of relative rights. This becomes doubly important since the passage of the stock watering Act of 1925, which now makes it possible for the State Engineer to control and stabilize values in public range areas through the administration of stock watering rights. It therefore logically follows that the interests of the state agricultural and stockraising industries can best be served by making it possible, by adequate legislative appropriation, for the State Engineer to function fully and efficiently.

CHAPTER II—ADMINISTRATION, APPEALS AND RULINGS

The years 1927-1928 were characterized by a continuance of sub-normal precipitation and consequent shortage in water supply for irrigation and stock watering purposes. Such periods are extremely trying for both the water users and the office of the State Engineer, which is charged with the duty of administering and regulating water rights. The past biennium has therefore been prolific of complaints and problems in connection with regulation and distribution of water, all of which required careful investigation and study upon which to predicate administrative action. Appeals, requesting rulings on water controversies, have come in from every nook and corner of the State and it has been the earnest endeavor of the State Engineer to give careful consideration and relief, where possible, in response to each appeal.

Although he has no legal jurisdiction over distribution and regulation of water on unadjudicated streams, appeals are frequently made for him to act as friend and arbiter to aid in effecting settlements of water controversies on such streams. A notable example of the good that can be accomplished in this manner is afforded by a settlement of a dispute between two water users on Woods Gulch, near Tuscarora, in Elko County. At the request of the water users the State Engineer, after an extended conference, was successful in getting the parties to amicably stipulate as to their relative rights. In this case, there being no other water users on the stream, the stipulation will afford the basis for a speedy adjudication and resulting court decree defining the water rights involved.

In addition to settling controversies similar to the foregoing on unadjudicated streams, many appeals have been made from decisions of water commissioners on streams, the relative rights to the use of water on which have been determined. It has been the general administrative policy not to hamper the activities of water commissioners by undue interference, since it is realized that the commissioner who is in the field and in close personal touch with the water users and their problems is, other things being equal, much better qualified to settle controversies which may arise than is the State Engineer, personally, or any of his office force, who at best have only a long range perspective regarding intimate details of water distribution throughout the State.

It has therefore been the policy to refer complaints and appeals from decisions of local water commissioners back to the commissioners themselves for further investigation and detailed report to the State Engineer. This usually results in the Commissioner and the aggrieved water user coming to an amicable and just settlement. However, in certain instances it has been necessary for the State Engineer to make a personal investigation in the field upon which to base a decision. Thus, during the past biennium, he has made field investigations in connection with appeals from water commissioner's decisions on the Humboldt River, Six Mile Creek, Duckwater and Currant Creeks, Clear Creek, in Ormsby County, and White River.

CHAPTER III—APPLICATION FOR WATER RIGHTS

During the biennium covered by this report 841 applications have been filed. Of this number 136 applications have not as yet been sent to publication, having been returned to the applicant for correction or being held pending the receipt of a supporting map.

During the years 1927 and 1928 positive action of some kind has been taken on 457 applications, representing action on 249 applications filed during the present biennium and 208 applications which were filed prior to January 1, 1927. This leaves on January 1, 1929, out of a total of 8,801 applications which have been filed since the creation of the office of the State Engineer, 1,474 applications which are now pending action by this office, 497 of which applications are protested.

There has been perceptible increase in the number of applications filed for stock watering purposes during recent years, and at the same time a marked decrease in the number filed for irrigation purposes, indicating that with the possible exception of underground waters, the point of complete utilization of irrigation water supply has practically been reached.

The major portion of the applications for stock water purposes represent filings on isolated springs and water holes. In numerous instances it is obvious that the primary object in filing these applications is either to acquire and perfect valid stock watering rights on lands of the public domain previously utilized for stock grazing purposes, or to gain a foothold on public range used by other persons and whose stock watering rights, either vested or applied, are probably somewhat questionable. For this reason it has been the policy of the office to proceed slowly in the granting of permits, unless it had some previous knowledge to the effect that prior or existing rights would not be impaired by the approval of an application.

In the administration of the stock watering Act the State Engineer is required to make numerous decisions affecting the appropriation of water for stock watering purposes, and in making these decisions he has pursued the past policy of the office in giving the prior user every benefit of the doubt in the matter of legal requirements governing the appropriation of water.

During the past biennium hearings have been held on protests against the granting of permits under 38 applications. In connection with these hearings and hearings conducted prior to the present biennium the State Engineer has made decisions affecting the rights covered by 56 applications. Appeals from the findings of the State Engineer in the matter of 18 of these applications are now pending in the District Courts within the counties in which the water rights involved are situated.

In order to secure more definite and accurate locations of sources applied for, the office now requires that a supporting map be submitted with each application before publication is made. It is found that such a procedure not only facilitates and simplifies the handling of records in connection with water rights but, it is believed, will ultimately result in saving appropriators considerable expense and needless trouble.

The following tabulations give details of all applications filed during years 1927-1928:

STATUS OF APPLICATIONS FILED DURING THE BIENNIUM 1927-1928

Following is a condensed statement giving the salient data in connection with applications filed during the calendar years 1927-1928, in the order of:

1. Application Serial Number.
2. Date of Filing.
3. Name of Applicant.
4. Source of Water Supply.
5. Purpose of Appropriation.
6. Action on Application.
7. Status of Permits as of December 31, 1928.

1927

7961	1-5-27	Champion Sillimanite, Inc.; Sillimanite Spring; Mining, milling and domestic; No action.
7962	1-7-27	Glenbrook Company; Secret Harbor or Bliss Creek; Power; No action.
7963	1-8-27	John T. Elder; Willow Creek Canyon; Irrigation*; Approved January 27, 1928.
7964	1-10-27	Williams Estate Co.; Edwards Spring No. 1; Stock water and domestic; Approved March 28, 1928. G. S.
7965	1-10-27	Williams Estate Co.; Edwards Spring No. 2; Stock water and domestic; Approved March 28, 1928. G. S.
7966	1-10-27	Williams Estate Co.; Cedar Spring No. 1; Stock water and domestic; Approved March 28, 1928. G. S.
7967	1-10-27	Williams Estate Co.; Cedar Spring No. 2; Stock water and domestic; Approved March 28, 1928. G. S.
7968	1-10-27	Williams Estate Co.; Cedar Spring No. 3; Stock water and domestic; Approved March 28, 1928. G. S.
7969	1-10-27	Williams Estate Co.; Cedar Spring No. 4; Stock water and domestic; Approved March 28, 1928. G. S.
7970	1-10-27	Williams Estate Co.; Star Spring; Stock water and domestic; No action.
7971	1-10-27	Williams Estate Co.; Aspen Spring; Stock water and domestic; Approved March 28, 1928. G. S.
7972	1-10-27	Williams Estate Co.; Topis Spring No. 3; Stock water and domestic; Approved March 28, 1928. G. S.
7973	1-10-27	Williams Estate Co.; Smooth Canyon; Stock water and domestic; Approved March 28, 1928. G. S.
7974	1-10-27	Williams Estate Co.; Lower Cedar Spring; Stock water and domestic; Approved March 28, 1928. G. S.
7975	1-10-27	Williams Estate Co.; Willow or Stone Spring; Stock water and domestic; Approved March 28, 1928. G. S.
7976	1-10-27	Williams Estate Co.; Cherry Spring No. 1; Stock water and domestic; No action.
7977	1-10-27	Williams Estate Co.; Cherry Spring No. 2; Stock water and domestic; No action.
7978	1-12-27	Ed Halstead; Indian Garden Spring; Stock water*; No action.
7979	1-15-27	The Adams McGill Co.; Moorman Spring Slough; Stock water; No action.
7980	1-16-27	United States Department Agriculture, Forest Service; Baker Creek; Irrigation and domestic*; No action.
7981	1-16-27	George H. Cater; Longstreet Canyon; Mining; No action.
7982	1-10-27	Martin Etchemendy; Etchemendy Spring No. 1; Stock water; Approved April 10, 1928. G. S.
7983	1-10-27	Martin Etchemendy; Etchemendy Spring No. 2; Stock water; Approved April 10, 1928. G. S.
7984	1-10-27	Martin Etchemendy; Etchemendy Spring No. 3; Stock water; Approved April 10, 1928. G. S.
7985	1-21-27	M. H. Donald; Manhattan Gulch; Placer mining, dredging and domestic; Approved October 19, 1927. G. S.
7986	1-22-27	George H. Eldridge; San Pedro Well; Stock water; No action.
7987	1-22-27	W. C. Morgan; Ben Spring; Irrigation, stock and domestic; No action.
7988	1-22-27	State of Nevada, Department of Highways; Hot Springs; Highway maintenance and domestic; Approved July 29, 1928. G. S.
7989	1-23-27	Arrenta Land and Cattle Co.; Humboldt River; Irrigation, stock and domestic; No action.
7990	1-23-27	Pete Saffores; Cherry Spring; Stock water and domestic*; No action.
7991	1-28-27	George R. Parman; Warm Spring; Irrigation and domestic; Approved April 17, 1928. G. S.
7992	1-20-27	H. L. Stiff; Hot Springs; Domestic; No action.
7993	2-3-27	Ira McFarland; Brady Springs; Irrigation and domestic; No action.
7994	2-3-27	Ira McFarland; Owens Spring; Irrigation and domestic; No action.
7995	2-3-27	Ira McFarland; McFarland Springs; Irrigation and domestic; No action.

*Protested application. G. S. Good standing.

- 7996...2- 3-27...Ira McFarland; Stratton Springs; Irrigation and domestic; No action.
- 7997...2- 3-27...Ira McFarland; Sawmill Springs; Irrigation and domestic; No action.
- 7998...2- 3-27...Ira McFarland; Willow Creek Spring; Irrigation; No action.
- 7999...2- 4-27...Edward Ryan; Lake Creek; Irrigation*; No action.
- 8000...2- 7-27...Martin Etechemendy; Etechemendy Spring No. 1; Stock water; Approved April 10, 1928. G. S.
- 8001...2- 8-27...R. B. Wier; Artesian Wells; Irrigation; Approved May 9, 1928. G. S.
- 8002...2- 9-27...George B. Williams; Pony Springs; Stock water; Canceled April 23, 1927.
- 8003...2-10-27...Rogers Brothers; Palo Alto Springs; Stock water; Canceled April 19, 1927.
- 8004...2-11-27...Clarence A. Lewis, Alvin G. Anderson; Muddy River; Power; No action.
- 8005...2-11-27...John G. Taylor; Clear Creek; Irrigation and domestic; Approved September 28, 1927. G. S.
- 8006...2-13-27...Joseph H. Dial; North Creek; Irrigation and domestic; No action.
- 8007...2-17-27...United Cattle and Pkg. Co.; Ray's Wells; Stock, irrigation and domestic; Approved January 10, 1928. G. S.
- 8008...2-17-27...United Cattle and Pkg. Co.; Fraxier Springs; Stock, irrigation and domestic; Approved January 10, 1928.
- 8009...2-17-27...Mattle M. Wood; Lone Pine Creek; Irrigation and domestic; Withdrawn May 26, 1927.
- 8010...2-18-27...J. P. Sarousspe; Old River-Carson; Irrigation and domestic; Canceled April 23, 1927.
- 8011...2-19-27...Williams Estate Co.; Freeman Creek; Stock water and domestic; Withdrawn June 24, 1927.
- 8012...2-19-27...Williams Estate Co.; Willow Spring; Stock water and domestic; Withdrawn June 24, 1927.
- 8013...2-22-27...J. P. Saffores; Basko Spring; Stock water*; No action.
- 8014...2-25-27...B. S. Robison; Partridge Spring; Stock water; No action.
- 8015...2-25-27...B. S. Robison; Blizzard Springs; Stock water; No action.
- 8016...2-25-27...B. S. Robison; Kiger Spring; Stock water; No action.
- 8017...2-25-27...B. S. Robison; Rock Spring; Stock water; No action.
- 8018...2-25-27...William C. Morgan; Point Spring; Irrigation, stock and domestic; Approved May 17, 1928. G. S.
- 8019...3- 2-27...Francis Cutting Co.; California Mill Spring No. 10; Stock water and domestic; No action.
- 8020...3- 2-27...Francis Cutting Co.; California Mill Spring No. 9; Stock water and domestic; No action.
- 8021...3- 2-27...Francis Cutting Co.; California Mill Spring No. 19; Stock and domestic; No action.
- 8022...3- 6-27...J. C. Wholey; Carrizo Creek; Irrigation, stock and domestic; No action.
- 8023...3- 7-27...Rogers Brothers; Willow Spring; Stock and domestic; Approved August 10, 1927. G. S.
- 8024...3- 8-27...E. R. Dodge; Surface and underground water; Power and domestic; Canceled June 4, 1927.
- 8025...3- 8-27...Amado Santa Cruz; Big Spring; Irrigation and domestic; Approved April 24, 1928. G. S.
- 8026...3- 9-27...William Orson Hudson; Lincoln Canyon; Irrigation and domestic; Approved May 2, 1928. G. S.
- 8027...3- 9-27...Andrew Boundy; Middle Creek; Stock water; No action.
- 8028...3-11-27...F. C. Vanover; Blackrock Spring; Stock water*; No action.
- 8029...3-11-27...F. C. Vanover; Vanover Spring; Stock water; No action.
- 8030...3-12-27...Joe Cazier and John Manzonie; Burnt Station Well; Stock water; Approved March 21, 1928. G. S.
- 8031...3-12-27...Joe Cazier and John Manzonie; Albert Spring; Stock water; No action.
- 8032...3-13-27...George H. Sharp; Trap Spring; Stock water and domestic; Approved July 14, 1928. G. S.
- 8033...3-13-27...George H. Sharp; Grand Central Spring; Stock water; Approved July 14, 1928. G. S.
- 8034...3-13-27...George H. Sharp; Mud Spring; Stock water; Canceled May 10, 1927.
- 8035...3-13-27...George H. Sharp; Blind Springs; Stock water; Canceled May 16, 1927.
- 8036...3-13-27...George H. Sharp; Irving Canyon Spring; Stock water; Canceled May 16, 1927.
- 8037...3-15-27...C. W. Straight; Stillwater Slough; Irrigation and domestic*; No action.
- 8038...3-15-27...Phillip W. Baker; Bone Spring; Stock water; Approved May 17, 1928. G. S.
- 8039...3-18-27...Williams Estate Co.; Box Canyon Spring; Stock water and domestic; Withdrawn June 24, 1927.
- 8040...3-19-27...Iven Jeffries; Cheroot Springs; Domestic and mining; No action.
- 8041...3-20-27...Geo. B. Williams L. & L. S. Co.; Baker Springs; Stock water; Withdrawn March 26, 1927.
- 8042...3-21-27...J. A. Sanders; Barrel Springs; Mining and domestic; Canceled May 26, 1927.
- 8043...3-22-27...George B. Williams; Rond Canyon Spring No. 2; Stock water and domestic; Approved April 24, 1928. G. S.
- 8044...3-22-27...Cazier Brothers; Mud Spring; Stock water; Approved February 9, 1928. G. S.
- 8045...3-22-27...Cazier Brothers; Old Sawmill Spring; Stock water; Approved February 9, 1928. G. S.
- 8046...3-22-27...Marteletti Bros.; Parry Spring; Irrigation and domestic; Withdrawn June 1, 1927.
- 8047...3-22-27...Marteletti Bros.; Blind Spring; Irrigation and domestic; Approved April 24, 1928. G. S.
- 8048...3-22-27...Ed. Halstead and Beasle Rosevear; Lampspring; Stock water; Approved March 24, 1928. G. S.
- 8049...3-25-27...George Sharp; Artesian Well; Stock water; Canceled June 15, 1927.
- 8050...3-25-27...Donald D. Eldridge; North Millieck Spring; Irrigation and domestic; No action.

*Protested application. G. S. Good standing.

8051. 3-25-27...David S. Eldridge; Eldridge Spring; Irrigation and domestic; No action.
8052. 3-25-27...George H. Eldridge; Want Spring; Stock water*; No action.
8053. 3-25-27...John Manzonie; North Well; Stock water and domestic; No action.
8054. 3-25-27...John Manzonie; Secret Springs; Stock water; No action.
8055. 3-25-27...John Manzonie; Wild Horse Spring; Stock water; Approved March 21, 1928. G. S.
8056. 3-26-27...Herrman Bohmert; Thomas Creek; Irrigation and stock; Approved May 2, 1928. G. S.
8057. 3-28-27...John Fielding; Granite Springs; Stock water; Approved April 28, 1928. G. S.
8058. 3-28-27...Grant Welch; Indian Spring; Stock water and domestic; No action.
8059. 3-28-27...Fred J. Hess; Lower Cottonwood Spring; Stock water; Approved June 18, 1928. G. S.
8060. 3-28-27...Fred J. Hess; Hess Spring; Stock water; Approved June 18, 1928. G. S.
8061. 3-29-27...G. S. Chack; Carson River; Mining and milling; No action.
8062. 3-29-27...Shade M. Johnson; Fish Creek; Stock water; No action.
8063. 3-29-27...Grass Valley L. & L. S. Co.; Cottonwood Creek; Stock water*; No action.
8064. 3-29-27...Grass Valley L. & L. S. Co.; Bartinas Spring; Stock water; No action.
8065. 3-29-27...Grass Valley L. & L. S. Co.; Garden Canyon Spring; Stock water; No action.
8066. 3-29-27...G. E. McKenna; Drilled Well; Stock water; No action.
8067. 3-30-27...C. R. Moorman; Wild Horse Spring; Stock water; Approved April 10, 1928. G. S.
8068. 3-30-27...C. R. Moorman; Halsteads Creek; Stock water; Approved April 10, 1928. G. S.
8069. 3-30-27...C. R. Moorman; School House Spring; Stock water; Approved April 10, 1928. G. S.
8070. 3-30-27...C. R. Moorman; Lodge Spring; Stock water; Approved April 10, 1928. G. S.
8071. 3-30-27...Grass Valley L. & L. S. Co.; Unnamed Spring; Stock water*; No action.
8072. 3-30-27...Grass Valley L. & L. S. Co.; Lanches Canyon; Stock water; No action.
8073. 3-31-27...Chas. Allen; Willow Creek; Irrigation and domestic; Approved October 4, 1927. G. S.
8074. 4-1-27...Adams McGill Co.; South Fox Artesian Well; Stock water; Approved January 16, 1928. Certificate.
8075. 4-1-27...Adams McGill Co.; Snyder Well No. 1; Stock water; Approved January 16, 1928. Certificate.
8076. 4-1-27...Adams McGill Co.; North Fork Artesian Well; Stock water; Approved January 16, 1928. Certificate.
8077. 4-1-27...Adams McGill Co.; Snyder Well No. 2; Stock water; Approved January 16, 1928. Certificate.
8078. 4-5-27...W. H. Gilmer & Sons; Unnamed Spring; Stock water and domestic; Canceled June 9, 1927.
8079. 4-5-27...W. H. Gilmer & Sons; Unnamed Springs; Stock water and domestic; Canceled June 9, 1927.
8080. 4-5-27...W. H. Gilmer & Sons; Unnamed Spring No. 2; Stock water and domestic; Canceled June 9, 1927.
8081. 4-5-27...W. H. Gilmer & Sons; Unnamed Spring No. 3; Stock water and domestic; Canceled June 9, 1927.
8082. 4-5-27...W. H. Gilmer & Sons; Unnamed Spring No. 4; Stock water and domestic; Canceled June 9, 1927.
8083. 4-5-27...W. H. Gilmer & Sons; Unnamed Spring No. 5; Stock water and domestic; Canceled June 9, 1927.
8084. 4-5-27...W. H. Gilmer & Sons; Stag Springs; Stock water and domestic; Canceled June 9, 1927.
8085. 4-5-27...W. H. Gilmer & Sons; Dry Creek Spring; Stock water and domestic; Canceled June 9, 1927.
8086. 4-5-27...W. H. Gilmer & Sons; Dry Creek Spring No. 2; Stock water and domestic; Canceled July 5, 1927.
8087. 4-5-27...W. H. Gilmer & Sons; Quaking Asp Canyon Spring; Stock water and domestic; Canceled August 5, 1927.
8088. 4-5-27...D. D. Sabals; Corral Spring; Stock water and domestic*; No action.
8089. 4-7-27...Harry E. Webb; Small Springs; Stock water; No action.
8090. 4-7-27...J. B. Davis; Rose Creek; Irrigation and domestic; No action.
8091. 4-7-27...J. F. Butler and C. H. Nash; Underground water; Mining and domestic; Approved December 20, 1928. G. S.
8092. 4-8-27...Preston Irrigation Co.; Preston Reservoir; Stock water; Canceled June 9, 1927.
8093. 4-8-27...Preston Irrigation Co.; Jakes Valley Reservoir; Stock water; Canceled June 9, 1927.
8094. 4-13-27...Fred J. Hess; Sulphur Springs; Stock water*; No action.
8095. 4-13-27...Nevada-Bellevue Copper Co.; 110 Tunnel and Workings; Milling; Canceled June 13, 1927.
8096. 4-13-27...F. E. Bell; Unnamed Well; Stock and domestic; No action.
8097. 4-13-27...F. E. Bell; Unnamed Well; Stock and domestic; No action.
8098. 4-18-27...James C. Jensen; Seigel Creek; Irrigation; Approved May 12, 1928. G. S.
8099. 4-18-27...Rogers Brothers; Palo Alto Spring; Stock water; Approved December 1, 1927. G. S.
8100. 4-19-27...B. H. Robinson; Water Cross Spring; Stock water and domestic; No action.
8101. 4-19-27...B. H. Robinson; Flood Water Creek; Stock water and domestic*; No action.
8102. 4-19-27...B. H. Robinson; Basin Spring; Stock water and domestic*; No action.
8103. 4-19-27...B. H. Robinson; Chin Creek; Stock water and domestic*; Denied November 23, 1928.
8104. 4-19-27...B. H. Robinson; Munay Creek; Stock water and domestic*; No action.
8105. 4-21-27...E. A. Settlemeyer; Unnamed Spring; Stock water; Approved August 31, 1927. G. S.

*Protested application. G. S. Good standing.

8106. 4-22-27. F. J. Powers & Son; High Rock Creek; Irrigation and domestic; Approved May 17, 1928. G. S.
8107. 4-22-27. F. J. Powers & Son; Hanging Rock Creek; Irrigation and domestic; approved May 17, 1928. G. S.
8108. 4-22-27. F. J. Powers & Son; High Rock Creek; Irrigation and domestic; Approved May 17, 1928. G. S.
8100. 4-25-27. W. J. and George A. Potts; Cabin Spring; Stock water and domestic; Approved October 1, 1928. G. S.
8110. 4-25-27. W. J. and George A. Potts; Unnamed Spring; Stock and domestic; Approved October 30, 1928. G. S.
8111. 4-25-27. W. J. and George A. Potts; Unnamed Spring; Stock and domestic; Approved October 30, 1928. G. S.
8112. 4-27-27. J. N. Bryan; Babbs Valley Well; Stock and domestic*; No action.
8113. 4-27-27. J. N. Bryan; Lower Sunnyside Creek Spring; Stock and domestic; No action.
8114. 4-28-27. Randall Sage; Fulham Spring; Stock water; No action.
8115. 4-28-27. A. N. Norcutt; Poco Camp Spring; Stock water and domestic*; No action.
8116. 5-1-27. P. H. Devlin and W. A. Hollinger; Reid Cabin Summit Spring; Stock water; Withdrawn July 9, 1927.
8117. 5-1-27. P. H. Devlin and W. A. Hollinger; Tobe Springs; Stock water*; Withdrawn June 15, 1928.
8118. 5-1-27. P. H. Devlin and W. A. Hollinger; Choke Cherry Creek; Stock water*; Withdrawn June 15, 1928.
8119. 5-2-27. Fred H. Jackson; Granite Springs; Mining and domestic*; No action.
8120. 5-2-27. Fred H. Jackson; Granite Spring; Mining and domestic*; No action.
8121. 5-3-27. F. J. Powers & Son; Hanging Rock Creek; Stock water; No action.
8122. 5-3-27. Harry E. Webb; Padelford Creek; Stock water*; No action.
8123. 5-5-27. D. McCutson; Shell Creek; Irrigation and domestic; Approved September 3, 1927. G. S.
8124. 5-6-27. Elizabeth S. Barndt; Summit Springs; Stock water and domestic; No action.
8125. 5-6-27. Elizabeth S. Barndt; Summit Station Tank; Stock water; No action.
8126. 5-6-27. Elizabeth S. Barndt; Hicks Springs; Irrigation; No action.
8127. 5-6-27. A. N. Norcutt & Sons; Buckbrush Spring; Stock water*; No action.
8128. 5-6-27. A. N. Norcutt & Sons; Long Canyon Spring; Stock water*; No action.
8129. 5-11-27. Frank Robbins; Stockade Spring; Irrigation and domestic; Canceled July 13, 1927.
8130. 5-13-27. E. O. Ringer, J. C. Fields and D. T. Stong; Baker Creek; Power; No action.
8131. 5-13-27. E. O. Ringer, J. C. Fields and D. T. Stong; Lehman Creek; Power; No action.
8132. 5-13-27. E. O. Ringer, J. C. Fields and D. T. Stong; Cleve Creek; Power; No action.
8133. 5-14-27. B. H. Robinson; Side Hill Spring; Stock water*; Denied November 23, 1928.
8134. 5-19-27. M. L. McClure; Rabbit Brush Spring; Stock water; No action.
8135. 5-19-27. Edwin Van Riper; Little Indian Spring; Stock water; No action.
8136. 5-19-27. Edwin Van Riper; Passan Spring; Stock water; No action.
8137. 5-20-27. L. D. Stone; Salmon River; Power; Canceled July 21, 1927.
8138. 5-22-27. George W. O'Niell; Mt. Ann Spring; Stock water and domestic; No action.
8139. 5-24-27. Randall Sage; McDermitt Creek; Stock water*; No action.
8140. 5-24-27. Abel & Raymond; Paradise Hill Spring; Stock water*; No action.
8141. 5-24-27. A. N. Norcutt & Sons; High Rock Springs; Stock water*; No action.
8142. 5-24-27. A. N. Norcutt & Sons; North Branch Spring; Stock water and domestic*; No action.
8143. 5-25-27. W. B. Griffith; Jose Creek Spring; Stock water; Withdrawn December 2, 1927.
8144. 5-29-27. Augustus F. Richan; Crain Slough; Irrigation and domestic; No action.
8145. 5-31-27. Elizabeth E. Floyd; Big Spring; Irrigation and domestic; Approved May 2, 1928. G. S.
8146. 5-31-27. Jean Caxaurang; Wheeler Spring; Stock water and domestic*; No action.
8147. 5-31-27. William O. Moorman; Flood Water Illipah Creek; Irrigation; Approved April 24, 1928. G. S.
8148. 6-3-27. Truckee Carson Irrigation District; Stillwater Slough; Irrigation and domestic; No action.
8149. 6-4-27. J. M. Ward and J. H. Smith; Lone Mountains Spring; Stock water; Approved July 14, 1928. G. S.
8150. 6-4-27. J. M. Ward and J. H. Smith; Parsnip Spring; Stock water; Approved July 14, 1928. G. S.
8151. 6-6-27. E. R. Dodge; Surface and Underground Water; Power and domestic; Canceled December 4, 1927.
8152. 6-6-27. Matti Capelli; New York Canyon; Stock water*; No action.
8153. 6-7-27. Seven Troughs Reorganized Mines Co.; Tunnel of Seven Troughs Mine; Mining, milling and domestic; Canceled April 3, 1928.
8154. 6-7-27. W. B. Oliphant; Spring; Mining and domestic*; No action.
8155. 6-7-27. Fred H. Jackson; Alpine Spring; Domestic; Canceled April 9, 1928.
8156. 6-8-27. F. D. McVitty; Kingsley Springs; Stock water and domestic; Denied November 2, 1928.
8157. 6-9-27. Anna Williams; Unnamed Spring; Domestic; Canceled August 9, 1927.
8158. 6-9-27. C. V. Cole; Wines Creek; Stock water; Canceled August 17, 1927.
8159. 6-9-27. James Allen Woodward; Pass Creek, North Fork; Irrigation*; No action.
8160. 6-9-27. James Allen Woodward; Pass Creek, South Fork; Irrigation*; No action.
8161. 6-10-27. Benjamin F. Woodward; Woodward Spring; Mining; Approved June 6, 1928. G. S.
8162. 6-10-27. Herbert A. Miller; Big Meadow Slough; Irrigation and domestic; No action.
8163. 6-11-27. James Doutré; Trough Springs; Stock water*; No action.
8164. 6-11-27. James Doutré; Barrel Springs; Stock water*; No action.
8165. 6-11-27. James Doutré; Camp Spring; Stock water; No action.

*Protested application. G. S. Good standing.

8166. 6-11-27. James Doutre; Lower Long Cliff Springs; Stock water; No action.
8167. 6-11-27. James Doutre; Upper Long Cliff Spring; Stock water; No action.
8168. 6-11-27. James Doutre; Sampson Spring; Stock water*; No action.
8169. 6-12-27. Cornell & Maestretti; Ryan Canyon Spring; Stock water*; No action.
8170. 6-12-27. Cornell & Maestretti; Smith Creek Valley Well; Stock water; No action.
8171. 6-14-27. Board of County Commissioners Douglas County; Underground Water; Municipal; Approved September 21, 1928. G. S.
8172. 6-15-27. Donald Eldridge; South Millick Spring; Irrigation and domestic; No action.
8173. 6-15-27. Boulder Canyon Airways, Inc.; Vegas Valley Artesian Basin; Irrigation and domestic; No action.
8174. 6-16-27. Frank Bell; Smoked-Up Spring; Stock water and domestic; Canceled August 22, 1928.
8175. 6-17-27. M. L. McClure; Pony Spring; Stock water and domestic*; No action.
8176. 6-17-27. M. L. McClure; Datch John Well; Stock water and domestic; No action.
8177. 6-17-27. Grass Valley L. & L. S. Co.; Indian Creek Spring; Stock water and domestic*; No action.
8178. 6-17-27. Texas A. McCall; Big Spring; Irrigation and domestic; No action.
8179. 6-17-27. Texas A. McCall; Fairbanks Spring; Irrigation and domestic; No action.
8180. 6-19-27. Merle S. Hornbeck; Waste Water from Timber Creek; Irrigation and domestic; Withdrawn October 15, 1927.
8181. 6-20-27. Bert Lyman; Meadow Valley Wash; Irrigation and domestic; No action.
8182. 6-20-27. A. C. Florio; Gihellini Spring No. 2; Stock water; No action.
8183. 6-20-27. A. C. Florio; Hash Spring; Stock water; Approved April 26, 1928. Certificate.
8184. 6-20-27. A. C. Florio; Railroad Spring; Stock water; Approved April 26, 1928. Certificate.
8185. 6-20-27. A. C. Florio; Trap Corral Spring; Stock water; Approved April 26, 1928. Certificate.
8186. 6-20-27. A. C. Florio; Dale Canyon Spring; Stock water*; No action.
8187. 6-20-27. A. C. Florio; White Rock Spring; Stock water; Approved April 26, 1928. Certificate.
8188. 6-21-27. Hermann Deitlaff; Deitlaff Springs Nos. 1, 2, 3, 4; Irrigation and domestic; No action.
8189. 6-21-27. Meaker & Heward; South Willow Creek Spring; Stock water; No action.
8190. 6-21-27. William Hendrix; Quaking Asp Spring; Stock water*; No action.
8191. 6-22-27. Ed. Filippini; Crum Creek; Irrigation; Canceled August 22, 1928.
8192. 6-22-27. Frank Ludwig; Ludwig Spring; Irrigation and domestic; No action.
8193. 6-22-27. Frank Ludwig; Archie Spring; Irrigation and domestic*; No action.
8194. 6-24-27. Farrest, A. and Garnet G. Parry; Garnet Springs; Stock water*; No action.
8195. 6-24-27. The Glenbrook Co.; South Logan Shoal Creek; Irrigation and domestic; Withdrawn November 23, 1927.
8196. 6-24-27. The Glenbrook Co.; South Logan Shoal Creek; Power and domestic; Withdrawn November 23, 1927.
8197. 6-24-27. The Glenbrook Co.; Glenbrook Creek and Tributaries; Irrigation and domestic; No action.
8198. 6-25-27. A. C. Florio; Gihellini Spring No. 1; Stock water; Approved April 26, 1928. Certificate.
8199. 6-26-27. W. T. Cunningham; Jerome Vidivich Spring; Stock water; No action.
8200. 6-26-27. J. H. Bradish; Bradish Spring No. 1; Stock water; Approved May 9, 1928. G. S.
8201. 6-26-27. J. H. Bradish; Bradish Spring No. 2; Stock water; Approved May 9, 1928. G. S.
8202. 6-26-27. Garat & Co.; Unnamed Spring; Stock water; No action.
8203. 6-28-27. J. Q. Palmer; Blue Jacket Creek; Power, mining and milling; Withdrawn September 12, 1927.
8204. 6-29-27. B. F. Roberts and M. Moritti; Township Creek; Mining, milling and domestic; No action.
8205. 6-29-27. John M. Bunker; Meadow Valley Creek; Irrigation; Approved April 21, 1928. G. S.
8206. 6-30-27. Lyle J. Craner; Private Well; Irrigation and domestic; No action.
8207. 6-30-27. Harry E. Webb; Unnamed Spring; Stock water; No action.
8208. 6-12-27. J. M. Ward and J. H. Smith; Lower Buffalo Creek; Stock water; Approved July 14, 1928. G. S.
8209. 6-12-27. J. M. Ward and J. H. Smith; Middle Fork Spring; Stock water; Approved July 14, 1928. G. S.
8210. 7- 5-27. Ernest Mattinson; New York Creek; Mining and domestic; Canceled September 30, 1928.
8211. 7- 5-27. Robert A. Allen; Beatty Springs; Power and domestic; No action.
8212. 7- 6-27. J. P. Saffors; Little Weiner Spring; Stock water; Approved December 3, 1928. G. S.
8213. 7- 7-27. Marinus Allard and Joseph Hermelin; Stone House Spring; Stock water; No action.
8214. 7- 7-27. Marinus Allard and Joseph Hermelin; Jersey Creek Spring; Stock water; No action.
8215. 7- 7-27. Marinus Allard and Joseph Hermelin; Cherry Creek Spring; Stock water; No action.
8216. 7- 7-27. Marinus Allard and Joseph Hermelin; Wild Creek; Stock water; No action.
8217. 7- 7-27. Marinus Allard and Joseph Hermelin; White Rock Spring; Stock water; No action.
8218. 7- 7-27. Jean P. Duque; Summit Spring; Stock water; No action.
8219. 7- 8-27. W. A. Lowry; Boone Spring; Stock water*; No action.
8220. 7-12-27. Alex Duferrena; Crow Creek Spring; Stock water; Canceled October 25, 1928.
8221. 7-12-27. Alex Duferrena; Maaizie Spring; Stock water; Canceled October 25, 1928.

*Protested application. G. S. Good standing.

- 8222 7-12-27 Alex Dufferrena; Wilder Creek; Stock water; Canceled October 25, 1928.
- 8223 7-12-27 Alex Dufferrena; Wilder Creek; Stock water; Approved July 14, 1928. G. S.
- 8224 7-12-27 Alex Dufferrena; Shyster Creek; Stock water; Canceled October 25, 1928.
- 8225 7-12-27 Alex Dufferrena; Shyster Creek; Stock water; Approved July 14, 1928. G. S.
- 8226 7-12-27 Alex Dufferrena; Sage Hen Creek; Stock water*; No action.
- 8227 7-12-27 Alex Dufferrena; Mud Creek; Stock water*; No action.
- 8228 7-12-27 Alex Dufferrena; Virgin Creek; Stock water; Approved July 14, 1928. G. S.
- 8229 7-12-27 Alex Dufferrena; Diamond Spring; Stock water; Approved July 14, 1928. G. S.
- 8230 7-12-27 Alex Dufferrena; Texas Spring; Stock water; Approved July 14, 1928. G. S.
- 8231 7-16-27 B. H. Robison; Pine Spring No. 5; Stock water*; No action.
- 8232 7-16-27 B. H. Robison; Pine Spring No. 2; Stock water*; Denied November 23, 1928.
- 8233 7-16-27 B. H. Robison; Choke Cherry Spring No. 3; Stock water*; No action.
- 8234 7-16-27 B. H. Robison; Cedar Spring No. 2; Stock water*; Withdrawn October 10, 1928.
- 8235 7-16-27 B. H. Robison; Cedar Spring No. 1; Stock water*; Denied November 23, 1928.
- 8236 7-16-27 B. H. Robison; Chicken Spring No. 2; Stock water*; Denied November 23, 1928.
- 8237 7-16-27 B. H. Robison; Sidehill Spring No. 2; Stock water*; Denied November 23, 1928.
- 8238 7-16-27 Frank E. Bell; Union Canyon Spring; Stock water*; No action.
- 8239 7-18-27 W. E. Barnard; Burk Creek Spring; Irrigation and domestic; No action.
- 8240 7-19-27 Williams Estate Co.; Water Canyon Spring; Stock water and domestic; Approved October 24, 1928. G. S.
- 8241 7-19-27 Williams Estate Co.; Cottonwood Spring; Stock and domestic; No action.
- 8242 7-19-27 Williams Estate Co.; Dip Spring; Stock water and domestic; Approved October 24, 1928. G. S.
- 8243 7-20-27 W. H. Glimmer & Sons; Unnamed Spring; Stock water and domestic; Approved May 22, 1928. G. S.
- 8244 7-20-27 Mrs. B. D. McGee; Stockade Spring; Stock water and domestic; Denied November 2, 1928.
- 8245 7-20-27 Griswold-Henderson L. S. Co.; Eagle Rock Spring; Stock water; No action.
- 8246 7-20-27 Griswold-Henderson L. S. Co.; Unnamed Spring; Stock water; No action.
- 8247 7-22-27 Williams Estate Co.; Skull Spring; Stock water and domestic; No action.
- 8248 7-22-27 Williams Estate Co.; Rodeo Spring; Stock water and domestic; Approved October 24, 1928. G. S.
- 8249 7-22-27 Williams Estate Co.; Double Mt. Spring; Stock water and domestic; No action.
- 8250 3-17-27 Charles W. Straight; Stillwater Slough; Irrigation*; No action.
- 8251 7-31-27 Lawrence F. Anderson; Anderson Spring No. 4; Stock water; Approved September 27, 1928. G. S.
- 8252 7-31-27 Lawrence F. Anderson; Anderson Spring No. 3; Stock water; Approved September 27, 1928. G. S.
- 8253 7-31-27 Lawrence F. Anderson; Anderson Spring No. 2; Stock water; Approved September 27, 1928. G. S.
- 8254 7-31-27 Lawrence F. Anderson; Anderson Spring No. 1; Stock water; Approved September 27, 1928. G. S.
- 8255 7-31-27 R. W. Anderson; Anderson Spring; Stock water; Approved September 27, 1928. G. S.
- 8256 8- 1-27 James S. Morrison; Highway Spring; Stock water; No action.
- 8257 8- 1-27 Charles P. Squires and Roy Martin; Little Falls Creek; Power and domestic*; No action.
- 8258 8- 1-27 Elizabeth S. Burndt; Limestone Spring; Stock and domestic*; No action.
- 8259 8- 1-27 Elizabeth S. Burndt; Pott Hole Spring; Stock and domestic*; No action.
- 8260 8- 4-27 Elizabeth S. Burndt; Big Cow Canyon; Stock and domestic*; No action.
- 8261 8- 4-27 Elizabeth S. Burndt; Little Cow Canyon; Stock and domestic*; No action.
- 8262 8- 5-27 H. J. Kaul; Pacer Spring T; Mining and domestic; Approved July 14, 1928. G. S.
- 8263 8- 5-27 E. W. Griffith; Rainbow Creek; Irrigation and domestic; No action.
- 8264 8- 7-27 B. H. Robison; Chicken Spring; Stock water*; Denied November 23, 1928.
- 8265 8- 7-27 B. H. Robison; Sidehill Spring No. 1; Stock water*; Denied November 23, 1928.
- 8266 8- 8-27 Albert Knight; Unnamed Spring; Irrigation and domestic; No action.
- 8267 8- 8-27 James Doutré; Kinsey Spring; Stock water; Canceled December 9, 1927.
- 8268 8- 8-27 Carson and Tahoe Lumber and Fluming Co.; S. Fork Unnamed Creek; Irrigation and domestic; No action.
- 8269 8- 8-27 Carson and Tahoe Lumber and Fluming Co.; N. Fork Unnamed Creek; Irrigation and domestic; No action.
- 8270 8- 9-27 John A. Magnuson; Lower Kinsey Spring; Stock and domestic; Approved September 20, 1928. G. S.
- 8271 8-10-27 F. W. Noble and Smith Sheep Co.; Unnamed Spring; Stock and domestic; Approved February 23, 1928. G. S.
- 8272 8-10-27 Martin Etchemendy; Etchemendy Spring No. 5; Stock water; Approved March 1, 1928. G. S.
- 8273 8-10-27 Martin Etchemendy; Etchemendy Spring No. 6; Stock water; Approved March 1, 1928. G. S.
- 8274 8-10-27 Martin Etchemendy; Etchemendy Spring No. 7; Stock water; Approved March 1, 1928. G. S.
- 8275 8-10-27 Martin Etchemendy; Etchemendy Spring No. 9; Stock water; Approved March 1, 1928. G. S.

*Protested application. G. S. Good standing.

- 8276 8-10-27. Martin Etchemendy; Etchemendy Spring No. 10; Stock water; Approved March 1, 1928. G. S.
- 8277 8-10-27. W. H. Gilmer & Sons; Quaking Asp Canyon Springs; Stock water and domestic; Approved March 22, 1928. G. S.
- 8278 8-10-27. W. H. Gilmer & Sons; Dry Creek Spring No. 2; Stock water and domestic; Approved May 22, 1928. G. S.
- 8279 8-10-27. W. H. Gilmer & Sons; Dry Creek and Spring; Stock water and domestic; Approved May 22, 1928. G. S.
- 8280 8-10-27. W. H. Gilmer & Sons; Stag Spring; Stock water and domestic; Approved May 22, 1928. G. S.
- 8281 8-10-27. W. H. Gilmer & Sons; Unnamed Spring No. 5; Stock water and domestic; Approved May 22, 1928. G. S.
- 8282 8-10-27. W. H. Gilmer & Sons; Unnamed Spring No. 4; Stock water and domestic; Approved May 22, 1928. G. S.
- 8283 8-10-27. W. H. Gilmer & Sons; Unnamed Spring No. 3; Stock water and domestic; Approved May 22, 1928. G. S.
- 8284 8-10-27. W. H. Gilmer & Sons; Unnamed Spring No. 2; Stock water and domestic; Approved May 22, 1928. G. S.
- 8285 8-10-27. W. H. Gilmer & Sons; Unnamed Spring No. 1; Stock water and domestic; Approved May 22, 1928. G. S.
- 8286 8-10-27. W. H. Gilmer & Sons; Unnamed Spring; Stock water; Approved May 22, 1928. G. S.
- 8287 8-12-27. W. E. Barnard; Burk Creek; Power; No action.
- 8288 8-12-27. Carson and Tahoe Lumber and Flaming Co.; Markette Creek; Irrigation and domestic; No action.
- 8289 8-13-27. W. E. Barnard; Burk Creek; Irrigation, power and domestic; No action.
- 8290 8-14-27. John A. Magnuson; Upper Kinsey Spring; Stock water and domestic; Approved September 20, 1928. G. S.
- 8291 8-15-27. W. J. and Geo. A. Potts; Dick Allison Spring; Stock water and domestic; Approved September 30, 1928. G. S.
- 8292 8-15-27. James M. Barbridge; Barbridge Big Spring; Stock water; Approved March 16, 1928. G. S.
- 8293 8-15-27. James M. Barbridge; Bullion Spring; Stock water; Approved March 16, 1928. G. S.
- 8294 8-15-27. The Glenbrook Company; Spooner Meadows Reservoir; Irrigation and domestic*; No action.
- 8295 8-15-27. The Glenbrook Company; North Canyon Creek; Power*; No action.
- 8296 8-15-27. The Glenbrook Company; Bliss Creek; Power and domestic*; No action.
- 8297 8-15-27. The Glenbrook Company; Spooner Meadows Creek; Power and domestic*; No action.
- 8298 8-18-27. J. P. Saffores; Caayon Spring; Stock water*; Approved December 3, 1928. G. S.
- 8299 8-10-27. Burton H. Robison; Choke Cherry Spring No. 1; Stock water*; No action.
- 8300 8-22-27. Handley Brothers; White Hill Spring; Stock water; No action.
- 8301 8-22-27. Handley Brothers; Well; Stock water; Approved July 17, 1928. G. S.
- 8302 8-23-27. Basque Mining and Milling Co.; Basque Springs; Mining and domestic; Approved July 21, 1928. G. S.
- 8303 8-23-27. E. E. Woodruff; Sage Hen Spring; Stock water and domestic; No action.
- 8304 8-24-27. Fernando Goicoechea; Unnamed Spring; Stock water and domestic; No action.
- 8305 8-24-27. Fernando Goicoechea; Unnamed Spring; Stock water and domestic; No action.
- 8306 8-29-27. Preston Irrigation Company; Preston Big Spring; Stock water*; No action.
- 8307 8-29-27. Preston Irrigation Company; Jokes Wash Reservoir; Stock water*; No action.
- 8308 8-29-27. Humboldt Sulphur Company; Humboldt Sulphur Wells; Milling and domestic; No action.
- 8309 8-29-27. Humboldt Sulphur Company; Cold Sulphur Spring; Milling and domestic; No action.
- 8310 8-30-27. Mary C. Lloyd and Lucretia J. Langen; Underground Water; Irrigation and domestic; Withdrawn September 24, 1928.
- 8311 8-31-27. Carson and Tahoe Lumber and Flaming Co.; Mariette Creek; Power; No action.
- 8312 9- 1-27. John M. Anderson; Baptist Spring; Mining, milling and domestic; Approved October 30, 1928. G. S.
- 8313 9- 1-27. Myrtle O. Bell; Bell Spring; Irrigation; Approved February 23, 1928. G. S.
- 8314 9- 5-27. William Hendrix; Choke Cherry Spring; Stock water*; No action.
- 8315 9- 5-27. William Hendrix; Rock Spring; Stock water*; No action.
- 8316 9- 8-27. Mrs. Mary J. Faull; Lone Spring No. 1; Stock water. Canceled September 15, 1928.
- 8317 9- 8-27. Mrs. Mary J. Faull; Lone Spring; Stock water; Canceled September 15, 1928.
- 8318 9- 9-27. Williams Estate Company; Bernice Spring; Stock water; No action.
- 8319 9-15-27. R. H. Cowles; Stone House Spring; Stock water; No action.
- 8320 9-15-27. Donly Gray; Shallow Well; Stock water and domestic; Approved February 20, 1928. G. S.
- 8321 9-16-27. Los Angeles and Salt Lake Railroad; Muddy River; Irrigation and domestic; No action.
- 8322 9-16-27. Snow Creek Livestock; West Spring; Stock water*; No action.
- 8323 9-16-27. Snow Creek Livestock; East Spring; Stock water; No action.
- 8324 9-17-27. H. W. Parker; Wolframite Spring; Mining and milling*; No action.
- 8325 9-17-27. H. W. Parker; Well; Milling and domestic*; No action.

*Protested application. G. S. Good standing.

- 8326-9-29-27...Carson and Tahoe Lumber and Flaming Co.; Unnamed Spring; Irrigation and domestic; No action.
- 8327-9-29-27...Carson and Tahoe Lumber and Flaming Co.; Unnamed Spring; Irrigation and domestic; No action.
- 8328-9-30-27...H. Wilber, S. C. Stratton and Joseph Carpenter; Soldier Boy; Domestic; Canceled March 15, 1928.
- 8329-9-30-27...Schafer Sheep Company; Schaefer Well; Stock water; No action.
- 8330-10-1-27...Alma Woods; Clover Spring; Stock water and domestic; No action.
- 8331-10-1-27...Alma Woods; Shamrock Springs; Stock water and domestic; No action.
- 8332-10-5-27...Snow Creek Livestock Co.; Taylor Springs 1 and 2; Stock water; Approved September 30, 1928. G. S.
- 8333-10-5-27...Snow Creek Livestock Co.; Taylor Spring No. 3; Stock water; Approved October 30, 1928. G. S.
- 8334-10-5-27...Snow Creek Livestock Co.; Taylor Spring No. 4; Stock water; Approved October 30, 1928. G. S.
- 8335-10-5-27...Snow Creek Livestock Co.; Taylor Spring No. 5; Stock water; Approved October 30, 1928. G. S.
- 8336-10-5-27...Snow Creek Livestock Co.; Summit Spring; Stock water; Approved October 30, 1928. G. S.
- 8337-10-5-27...Snow Creek Livestock Co.; Deer Spring; Stock water; Approved October 30, 1928. G. S.
- 8338-10-5-27...Rafael Gamboa; Mud Spring; Stock water*; No action.
- 8339-10-5-27...Handley Brothers; Mahogany Spring; Stock water; No action.
- 8340-10-6-27...L. F. Clar; Underground Waters; Mining and domestic*; No action.
- 8341-10-6-27...Moses Reinhart; Grand Trund Spring; Stock water; No action.
- 8342-10-6-27...Walter C. Bloomfield; Magale Creek; Manufacturing and domestic; Canceled November 15, 1928.
- 8343-10-8-27...R. B. Sorensen; Uncle Sam Spring; Mining; Canceled November 15, 1928.
- 8344-10-13-27...Frank Yrazoqui; South Spring; Stock water*; No action.
- 8345-10-13-27...Frank Yrazoqui; Mud Springs; Stock water*; No action.
- 8346-10-13-27...Frank Yrazoqui; Flat Spring; Stock water*; No action.
- 8347-10-17-27...R. H. Cowles; Coyote Spring; Stock water; No action.
- 8348-10-18-27...William Hendrix; Sawmill Spring; Stock water; Canceled November 15, 1928.
- 8349-10-18-27...J. H. Rice; Upper Stockade Spring; Irrigation and domestic; Denied November 2, 1928.
- 8350-10-20-27...Carson and Tahoe Lumber and Flaming Co.; Marlette Creek; Irrigation and domestic; No action.
- 8351-10-21-27...Mochs Bros. (R. J. and Joe); Mochs Spring; Stock water*; No action.
- 8352-10-21-27...Mochs Bros. (R. J. and Joe); Rodeo Creek; Stock water; No action.
- 8353-10-21-27...Mochs Bros. (R. J. and Joe); Wild Horse Canyon; Stock water*; No action.
- 8354-10-21-27...Mochs Bros. (R. J. and Joe); Upper Little Rattlesnake; Stock water*; No action.
- 8355-10-21-27...Mochs Bros. (R. J. and Joe); Mochs Spring No. 1; Stock water; No action.
- 8356-10-21-27...Mochs Bros. (R. J. and Joe); Mochs Spring No. 2; Stock water; No action.
- 8357-10-21-27...Mochs Bros. (R. J. and Joe); Fox Canyon Spring; Stock water*; No action.
- 8358-10-21-27...Mochs Bros. (R. J. and Joe); Jackass Spring; Stock water*; No action.
- 8359-10-22-27...Clinton Lavaun Averett; Meadow Valley Wash; Irrigation; No action.
- 8360-10-25-27...C. L. Fulstone; North Canyon Creek; Power and domestic; No action.
- 8361-10-25-27...Emil Baumann; Rye Patch Spring; Stock water; Approved September 21, 1928. G. S.
- 8362-10-26-27...Ernest Want; Sacramento Spring; Stock water*; No action.
- 8363-10-26-27...Clark's Valley Land & Sheep Co.; Wild Cat Spring; Stock water*; No action.
- 8364-10-26-27...Clark's Valley Land & Sheep Co.; Deer Spring; Stock water; No action.
- 8365-10-26-27...Clark's Valley Land & Sheep Co.; Horse Canyon Springs and Creek; Stock water*; No action.
- 8366-10-26-27...Clark's Valley Land & Sheep Co.; Rattlesnake Spring; Stock water. No action.
- 8367-10-26-27...Clark's Valley Land & Sheep Co.; Hole in the Ground Creek; Stock water; No action.
- 8368-10-26-27...Clark's Valley Land & Sheep Co.; Wild Cat Canyon Spring; Stock water*; No action.
- 8369-10-26-27...Clark's Valley Land & Sheep Co.; Stone Corral Canyon Spring; Stock water*; No action.
- 8370-10-26-27...Clark's Valley Land & Sheep Co.; Stone Corral Canyon Spring; Stock water; No action.
- 8371-10-26-27...Clark's Valley Land & Sheep Co.; Cow Spring; Stock water*; No action.
- 8372-10-26-27...Clark's Valley Land & Sheep Co.; Buffalo Creek; Stock water*; No action.
- 8373-10-26-27...J. P. Duque; Sage Hen Springs; Stock water; No action.
- 8374-10-26-27...J. P. Duque; Wild Cat Springs; Stock water*; No action.
- 8375-10-26-27...J. P. Duque; Coyote Springs; Stock water*; No action.
- 8376-10-29-27...F. A. Nolan; Big Springs; Irrigation; Approved October 3, 1928. G. S.
- 8377-11-5-27...Frank E. Bell; Cottonwood Canyon Creek; Stock water and domestic; No action.
- 8378-11-5-27...Frank E. Bell; Mission Canyon Creek; Stock water and domestic; No action.
- 8379-11-9-27...Albert Welch; Cottonwood Creek; Stock water; No action.
- 8380-11-9-27...Grant Welch; Welch Well; Stock water and domestic; No action.
- 8381-11-11-27...Mary J. Averett; Meadow Valley Wash; Irrigation and domestic; Approved July 20, 1928. G. S.
- 8382-11-11-27...Matti Capelli; Sentinel Peak Spring; Stock water*; No action.
- 8383-11-11-27...A. L. Delong; Lone Tree Spring; Stock water* No action.
- 8384-11-13-27...American Beauty Mining & Milling Co.; Humboldt River; Power; No action.

*Protested application. G. S. Good standing.

8385. 11-13-27. American Beauty Mining & Milling Co.; Humboldt River; Milling; No action.
8386. 11-13-27. American Beauty Mining & Milling Co.; American Beauty Spring; Domestic; No action.
8387. 11-12-27. W. R. Griffith; North Bench Jose Springs; Stock water; Approved September 27, 1928. G. S.
8388. 11-15-27. Geo. W. Schmidlein; Schmidlein's Spring; Stock water; Canceled November 15, 1928.
8389. 11-16-27. Geo. W. O'Neill; Artesian Well; Stock water*; No action.
8390. 11-17-27. W. T. Jenkins Company; Winter Spring; Stock water*; No action.
8391. 11-17-27. John G. Pace; Moonshine Well; Stock water; No action.
8392. 11-17-27. John G. Pace; Rye Patch Reservoir; Stock water; No action.
8393. 11-18-27. Washington Rogers; Nixzer Creek; Irrigation*; Approved December 5, 1928. G. S.
8394. 11-21-27. Clark E. Brown; Sheep Creek Spring; Stock water and domestic*; No action.
8395. 11-22-27. Frank E. Bell; Granite Springs; Stock water and domestic; No action.
8396. 11-23-27. Ely Calumet Mining Corp.; Piermont Creek; Mining, milling and domestic*; No action.
8397. 11-25-27. Frits Walti; Walti Springs 16, 17, 18, 19; Irrigation and domestic; Approved September 29, 1928. G. S.
8398. 11-28-27. Carson and Tahoe Lumber and Fluming Co.; High Meadow Springs; Irrigation and domestic; No action.
8399. 11-28-27. Roy Suttle; Unnamed Spring No. 2; Stock water*; No action.
8400. 11-28-27. Roy Suttle; Unnamed Spring No. 1; Stock water*; No action.
8401. 11-28-27. J. D. McNett; Sand Springs; Irrigation and domestic; Approved September 21, 1928. G. S.
8402. 12- 3-27. Lloyd G. High; Deer Springs; Stock water*; No action.
8403. 12- 5-27. Marcos Legarra; Stone Cabin Spring; Stock water; Approved November 20, 1928. G. S.
8404. 12- 7-27. W. B. Griffith; Rocky Canyon Spring; Stock water; Approved September 27, 1928. G. S.
8405. 12- 8-27. M. L. McClure; Mule Shoe Spring; Stock water; No action.
8406. 12- 8-27. M. L. McClure; Wild Horse Spring; Stock water and domestic; No action.
8407. 12- 8-27. M. L. McClure; Poor Cow Spring; Stock water and domestic; No action.
8408. 12- 8-27. M. L. McClure; Gouge Eye Spring; Stock water and domestic; No action.
8409. 12-17-27. George B. Noble; Sheep Spring; Stock water*; No action.
8410. 12-23-27. E. E. Seyler; Unnamed Spring; Stock water; Approved September 27, 1928. G. S.
8411. 12-26-27. Adams McGill Company; Cooper Flat Well; Stock water; No action.
8412. 12-27-27. Kate P. Smith; Spring Valley Spring; Stock water; Approved October 30, 1928. G. S.
8413. 12-29-27. Clark's Valley Land & Sheep Co., Inc.; Indian Spring; Stock water*; No action.
8414. 12-29-27. Clark's Valley Land & Sheep Co., Inc.; Fish Spring; Stock water; No action.
8415. 12-30-27. Batrix E. Andrae; Trail Creek and Tributaries; Irrigation; Approved September 27, 1928. G. S.

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8416. 1- 1-28. J. J. Flemming & Co.; Coyote Spring; Stock water and domestic*; No action.
8417. 1- 4-28. Mrs. Lena Harkey Scott; High Rock Creek; Stock water and domestic; No action.
8418. 1- 4-28. Mrs. Lena Harkey Scott; Upper Grassy Spring; Stock water; No action.
8419. 1- 4-28. Mrs. Lena Harkey Scott; Lake or Pot Hole; Stock water; No action.
8420. 1- 4-28. Mrs. Lena Harkey Scott; High Rock Spring; Stock water; No action.
8421. 1- 5-28. Geo. H. Sharp; Mud Spring; Stock water; Approved July 14, 1928. G. S.
8422. 1- 5-28. Geo. H. Sharp; Blind Spring; Stock water; Approved July 14, 1928. G. S.
8423. 1- 5-28. Geo. H. Sharp; Artesian Well; Stock water; Approved July 14, 1928. G. S.
8424. 1- 5-28. Geo. H. Sharp; Irvin Canyon Spring; Stock water; Approved July 14, 1928. G. S.
8425. 1- 6-28. Mrs. Emily A. Pence; Poison Creek Spring; Stock and domestic; Approved June 22, 1928. G. S.
8426. 1- 6-28. Mrs. Emily A. Pence; Mahogany Spring; Stock water and domestic; Approved June 22, 1928. G. S.
8427. 1- 6-28. Nevada Douglas Gold Mines Co.; Pepper Spring; Mining, milling and domestic; No action.
8428. 1- 7-28. Adams McGill Company; Bradley Well; Stock water*; No action.
8429. 1- 8-28. Henry H. Lee; Bullionville Spring; Irrigation and domestic*; No action.
8430. 1- 8-28. Muddy Valley Irrigation Co.; Muddy River and Tributaries; Irrigation and domestic; No action.
8431. 1- 8-28. R. H. Rowland; Natural Spring; Mining, milling and domestic; Canceled November 15, 1928.
8432. 1-14-28. John Cordano; Log Canyon Spring; Stock water and domestic*; Denied November 20, 1928.
8433. 1-18-28. Harry McNamara; Valcaldia Springs; Mining, milling and domestic; Canceled November 15, 1928.
8434. 1-19-28. Frank E. Bell; Story Spring; Stock water and domestic; No action.
8435. 1-19-28. Frank E. Bell; Paint Rock Spring; Stock water and domestic; No action.
8436. 1-19-28. Frank E. Bell; Cottonwood Spring; Stock water and domestic; No action.
8437. 1-23-28. Mrs. Effie M. Jaime; Two Wells; Irrigation and domestic; Approved September 19, 1928. G. S.

*Protested application. G. S. Good standing.

- 8438 1-25-28 Abraham Arigoni; Artesian Well; Stock water; No action.
- 8439 1-28-28 Bessie Buster; Unnamed Spring; Stock water; Approved October 30, 1928.
G. S.
- 8440 1-28-28 Bessie Buster; Buster Springs; Stock water; Approved October 30, 1928.
G. S.
- 8441 2-1-28 Gold Hill Mining Company; Bailey Ranch; Mining, milling and domestic;
No action.
- 8442 2-6-28 Frank E. Bell; Fagan Spring; Stock water and domestic; No action.
- 8443 2-6-28 Frank E. Bell; Dunbarton Spring; Stock water and domestic; No action.
- 8444 2-7-28 Effie M. Jaime; Blue Point Spring; Stock water and domestic*; No action.
- 8445 2-7-28 Effie M. Jaime; Rattlesnake Spring; Stock water and domestic; Withdrawn
February 29, 1928.
- 8446 2-9-28 W. D. Parker; Cottonwood Spring; Stock water*; No action.
- 8447 2-9-28 W. D. Parker; Table Spring; Stock water*; No action.
- 8448 2-9-28 W. D. Parker; Middle Canyon Spring; Stock water*; No action.
- 8449 2-9-28 A. V. Holler; Little Spring; Stock water; No action.
- 8450 2-9-28 A. V. Holler; Black Mountain Spring; Stock water*; No action.
- 8451 2-9-28 A. V. Holler; Mud Springs; Stock water*; No action.
- 8452 2-14-28 Mark Lefer, Albert Sandy, W. R. McCrea; Cane Springs; Mining, milling
and domestic; No action.
- 8453 2-15-28 Frank E. Bell; Calavada Spring; Stock water; No action.
- 8454 2-20-28 W. C. Pitt; Indian Creek and Springs; Stock and domestic; No action.
- 8455 2-20-28 W. C. Pitt; Buena Vista Creek and Spring; Stock water and domestic; No
action.
- 8456 2-20-28 W. C. Pitt; Cottonwood Canyon Spring; Stock water and domestic; No
action.
- 8457 2-20-28 W. C. Pitt; Say Canyon and Springs; Stock water and domestic; No action.
- 8458 2-20-28 W. C. Pitt; French Boy Canyon Spring; Stock water and domestic; No
action.
- 8459 2-21-28 Effie M. Jaime; Whiskey Spring; Stock water and domestic*; No action.
- 8460 2-24-28 S. N. Davis; Hays Well; Stock water and domestic; No action.
- 8461 2-29-28 Mike Sala; Egan Creek; Irrigation; No action.
- 8462 3-1-28 E. W. Griffith; Kyle Spring; Irrigation and domestic; No action.
- 8463 3-1-28 Harold H. Leighton; Catlin Gulch; Mining, milling and domestic*; No action.
- 8464 3-1-28 Fred Hess and Ellison Huseh Co.; Upper Cottonwood Spring; Stock water
and domestic*; No action.
- 8465 3-2-28 H. S. Morgan et al.; Rattlesnake Canyon Spring and Creek; Stock water;
No action.
- 8466 3-2-28 H. S. Morgan; Aldridge Canyon Spring and Creek; Stock water and domestic;
No action.
- 8467 3-2-28 P. G. Morgan; Chipmunk Springs; Stock water and domestic; No action.
- 8468 3-2-28 W. H. Morgan; Mitchell Spring; Stock water and domestic; No action.
- 8469 3-2-28 W. H. Morgan; Laphan Canyon Creek; Stock water and domestic; No action.
- 8470 3-2-28 Frank Charlebois; Reese River Canyon Springs and Creek; Stock water and
domestic; No action.
- 8471 3-2-28 A. Charlebois; Buck Brush Spring; Stock water and domestic; No action.
- 8472 3-2-28 Frank Charlebois; Deadman Canyon Spring; Stock water and domestic; No
action.
- 8473 3-2-28 Frank Charlebois; Penrod Canyon Spring; Stock water and domestic; No
action.
- 8474 3-2-28 J. N. Bryan; Well; Stock water; Withdrawn August 21, 1928.
- 8475 3-3-28 Handley Bros.; Sawmill Spring; Stock water and domestic; No action.
- 8476 3-3-28 Handley Bros.; Cottonwood Canyon Spring and Creek No. 1; Stock water and
domestic; No action.
- 8477 3-3-28 Handley Bros.; Cottonwood Canyon Spring and Creek; Stock water and domestic;
No action.
- 8478 3-7-28 Mark Lattin; Lattin Well; Stock water; No action.
- 8479 3-7-28 Frank Rung and Ira McParland; Topopah Spring; Mining, milling and domestic;
Withdrawn September 17, 1928.
- 8480 3-15-28 Adams McGill Company; Giroux Wash Reservoirs; Stock water; No action.
- 8481 3-15-28 Adams McGill Company; Giroux Wash Reservoir; Stock water; No action.
- 8482 3-15-28 Adams McGill Company; Giroux Wash Reservoir; Stock water; No action.
- 8483 3-16-28 John A. Magnuson; Third Creek; Stock water; No action.
- 8484 3-16-28 John A. Magnuson; Fitzhugh Creek; Stock water; No action.
- 8485 3-16-28 John A. Magnuson; Second Creek; Stock water; No action.
- 8486 3-16-28 John A. Magnuson; First Creek; Stock water; No action.
- 8487 3-22-28 Gertrude S. Church; Zephyr Cove Creek; Irrigation and domestic; Approved
August 23, 1928.
G. S.
- 8488 3-28-28 Wm. Ferguson; Ferguson Well; Stock water and domestic; No action.
- 8489 3-24-28 John Manzonie; Giroux Wash; Stock water; No action.
- 8490 3-28-28 Wm. Ferguson; Ferguson Well; Stock water; No action.
- 8491 3-28-28 J. W. Reed; Wolf Creek; Irrigation; No action.
- 8492 3-28-28 I. M. Springer; Logan Springs; Stock water and domestic; Approved Octo-
ber 30, 1928.
G. S.
- 8493 3-28-28 H. K. Pollock; Unnamed Spring; Mining and domestic*; No action.
- 8494 3-28-28 C. W. Godecke; Artesian Well; Irrigation and domestic; No action.
- 8495 4-3-28 Snow Creek Livestock Co.; Butte Spring; Stock water*; No action.
- 8496 4-4-28 Joe Saval; Blue Lead Spring; Stock water and domestic*; No action.
- 8497 4-5-28 Edward J. Sharp; Forty Nine Creek and Tributaries; Irrigation and domestic;
No action.
- 8498 4-6-28 E. H. Simonsen; Upper Fulton Spring; Stock water; No action.
- 8499 4-10-28 W. T. Jenkins; Meadow Spring; Stock water and domestic*; No action.
- 8500 4-10-28 W. T. Jenkins Company; Meadow Spring No. 1; Stock water*; No action.

*Protested application. G. S. Good standing.

8501. 4-11-28. Frank Yrzoqui; Unnamed Well; Stock water; No action.
8502. 4-13-28. P. G. Morgan; Box Spring; Stock water and domestic; No action.
8503. 4-13-28. Kent Land & Livestock Co.; Artesian Well; Domestic; Approved December 6, 1928. G. S.
8504. 4-13-28. Kent Land & Livestock Co.; Artesian Wells; Domestic; Approved December 6, 1928. G. S.
8505. 4-19-28. Keywest Mining Company; Spring; Mining and domestic; No action.
8506. 4-19-28. C. W. and D. B. Williams and C. G. and Tait Fairchild; Lime Mt. Spring; Mining, milling and domestic; Withdrawn June 13, 1928.
8507. 4-19-28. E. R. Dodge; Surface and Underground Water; Power and domestic; No action.
8508. 4-19-28. D. F. Capell; Wild Horse Spring; Stock and domestic; No action.
8509. 4-19-28. D. F. Capell; Horse Spring; Stock water and domestic; Withdrawn September 27, 1928.
8510. 4-19-28. D. F. Capell; Gillis Spring; Stock water and domestic; No action.
8511. 4-20-28. Clarence and Dan Glaser and Jiconic Smirakko; Glaser Well; Stock water; No action.
8512. 4-21-28. John Urrizaga; Upper Cattle Camp Spring; Irrigation*; No action.
8513. 4-21-28. John Urrizaga; Lower Cattle Camp Spring; Irrigation*; No action.
8514. 4-23-28. A. C. Florio; Rock Spring; Stock water and domestic; No action.
8515. 4-23-28. A. C. Florio; Cash Spring; Stock water and domestic; No action.
8516. 4-23-28. A. C. Florio; Evans Spring; Stock water and domestic; No action.
8517. 4-23-28. A. C. Florio; Soda Spring; Stock water and domestic; No action.
8518. 4-23-28. Grace A. Street; Little Antelope Spring; Stock water and domestic*; No action.
8519. 4-23-28. Grace A. Street; Cherry Creek and Springs; Stock water and domestic; No action.
8520. 4-23-28. Grace A. Street; Upper Clover Creek and Spring; Stock water and domestic*; No action.
8521. 4-23-28. Grace A. Street; Wild Horse Spring; Stock water and domestic; No action.
8522. 4-23-28. Grace A. Street; Rimrock Spring; Stock water and domestic; No action.
8523. 4-24-28. George Cross and Edie M. Jaime; Well; Stock water; Withdrawn October 25, 1928.
8524. 4-24-28. Lewis R. Persson; McConnell Creek; Irrigation and domestic; No action.
8525. 4-26-28. R. T. Swallow; Pipe Spring; Stock water; No action.
8526. 4-28-28. Lloyd G. High; Rock Springs; Stock water; No action.
8527. 5- 6-28. Valoris L. Henriod; Cane Spring; Stock water; Approved November 26, 1928. G. S.
8528. 5- 6-28. Emma C. and Gustave Henriod; Indian Spring; Stock water; Approved December 3, 1928. G. S.
8529. 5- 6-28. Emma C. and Gustave Henriod; Gravel Spring; Stock water; Approved December 3, 1928. G. S.
8530. 5- 6-28. Ely Calumet Mining Corp.; Bassett Creek; Power; Approved August 2, 1928. G. S.
8531. 5-11-28. State of Nevada Department of Highways; Becky Spring; Construction and domestic; No action.
8532. 5-12-28. L. E. McCulley; Post Spring; Stock water and domestic; No action.
8533. 5-12-28. L. E. McCulley; Indiana Spring; Stock water and domestic; No action.
8534. 5-12-28. L. E. McCulley; Sagehen Spring; Stock water and domestic; No action.
8535. 5-12-28. L. E. McCulley; Beebe Spring; Stock water and domestic; No action.
8536. 5-12-28. L. E. McCulley; Sheep Camp Spring; Stock water and domestic; No action.
8537. 5-14-28. B. & R. Quick Company; Trail Creek; Mining and domestic; No action.
8538. 5-14-28. Pete Carletti; Pony Creek; Stock water; No action.
8539. 5-15-28. J. H. McCoy and B. P. Howell; McCoy Spring; Mining, milling and domestic; No action.
8540. 5-15-28. J. H. McCoy and B. P. Howell; Gillman Spring; Mining, milling and domestic; No action.
8541. 5-19-28. J. W. Berg; No name; Mining and domestic; Withdrawn October 9, 1928.
8542. 5-22-28. R. A. Yelland; Yelland Well; Stock water; No action.
8543. 5-22-28. John Rosenlund; Upper and Lower Trough Springs; Stock water; No action.
8544. 5-22-28. John Rosenlund; Upper and Lower Gravel Springs; Stock water; No action.
8545. 5-23-28. Patmos Mines Company; Patmos Springs; Mining, milling and domestic; No action.
8546. 5-23-28. C. E., J. H. and L. S. Day; Sulphur Spring Creek; Stock water and domestic; No action.
8547. 5-28-28. Andrew Boundy; Mud Springs; Stock water; No action.
8548. 5-28-28. Q. D. Boyd; Unnamed Spring; Stock water; No action.
8549. 5-28-28. J. H. Bradish; Rice Creek; Irrigation*; No action.
8550. 5-31-28. Mrs. M. E. Spencer; Dutch Creek; Irrigation and domestic; Withdrawn October 16, 1928.
8551. 6- 2-28. S. E. Gardner; Polich Creek; Irrigation and domestic*; No action.
8552. 6- 2-28. J. P. Clough; Buckhorn Springs; Mining and domestic*; No action.
8553. 6- 8-28. Hafen and Frei Bros.; Cottonwood Creek; Stock water and domestic; No action.
8554. 6- 8-28. John Krotzer, Russell Moyle and C. R. Townsend; Butte Spring; Mining, milling and domestic; No action.
8555. 6- 8-28. Krotzer, Moyle and Townsend; Roadside Spring; Mining, milling and domestic; No action.
8556. 6- 4-28. John Janney; Nevada DeMoines Shaft; Milling; No action.
8557. 6- 4-28. Frank M. Flynn and Len H. Rathfon; Lamolle Creek; Irrigation; No action.
8558. 6- 7-28. L. A. McCulley; Rock Springs; Stock water and domestic; No action.
8559. 6- 7-28. L. E. McCulley; Coyote Springs and Creek; Irrigation and domestic*; No action.

*Protected application. G. S. Good standing.

- 8560 6-7-28 Frank E. Bell; Red Spring; Stock water and domestic; No action.
- 8561 6-7-28 Frank E. Bell; Unnamed Spring; Stock water and domestic; No action.
- 8562 6-9-28 Castle Peak Quicksilver Co.; Lousetown Creek; Mining and domestic; No action.
- 8563 6-9-28 G. W. Warmoth; Burnt Canyon Spring; Mining, milling and domestic; No action.
- 8564 6-11-28 Leo E. and Catherine Frey; Artesian Wells; Greenhouse and domestic; No action.
- 8565 6-12-28 Weeks Bros.; Wisemen Spring Channel; Irrigation and domestic; No action.
- 8566 6-13-28 H. M. Gilbert; Combination Spring; Mining, milling and domestic; No action.
- 8567 6-13-28 H. M. Gilbert; Lovey Springs; Mining, milling and domestic*; No action.
- 8568 6-13-28 Chester L. Woodward; Columbia Creek; Irrigation*; No action.
- 8569 6-14-28 Ely Water Company; Toner Spring; Stock water*; Approved December 20, 1928, G. S.
- 8570 6-14-28 Ely Water Company; Warm Springs; Stock water; Approved December 20, 1928, G. S.
- 8571 6-14-28 Handley Bros.; Stonehouse Spring; Stock water and domestic; No action.
- 8572 6-16-28 Luther E. Campbell; Dutch Creek; Irrigation and domestic; No action.
- 8573 6-17-28 W. T. Jenkins Company; Clark's Spring; Stock water and domestic; No action.
- 8574 6-19-28 Frank Bowers; Big Creek; Stock water; No action.
- 8575 6-19-28 W. E. Hill; Little Slough; Stock water; No action.
- 8576 6-19-28 W. E. Hill; Little Basin Creek; Stock water; No action.
- 8577 6-19-28 J. F. Poore; Post Canyon Creek; Stock water; No action.
- 8578 6-20-28 Gaston Uhalde; Meadow Deep Spring; Stock water and domestic; No action.
- 8579 6-20-28 Gaston Uhalde and Wm. Hendrix; Nugget Spring; Stock water and domestic; No action.
- 8580 6-20-28 Wm. Hendrix; Water Canyon Slope Spring; Stock water and domestic; No action.
- 8581 6-20-28 Gaston Uhalde; Deer Track Spring; Stock water and domestic; No action.
- 8582 6-20-28 Gaston Uhalde; Willow Creek and Tributaries; Stock water and domestic; No action.
- 8583 6-20-28 Lyle Cook; Burnt Lake Canyon Spring; Stock water; No action.
- 8584 6-21-28 Bertrand Paris; Paris Spring No. 3; Stock water; No action.
- 8585 6-21-28 Bertrand Paris; Paris Spring No. 2; Stock water; No action.
- 8586 6-21-28 Bertrand Paris; Paris Spring No. 4; Stock water; No action.
- 8587 6-21-28 Bertrand Paris; Paris Spring No. 5; Stock water; No action.
- 8588 6-21-28 Bertrand Paris; Paris Spring No. 1; Stock water; No action.
- 8589 6-21-28 Everett F. Hill; Mud Springs; Stock water; No action.
- 8590 6-21-28 Kent Land & Livestock Co.; Artesian Well; Domestic; Approved December 6, 1928, G. S.
- 8591 6-21-28 Kent Land & Livestock Co.; Artesian Well; Domestic; Approved December 6, 1928, G. S.
- 8592 6-22-28 Bertrand Paris; Pine Spring; Stock water; No action.
- 8593 6-22-28 Bertrand Paris; High Rock Spring; Stock water; No action.
- 8594 6-22-28 Bertrand Paris; Willow Spring; Stock water; No action.
- 8595 6-23-28 John Uhalde; Cabin Spring; Stock water and domestic; No action.
- 8596 6-23-28 Donnelly Land & Livestock Co.; Ironcho Spring; Irrigation and domestic; No action.
- 8597 6-23-28 Donnelly Land & Livestock Co.; Clear Spring; Stock water and domestic; No action.
- 8598 6-23-28 Donnelly Land & Livestock Co.; Buck Spring and Creek; Stock water and domestic; No action.
- 8599 6-23-28 Donnelly Land & Livestock Co.; Sheep Spring and Creek; Stock water and domestic; No action.
- 8600 6-23-28 Donnelly Land & Livestock Co.; Donnelly Spring; Stock water and domestic; No action.
- 8601 6-25-28 Donnelly Land & Livestock Co.; Box Spring; Stock water and domestic; No action.
- 8602 6-25-28 John Uhalde; Well; Stock water and domestic; No action.
- 8603 6-25-28 John Uhalde; Well; Stock water and domestic; No action.
- 8604 6-25-28 Frank Bell; Smoked Up Spring; Stock water and domestic; No action.
- 8605 6-25-28 Robert D. Mattinson; New York Creek; Mining; Withdrawn November 11, 1928.
- 8606 6-27-28 Bertrand Paris; Paris Spring No. 6; Stock water; No action.
- 8607 6-27-28 W. E. Rinehart; Round Lake; Stock water and domestic; No action.
- 8608 6-27-28 W. E. Rinehart; Bald Mt. Spring and Creek; Stock water and domestic; No action.
- 8609 6-27-28 W. E. Rinehart; Cottonwood Spring and Creek; Stock water and domestic; No action.
- 8610 6-27-28 W. E. Rinehart; Half Moon Lake; Stock water and domestic; No action.
- 8611 6-27-28 W. E. Rinehart; Unnamed Creek; Stock water and domestic; No action.
- 8612 6-29-28 Florence M. and J. M. Benedict; Cottonwood Creek; Irrigation and domestic; No action.
- 8613 7-3-28 Donnelly Land & Livestock Co.; Rock Spring; Stock water and domestic; Withdrawn December 10, 1928.
- 8614 7-7-28 John Uhalde; Calvin Spring; Stock water and domestic; No action.
- 8615 7-8-28 Martin Florza; Skully Springs; Stock water; No action.
- 8616 7-13-28 H. F. Dangberg L. & L. S. Co.; Drilled Well; Irrigation and domestic; No action.
- 8617 7-13-28 H. F. Dangberg L. & L. S. Co.; Drilled Well; Irrigation and domestic; No action.

*Protested application. G. S. Good standing.

8618. 7-13-28. Levi W. Syphus; Rogers Spring; Irrigation and domestic; No action.
8619. 7-14-28. Wm. Hendrix; Rock Spring; Stock water and domestic; No action.
8620. 7-14-28. Francis Bauer; High Meadow Spring; Irrigation and domestic; No action.
8621. 7-17-28. Joe Saval; Mud Spring; Stock water and domestic*; No action.
8622. 7-17-28. G. H. and Inez M. Gilhort; Gilbert Spring; Irrigation and domestic; No action.
8623. 7-17-28. R. H. Cowles; Juniper Spring; Stock water*; No action.
8624. 7-17-28. R. H. Cowles; South Juniper Spring; Stock water*; No action.
8625. 7-17-28. R. H. Cowles; North Juniper Spring; Stock water*; No action.
8626. 7-17-28. R. H. Cowles; Tunnel Springs; Stock water*; No action.
8627. 7-17-28. R. H. Cowles; Upper Stone House Spring; Stock water*; No action.
8628. 7-17-28. R. H. Cowles; Middle Stone House Spring; Stock water*; No action.
8629. 7-19-28. Alex Duferrera; Maggie Spring; Stock water; No action.
8630. 7-19-28. Alex Duferrera; Little Wilder Creek; Stock water; No action.
8631. 7-19-28. Alex Duferrera; Crow Creek Spring; Stock water; No action.
8632. 7-19-28. R. A. Yelland; Coyote Well; Stock water; No action.
8633. 7-21-28. Martin Elorza; Cold Spring; Stock water*; No action.
8634. 7-21-28. Stanley Williams; Underground Waters; Irrigation and domestic; No action.
8635. 7-21-28. Geo. B. Williams; Underground Waters; Irrigation and domestic; No action.
8636. 7-22-28. Steptoe Livestock Co.; Unnamed Spring; Stock water and domestic*; No action.
8637. 7-23-28. Louis W. Whiting; Telegraph Canyon; Mining, milling and domestic; No action.
8638. 7-26-28. Wm. Hendrix; Rock Spring; Stock water and domestic*; No action.
8639. 7-26-28. Williams Estate Co.; Straight Canyon Spring; Stock water; Withdrawn August 16, 1928.
8640. 7-26-28. United Cattle and Packing Co.; Silver Bow Canyon; Mining, milling and domestic; No action.
8641. 7-28-28. Ely Water Company; Underground Waters; Domestic; No action.
8642. 7-30-28. R. C. Bauermeister; Lincoln Creek; Mining and domestic; No action.
8643. 7-31-28. Ormsby County; Sugar Loaf Spring; Domestic; No action.
8644. 8-1-28. Flower Quicksilver Co.; Shank Spring; Mining, milling and domestic; Withdrawn August 16, 1928.
8645. 8-1-28. Flower Quicksilver Co.; Beecher Springs Canyon; Mining, milling and domestic*; No action.
8646. 8-1-28. Flower Quicksilver Co.; Flower Spring; Mining, milling and domestic; Withdrawn August 16, 1928.
8647. 8-1-28. Flower Quicksilver Co.; Wingfield Spring; Mining, milling and domestic; Withdrawn August 16, 1928.
8648. 8-1-28. Flower Quicksilver Co. Smith Spring; Mining, milling and domestic; Withdrawn August 16, 1928.
8649. 8-1-28. Flower Quicksilver Co.; Wainright Spring; Mining, milling and domestic; Withdrawn August 16, 1928.
8650. 8-1-28. John Manzonia; Lane Spring; Stock water; No action.
8651. 8-1-28. Martin Elorza; Cherry Spring; Stock water*; No action.
8652. 8-7-28. Wells, Brown, Coder and Rieck; Unnamed Spring; Mining and domestic; No action.
8653. 8-8-28. Wm. G. Adamson; Unnamed Spring; Mining and domestic; No action.
8654. 8-8-28. G. Edgar Nesbitt; Hiko Spring; Irrigation; Withdrawn September 19, 1928.
8655. 8-9-28. James Castles; Hiko Spring; Irrigation*; No action.
8656. 8-12-28. John E. Nay; Seven Mile Spring; Stock water and domestic; No action.
8657. 8-12-28. The Aladdin Mines Co.; Aladdin Spring; Mining and domestic; No action.
8658. 8-13-28. Jessie Pearl; Pearl Spring; Mining and domestic; No action.
8659. 8-13-28. Malcolm McLeish; Road Spring; Mining and domestic*; No action.
8660. 8-13-28. Louis Bartlett; Edgewood Creek; Domestic and fire*; No action.
8661. 8-13-28. Martin Elorza; South Spring; Stock water; No action.
8662. 8-13-28. Martin Elorza; Willow Spring; Stock water; No action.
8663. 8-13-28. Martin Elorza; Buck Spring; Stock water*; No action.
8664. 8-14-28. C. W. Godecke; Artesian Well; Irrigation and domestic*; No action.
8665. 8-14-28. Will M. Bliss; Secret Harbor Creek; Irrigation and domestic; No action.
8666. 8-18-28. Dan Filippini; Unnamed Spring; Stock water*; No action.
8667. 8-18-28. Chas. Eck; Sampson Creek; Irrigation and domestic; No action.
8668. 8-19-28. R. T. Swallow; Fortification Spring; Stock water; No action.
8669. 8-19-28. R. T. Swallow; Jasper Spring; Stock water; No action.
8670. 8-19-28. R. T. Swallow; Chris Spring; Stock water; No action.
8671. 8-23-28. Carson and Tahoe Lumber and Fluming Co.; Snow Lake and Springs; Irrigation and domestic; No action.
8672. 8-24-28. Frank Allen; Wire Grass Spring; Stock water and domestic; No action.
8673. 8-24-28. W. D. Spencer; Mississippi Spring; Stock water; No action.
8674. 8-24-28. W. D. Spencer; Eagle Spring; Stock water; No action.
8675. 8-25-28. Barton H. Robinson; Middle Canyon Spring; Stock water and domestic; No action.
8676. 8-25-28. Jose Olechka; Young American Spring; Irrigation and domestic; No action.
8677. 8-25-28. Jose Olechka; Welcome Stranger Spring; Stock water and domestic; No action.
8678. 8-25-28. Jose Olechka; Young American Spring; Stock water and domestic; No action.
8679. 8-27-28. F. E. Sands, J. E. Seigneus, E. Seaburn; Mill Creek; Power and domestic; No action.
8680. 8-29-28. Fred L. Fultone; Unnamed Spring; Stock water and domestic; No action.
8681. 8-29-28. John Jaureguito; Overland Spring No. 2; Stock water; No action.
8682. 8-29-28. John Jaureguito; Rock Spring; Stock water; No action.

*Protected application. G. S. Good standing.

8683. 8-29-28. John Jaureguito; Cottonwood Spring; Stock water; No action.
8684. 8-29-28. John Jaureguito; Overland Spring No. 1; Stock water; No action.
8685. 9- 5-28. F. E. Bush and F. H. Murphy; Wrights Creek; Stock water and domestic; No action.
8686. 9- 5-28. P. E. Bush and F. H. Murphy; Corral Spring; Stock water and domestic; No action.
8687. 9- 6-28. J. P. Wright; Hiko Spring; Irrigation*; No action.
8688. 9- 6-28. E. W. Griffith; Charleston Mine Tunnel; Stock water and domestic; No action.
8689. 9- 6-28. Will M. Bliss; Unnamed Creek; Domestic and fire; No action.
8690. 9- 7-28. John Jaureguito; Jaureguito Well No. 3; Stock water; No action.
8691. 9-14-28. Harry F. Powell; Underground Water; Irrigation; No action.
8692. 9-14-28. Weiss & Vogel; Artesian Wells; Irrigation; No action.
8693. 9-14-28. Mrs. Minnie Weiss; Artesian Wells; Irrigation; No action.
8694. 9-14-28. Kent Land and Livestock Co.; East Lee Spring; Stock water; No action.
8695. 9-14-28. Kent Land and Livestock Co.; North Lee Spring; Stock water; No action.
8696. 9-14-28. Kent Land and Livestock Co.; Long Canyon Spring; Stock water; No action.
8697. 9-17-28. Rosemary DeLongchamps; Rosemary Spring; Irrigation and domestic; No action.
8698. 9-17-28. Robert A. Thorley; Thorley's Reservoir; Stock water; No action.
8699. 9-17-28. Gerald A. Smith; Artesian Wells; Irrigation; No action.
8700. 9-19-28. Emily A. Pence; Lower Monument Springs; Stock water; No action.
8701. 9-20-28. George Eldridge; Eldridge Well; Stock water; No action.
8702. 9-20-28. G. Edgar Nesbitt; Hiko Spring; Irrigation*; No action.
8703. 9-21-28. Jose Oranches; Martin Canyon Spring; Stock water; No action.
8704. 9-25-28. Bertrand Paris; Underground Water; Water for stock; No action.
8705. 9-27-28. Emery Garrett; Monitor Springs; Domestic; No action.
8706. 9-27-28. Dan Fillipini; Unnamed Spring; Stock water*; No action.
8707. 9-27-28. Dan Fillipini; Unnamed Spring; Stock water*; No action.
8708. 9-27-28. Dan Fillipini; Unnamed Spring; Stock water*; No action.
8709. 9-30-28. E. C. Murphy; Underground Waters; Stock water; No action.
8710. 10- 2-28. Dan Fillipini; Unnamed Spring; Stock water*; No action.
8711. 10- 5-28. H. A. and A. F. Bordoli; Goat Ranch Spring; Stock water; No action.
8712. 10- 5-28. H. A. and A. F. Bordoli; Red Bluff Spring; Stock water; No action.
8713. 10- 6-28. R. T. Swallow; South Well; Stock water; No action.
8714. 10- 6-28. Leslie F. Phillips; Garden Spring; Irrigation; No action.
8715. 10- 7-28. Wm. G. Lamb; Big Springs; Irrigation and domestic; No action.
8716. 10-10-28. St. Lawrence Mines Co.; Lincoln Canyon Springs; Milling and domestic*; No action.
8717. 10-10-28. St. Lawrence Mines Co.; Lincoln Canyon Springs; Power and domestic*; No action.
8718. 10-13-28. Charles F. Lee; Hidden Treasure Spring; Stock water and domestic; No action.
8719. 10-13-28. Charles F. Lee; Snow Creek; Irrigation and domestic; No action.
8720. 10-13-28. J. C. Wholey; Snow and Rain Waters; Stock water and domestic; No action.
8721. 10-13-28. Marion Yelland; South Millick Spring; Stock water; No action.
8722. 10-13-28. Martin Elorxa; Big Spring; Stock water; No action.
8723. 10-13-28. Martin Elorxa; Willow Spring; Stock water*; No action.
8724. 10-15-28. Truckee Carson Irrigation District; Old Channel Carson River; Irrigation and domestic; No action.
8725. 10-15-28. Truckee Carson Irrigation District; Old Channel Carson River; Irrigation and domestic; No action.
8726. 10-15-28. Truckee Carson Irrigation District; Old Channel Carson River; Irrigation and domestic; No action.
8727. 10-15-28. Buckingham Mina Cons. Mines Co.; Long Creek; Mining, milling and domestic; No action.
8728. 10-18-28. Irene Watt; Watt Creek Spring; Stock water; No action.
8729. 10-18-28. Irene Watt; Cottonwood Springs; Stock water; No action.
8730. 10-19-28. Joseph T. Atkin and Sons; Cedar Springs; Stock water; No action.
8731. 10-19-28. Joseph T. Atkin and Sons; Wiregrass Spring; Stock water; No action.
8732. 10-23-28. Nev-Mont Mining Co.; Underground Waters; Mining and domestic; No action.
8733. 10-24-28. Thomas Griffin; Twin Springs; Stock water; No action.
8734. 10-24-28. Thomas Griffin; Griffin Water Hole; Stock water; No action.
8735. 10-24-28. Thomas Griffin; Cleary Springs; Stock water; No action.
8736. 10-25-28. Frank E. Bell; Jack Rabbit Spring; Stock water and domestic; No action.
8737. 10-26-28. R. T. Evans; Unnamed Spring; Stock water*; No action.
8738. 10-27-28. West Side Cattle Company; 21 Mile Well; Stock water and domestic; No action.
8739. 11- 2-28. E. J. Foe; Baker Creek; Stock water; No action.
8740. 11- 7-28. F. and N. Lund and Livestock Co.; Robinson Lake and Creek; Irrigation and domestic; No action.
8741. 11- 7-28. Segura Bros.; Segura Well; Stock water and domestic; No action.
8742. 11- 7-28. John Jaureguito; Three Mile Well; Stock water and domestic; No action.
8743. 11- 9-28. Wm. Kearney; Unnamed Spring or Creek; Stock water and domestic; No action.
8744. 11- 9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.
8745. 11- 9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.
8746. 11- 9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.
8747. 11- 9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.
8748. 11- 9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.

*Protested application. G. S. Good standing.

8749. 11-9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.
8750. 11-9-28. Wm. Kearney; Unnamed Spring; Stock water and domestic; No action.
8751. 11-9-28. G. Newman; Unnamed Spring; Stock water and domestic; No action.
8752. 11-9-28. G. Newman; Unnamed Spring; Stock water and domestic; No action.
8753. 11-9-28. A. C. Florio; Hoover Spring and Creek; Stock water and domestic; No action.
8754. 11-9-28. A. C. Florio; Clover Spring; Stock water and domestic; No action.
8755. 11-9-28. A. C. Florio; Josephine Spring; Stock water and domestic; No action.
8756. 11-9-28. A. C. Florio; View Spring; Stock water and domestic; No action.
8757. 11-9-28. W. E. Rinehart; Unnamed Creek; Stock water and domestic; No action.
8758. 11-10-28. Frank Ynesqui; Underground Waters; Stock water; No action.
8759. 11-10-28. Dan Fillipini; Unnamed Spring; Stock water*; No action.
8760. 11-10-28. Jose Oluchea; Ruth Spring; Stock water and domestic; No action.
8761. 11-11-28. Gentil and Rosetta Georgetta; Spring Creek; Irrigation and domestic; No action.
8762. 11-11-28. M. J. Hough; Rose Spring; Mining, milling and domestic; No action.
8763. 11-12-28. S. O. Crossler Estate; Swan Lake; Stock water and domestic; No action.
8764. 11-12-28. J. E. Marble; Carlson Spring and Creek; Irrigation and domestic; No action.
8765. 11-10-28. Carlin Products Company; Maggie Creek; Power and domestic; No action.
8766. 11-21-28. John Peco; Peco Spring; Irrigation and domestic; No action.
8767. 11-21-28. John Peco; Unnamed Springs; Irrigation and domestic; No action.
8768. 11-21-28. John Peco; Unnamed Spring; Irrigation and domestic; No action.
8769. 11-21-28. Ely Water Co.; Unnamed Springs; Irrigation and domestic; No action.
8770. 11-21-28. Fred W. Cook; Cook Well No. 1; Irrigation and domestic; No action.
8771. 11-21-28. Fred W. Cook; Cook Well No. 2; Irrigation and domestic; No action.
8772. 11-25-28. Viola M. Sauer and Ella M. Campbell; Sauer Swamp; Irrigation and domestic; No action.
8773. 12-4-28. Annie M., Cassie M. Johnstone and Jennie D. Hill; Peninsula Spring; stock water; No action.
8774. 12-5-28. J. B. Sorbost; Stone House Creek; Stock water; No action.
8775. 12-6-28. Gold Hill Mining Co.; Unnamed Creek; Mining, milling and domestic; No action.
8776. 12-6-28. Frank Charlebois; Unnamed Canyon Springs and Creek; Stock water and domestic; No action.
8777. 12-8-28. Dan Fillipini; Unnamed Spring; Stock water; No action.
8778. 12-15-28. Bordoli Brothers; Big Creek; Stock water; No action.
8779. 12-15-28. Bordoli Brothers; Grease Wood Spring; Stock water; No action.
8780. 12-15-28. Bordoli Brothers; Water Canyon; Stock water; No action.
8781. 12-16-28. J. E. Marble; Union Spring No. 1; Stock water; No action.
8782. 12-16-28. J. E. Marble; Union Spring No. 2; Stock water; No action.
8783. 12-16-28. J. E. Marble; Union Spring No. 3; Stock water; No action.
8784. 12-16-28. J. E. Marble; Union Spring No. 4; Stock water; No action.
8785. 12-16-28. J. E. Marble; Union Spring No. 5; Stock water; No action.
8786. 12-16-28. J. E. Marble; Union Spring No. 6; Stock water; No action.
8787. 12-16-28. J. E. Marble; Union Spring No. 7; Stock water; No action.
8788. 12-16-28. J. E. Marble; Union Spring No. 8; Stock water; No action.
8789. 12-16-28. W. W. Mining Company; Butte Creek; Irrigation and domestic; No action.
8790. 12-17-28. W. C. Pitt Company; Kitten Spring; Stock water and domestic; No action.
8791. 12-17-28. W. C. Pitt Company; High Spring; Stock water and domestic; No action.
8792. 12-17-28. W. C. Pitt Company; Unnamed Spring; Stock water and domestic; No action.
8793. 12-17-28. W. C. Pitt Company; Limerick Canyon Spring; Stock water and domestic; No action.
8794. 12-17-28. W. C. Pitt Company; N. Br. Buena Vista Creek; Stock water and domestic; No action.
8795. 12-17-28. W. C. Pitt Company; Bob Reed Canyon; Stock water and domestic; No action.
8796. 12-17-28. W. C. Pitt Company; Unnamed Spring; Stock water and domestic; No action.
8797. 12-17-28. W. C. Pitt Company; Pison Canyon Spring; Stock water and domestic; No action.
8798. 12-21-28. Alex Duferrens; Antelope Springs; Irrigation and domestic; No action.
8799. 12-26-28. Robert F. Galley; Unnamed Spring; Stock water; No action.
8800. 12-28-28. James Ryan and John Conway; Cedar Wash Reservoir No. 1; Stock water; No action.
8801. 12-28-28. James Ryan and John Conway; Cedar Wash Reservoir No. 2; Stock water; No action.

*Protected application. G. S. Good standing.

STATUS OF APPLICATIONS FILED PRIOR TO JANUARY 1, 1927, UPON WHICH ACTION HAS BEEN TAKEN DURING THE YEARS 1927-1928

Following is a condensed statement giving the salient data in connection with applications filed prior to January 1, 1927, upon which action has been taken during the years 1927 and 1928, in the order of:

1. Application Serial Number.
2. Date of Filing.
3. Name of Applicant.
4. Source of Water Supply.
5. Purpose of Appropriation.
6. Action on Application.
7. Status of Permits as of December 31, 1928.

4158	9-21-16	Louis Rubenstrob; East Fork Carson River; Irrigation and domestic; Approved September 29, 1928. G. S.
4200	10-21-16	Robert M. Tubb; Unnamed Spring; Irrigation and domestic; Approved February 11, 1927. G. S.
4403	7-7-17	Thomas Dixon; Fraction Lode Tunnel; Stock water and domestic*; Approved April 30, 1927. G. S.
5053	5-6-18	F. F. Franke; Box Canyon; Stock water and domestic; Approved April 1, 1927. Canceled.
5103	6-14-18	Arthur Alley; Pass Creek; Irrigation and domestic*; Denied January 20, 1927.
5135	7-1-18	W. G. Douglass; Ophir Creek; Power; Approved January 13, 1927.
5194	8-6-18	Clark E. Ralph A. and Eugene C. Drown; Two Lake; Irrigation and domestic*; Withdrawn October 8, 1928.
5809	10-18-19	W. A. Marsh; Combination Springs; Stock water and domestic; Approved February 11, 1927. G. S.
5909	3-6-20	John Taylor; Spring Canyon Creek; Irrigation; Denied November 20, 1928.
6356	12-8-20	W. C. Pitt Company; Hot Springs Canyon Springs; Stock water and domestic; Approved March 26, 1927. Certificate.
6431	4-4-21	John H. Casier and Sons; Trout Creek; Power; Withdrawn January 8, 1927.
6500	6-25-21	Mary F. Ardery and E. B. Yerington; Logan Shoals Creek; Domestic; Approved February 10, 1927. G. S.
6501	6-25-21	Mary F. Ardery and E. B. Yerington; Logan Shoals Creek; Domestic; Approved February 10, 1927. G. S.
6568	9-24-21	Orville C. Finley; Garden Spring; Irrigation and domestic; Withdrawn November 19, 1928.
6622	1-30-22	Gentile Georgetta; North Cottonwood Spring; Stock water and domestic*; Denied November 23, 1928.
6623	1-30-22	Gentile Georgetta; Upper Cottonwood Spring; Stock water and domestic*; Denied November 23, 1928.
6645	3-6-22	Burton H. Robison; Unnamed Spring; Stock water and domestic; Denied November 26, 1928.
6649	3-13-22	Rosetta Georgetta; Cottonwood Spring; Stock water and domestic*; Denied November 23, 1928.
6664	4-8-22	Gentile Georgetta; Rosetta Spring; Stock water and domestic*; Denied November 23, 1928.
6683	5-22-22	Jos. Ronnow and Henry H. Lee; Bullionville Headgate; Irrigation; Approved August 9, 1927. G. S.
6721	7-22-22	John E. Worden; Unnamed Springs; Stock water and domestic; Approved May 15, 1928. G. S.
6745	8-12-22	Fallon Land and Stock Co.; Marble Falls Spring; Stock water and domestic; Approved March 28, 1927. G. S.
6868	3-3-23	J. E. Sexton; Mount Hope Spring; Railway and domestic*; Approved April 26, 1927. G. S.
6973	9-15-23	J. B. Pesco; Pesco Springs; Stock water; Denied January 13, 1927.
7007	11-24-23	Florio & Bidart; Lamb Creek; Stock water*; Denied February 21, 1928.
7008	11-24-23	Florio & Bidart; Cottonwood Spring; Stock water*; Denied February 21, 1928.
7009	11-24-23	Florio & Bidart; Deer Creek; Stock water*; Denied February 21, 1928.
7010	11-24-23	Florio & Bidart; Black Point Spring; Stock water*; Denied February 21, 1928.
7011	11-24-23	Florio & Bidart; Willow Spring; Stock water*; Denied February 21, 1928.
7058	3-4-24	John Casier and Sons; Trout Creek; Power; Approved January 8, 1927. G. S.
7107	5-6-24	John Urrizaga; Monument Spring; Stock water*; Denied March 13, 1928.
7147	6-26-24	A. C. Florio; Florio Spring No. 1; Stock water*; Denied February 21, 1928.
7148	6-26-24	A. C. Florio; Florio Spring No. 2; Stock water*; Denied February 21, 1928.
7149	6-26-24	A. C. Florio; Florio Spring No. 3; Stock water*; Denied February 21, 1928.
7150	6-26-24	A. C. Florio; Florio Spring No. 4; Stock water*; Denied February 21, 1928.
7151	6-26-24	A. C. Florio; Florio Spring No. 5; Stock water*; Denied February 21, 1928.
7152	6-26-24	A. C. Florio; Florio Spring No. 6; Stock water*; Denied February 21, 1928.
7153	6-26-24	A. C. Florio; Florio Spring No. 7; Stock water*; Denied February 21, 1928.
7154	6-26-24	A. C. Florio; Florio Spring No. 8; Stock water*; Denied February 21, 1928.

*Protested application. G. S. Good standing.

7155. 6-26-24. A. C. Florio; Florio Spring No. 9; Stock water*; Denied February 21, 1928.
7156. 6-26-24. A. C. Florio; Florio Spring No. 10; Stock water*; Denied February 21, 1928.
7157. 6-26-24. A. C. Florio; Summit Spring; Stock water*; Denied February 21, 1928.
7158. 6-26-24. A. C. Florio; Spring Creek; Stock water*; Denied February 21, 1928.
7159. 6-26-24. A. C. Florio; Unknown Creek; Stock water*; Denied February 21, 1928.
7160. 6-26-24. A. C. Florio; Cabin Spring; Stock water*; Denied February 21, 1928.
- *7162. 6-26-24. A. Jahn; Humboldt River; Irrigation and domestic; Approved March 1, 1927. G. S.
7165. 7-10-24. Michel and Eusebia Cadet; Hall Creek; Irrigation*; Approved January 13, 1927. G. S.
7170. 7-17-24. A. C. Florio; Rose Spring; Stock water*; Denied February 21, 1928.
7171. 7-17-24. A. C. Florio; W. Branch Lamb Creek; Stock water*; Denied February 21, 1928.
7178. 7-26-24. E. E. and R. A. Drown; Middle Lake in Stoddart Canyon; Irrigation and domestic; Denied November 20, 1928.
7181. 7-29-24. Harry P. Galindo; Artesian Well; Irrigation; Withdrawn January 22, 1927.
7182. 7-29-24. Joseph M. Ehrlich; Warm Spring; Health resort and domestic*; Denied February 25, 1927.
7200. 8-23-24. Los Angeles & Salt Lake Ry. Co.; Las Vegas Valley Subterranean Channel; Railroad and domestic; Approved March 8, 1927. G. S.
7201. 8-23-24. Las Vegas Land and Water Co.; Las Vegas Valley Subterranean Channel; Municipal and domestic; Approved March 8, 1927. G. S.
7202. 8-23-24. Las Vegas Land and Water Co.; Las Vegas Subterranean Channel; Irrigation and domestic; Approved March 8, 1927. G. S.
7229. 10-15-24. Dean Ranch; Little Cottonwood Canyon; Irrigation; Approved April 24, 1928. G. S.
7249. 11-17-24. H. P. Gallardo; Artesian Well; Irrigation; Withdrawn January 22, 1927.
7255. 11-23-24. Bertrand Paris; Bertrand Paris Spring No. 1; Stock water*; Denied March 13, 1928.
7256. 11-23-24. Bertrand Paris; Bertrand Paris Spring No. 2; Stock water*; Denied March 13, 1928.
7257. 11-23-24. Bertrand Paris; Bertrand Paris Spring No. 3; Stock water*; Denied March 13, 1928.
7314. 2-23-25. E. F. Cornell; Artesian Wells; Irrigation; Approved February 28, 1927. G. S.
7315. 2-23-25. E. F. Cornell; Artesian Wells; Irrigation; Approved February 28, 1927. G. S.
7319. 3-4-25. Hiram S. Kitchen; Black Springs; Domestic*; Denied March 28, 1927.
7368. 5-13-25. J. P. Sagoupe; Unnamed Spring; Stock water and domestic*; Denied March 28, 1927.
7369. 5-13-25. J. P. Sagoupe; Unnamed Spring; Stock water and domestic*; Denied March 28, 1927.
7370. 5-13-25. J. P. Sagoupe; Unnamed Spring; Stock water and domestic*; Denied March 28, 1927.
7371. 5-13-25. J. P. Sagoupe; Unnamed Spring; Stock water and domestic; Denied March 28, 1927.
7372. 5-13-25. J. P. Sagoupe; Unnamed Spring; Stock water and domestic*; Denied March 28, 1927.
7400. 6-26-25. Carson and Tahoe Lumber and Fluming Co.; Bliss Creek; Irrigation and domestic; Approved January 3, 1928. G. S.
7410. 6-26-25. Carson and Tahoe Lumber and Fluming Co.; Secret Harbor Creek; Irrigation and domestic; Approved January 3, 1928. G. S.
7411. 6-26-25. Myrtle and Louis H. Danberg; Sage Hen Spring and Creek; Stock water*; Approved May 13, 1927. G. S.
7412. 6-26-25. Myrtle and Louis H. Danberg; Kaiser Springs; Stock water*; Approved May 13, 1927. G. S.
7413. 6-26-25. Myrtle and Louis H. Danberg; Box Canyon Spring; Stock water*; Approved May 13, 1927. G. S.
7414. 6-26-25. Myrtle and Louis H. Danberg; Unnamed Spring; Stock water*; Approved May 13, 1927. G. S.
7415. 6-26-25. Myrtle and Louis H. Danberg; Deep Canyon Spring; Stock water*; Approved May 13, 1927. G. S.
7423. 6-30-25. J. P. Sagoupe; Unnamed Spring; Stock water and domestic*; Denied March 28, 1927.
7428. 7-5-25. Chester D. Lamar; Clippenger Tunnel; Mining, milling and domestic; Approved October 18, 1927. G. S.
7437. 7-11-25. Dean Ranch; 21 Spring; Stock water; Approved April 24, 1928. G. S.
7438. 7-11-25. Dean Ranch; 24 Spring; Stock water and domestic; Approved April 24, 1928. G. S.
7439. 7-11-25. Dean Ranch; 25 Spring; Stock water; Approved April 24, 1928. G. S.
7440. 7-11-25. Dean Ranch; 27 Spring; Stock water and domestic; Approved April 24, 1928. G. S.
7502. 9-16-25. Dean Ranch; Hand Me Down Spring No. 1; Stock water; Approved April 24, 1928. G. S.
7517. 9-27-25. Fritz Walti; Hiller Spring No. 2; Stock water; Approved May 17, 1928. G. S.
7518. 9-27-25. Fritz Walti; Hiller Spring No. 1; Stock water; Approved May 17, 1928. G. S.
7519. 9-27-25. Fritz Walti; Moonshine Spring; Stock water*; Approved May 17, 1928. G. S.
7521. 9-27-25. Fritz Walti; Cottonwood Spring; Stock water*; Approved May 17, 1928. G. S.

*Protested application. G. S. Good standing.

7528	9-29-25	Williams Estate Company; Yankee Spring; Stock water; Approved April 5, 1927. G. S.
7529	9-29-25	Williams Estate Co.; Rock Spring; Stock water; Approved April 5, 1927. G. S.
7530	9-29-25	Williams Estate Co. Sheep Troughs Spring; Stock water; Approved April 5, 1927. G. S.
7531	9-29-25	Williams Estate Co.; Cold Spring; Stock water; Approved April 5, 1927. G. S.
7532	9-29-25	Williams Estate Co.; Butterfield Spring; Stock water; Approved April 5, 1927. G. S.
7533	9-29-25	Williams Estate Co.; Deep Canyon Spring; Stock water; Approved April 5, 1927. G. S.
7534	9-29-25	Williams Estate Co.; Willow Spring; Stock water; Approved April 5, 1927. G. S.
7535	9-29-25	Williams Estate Co.; Florence Canyon Spring; Stock water and domestic; Approved April 5, 1927. G. S.
7569	11-15-25	James S. Morrison; Via Spring No. 1; Stock water*; Denied March 28, 1927.
7571	11-15-25	James S. Morrison; Morrison Spring No. 1; Stock water*; Denied March 28, 1927.
7575	11-17-25	Herbert R. Evans; Kelly Spring; Irrigation and domestic*; Denied March 28, 1927.
7595	12-7-25	William Gansberg; Unnamed Spring; Irrigation and domestic; Approved April 29, 1927. G. S.
7596	12-7-25	Phillip Paroni; Paroni Spring; Stock water*; Approved October 2, 1927. G. S.
7598	12-12-25	C. C. Everett, P. G. Lofthouse, R. J. Lofthouse; Bols Canyon Spring; Stock water; Approved April 18, 1927. G. S.
7599	12-12-25	C. C. Everett, P. G. and R. J. Lofthouse; Deer Lodge Spring; Stock water; Approved April 18, 1927. G. S.
7600	12-12-25	C. C. Everett, P. G. and R. J. Lofthouse; Granit Canyon Spring; Stock water; Approved April 18, 1927. G. S.
7601	12-12-25	C. C. Everett, P. G. and R. J. Lofthouse; Eagle Spring; Stock water; Approved April 18, 1927. G. S.
7602	12-13-25	Pacific Fruit Express; Underground; Manufacturing artificial ice; Approved October 21, 1927. Certificate.
7608	12-28-25	Emily A. Grimes; Kelsey Creek; Irrigation and domestic*; Approved June 1, 1927. G. S.
7626	1-27-26	Roy L. Primenoux; Highway Spring; Domestic; Approved February 2, 1927. G. S.
7627	1-27-26	W. E. Edwards; Barrel Springs; Mining and domestic; Approved April 1, 1927. G. S.
7631	2-1-26	Geo. R. Parman; Unnamed Spring; Stock water and domestic; Approved February 28, 1927. G. S.
7632	2-1-26	W. S. Proskoy; Underground Water; Mining, milling and domestic; Approved March 26, 1927. G. S.
7633	2-2-26	John Uhart; Cottonwood Spring; Stock water and domestic; Approved July 13, 1927. Certificate.
7636	2-5-26	E. R. and F. R. Dodge; Small Springs; Mining, milling and domestic; Approved January 10, 1927. G. S.
7639	2-9-26	Raymond Borda; Unnamed Spring; Stock water; Approved February 24, 1926. G. S.
7640	2-9-26	Raymond Borda; Unnamed Spring; Stock water; Approved February 24, 1926. G. S.
7645	2-20-26	Roy B. Crofts; Colorado River; Irrigation and domestic; Approved March 8, 1927. G. S.
7655	3-3-26	J. A. Reynolds; Drilled Well; Mining, milling and domestic; Approved May 12, 1928. G. S.
7660	3-16-26	Albert F. McMillen; Buffalo Creek; Irrigation and domestic*; Approved July 25, 1927. G. S.
7669	3-20-26	Anton Hofer; Big Six Mile Creek; Irrigation and domestic; Approved February 2, 1927. G. S.
7671	3-23-26	Albert F. McMillen; Pine Creek; Irrigation and domestic*; Approved July 25, 1927. G. S.
7675	3-28-26	Ignacio Landa; South Fork Humboldt River; Irrigation; Approved February 15, 1927. Certificate.
7677	3-29-26	Rimmer J. Oppedyke; Colorado River; Irrigation and domestic; Approved March 22, 1927. G. S.
7680	4-3-26	Farrest A. Parry; Cottonwood Spring; Stock water and domestic; Approved February 2, 1927. Withdrawn.
7681	4-3-26	Farrest A. Parry; Antelope Spring; Stock water and domestic; Approved February 2, 1927. Withdrawn.
7682	4-3-26	Farrest A. Parry; Road Spring; Stock water and domestic; Approved February 2, 1927. Withdrawn.
7683	4-3-26	Farrest A. Parry; Badger Creek; Stock water and domestic; Approved February 2, 1927. Withdrawn.
7684	4-3-26	Farrest A. Parry; Mud Springs; Stock water and domestic; Approved February 2, 1927. G. S.
7685	4-3-26	Farrest A. Parry; Canyon Spring; Stock water and domestic; Approved February 2, 1927. Withdrawn.
7697	4-6-26	Lyle Cook; No Name Spring; Stock water and domestic; Approved July 23, 1927. G. S.
7698	4-6-26	Lyle Cook; No Name Spring; Stock water and domestic; Approved July 23, 1927. G. S.

*Protected application. G. S. Good standing.

- 7701 4-8-26... Eugene A. Henriod; Lowes Spring; Stock water; Approved January 13, 1927. Certificate.
- 7703 4-9-26... Mrs. C. L. Heath; Upper Antelope Spring; Stock water*; Approved January 12, 1927. G. S.
- 7704 4-9-26... Mrs. C. L. Heath; Lower Antelope Spring; Stock water*; Approved January 12, 1927. G. S.
- 7705 4-9-26... Mrs. C. L. Heath; Finger Rock Well; Stock water; Approved January 17, 1927. G. S.
- 7726 4-24-26... Edward M. Taylor; Bridge Stream; Irrigation and domestic; Approved March 8, 1927. G. S.
- 7727 4-25-26... A. L. Woodhouse; Butte Spring; Stock water and domestic*; Approved November 18, 1927. G. S.
- 7728 4-25-26... A. L. Woodhouse; Horse Spring; Stock water and domestic*; Approved November 18, 1927. G. S.
- 7729 4-25-26... A. L. Woodhouse; Cat Claw Spring; Stock water and domestic*; Approved November 18, 1927. G. S.
- 7730 4-26-26... G. E. McKenna; Tognini Spring; Stock water; Approved April 5, 1927. G. S.
- 7731 4-29-26... W. H. Millinghausen; Granite Spring; Stock water; Approved July 14, 1928. G. S.
- 7732 4-29-26... W. H. Millinghausen; Sargents Spring; Stock water; Approved July 14, 1928. G. S.
- 7765 5-28-26... Myrtle O. Bell; Bell Spring; Irrigation; Approved February 11, 1927. G. S.
- 7771 6-2-26... Henry Anderson; Anderson Spring No. 1; Irrigation and domestic*; Approved November 3, 1927. G. S.
- 7772 6-2-26... Henry Anderson; Milk Spring; Irrigation and domestic*; Approved November 3, 1927. G. S.
- 7776 6-10-26... Gertrude S. Church; S. Zephyr Cove Creek; Irrigation and domestic*; Approved April 5, 1927. G. S.
- 7777 6-16-26... Thomas Brackley; Twin Springs; Irrigation and domestic*; Approved February 13, 1928. G. S.
- 7778 6-16-26... J. S. Gaston; Seepage Springs; Irrigation and domestic; Denied August 11, 1927.
- 7779 6-16-26... J. S. Gaston; Seepage Springs; Irrigation and domestic; Denied August 11, 1927.
- 7784 6-19-26... Lyle Cook; Small Spring; Stock water; Approved July 23, 1927. G. S.
- 7786 6-23-26... Gertrude S. Church; S. Zephyr Cove Creek; Irrigation and domestic*; Approved April 5, 1927. G. S.
- 7787 6-24-26... Abraham Arizona; Artesian Well; Irrigation and Domestic; Approved April 18, 1927. G. S.
- 7788 6-24-26... Flora Dean Hobert; Mule Canyon Spring; Stock water; Approved April 24, 1928. G. S.
- 7804 6-30-26... Dr. W. H. Brennan; Blair Spring No. 1; Stock water and domestic; Withdrawn January 19, 1928.
- 7805 6-30-26... Dr. W. H. Brennan; Blair Spring No. 2; Stock water and domestic; Withdrawn January 19, 1928.
- 7806 6-30-26... Dr. W. H. Brennan; Blair Spring No. 3; Stock water and domestic; Withdrawn January 19, 1928.
- 7812 7-2-26... L. A. Maxfield; Drilled Well; Stock water; Approved April 28, 1927.
- 7814 7-4-26... Silver Age Mining Co.; Lower Watson Spring; Milling and domestic; Approved October 4, 1928. G. S.
- 7817 7-8-26... Warrior Gold Mining Co.; Granite Spring; Mining, milling and domestic; Approved March 26, 1927. G. S.
- 7820 7-14-26... A. L. Woodhouse; Granite Spring; Stock water and domestic*; Approved November 18, 1927. G. S.
- 7821 7-14-26... A. L. Woodhouse; Grape Vine Spring; Stock water*; Approved November 18, 1927. G. S.
- 7822 7-14-26... A. L. Woodhouse; Maynard Spring; Stock water and domestic; Approved November 18, 1927. G. S.
- 7850 8-26-26... Jose Gamboa; Wort Spring; Stock water and domestic*; Denied March 13, 1928.
- 7851 8-26-26... Jose Gamboa; Gamboa Spring; Stock water and domestic*; Denied March 13, 1928.
- 7852 8-26-26... Walter Maine; Rose Bush Canyon Creek; Irrigation and domestic*; Approved March 22, 1928. Certificate.
- 7858 8-23-26... Flora Dean Hobert; Eighteen Spring; Stock water; Approved April 24, 1928. G. S.
- 7859 8-23-26... Flora Dean Hobert; Eighteen Spring No. 1; Stock water; Approved April 24, 1928. G. S.
- 7860 8-23-26... E. A. Settlemeyer; Unnamed Spring; Stock water and domestic; Approved August 31, 1927. G. S.
- 7867 8-25-26... Chas. Fristoe; Squaw Creek; Irrigation and domestic; Approved November 12, 1927. G. S.
- 7869 8-26-26... Marcos Legarra; Pinto Creek; Stock water; Approved February 14, 1928. Certificate.
- 7870 8-26-26... Marcos Legarra; Legarra Well; Stock water; Approved February 14, 1928. Certificate.
- 7871 8-26-26... Calavada Mines Corp.; Unnamed Seepage; Mining, milling and domestic; Approved July 14, 1928. G. S.
- 7872 8-26-26... L. A. McCulley; Twin Spring; Stock water and domestic; Approved July 11, 1927. Certificate.
- 7873 8-26-26... L. A. McCulley; Scrip Spring; Stock water and domestic; Approved July 11, 1927. Certificate.

*Protested application. G. S. Good standing.

- 7874... 8-26-26... L. A. McCulley; Trough Spring; Stock water and domestic; Approved July 11, 1927. Certificate.
- 7875... 8-26-26... Farrest, A. and Garnet, G. Parry; Willow Spring; Stock water and domestic; Approved February 2, 1927. G. S.
- 7876... 8-26-26... Farrest, A. and Garnet, G. Parry; Elder Spring; Stock water and domestic; Approved February 2, 1927. G. S.
- 7877... 8-26-26... Farrest, A. and Garnet, G. Parry; Cherry Spring; Stock water; Approved February 2, 1927. G. S.
- 7878... 8-26-26... Farrest, A. and Garnet, G. Parry; Hould Spring; Stock water and domestic; Approved February 2, 1927. G. S.
- 7879... 8-26-26... Farrest, A. and Garnet, G. Parry; Rose Spring; Stock water and domestic; Approved February 2, 1927. Withdrawn.
- 7880... 8-26-26... Farrest, A. and Garnet, G. Parry; Secret Spring; Stock water and domestic; Approved February 2, 1927. Withdrawn.
- 7882... 9-26-26... Myrtle and L. H. Danberg; Peterson Spring; Stock water and domestic; Approved January 13, 1928. G. S.
- 7883... 9- 3-26... F. A. Pecetti; Thomas or Huffaker Creek; Power; Approved February 28, 1927. G. S.
- 7886... 9- 8-26... M. Jacobsen; Underground Water; Irrigation and domestic; Approved January 10, 1928. G. S.
- 7887... 9-11-26... W. T. Jenkins Company; Tunnel Spring; Stock water and domestic; Approved August 8, 1927. G. S.
- 7893... 9-17-26... Thos. Brackney; Twin Spring; Irrigation and domestic; Approved February 15, 1928. G. S.
- 7896... 9-25-26... Gertrude Burke McIntosh; McIntosh Spring; Irrigation and domestic; Approved March 16, 1927. Certificate.
- 7898... 9-26-26... J. E. Lester; McDonald Creek; Mining, milling and domestic; Approved February 11, 1927. G. S.
- 7899... 9-27-26... Tom Markovitch; Artesian Wells; Irrigation and domestic; Approved September 15, 1927. G. S.
- 7900... 9-29-26... Henry Riter; Unnamed Spring; Domestic; Approved January 10, 1927. Certificate.
- 7911... 10-16-26... Pete Ayarbe; Ayarbe Well; Stock water and domestic; Approved November 1, 1927. G. S.
- 7912... 10-16-26... Lena Harkey Scott; Small Spring; Stock water and domestic; Approved January 10, 1927. G. S.
- 7914... 10-20-26... Calico Quartz Mt. Mining Co.; Spring; Mining, milling and domestic; Canceled January 18, 1927.
- 7915... 10-20-26... Joe Ferguson; Keno Spring; Stock water and domestic; Approved October 19, 1927. G. S.
- 7917... 10-29-26... T. O. McKinnon; Cat Creek; Irrigation and domestic; Approved April 1, 1927. G. S.
- 7926... 11- 8-26... Fritz Walti; Walti Springs; Irrigation; Withdrawn March 26, 1927.
- 7930... 11-11-26... Emil C. Wickman; Artesian Well; Irrigation and domestic; Approved April 1, 1927. G. S.
- 7931... 11-16-26... J. C. Potts; Potts Well; Stock water; Approved November 25, 1927. G. S.
- 7934... 11-19-26... Frank Callaway; Log Spring; Stock water and domestic*; Approved July 14, 1927. Certificate.
- 7935... 11-19-26... Frank Callaway; Big Spring and Tributaries; Stock water and domestic*; Approved July 14, 1927. Certificate.
- 7936... 11-19-26... Frank Callaway; Callaway Well; Stock water and domestic*; Approved July 14, 1927. Certificate.
- 7937... 11-19-26... Frank Callaway; Henth Spring and Tributaries; Stock water and domestic*; Approved July 14, 1927. Certificate.
- 7938... 11-19-26... Frank Callaway; Morgan Spring; Stock water and domestic*; Approved July 14, 1927. Certificate.
- 7941... 11-19-26... Bessie Rosevear and Ed. Halstead; Shermantown Spring No. 1; Stock water; Approved March 26, 1928. G. S.
- 7942... 11-27-26... Bessie Rosevear and Ed. Halstead; Norahs Spring; Stock water; Approved March 26, 1928. G. S.
- 7943... 11-27-26... Bessie Rosevear and Ed. Halstead; Paul Spring; Stock water; Approved March 26, 1928. G. S.
- 7944... 11-27-26... Bessie Rosevear and Ed. Halstead; Four Barrel Spring; Stock water; Approved March 26, 1928. G. S.
- 7946... 12-11-26... Herman Deitloff; Long Gulch Spring; Irrigation and domestic; Approved March 17, 1928. G. S.
- 7952... 12-15-26... Champion Sillimanite Inc.; Unnamed Spring; Mining, milling and domestic; Approved August 12, 1927. G. S.
- 7956... 12-23-26... E. R. Dodge; Surface and Underground Water; Power and domestic; Withdrawn March 8, 1927.
- 7957... 12-24-26... Bessie Rosevear; Mud Spring; Stock water; Approved March 24, 1928. G. S.

*Protested application. G. S. Good standing.

CERTIFICATES ISSUED UNDER PERMITS, 1927-1928

Following is a condensed statement giving the salient data in connection with Certificates Issued Under Permits during the biennium 1927-1928, in the order of:

1. Certificate Number.
2. Book Number.
3. Permit Number.
4. Name of Applicant.
5. Source of Water Supply.
6. Purpose of Appropriation.
7. Amount of water in cubic feet per second, unless otherwise noted.
8. Date Certificate Issued.

1267	5	7900	Henry Riter; Riter Spring; Domestic	0.15	1-17-27
1268	5	7121	John H. and James H. Wichman; Wichmans Spring; Stock water and domestic	0.0058	2-14-27
1269	5	5441	Henry Helbig; Rock Creek; Irrigation and domestic	0.3103	2-15-27
1270	5	4614	William Mathews, Jr.; Mathews Spring; Irrigation and domestic	0.2	2-15-27
1271	5	2982	Geo. R. Parman and J. P. Saffores; Beaton and Weimer Springs; Irrigation and domestic	0.5974	3- 5-27
1272	5	2930	Oaks Realty Company; Ivanpah or Bennett Springs; Irrigation	2.3294	3- 5-27
1273	5	3353	White Wash Reclamation Co.; Big Spring; Irrigation and domestic	2.8812	3-25-27
1274	5	6737	E. B. Cornell and R. E. S. Hesse; Tunnel Springs; Stock water	0.0105	4-22-27
1275	5	6894	E. B. Cornell and R. E. S. Hesse; Upper Dugout Spring; Stock water	0.0047	4-22-27
1276	5	6895	E. B. Cornell and R. E. S. Hesse; Dugout Spring; Stock water	0.0047	4-22-27
1277	5	7077	E. B. Cornell and R. E. S. Hesse; Buffalo Creek; Stock water	0.0047	4-22-27
1278	5	7078	E. B. Cornell and R. E. S. Hesse; Skull Canyon Spring; Stock water	0.0047	4-22-27
1279	5	3934	James Bernsen; Cottonwood Springs; Domestic	0.0096	4-27-27
1280	5	5923	Geo. H. and Donald D. Eldridge; Eight Mile Creek; Irrigation	0.85	5- 6-27
1281	5	5525	Molini Bros.; Fish Lake Spring; Irrigation and Domestic	1.041	5-16-27
1282	5	6295	A. V. Lee and Wm. Keelo, Jr.; Unnamed spring; Stock water and domestic	0.006	5-24-27
1283	5	2757	James Dysart; Snell Canyon Creek; Irrigation and domestic	0.661	5-24-27
1284	5	7344	A. J. Mackie and Dana Conaway; Christmas Spring; Stock water and domestic	0.015	5-24-27
1285	5	7182	Rafael Gamboa; Unnamed well; Stock water and domestic	0.015	5-16-27
1286	5	7184	Rafael Gamboa; Unnamed well; Stock water and domestic	0.015	5-16-27
1287	5	7185	Rafael Gamboa; Greenberg Spring; Stock water and domestic	0.015	5-16-27
1288	5	2755	Chas. L. Fulstone; North Canyon Creek; Irrigation	0.1818	9- 7-27
1289	5	6098	Oaks Realty Company; Three Mile Spring; Stock watering	0.005	10- 3-27
1290	5	6099	Oaks Realty Company; Wild Grape Vine Spring; Stock watering	0.005	10- 3-27
1291	5	6097	Oaks Realty Company; Two Mile Spring; Stock watering	0.0019	10- 3-27
1292	5	6101	Oaks Realty Company; Artesian Well No. 3; Irrigation	0.4985	10- 3-27
1293	5	6100	Oaks Realty Company; Artesian Wells Nos. 1 and 2; Irrigation and domestic	1.7765	10- 3-27
1294	5	6368	Mary M. Storr; Sheridan Creek; Irrigation	0.8825	11- 1-27
1295	5	3723	Geo. S. Robison & Sons; Lexington Canyon; Stock water	0.05	12-31-27
1296	5	6502	W. B. and E. B. Robison; Lime Rock Spring; Stock water	0.003	12-31-27
1297	5	7389	Oscar Gerbig; Powell Creek; Stock water and domestic	0.004	1- 3-28
1298	5	7379	Oscar Gerbig; Gerbig Well; Stock water	0.006	1- 3-28
1299	5	7424	John Hickson; Cottonwood Spring; Stock water	0.014	1- 3-28
1300	5	7262	John W. and Fred Henriod; Mill Spring; Stock water	0.0125	1- 3-28
1301	5	6289	J. W. Henriod; Morgan Spring; Stock water	0.0125	1- 3-28
1302	5	7509	Alma Woods; Hillside Spring; Stock water	0.002	1- 3-28
1303	5	7902	Alma Woods; Jack Rabbit Spring; Stock water	0.002	1- 3-28
1304	5	7896	Gertrude Burke McIntosh; McIntosh Spring; Irrigation and stock water	0.0505	1- 3-28
1305	5	8442	Gertrude Burke; Burke Spring; Stock water and domestic	0.0012	1- 3-28
1306	5	6257	E. A. and F. Henriod; South Fork Grass Valley Creek; Irrigation	0.3951	1- 3-28

1307	5	6258	E. A. and F. Henriod; Middle Fork Grass Valley Creek; Irrigation	0.0682	1- 3-28
1308	5	6267	Richard Lee; Wild Rose Spring; Stock water	0.0003	1- 3-28
1309	5	7375	Giuseppe Buralli; Whiteman Spring; Stock water	0.006	1- 3-28
1310	5	7376	Giuseppe Buralli; Bull Spring; Stock water	0.006	1- 3-28
1311	5	7377	Giuseppe Buralli; Pony Meadow Spring; Stock water	0.004	1- 3-28
1312	5	6861	Alma Woods; Cold Spring; Stock water	0.00156	2- 1-28
1313	5	6729	Eva E. Kelly; Wall Canyon Creek; Irrigation	0.4099	2- 1-28
1314	5	7697	Harry Hews; North Creek; Stock water	0.0075	2- 1-28
1315	5	7236	George W. O'Neill; Barron Spring; Stock water	0.0075	2- 1-28
1316	5	7655	J. E. Thornton; Unnamed spring; Stock water	0.0156	2- 1-28
1317	5	7337	Roy R. Woods; Rock Creek; Milling and domestic	0.15	2- 1-28
1318	5	3930	Russell Land and Cattle Company; Ivanhoe Spring; Stock water	0.01875	2- 1-28
1319	5	3931	Russell Land and Cattle Company; Russell Spring; Stock water	0.01875	2- 1-28
1320	5	7127	A. C. Florio; Richereek Spring; Stock water	0.05	3- 1-28
1321	5	7128	Angelo C. Florio; Shirt Creek Spring; Stock water	0.05	2- 1-28
1322	5	7130	A. C. Florio; Pass Creek Spring; Stock water	0.05	2- 1-28
1323	5	7131	A. C. Florio; Cottonwood Creek Spring; Stock water	0.05	2- 1-28
1324	5	7132	Angelo C. Florio; Seepage Springs Creek; Stock water	0.05	2- 1-28
1325	5	5691	Edwin E. Foster; Slough in Spring Valley; Irrigation	1.895	2- 9-28
1326	5	5904	W. C. Pitt Company; West Fork Say Canyon; Irrigation and domestic	0.189	2-10-28
1327	5	5905	W. C. Pitt Company; East Fork Say Canyon; Irrigation and domestic	0.0779	2-10-28
1328	5	7418	Geo. S. Robison & Sons; Lint and Monroe Springs; Stock water	0.00625	2-10-28
1329	5	7419	Geo. S. Robison and Sons; Jack Spring; Stock water	0.0125	2-10-28
1330	5	7251	Peter Pastorino; Smith Creek; Irrigation and domestic	0.4187	2-11-28
1331	5	4487	Charles E. Kent; Stone House Spring; Irrigation and domestic	0.027	2-25-28
1332	5	7569	W. T. Jenkins Company; Horse Creek; Irrigation and domestic	0.7226	3-25-28
1333	5	6795	Adams McGill Company; Douglas Point Well; Stock water	0.075	3-27-28
1334	5	6982	J. M. Cazajous; Bass Spring; Irrigation and domestic	0.10	2-27-28
1335	5	7764	L. H. and Myrtle Danberg; Bench Creek and Tributary; Irrigation	0.257	2-27-28
1336	5	7245	Glen A. Bellander; Kioux Spring; Stock water	0.0156	2-27-28
1337	5	7211	Emil Baumann; Pat Canyon Spring No. 2; Stock water	0.0234	3- 6-28
1338	5	7212	Emil Baumann; Mud Spring; Stock water	0.0234	3- 6-28
1339	5	7213	Emil Baumann; Grouse Spring; Stock water	0.0234	3- 6-28
1340	5	7214	Emil Baumann; Saxe Hen Spring; Stock water	0.0234	3- 6-28
1341	5	7216	Emil Baumann; Granite Spring; Stock water	0.0234	3- 6-28
1342	5	7676	Ignacio Landa; South Fork Humboldt River; Irrigation	0.91	3- 7-28
1343	5	2130	J. C. Charters; Tony Creek; Irrigation	0.375	3-13-28
1344	5	7342	Rudolph Merchum; Rose Spring; Stock water	0.091875	3-20-28
1345	5	7976	Eugene A. and F. Henriod; Long Valley Spring; Stock water	0.013	3-30-28
1346	5	7701	Eugene A. Henriod; Lowes Spring; Stock water	0.025	3-30-28
1347	5	7572	E. A. and F. Henriod; Cottonwood Spring; Stock water	0.012	3-30-28
1348	5	6292	E. A. and Fred Henriod; Yellow Spring; Stock water	0.0125	3-30-28
1349	5	2966	Utah Construction Company; Thousand Springs Creek; Irrigation and domestic	\$,096.2 A. P.	4-13-28
1350	5	6356	W. C. Pitt Company; Springs in Hot Springs Canyon; Stock water and domestic	0.0156	4-13-28
1351	5	7603	Madison E. Loeke; Warm Springs; Stock water	0.094	4-13-28
1352	5	6762	Mono Land & Livestock Co.; Sario Spring; Stock water and domestic	0.025	4-13-28
1353	5	7633	John Uhart; Cottonwood Spring No. 1; Stock water and domestic	0.016	4-13-28
1354	5	6854	Alfred Bellander; Coyote Spring; Stock water and domestic	0.0125	4-13-28
1355	5	6768	Adams McGill Company; Cut in Spring Nos. 1 and 2; Stock water and domestic	0.025	4-13-28
1356	5	4417	James Hunter and Edith Mary Hunter; Dry Canyon Spring; Stock water and domestic	0.0125	4-13-28
1357	5	4410	James and Edith Mary Hunter; Poison Canyon Spring; Stock water and domestic	0.0022	4-13-28
1358	5	6996	E. G. Taylor; Show's Cabin Spring; Stock water and domestic	0.0034	4-16-28
1359	5	6997	E. G. Taylor; North Hot Spring; Stock water and domestic	0.0034	4-16-28
1360	5	6998	E. G. Taylor; Company Spring; Stock water and domestic	0.0034	4-16-28
1361	5	6999	E. G. Taylor; Little Hot Spring; Stock water and domestic	0.0034	4-16-28
1362	5	7013	E. G. Taylor; Thunder Spring; Stock water and domestic	0.0034	4-16-28
1363	5	7869	Marcos Legarra; Pinto Creek; Stock water	0.027	4-16-28
1364	5	7870	Marcos Legarra; Legarra Well; Stock water	0.027	4-16-28
1365	5	8974	Adams McGill Company; South Fox Artesian Well; Stock water	0.05	4-16-28
1366	5	8975	Adams McGill Co.; Snyder Well No. 1; Stock water	0.05	4-16-28
1367	5	8976	Adams McGill Co.; North Fox Artesian Well; Stock water	0.05	4-16-28

1368.	5.	8077.	Adams McGill Co.; Snyder Well No. 2; Stock water.	0.05	4-16-28
1369.	5.	1291.	C. H. and W. A. Reinken; Lamoille Creek; Irrigation and domestic.	2.68	4-18-28
1370.	5.	2440.	C. H. Reinken; Lamoille Creek; Irrigation and domestic.	1.54	4-18-28
1371.	5.	4818.	Victor B. Gardner; Forest Home Creek; Irrigation and domestic.	0.816	4-18-28
1372.	5.	1408.	Nettie S. Lytton; Lamoille Creek; Irrigation.	1.1172	4-30-28
1372.	5.	1408.	Pete and Juditha Bottari; Lamoille Creek; Irrigation.	2.29	4-30-28
1372.	5.	1408.	Joseph M. and Carolina Capriola; Lamoille Creek; Irrigation.	0.942	4-30-28
1373.	5.	7516.	James H. Bradish; Bradish Spring No. 1; Stock water.	0.03125	4-30-28
1374.	5.	7515.	James H. Bradish; Bradish Spring; Stock water.	0.03125	4-30-28
1375.	5.	7568.	J. H. Bradish; Bradish Spring No. 3; Stock water.	0.03125	4-30-28
1376.	5.	7567.	J. H. Bradish; Bradish Spring No. 2; Stock water.	0.03125	4-30-28
1377.	5.	6319.	F. H. Murphy; Hines Creek; Irrigation and domestic.	1.13	4-30-28
1378.	5.	6632.	Jose M. Alzucaray; White Cloud Well; Stock water and domestic.	0.024	4-30-28
1379.	5.	6678.	Chas. W. Williams; Ford Spring; Stock water.	0.002	4-30-28
1380.	5.	3394.	Fred Wallace; Cat Creek; Irrigation and domestic.	0.534	4-30-28
1381.	5.	6379.	Handley Bros.; Dry Mountain Well; Stock water and domestic.	0.031	4-30-28
1382.	5.	7187.	Ralph H. Olinghouse; Tower's Spring; Stock water and domestic.	0.016	5- 3-28
1383.	5.	7240.	Ralph Henry Olinghouse; Board Cabin Spring; Stock water and domestic.	0.016	5- 3-28
1384.	5.	7241.	R. A. Yelland; Coyote Well; Stock water.	0.0125	5- 3-28
1385.	5.	7189.	Meaker & Heward; Buckhorn Spring; Stock water.	0.016	5- 4-28
1386.	5.	7934.	Frank Callaway; Lor Spring; Stock water and domestic.	0.0219	5- 4-28
1387.	5.	7935.	Frank Callaway; Big Spring and tributaries; Stock water and domestic.	0.0219	5- 4-28
1388.	5.	7936.	Frank Callaway; Callaway Well; Stock water and domestic.	0.0219	5- 4-28
1389.	5.	7937.	Frank Callaway; Heath Spring and tributaries; Stock water and domestic.	0.0219	5- 4-28
1390.	5.	7938.	Frank Callaway; Morgan Spring; Stock water and domestic.	0.0219	5- 4-28
1391.	5.	3294.	James Ryan and Gardner Ranch Co.; Granger Spring; Stock water and domestic.	0.0125	5- 4-28
1392.	5.	3295.	James Ryan and Gardner Ranch Co.; Willow Spring; Stock water and domestic.	0.0125	5- 4-28
1393.	5.	5343.	Gustaf R. Petersen; Mike's Creek; Irrigation and domestic.	0.2543	5- 4-28
1394.	5.	6892.	Orville M. Wilson; Cedar Creek; Irrigation and domestic.	0.3113	5- 4-28
1395.	5.	6835.	Belle Helen Merger Mines Co.; Strong Spring; Mining, milling and domestic.	0.0223	5- 4-28
1396.	5.	7026.	Geo. B. Williams; Park Canyon Springs; Stock water and domestic.	0.0150	5- 9-28
1397.	5.	7027.	Geo. B. Williams; Park Canyon Creek; Stock water and domestic.	0.0150	5- 9-28
1398.	5.	7028.	Geo. B. Williams; Park Canyon Spring No. 1; Stock water and domestic.	0.0150	5- 9-28
1399.	5.	7029.	Geo. B. Williams; Park Canyon Spring No. 2; Stock water and domestic.	0.0150	5- 9-28
1400.	5.	7030.	Geo. B. Williams; Park Canyon Spring No. 3; Stock water and domestic.	0.0150	5- 9-28
1401.	5.	7031.	Geo. B. Williams; Dry Canyon Spring; Stock water and domestic.	0.0150	5- 9-28
1402.	5.	7032.	Geo. B. Williams; Road Canyon Spring; Stock water and domestic.	0.0150	5- 9-28
1403.	5.	7034.	Geo. B. Williams; Little Den Creek and tributaries; Stock water and domestic.	0.0150	5- 9-28
1404.	5.	7035.	Geo. B. Williams; Big Den Creek; Stock water and domestic.	0.0150	5- 9-28
1405.	5.	4017.	Ike Springer; St. Clair Canyon Spring; Irrigation and domestic.	0.0225	5-11-28
1406.	5.	2756.	Charlotte Rogers Douglas; Barker Creek; Irrigation.	0.17	5-19-28
1407.	5.	4474.	Sarah Jane Baker; Gold Creek; Irrigation.	0.811	5-23-28
1408.	5.	6061.	Ernest G. Ward and Lyman Armfield; Virgin River; Irrigation and domestic.	0.3155	5-23-28
1409.	5.	6254.	John B. Siri; James White Spring; Irrigation and domestic.	0.080	5-23-28
1410.	5.	3338.	Geo. B. Williams; Middle Gate Creek; Irrigation and domestic.	0.0901	6- 7-28
1411.	5.	6229.	Griswold-Henderson L. S. Co.; Griswold Henderson Spring; Stock water.	0.0125	6- 8-28
1412.	5.	6221.	Griswold-Henderson L. S. Co.; Griswold Henderson L. S. Co. Spring; Stock water and domestic.	0.0125	6- 8-28
1413.	5.	6223.	Griswold-Henderson L. S. Co.; Unnamed spring; Stock water.	0.0125	6- 8-28
1414.	5.	6224.	Griswold-Henderson L. S. Co.; Unnamed spring; Stock water.	0.0125	6- 8-28
1415.	5.	5741.	Griswold-Henderson L. S. Co.; Boone Spring; Stock water and domestic.	0.125	6- 8-28
1416.	5.	5742.	Griswold-Henderson L. S. Co.; Lower Spruce Spring; Stock water and domestic.	0.032	6- 8-28

1417	5	5743	Griswold-Henderson L. S. Co.; Upper Latham Spring; Stock water and domestic	0.125	6- 8-28
1418	5	5744	Griswold-Henderson L. S. Co.; Lower Latham Spring; Stock water and domestic	0.125	6- 8-28
1419	5	5745	Griswold-Henderson L. S. Co.; Upper Spruce Spring; Stock water	0.125	6- 8-28
1420	6	7536	Charles E. Kent; Stonehouse Spring; Stock water and domestic	0.053	6-23-28
1421	6	7551	Kent Land & Livestock Co.; Shirttail Canyon Spring; Stock water and domestic	0.025	5-23-28
1422	6	7552	Kent Land & Livestock Co.; Lower East Lee Canyon Spring; Stock water and domestic	0.037	6-25-28
1423	6	2454	Wm. R. Adams; Carson River; Irrigation and domestic	0.1706	6-25-28
1424	6	3956	H. F. Dangberg L. & L. S. Co.; Pipe Spring; Stock water	0.05	6-25-28
1425	6	3957	H. F. Dangberg L. & L. S. Co.; Bull Run Springs; Stock water	0.05	6-25-28
1426	6	3958	H. F. Dangberg L. & L. S. Co.; Mineral Hill Spring; Stock water	0.05	6-25-28
1427	6	3959	H. F. Dangberg L. & L. S. Co.; Lebo Spring; Stock water	0.05	6-25-28
1428	6	3960	H. F. Dangberg L. & L. S. Co.; Badger Spring; Stock water	0.05	6-25-28
1429	6	7224	Clarence R. Moorman; Chalk Spring; Stock water	0.0611	7- 3-28
1430	6	4537	H. F. Dangberg L. & L. S. Co.; Spanish Spring; Stock water	0.054	7- 3-28
1431	6	4453	H. F. Dangberg L. & L. S. Co.; Titus Spring; Stock water	0.05	7- 3-28
1432	6	7230	Nelson A. High; Potato Canyon, flood and unappropriated waters; Irrigation and domestic	0.056	7- 3-28
1433	6	6293	E. A. and Fred Henriod; Cottonwood Spring; Stock water	0.0125	9-29-28
1434	6	7311	Burton H. Robison; Willow Spring; Stock water	0.0094	9-29-28
1435	6	7312	Burton H. Robison; Lone Cedar Spring; Stock water	0.0094	9-29-28
1436	6	7313	Burton H. Robison; Rock Spring; Stock water	0.0094	9-29-28
1437	6	7427	Burton H. Robison; Cress Spring; Stock water	0.0094	9-29-28
1438	6	8182	A. C. Florio; Gbellini Springs Nos. 2 and 3; Stock water and domestic	0.059	9-29-28
1439	6	8183	A. C. Florio; Hash Spring; Stock water and domestic	0.059	9-29-28
1440	6	8184	A. C. Florio; Railroad Spring; Stock water and domestic	0.059	9-29-28
1441	6	8185	A. C. Florio; Trap Corral Spring; Stock water and domestic	0.05	9-29-28
1442	6	8187	A. C. Florio; White Rock Spring; Stock water and domestic	0.05	9-29-28
1443	6	8198	A. C. Florio; Gbellini Spring No. 1; Stock water	0.059	9-29-28
1444	6	7872	L. A. McCulley; Twin Spring; Stock water and domestic	0.0125	9-29-28
1445	6	7873	L. A. McCulley; Scrip or Nut Spring; Stock water and domestic	0.0125	9-29-28
1446	6	7874	L. A. McCulley; Trough Spring; Stock water and domestic	0.025	9-29-28
1447	6	6230	W. J. Gardner; Big Minnow Spring; Irrigation	0.167	3-29-28
1448	6	6765	W. J. Gardner; South Smith Creek; Irrigation	3.3025	9-29-28
1449	6	6766	W. J. Gardner; North Smith Creek; Irrigation	2.84	9-29-28
1450	6	6210	John Uhalde; Guleb Spring; Stock water	0.031	9-29-28
1451	6	6211	John Uhalde; Uhalde Spring; Stock water	0.0312	9-29-28
1452	6	6604	John Uhalde; Uhalde Well; Stock water	0.0156	9-29-28
1453	6	6529	F. C. Robins; Robins Spring; Mining and domestic	0.045	9-29-28
1454	6	6964	Ernest H. Simonsen; Big Basin Spring; Stock water	0.025	9-29-28
1455	6	5904	Paul H. Dory; Rye Patch Spring; Stock water	0.003125	9-29-28
1456	6	6955	Mrs. Eliza McAfee; Charles Canyon Spring; Stock water	0.0022	9-29-28
1457	6	6956	Mrs. Eliza McAfee; Cottonwood Spring; Stock water	0.0025	9-29-28
1458	6	5384	E. C. Murphy and E. R. Dolan; Corey Canyon and Big Spring; Irrigation and domestic	1.636	9-29-28
1459	6	7602	Pacific Fruit Express Co.; Artesian well; Manufacturing ice	0.50	12- 7-28
1460	6	7210	Emil and Ida Baumann; Pat Canyon Spring No. 1; Stock water	0.022	12-27-27
1461	6	7852	Walter Maine; Rose Bush Canyon Creek; Irrigation and domestic	0.1582	12-17-28
1462	6	7358	J. M. Ward and J. H. Smith; Tule Spring; Stock water	0.009	12-18-28
1463	6	7382	J. M. Ward and J. H. Smith; Cottonwood Spring; Stock water	0.009	12-18-28
1464	6	7361	J. M. Ward and J. H. Smith; Twin Spring; Stock water	0.006	12-18-28
1465	6	7360	J. M. Ward and J. H. Smith; Crooked Canyon; Stock water	0.003	12-18-28
1466	6	7117	Robison Brothers; Stone Wall Spring; Stock water	0.0022	12-20-28
1467	6	3269	W. S. Short; Short Spring; Irrigation	0.996	12-21-28
1468	6	3522	Ernest H. Simonsen; Willow Spring; Stock water	0.025	12-21-28
1469	6	7216	Herbert Alfred; Nicholas Spring; Power	3.00	12-21-28
1470	6	7487	Marcos Legarra; Black Shale Well; Stock water	0.019	12-21-28
1471	6	7548	Marcos Legarra; Monroe Spring No. 1; Stock water	0.025	12-21-28
1472	6	7549	Marcos Legarra; Maggini Spring No. 2; Stock water	0.025	12-21-28
1473	6	7331	Phillip W. Baker; Clay Spring; Stock water	0.0062	12-21-28
1474	6	4308	Lench Brothers, Inc.; Ferguson Springs; Irrigation	0.10	12-21-28

CHAPTER IV—ADJUDICATION OF WATER RIGHTS

The work of determination of relative rights to the water resources of the State during the past biennium has progressed as rapidly as possible considering the fact that the office and field personnel of this department of water rights was limited to a minimum under the present appropriation.

The scope of activities in connection with the adjudication of the various sources during the biennium may best be considered in order of their importance for irrigation.

CARSON RIVER

This adjudication embraces all lands in Nevada irrigated from the Carson River above Lahontan Reservoir of the United States Bureau of Reclamation (now Truckee-Carson Irrigation District), commonly referred to as the Upper Carson lands.

A. E. Chandler, Nevada's first State Engineer from May, 1903, to May, 1905, attempted a determination of the relative rights to the use of water on these lands by issuing certificates of water rights in accordance with the statutes then in force. These constitute the so-called "Chandler Findings."

Subsequent litigation, however, was successful in attacking the constitutionality of that portion of the statutes under which Chandler found authority for making his findings, hence former State Engineer J. G. Scrugham, by notice to claimants dated April 10, 1920, initiated adjudication proceedings under the water law of 1913 as amended by the Statutes of 1915. As a subsequent result, on March 28, 1927, former State Engineer Robert A. Allen officially filed the completed Order of Determination in the office of the State Engineer.

The present State Engineer, in accordance with the provisions of the water law, proceeded to collect, segregate and prepare in orderly and intelligible shape all evidence, transcripts of testimony before the State Engineer, maps and other related data for filing with the District Court.

After conferring with the Judges of the two judicial districts in which the stream system is situated, it was decided to hold the court proceedings in the First Judicial District Court at Carson City, Nevada. Hence, on November 21, 1928, the State Engineer filed the Order of Determination together with the original evidence, etc., with the Clerk of said Court. Time for hearing exceptions to the Order was set by Judge G. A. Ballard for February 4, 1929.

The exclusive time of one office assistant for approximately three months was required in assembling data in complete and orderly form for filing with the Court.

A total of 36,955 acres of irrigated lands is embraced in the State Engineer's Order of Determination.

LITTLE HUMBOLDT RIVER

The Little Humboldt Stream System comprises, in addition to the main stream, Martin, Cottonwood, Indian, Colony, Morey, Dooley, Haviland, Hansen and Stonehouse Creeks as tributaries. Approximately 50,000 acres of land are irrigated from this source. Although

from the standpoint of gross area this stream system is of greater magnitude than the Carson River and its forks, the fact that most of the area is wild hay and meadow pasture land places it second in importance to the Carson River lands, most of which are intensively cultivated.

Proofs of Appropriation were first filed with the State Engineer during 1909-1910. These, however, were merely guesses, hence an Abstract of Claims compiled in 1913, and based in large measure on these proofs was of little value. From this point sporadic and intermittent attempts by former State Engineers to further the proceedings availed little.

At the urgent request of many water users involved, and realizing the importance of completing the determination of rights on this important stream system, the present State Engineer has aggressively furthered the proceedings to a point where the Preliminary Order of Determination will soon be prepared and printed. The revival of this proceeding and its progress to date has been made possible by a voluntary contribution of \$5,000 from the water users on the stream system. With a portion of this fund already deposited in trust with this office, a special assistant has been employed, who devotes his entire time to this adjudication. Much field and office work, incidental to the completion of the proceedings, has already been accomplished.

THOUSAND SPRINGS CREEK

Thousand Springs Creek and its principal tributaries, Rock and Silver or Crittenden Creeks, are situated in Elko County, in the extreme northeastern portion of the State; 5,408.7 acres of land are embraced in this adjudication, all of which is owned by the Utah Construction Company, successors in interest to the Vineyard Land and Stock Company.

This adjudication was initiated in April, 1928, upon petition of the Utah Construction Company. Waivers of notices, under section 36b, chapter 106, Statutes of 1921, were signed by all claimants and appropriators, hence the State Engineer proceeded in accordance therewith. Field investigations and maps were made and an Abstract of Claims prepared and submitted to the claimants involved. The Order of Determination is now in process of preparation and will be filed with the Court before the irrigation season of 1929.

CRUM AND WILSON CREEKS

Crum and Wilson Creeks, situated in Lander County, irrigate a total area of 614.69 acres. The adjudication proceedings involving these lands were completed by the entry of a final decree, May 26, 1928, in the Third Judicial District Court at Austin, Nevada.

Claimants Ed. and Martin Filippini entered into these proceedings as exceptors and interveners in April 1928, and thereafter a stipulation was entered into with claimant Ethel Faris Adams which served as the basis for the final determination of the rights involved.

CARRICO CREEK

Carrico Creek and its tributaries, Hall and Iowa Creeks, is located in Lander County some forty miles north of Austin, Nevada, the

county seat. Approximately 1,002 acres are involved in the adjudication proceedings initiated in response to a petition of July 29, 1927, by J. C. Wholey, a water user under application rights on the source.

All claimants having waived the usual notices and publication thereof, the State Engineer made a field investigation and report, prepared an Abstract of Claims and an Order of Determination which was filed during May, 1928, with the District Court at Austin.

TONY CREEK

Tony Creek and its principal tributaries, Chimney and Porcupine Creeks, is situated in Humboldt County, approximately forty miles north of Winnemucca, in the Quinn River basin. Since none of the water from Tony Creek ever reaches the Quinn River, Tony Creek was considered as a separate and distinct source.

An Abstract of Claims and Preliminary Order of Determination was prepared. Following the period of inspection of proofs, abstract and preliminary order, objections to the latter were received and hearings held to dispose of same at Winnemucca on May 1, 1928, by Deputy State Engineer G. F. Engle. Following the hearing the Order of Determination was prepared which, together with all evidence, maps and transcript of testimony, was filed with the Sixth Judicial District Court at Winnemucca on July 9, 1928.

Hearing was held November 1, 1928, by the Court on exceptions to the Order of Determination. Attorneys for Esain and Esparza, one of the two claimants on the source, vigorously attacked the Order of Determination on the grounds that valid appropriation of water can be made subsequent to the year 1905 by actual diversion and beneficial use without making application to the State Engineer. A vital point is involved here which, if decided in favor of claimants Esain and Esparza, would virtually result in throwing the present water law into the discard. During the Court hearing the State Engineer was represented by Assistant Attorney-General Wm. J. Forman and Deputy State Engineer G. F. Engle.

A total of 115.52 acres is embraced in the Order of Determination in this proceeding.

BAKER AND LEHMAN CREEKS

Adjudication proceedings initiated in 1925 have not advanced during the past biennium due to extensions of time for filing proofs of appropriation which have been requested and granted.

SILVER CREEK

Upon petition of W. D. and M. E. Caton, water users on Silver Creek, Lander County, an investigation was made on March 7-11, 1928, which disclosed that facts and conditions warranted initiation of adjudication proceedings on this source. Three claimants are involved, two of which have submitted proof of their claims. When all proofs have been received and filed the proceedings will be advanced under the provisions of section 36b, chapter 106, Statutes of 1921, waivers of notice having been signed by all claimants.

K-C CREEK

Upon petition of Messrs. Bradish and Winchell, water users on K-C Creek, Elko County, adjudication proceedings have been initiated.

On November 27, 1928, a notice and order for taking proofs was entered and served on interested claimants involved in the proceeding.

PROOFS OF APPROPRIATION AND CERTIFICATES OF WATER RIGHTS

During the biennium the following proofs of appropriation, accompanied by cultural maps in support of the rights claimed, have been accepted and filed for future use in determination of relative rights on various sources of water supply within the boundaries of the State.

The certificates of water right listed were issued upon completion of adjudication proceedings by entry of the Court's final decree of determination in the matter of the adjudication of Crum and Wilson Creeks.

PROOFS OF APPROPRIATION FILED DURING THE YEARS 1927-1928

Following is a condensed statement giving the salient data in connection with Proofs of Appropriation filed during the years 1927-1928, in the order of:

1. Proof Serial Number.
2. Date Filed.
3. Name of Claimant.
4. Source of Water Supply.
5. Use Claimed under Appropriation in Terms of Acres Irrigated, Stock Watered, etc.
6. Purpose of Appropriation.

1927

02057	1-10-27	Williams Estate Company; Rocky Canyon; 134.2 acres; Irrigation and domestic.
02058	1-10-27	Williams Estate Company; Augusta Canyon Creek; 40.1 acres; Irrigation and domestic.
02059	1-10-27	Williams Estate Company; Rock Creek; 23.43 acres; Irrigation and domestic.
02060	1-10-27	Williams Estate Company; Pony Creek; 23.43 acres; Irrigation and domestic.
02061	1-10-27	Williams Estate Company; Cold Springs Creek; 23.44 acres; Irrigation and domestic.
02062	1-10-27	Williams Estate Company; Florence Canyon Spring; 200.10 acres; Irrigation and domestic.
02063	1-10-27	Williams Estate Company; Cherry and Star Creeks; 200.10 acres; Irrigation and domestic.
02064	1-10-27	Williams Estate Company; Edwards Creek; 55.7 acres; Irrigation and domestic.
02065	1-10-27	Williams Estate Company; Cherry Creek; 48.45 acres; Irrigation and domestic.
02066	1-10-27	Williams Estate Company; War Canyon Creek; 48.45 acres; Irrigation and domestic.
02067	1-15-27	The Adams McGill Company; Sun Spring; 2,500 sheep; Stock water.
02068	1-15-27	The Adams McGill Company; Willow Creek; 500 cattle; Stock water.
02069	3- 3-27	Edwin Lytle; Willow Spring; 200 cattle; Stock water.
02070	3- 3-27	J. G. Serugham; Onion Creek; 1,500 cattle; Stock water.
02071	3- 3-27	J. G. Serugham; Alder Creek; 1,500 cattle; Stock water.
02072	3- 3-27	J. G. Serugham; Road Creek; 1,500 cattle; Stock water.
02073	3- 3-27	J. G. Serugham; Little Alder Creek; 1,500 cattle; Stock water.
02074	3- 3-27	J. G. Serugham; Alder Creek; 1,500 cattle; Stock water.
02075	3-21-27	The Adams McGill Company; Willow Spring; 200 cattle; Stock water.
02076	3-27-27	Mrs. Sophie E. Williams; Blue Spring; 50 cattle; Stock water.
02077	4- 1-27	The Adams McGill Company; Willard Spring; 100 cattle; Stock water.
02078	4- 1-27	The Adams McGill Company; Hustan Creek; 500 cattle; Stock water.
02079	4- 8-27	The Adams McGill Company; Long Water Spring; 200 cattle; Stock water.
02080	4-21-27	W. A. Johnstone; Sheep Springs; 500 cattle; Stock water.
02081	4-21-27	W. A. Johnstone; Indian Springs; 50 cattle; Stock water.
02082	4-21-27	W. A. Johnstone; Deer Springs; 50 cattle; Stock water.
02083	4-21-27	W. A. Johnstone; Johnstone Springs; 50 cattle; Stock water.
02084*	4-21-27	W. A. Johnstone; Cane Springs; 50 cattle; Stock water.
02085	4-21-27	W. A. Johnstone; Trough Spring; 100 cattle; Stock water.
02086	5-28-27	A. C. Florio; Evans Spring; 8,000 sheep; Stock water.

*Withdrawn by Claimant.

- 92087 3-25-27 James C. Riordan; West Parker Range Spring; 200 cattle; Stock water.
 92088 3-25-27 James C. Riordan; Lower Parish Spring; 200 cattle; Stock water.
 92089 3-25-27 James C. Riordan; Upper Parish Spring No. 1; 200 cattle; Stock water.
 92090 3-25-27 James C. Riordan; Upper Parish Spring No. 2; 200 cattle; Stock water.
 92091 3-25-27 James C. Riordan; Moorman Spring Channel; 1,200 cattle; Stock water.
 92092 3-25-27 James C. Riordan; Moorman Spring; 6.1 acres; Irrigation and domestic.
 92093 6- 9-27 F. J. Winzell and Kate Cockrell; Quartz Spring; 200 cattle; Stock water.
 92094 6- 9-27 F. J. Winzell and Kate Cockrell; Unnamed Stream and Spring; 200 cattle; Stock water.
 92095 6- 9-27 F. J. Winzell and Kate Cockrell; Spring Creek; 200 cattle; Stock water.
 92096 6- 9-27 F. J. Winzell and Kate Cockrell; Indian Spring; 200 cattle; Stock water.
 92097 6- 9-27 F. J. Winzell and Kate Cockrell; Summit Spring; 200 cattle; Stock water.
 92098 6- 9-27 F. J. Winzell and Kate Cockrell; Rose Spring; 200 cattle; Stock water.
 92099 6- 9-27 F. J. Winzell and Kate Cockrell; Sun Flower Spring; 200 cattle; Stock water.
 92100 6-24-27 James C. Riordan; Parker Spring; 500 cattle; Stock water.
 92101 8-26-27 Parman & Saffores; Soldiers Meadows Creek; 254.85 acres; Irrigation and domestic.
 92102 8-26-27 Parman & Saffores; Mud Meadows Creek; 579.56 acres; Irrigation and domestic.
 92103 8-12-27 W. A. Johnstone; Big Mountain Spring; 1,500 sheep; Stock water.
 92104 8-12-27 W. A. Johnstone; Troughs Spring; 1,500 sheep; Stock water.
 92105 8-12-27 W. A. Johnstone; Bartlett Creek Spring; 1,500 sheep; Stock water.
 92106 8-12-27 W. A. Johnstone; Mahogany Springs; 1,500 sheep; Stock water.
 92107 8-12-27 W. A. Johnstone; Battle Creek Spring; 1,500 sheep; Stock water.
 92108 10- 4-27 Williams Estate Company; Shoshone Creek and Springs; 2,000 sheep; Stock water.
 92109 10- 4-27 Williams Estate Company; Goosecreek Spring; 2,000 sheep; Stock water.
 92110 10- 4-27 Williams Estate Company; New Pass Spring; 10,000 sheep; Stock water.
 92111 10-11-27 Murray Sheep Company; Meadow Spring; 5,000 sheep; Stock water.
 92112 10-11-27 Murray Sheep Company; Willow Spring; 5,000 sheep; Stock water.
 92113 10-11-27 Murray Sheep Company; South Camp Spring No. 1; 5,000 sheep; Stock water.
 92114 10-11-27 Murray Sheep Company; South Camp Spring No. 2; 5,000 sheep; Stock water.
 92115 10-11-27 Murray Sheep Company; South Camp Spring No. 3; 5,000 sheep; Stock water.
 92116 10-11-27 Murray Sheep Company; Devil Rock Spring; 5,000 sheep; Stock water.
 92117 10-11-27 Murray Sheep Company; Quaking Asp Spring No. 1; 5,000 sheep; Stock water.
 92118 10-11-27 Murray Sheep Company; Quaking Asp Spring No. 2; 5,000 sheep; Stock water.
 92119 10-11-27 Murray Sheep Company; Rip Rap Spring No. 1; 5,000 sheep; Stock water.
 92120 10-11-27 Murray Sheep Company; Rip Rap Spring No. 2; 5,000 sheep; Stock water.
 92121 10-11-27 Murray Sheep Company; White Rock Spring; 5,000 sheep; Stock water.
 92122 10-11-27 Murray Sheep Company; White Rock Cabin Springs; 5,000 sheep; Stock water.
 92123 10-11-27 Murray Sheep Company; Chicken Spring; 5,000 sheep; Stock water.
 92124 10-11-27 Murray Sheep Company; Lake Spring; 5,000 sheep; Stock water.
 92125 10-11-27 Murray Sheep Company; South Water Hole Spring; 5,000 sheep; Stock water.
 92126 10-18-27 E. L. Hendrix; Head of Saw Mill Spring; 150 cattle; Stock water.
 92127 11- 7-27 F. A. Nolan; Bordwell Spring; 1,500 sheep, 1,000 cattle; Stock water.
 92128 11- 7-27 F. A. Nolan; Big Springs Creek; 1,500 sheep, 1,000 cattle; Stock water.
 92129 11- 8-27 Mrs. C. L. Heath; Upper Coal Camp Spring; 2,500 sheep, 100 cattle; Stock water.
 92130 11- 8-27 Mrs. C. L. Heath; Lower Coal Camp Spring; 2,500 sheep, 100 cattle; Stock water.
 92131 11- 8-27 Mrs. C. L. Heath; Coyote Spring; 150 cattle; Stock water.
 92132 11- 8-27 Mrs. C. L. Heath; Tierny and Cottonwood Creeks; 503.14 acres; Irrigation and domestic.
 92133 11- 8-27 Mrs. C. L. Heath; Indian Spring; 2,500 sheep; Stock water.
 92134 11- 8-27 Mrs. C. L. Heath; Barrel Spring; 2,500 sheep, 600 cattle; Stock water.
 92135 11- 8-27 Mrs. C. L. Heath; West Side Spring; 2,500 sheep, 600 cattle; Stock water.
 92136 11- 8-27 Mrs. C. L. Heath; Water Canyon Spring and Creek; 2,500 sheep; Stock water.
 92137 11- 8-27 Mrs. C. L. Heath; Warm Springs; 2,500 sheep; Stock water.
 92138 11- 8-27 Mrs. C. L. Heath; Deer Spring; 2,500 sheep; Stock water.
 92139 11- 8-27 Mrs. C. L. Heath; Iron Tank Spring; 2,500 sheep; Stock water.
 92140 11- 8-27 Mrs. C. L. Heath; New Pass Spring; 2,500 sheep; Stock water.
 92141 11- 8-27 John Erramouspe; Badger Spring; 2,000 sheep; Stock water.
 92142 11- 8-27 John Erramouspe; Rolling Spring; 2,000 sheep; Stock water.
 92143 11- 8-27 John Erramouspe; Plate Spring; 2,000 sheep; Stock water.
 92144 11- 8-27 John Erramouspe; Cottonwood Creek; 2,000 sheep; Stock water.
 92145 11- 8-27 John Erramouspe; Willow Spring; 2,000 sheep; Stock water.
 92146 11- 8-27 John Erramouspe; Porcupine Spring; 2,000 sheep; Stock water.
 92147 11-23-27 The Glenbrook Company; North Logan Creek; 65.18 acres; Irrigation and domestic.
 92148 11-23-27 The Glenbrook Company; Glenbrook Creek; 121.83 acres; Irrigation and domestic.
 92149 11-23-27 The Glenbrook Company; Short Spring; 100 cattle; Stock water.

- 02150 11-23-27 The Glenbrook Company; Unnamed Spring; 100 cattle; Stock water.
 02151 11-23-27 The Glenbrook Company; Unnamed Spring; 2.84 acres; Irrigation and domestic.
 02152 12- 8-27 United Cattle & Packing Co.; Goat Ranch Spring; 500 cattle; Stock water.
 02153 12- 9-27 Cornell & Maestretti; Peterson Creek; 32.74 acres; Irrigation and domestic.
 02154 12- 9-27 Cornell & Maestretti; Schoonover Creek; 25.20 acres; Irrigation and domestic.
 02155 12- 9-27 Cornell & Maestretti; Park Creek; 24.49 acres; Stock watering and domestic.
 02156 11-30-27 John W. Henry; Middle Creek Spring; 1,500 sheep; Stock water.
 02157 12-12-27 United Cattle & Packing Co.; Red Bluff Springs; 500 cattle; Stock water.
 02158 1-19-27 Blanch Siard; Pleasant Valley Creek and Tributaries; 144.67 acres; Stock watering and domestic.

1928

- 02159 1-13-28 William Sellas; West Cottonwood Spring; 2,500 sheep; Stock water.
 02160 1-13-28 William Sellas; Timothy and Chokecherry Springs; 2,500 sheep; Stock water.
 02161 1-13-28 William Sellas; North Willow Patch Springs; 2,500 sheep; Stock water.
 02162 1-13-28 William Sellas; Upper Stockade Spring; 2,500 sheep; Stock water.
 02163 1-13-28 William Sellas; Lower Stockade Spring; 2,500 sheep; Stock water.
 02164 1-13-28 William Sellas; North Cottonwood and Meadow Springs; 2,500 sheep; Stock water.
 02165 1-13-28 William Sellas; Top and Grassy Springs and Tributaries; 2,500 sheep; Stock water.
 02166 1-13-28 William Sellas; North and Top Springs No. 2; 2,500 sheep; Stock water.
 02167 1-13-28 William Sellas; North Creek; 2,500 sheep; Stock water.
 02168 1- 4-28 Thousand Creek Livestock Co.; Camp Spring; 200 cattle; Stock water.
 02169 1- 4-28 Thousand Creek Livestock Co.; Wheeler Spring; 100 cattle; Stock water.
 02170 1- 4-28 Thousand Creek Livestock Co.; Post Camp Spring; 100 cattle; Stock water.
 02171 1- 4-28 Thousand Creek Livestock Co.; Trough Spring; 200 cattle; Stock water.
 02172 1- 4-28 Thousand Creek Livestock Co.; Bateman Spring; 50 cattle; Stock water.
 02173 1- 4-28 Thousand Creek Livestock Co.; Gootch Spring; 50 cattle; Stock water.
 02174 1- 4-28 Thousand Creek Livestock Co.; Hell Creek Spring; 2,000 sheep, 100 cattle; Stock water.
 02175 1- 4-28 Lena Harley Scott; Little Grassy Spring; 200 cattle; Stock water.
 02176 12-29-27 F. H. Murphy; Cocklebur Spring; 600 cattle; Stock water.
 02177 12-29-27 F. H. Murphy; Warm Spring; 2,000 sheep, 500 cattle; Stock water.
 02178 12-29-27 Clarks Valley Land and Sheep Co.; Painter Creek and Spring; 5,000 sheep; Stock water.
 02179 1-10-28 Mrs. C. L. Heath; Cottonwood Creek; 54.75 acres; Irrigation and domestic.
 02180 1- 7-28 Martin and Ed. Filippini; Crum and Wilson Creeks; 523.70 acres; Irrigation and domestic.
 02181 2- 5-28 Hankings-Bellinger Co.; Unnamed Springs; 26.95 acres; Irrigation and domestic.
 02182 3-14-28 J. C. Phillipi; Iowa Creek; 176.00 acres; Irrigation and domestic.
 02183 3-25-28 Isadore Lauricio; Porcupine Creek; 21.70 acres; Irrigation and domestic.
 02184 3-31-28 Geo. B. Williams; Indian Spring; 6,000 sheep; Stock water.
 02185 3-29-28 Eugene A. Henriod; Burrington Canyon; 53.50 acres; Irrigation and domestic.
 02186 5-23-28 J. H. Bradish; K. C. Conway or Renshaw Creek; 138.81 acres; Irrigation and domestic.
 02187 6-20-28 Annie M., Cassie M. Johnstone and Jennie D. Hill; Peters Gulch Springs and Creek; 5,000 sheep, 250 cattle; Stock water.
 02188 6-20-28 Annie M., Cassie M. Johnstone and Jennie D. Hill; Long Hollow Springs and Creek; 5,000 sheep and 250 cattle; Stock water.
 02189 6-20-28 W. F. Cockrell; Granite Springs and Creek; 4,000 sheep; Stock water.
 02190 6-20-28 W. F. Cockrell; Corral Spring and Creek; 4,000 sheep; Stock water.
 02191 6-20-28 W. F. Cockrell; Cottonwood Springs and Creek; 4,000 sheep; Stock water.
 02192 8- 6-28 Weeks Brothers, Inc.; K. C. Conway or Renshaw Creek; 555.58 acres; Irrigation and domestic.
 02193 6-28-28 William F. West; West Deep Creek; 12.7 acres; Irrigation and domestic.
 02194 7-26-28 William Hendrix; Saw Mill Spring; 190 cattle; Stock water.
 02195 7-26-28 William Hendrix; Lone Pine Spring; 190 cattle; Stock water.
 02196 9- 5-28 F. E. Bush and F. H. Murphy; Knott Creek; 6,000 sheep and 1,000 cattle; Stock water.
 02197 11-30-28 W. A. Johnstone; North Fork Plute Creek; 2,000 sheep, 500 cattle; Stock water.
 02198 12-17-28 Murray Sheep Company; The Troughs; 3,000 sheep; Stock water.
 02199 12-17-28 Murray Sheep Company; The Well; 3,000 sheep; Stock water.
 02200 12-17-28 Murray Sheep Company; East Water Hole; 2,500 sheep; Stock water.
 02201 12-17-28 Murray Sheep Company; Commissary Creek; 3,000 sheep; Stock water.
 02202 12- 6-28 W. A. Johnstone; Unnamed Creek; 200 cattle; Stock water.
 02203 12-15-28 Henry A. Bordoli; Blind Spring; 1,500 sheep, 150 cattle; Stock water.

Note—In every case the term "Domestic Use" includes stock watering when it is considered under an appropriation for water for irrigation. In other cases the appropriation is made for water exclusively for "Stock Watering." Under "Use Claimed" a sufficient amount of water is claimed which is required for the given number of acres irrigated or head of stock watered.

CERTIFICATES ISSUED UNDER PROOFS OF APPROPRIATION, 1927-1928

The following information is given in the order of:

1. Certificate Number.
2. Book Number.
3. Proof Serial Number.
4. Name of Claimant.
5. Source of Water Supply.
6. Purpose of Appropriation.
7. Number of Acres Irrigated.
8. Date Certificate Issued.

299.	2.	02189.	Martin and Ed. Philippini; Crum Creek; Irrigation and domestic; 1,026.45 acre feet; July 20, 1928.
300.	2.	01928.	Ethel Faris Adams; Wilson Creek; Irrigation and domestic; 44.26 acre feet; July 20, 1928.
301.	2.	01937.	Ethel Faris Adams; Crum and Wilson Creeks; Irrigation and domestic; 141.91 acre feet; July 20, 1928.

**RECORD OF ADJUDICATION PROCEEDINGS SINCE CREATION
OF OFFICE OF STATE ENGINEER**

Although one of the chief reasons for the enactment of a water law was to provide a method for the determination of relative rights to the water resources of the State, the results of accomplishment along this line by the office of the State Engineer during the past 25 years has never, so far as it is known, been collected and compiled in one source for ready reference and information. In considering the matter of adjudication of the streams of the State the first questions that present themselves are: What streams have been the subject of adjudication proceedings; when were the proceedings initiated; have they been completed, and if not how far have they been advanced?

The following table has therefore been prepared to show this information. It has been difficult to obtain much of the data presented owing to the incomplete state of the early adjudication files and records. There may be errors or omissions discovered which will justify amendment of the table in the future. It is hoped succeeding State Engineers will keep the record up-to-date in each biennial report, making it more extensive and complete, however, by the addition of headings to show location of stream system, cultural areas embraced and any other data which may seem valuable.

ADJUDICATIONS BY DEPARTMENT OF STATE ENGINEER

The following information is presented in the order of:

1. Name of Stream System.
2. Date Adjudication Proceedings Initiated.
3. Status Toward Completion or, if Completed, Date of Final Decree.
4. General Remarks.

Carson River	—1904; To Proof of Service filed with Clerk of Court; Case set for hearing on February 4, 1929, in First Judicial District Court.
Walker River	—1905; March 22, 1919; By decree in civil suit No. 731 in United States District Court of Nevada.
Muddy River	—1906; March 12, 1920; Referred by Tenth Judicial District Court to State Engineer, 1919 (See sec. 45, chap. 140, Statutes 1913).
Quinn River	—1907; April 9, 1919; By decree in civil suit No. 1596 in Sixth Judicial District Court, State of Nevada.
Little Humboldt River	—1910; To Abstract of Proofs; Adjudication now proceeding under Statutes of 1913 as amended by later statutes.

- Reese River** (Lander County)—1910; To Notice of Pendency of Proceedings.
- Trout Creek** (Elko County)—1910; To Notice of Pendency of Proceedings; Tributary to Humboldt River now under adjudication as part of Humboldt River Stream System.
- Bishop Creek** (Elko County)—1910; To Notice of Pendency of Proceedings; Tributary to Humboldt River now under adjudication as part of Humboldt River Stream System.
- Simpson Creek** (Eureka County)—1910; To Notice of Pendency of Proceedings.
- Cherry, Pine and Cottonwood Creeks**—1912; 1912; Adjudicated in accordance with secs. 14 to 19, inclusive, Statutes 1907 (See 4685 to 4690, inclusive, Revised Laws, 1912) and certificates issued.
- White River**—1912; December 4, 1922; Certificates issued under secs. 14 to 19, inclusive, Statutes 1907. Case reopened in 1915 under Statutes 1913, adjudication completed in accordance therewith.
- Humboldt River**—1913; To Final Decree by Court; Awaiting Final Judgment and Decree.
- Owyhee River**—1913; To Proofs Taken.
- Salmon River**—1915; March 1 and 3, 1923.
- Spanish Creek (Perry Alkon Creek)**—1915; To Copy of Exceptions to Order of Determination received from Clerk of Court.
- Weeks (Steel) Creek**—1915; To Notice of Inspection served on Claimants.
- Deephole Springs, Clear Creek, Squaw Valley Creek, Lost Creek, Grass Valley Creek, Cottonwood Creek, Red Mountain Creek, and Hot Springs**—1915; To Abstract of Proofs; Adjudication initiated under provision 88a, chap. 253, Stats. 1915.
- Indian or Chiatovich Creek** (Esmeralda County)—1915; To Abstract of Proofs; Adjudication initiated under provision 88a, chap. 253, Stats. 1915.
- Indian or McNett Creek** (Esmeralda County)—1915; To Abstract of Proofs; Adjudication initiated under provision 88a, chap. 253, Stats. 1915.
- Robison Creek**—1915; To Abstract of Proofs; Adjudication initiated under provision 88a, chap. 253, Stats. 1915.
- Eden Creek**—1915; To Abstract of Proofs; Adjudication initiated under provision 88a, chap. 253, Stats. 1915.
- Long Spring** (White Pine County)—1915; To Abstract of Proofs; Adjudication initiated under provision 88a, chap. 253, Stats. 1915.
- Barber Creek** (Douglas County)—1916; January 29, 1919.
- Goose Creek**—1916; June 29, 1922.
- Evans Creek**—1916; To Notice of Inspection served on claimants.
- Clear Creek** (Pershing County)—1918; November 25, 1919.
- Siegel Creek**—1918; To Proofs Taken.
- Currant Creek**—1919; April 23, 1921.
- Rice Creek**—1919; June 29, 1922.
- Six Mile Creek**—1919; 1925.
- Overland Creek**—1919; October 5, 1925.
- Clover Valley Creek**—1919; To Order Setting Time and Place of Inspection.
- Virgin River**—1921; May 4, 1927.
- Pahrnagat Lake**—1922; To Final Decree by Court; Awaiting Final Judgment and Decree.
- Crum and Wilson Creeks**—1925; May 26, 1928.
- Tony Creek**—1925; To Final Decree by Court; Awaiting Final Judgment and Decree.
- Baker Creek**—1925; To Preliminary Order of Determination.
- Lehman Creek**—1925; To Proofs Taken.
- Carrico Creek**—1927; To Final Decree by Court; Awaiting Final Judgment and Decree.
- K-C Creek**—1927; To Order for Taking Proofs published.
- Franklin River**—1927; To Investigation of Facts and Conditions; Pending Order Granting Petition.
- Silver Creek**—1928; To Order of Determination Printed or Typed.
- Thousand Springs Creek**—1928; To Order of Determination Printed or Typed.

CHAPTER V—WATER DISTRIBUTION

The Nevada water law vests the State Engineer with legal authority to distribute water only on those streams where the relative rights to the use of water have been completely determined or adjudicated, or where the adjudication has reached a stage of completion where the State Engineer's Order of Determination has been officially filed with the District Court.

Of the streams covered in this chapter and which are under the jurisdiction of the State Engineer, the adjudication of rights has been completed on all but the Humboldt and Carson Rivers.

On the Humboldt River, pending the District Court's Final Decree of Determination, division of water has been made during the biennium by the State Engineer in accordance with his Order of Determination. This stream system presents many unique and difficult problems in distribution which have been exceptionally well handled during the past two seasons by Supervising Water Commissioner J. A. Millar.

The Carson River in some respects has presented a more difficult problem for the reason that the State Engineer has had no legal authority, but has distributed water at the request and by the consent of the various water users, pending such time as the Order of Determination could be prepared and filed with the District Court. Thus without legal authority to enforce any distribution schedule the job has been one of mature judgment and diplomacy which has been efficiently handled during the biennium by Mr. F. N. Dondero, as supervising water commissioner. During subsequent irrigation seasons, however, the commissioner will have legal distribution authority on this stream by virtue of the filing, on November 21, 1928, of the Final Order of Determination with the First Judicial District Court at Carson City, Nevada.

The present administration has inaugurated the policy of requiring all water commissioners to prepare daily distribution reports which, when compiled over a period of years, will furnish the basis for determination of duty of water, transportation losses and magnitude of return flow to the streams.

At the close of the irrigation season each commissioner prepares a detailed report of the season's activities, which include a complete record of stream and ditch flow and individual deliveries.

Following is a brief résumé of distribution activities on the streams under the jurisdiction of the office:

HUMBOLDT RIVER

By J. A. MILLAR, Supervising Water Commissioner
Season of 1927

In the year 1927, distribution work started in the Lovelock Valley on March 15 and ended the forepart of September. There were 55,696.32 acre feet of water delivered to this district aside from the stored water delivered by the Humboldt-Lovelock Irrigation Light and Power Co. This volume of water represents 80% of the required quota in the Order of Determination.

In the Winnemucca district irrigation started on or about March 15 and continued until July 5. There were 35,376.63 acre feet of water

used, which represents about 20% over and above the required quota.

In the Battle Mountain district irrigation started on or about March 25 and continued until July 5. There were 109,268.29 acre feet of water used, which represents at least 20% over and above the quota set forth in the Final Order of Determination.

Gauge readings were taken and complete records kept of the U. S. G. S. Hydrographic Stations at Palisade, Comus and Oreana. The record of the Rock Creek Station was not complete.

Some difficulty was experienced in securing a water commissioner in the Elko district, and it was not until the latter part of May that a man was placed in this district. In view of this late start it was therefore impossible to obtain a complete record. In the majority of cases irrigation started in this district on or about May 1, and continued until September 1. After the irrigation season a water commissioner continued to regulate stock water until November.

The commission concentrated its efforts in the Star, Lamoille, and South Fork valleys. All the ditches in these valleys were measured and a record kept of the daily delivery.

In the entire Humboldt system there were 303,015.64 acres of land subject to irrigation, and the total cost of distribution was \$14,464.13, or a cost of \$0.047 per acre.

Season of 1928

In view of the fact that a mild winter occurred during 1927-1928, an acute shortage of water was anticipated. With this shortage in mind, a new plan of distribution was adopted and carried out. All of the early flow was delivered to the Lovelock district; the second flow to the Winnemucca and Battle Mountain district; the third flow of high mountain run-off to the Elko district. Irrigation started in the Lovelock district March 15, and was practically ended April 28. During this period 30,492.43 acre feet of water were used, representing 39% of the total quota.

Irrigation started in Battle Mountain and Winnemucca districts on or about April 20, and ended the latter part of June. An acute drop in flow of the river during the latter part of April and nearly all of the month of May paralyzed the above-named scheme, and as a result the irrigation of these two districts was not successful. However, there was 19,591.77 acre feet of water or 59% of the total quota used in the Winnemucca district, and 49,903.68 acre feet of water or 61% of the total quota used in the Battle Mountain district.

Irrigation in the Elko district began on or about May 15. This date applies to vested water rights. The appropriators having a water right by virtue of a permit from the State Engineer were not allowed to irrigate until June 1. Again the commission's efforts were concentrated in the Star, Lamoille and South Fork valleys. However, general distribution was carried on throughout the rest of the Elko district. In the majority of cases in the three above-named valleys the water used amounted to about 80% of the total quota.

A part-time water commissioner carried on distribution work in Pine valley, Eureka County.

After the irrigation season was over, one water commissioner distributed stock water until November 1. Records were kept at the

following gauging stations: Oreana, Comus, Palisade, Rock Creek, Moleen Canyon, South Fork, North Fork, Elko, Halleck, Deeth, Bueno Vista and Mala Vista.

The cost of distribution on the entire system for the season of 1928, was \$17,914.79 or \$0.059 per acre.

CARSON RIVER

By F. N. DONDERO, Supervising Water Commissioner
Season of 1927

Due to heavy snowfalls during the winter months and to some rain, a good supply of water was maintained in the Carson River and its forks until about the middle of July, at which time it became necessary for water commissioners' services. Two men were placed in the distribution: one on the East Fork and the Carson River proper, who also supervised the entire river system, the other in the West Fork, including the Alpine district in California.

During the irrigation season on the East Fork there was sufficient water to satisfy all priorities up to 1900 rights. These and the younger rights purchased water to mature their crops from the Alpine Land and Reservoir Company to the extent of 951.70 acre feet. The Dangberg Land and Livestock Company released 822.57 acre feet of water from their storage in Heenan Lake for their own use.

On the West Fork there was sufficient water until the first part of August when some shortage began to be felt. From this time on the water was distributed by the rotation system, with satisfactory results. Individual owned storage water on this fork was also released beginning the first part of August.

Along the Carson River proper some shortage of water occurred during the latter part of August and the first part of September. From September 10 the flow in the river steadily increased.

In order to obtain a complete record of the amount of water used by each district on the Carson River and its forks, to supply discharge data to water commissioners, and to obtain further data for future storage, water level recording instruments were installed at the head of each irrigation district. A record of the flow of the ditches was kept and a report of the distribution rendered. The crop production on this system was about normal. The late frost and freezing weather in the month of May and the cold nights in June were unfavorable for crop development. The growing season was terminated around the 7th of September when the first killing frost appeared, freezing potatoes, tomatoes, cantaloupes and other tender vines.

Season of 1928

The 1928 irrigation season was very dry on account of a mild winter with insufficient snow storage in the upper reaches of the Carson River.

The heavy rain and wet snow that fell during the latter part of March increased the flow of the rivers but caused considerable damage in that it destroyed the snow storage, and therefore as early as July 6 a shortage of water began to be felt and the elimination of water of the young priorities began. By the latter part of July there was only sufficient water to satisfy rights up to and including 1861.

All the storage water on both the East and West Forks of the Carson River was consumed.

The mild weather during the first part of the growing season was beneficial in offsetting to some extent the water shortage. The cutting of alfalfa began as early as June 5. Generally two crops of alfalfa were cut. There was sufficient water to mature all grain crops.

For the purpose of making a study of the duty of water a hydrographer was employed in addition to the water commissioner.

MUDDY RIVER (Clark County)

Irrigation season on this stream usually begins about April 1 and ends on September 1 of each year.

Distribution during the past biennium has been successful, no complaints of any kind having been received from water users. One part-time commissioner at \$60 per month attends to the entire stream, with the result that unit distribution costs are exceedingly low, or approximately 22-cents per acre on 2,748 acres.

PAHRANAGAT LAKE AND TRIBUTARIES (Lincoln County)

Distribution of water on this source has been as successful as can be expected during years of water shortage.

One water commissioner was employed continuously during the irrigation season to deliver irrigation water to 4,805 acres of cultivated lands.

CURRENT AND DUCKWATER CREEKS (Nye County)

The distribution on these creeks during the irrigation seasons of 1927 and 1928 has been satisfactory. The water supply on Current Creek held up fairly well, while Duckwater Creek maintained its usual consistent spring-fed flow.

One water commissioner handled distribution on both these sources to the general satisfaction of the water users. But one major complaint was received and this, upon investigation, proved to be without foundation.

SIX MILE CREEK (Elko County)

Water was not distributed on this source during the 1927 irrigation season. However, early in the season of 1928, at the urgent request of Mr. John Taylor, one of the two water users on the stream, the State Engineer reluctantly appointed a commissioner to distribute water between the two users involved. Mr. T. C. Plunkett was duly appointed for this purpose and served for ten days from May 18 to the 27th, inclusive, then resigned, advising that no commissioner was necessary and the cost of same out of proportion to the rights involved.

There is, in reality, no need for distribution on this creek, all disputes and trouble being the result of personal differences between Mr. Taylor and Mr. Jack, the other water user.

An adequate system of simple rotation in the ratio fixed by the court decree defining the relative rights could easily be worked out and adhered to with the cooperation of the users.

TRUCKEE AND WALKER RIVERS

Although distribution of water on these major stream systems is not under the supervision of the State Engineer they are of such importance as to merit brief discussion in this report. Both streams are under the jurisdiction of the Federal Court for this district, and water on each is distributed by water officials appointed by the court.

Water on the Truckee River has been successfully distributed under the provisions of a Recommended Temporary Restraining Order in the case of *The United States of America v. Orr Water Ditch Company, et al.* This restraining order is in effect a temporary decree determining the relative rights involved, the operation of which is being tried out for a period of years preliminary to the eventual entry of a final order and decree.

On the Walker River water was successfully distributed under the supervision of the Directors of the Walker River Irrigation District acting as officers of the Federal Court. Water is distributed to irrigated lands through the medium of Topaz and Bridgeport storage reservoirs.

CHAPTER VI—OFFICE ENGINEERING AND MISCELLANEOUS GENERAL OFFICE WORK

A considerable volume of office engineering work has been accomplished in connection with the various branches of activities under supervision of the State Engineer.

In addition to many maps and drawings prepared in connection with adjudication proceedings, a complete set of standard maps was prepared for the purpose of showing the salient data and general form required by the water law and the regulations of the State Engineer in the preparation of maps for submission in connection with appropriation of water. This set of six maps was designed primarily for the use and instruction of licensed State water right surveyors, to whom it was distributed in the form of bound blue print folders. These have received favorable comment and have resulted in standardization of maps submitted, not only as to general form and get-up but also as to presentation of data.

In conjunction with the standard maps a pamphlet was prepared and printed covering in detail the regulations of the State Engineer and requirements of the water law concerning the preparation of maps to be submitted in connection with water right filings.

In addition four other pamphlets were prepared and printed embracing respectively the Water Laws of Nevada, revised and brought up-to-date, the Nevada Irrigation District Act, the Nevada Drainage District Act, and the Nevada Improvement District Act. All of these pamphlets were distributed throughout the State to attorneys, engineers, county agents, water users and other persons directly or indirectly interested in legislation affecting water and water rights.

The new stock watering and range control policy of the administration has called for the preparation of a State range map, which has required the part-time work of one man throughout the past two years. At the present time approximately 200 individual stock range areas have been included on this map.

Much work has been accomplished in connection with preparation and assembling data incident to compiling abstracts of Claims and Orders of Determination in adjudication proceedings. In the matter of the Carson River adjudication alone the entire time of one man for approximately three months was spent in preparing data and exhibits for filing with the court.

The office engineering force is frequently called upon to aid in the computation and solution of technical water problems by water users throughout the State. It has been the policy to assist and instruct water users generally in the solution of hydraulic and irrigation problems.

Much of the work of the engineering office force consists of careful examination and checking of maps in support of water right filings submitted to the office. Three hundred and fifty-six maps in support of applications and approximately 200 filed in support of proofs of beneficial use under permits, in addition to 143 cultural maps in support of proofs of appropriation, were examined and checked during the biennium.

Compilation of crop census reports, working up hydrographic data and preparation of seasonal reports on distribution of water on the Humboldt and Carson Rivers have occupied the office time of the supervising water commissioners in the interim between irrigation seasons.

In addition to the foregoing, office engineering and general miscellaneous office work has embraced the study of transcripts of testimony taken during the hearings on water rights and preparation of resultant findings; preparation of reports resulting from field investigations; extensive study of the stock watering and range problem; partial preparation of a State Engineer's handbook for use of irrigators, water commissioners and others; inauguration of a personnel record of employees; reorganization of the office filing system; supplying information and data on water filings for the general public; preparation and filing of permits and certificates; filing of proofs and applications for water rights; preparing certified copies of documental records, and investigating complaints over distribution of water.

Giving prompt and detailed attention to daily routine office correspondence has occupied much time. The magnitude of this work can best be judged by the volume of mail leaving the office. During the past two years 1,669 registered articles have been sent out from this office in addition to approximately 15,000 articles of regular mail.

It is estimated that over 1,000 persons have visited the office during the biennium on matters chiefly pertaining to water and water rights. Every visitor takes up from a few minutes to several hours' time of one or more of the office force. It is estimated that each visitor has taken up at least an average of one-half hour's time, which is the equivalent of one office employee devoting approximately 67 working days to the requirements of office visitors.

Many other activities and accomplishments could be listed; however, it is believed the foregoing will serve to give some conception of the volume of office engineering and miscellaneous general office work accomplished during the biennium.

CHAPTER VII—HYDROGRAPHY

By A. B. PARRON, District Engineer, United States Geological Survey

Stream measurement work has been carried on during the biennium under the usual cooperative agreement between the State Engineer's office and the United States Geological Survey, but with reduced funds. The State appropriation for this cooperative work was cut in two, and this resulted in a reduction of Federal funds so that the work has necessarily been curtailed. The number of stations has not been reduced in proportion to the decrease in funds, but operation and maintenance work have necessarily been kept below that necessary to keep the station equipment in proper repair and provide the desirable amount of field work. This policy was adopted during the biennium because a break in stream flow records seriously impairs their value, and if adequate funds should be provided for the succeeding biennium the work can continue with the least possible interruption.

The data collected in this cooperative work is published in the annual Water Supply Papers of the United States Geological Survey, which contain stream flow records for the whole United States, including Alaska and Hawaii. Continental United States has been divided into twelve primary drainage basins, and the results of stream measurements are published in a series of annual progress reports or Water Supply Papers that correspond to these twelve subdivisions. Data for streams in Nevada have appeared in the Great Basin, Colorado River Basin, and Snake River Basin reports. A complete set of these publications is on file at the District Office of the Geological Survey, 313 Federal Building, Salt Lake City, and a limited number of each as published are available for free distribution upon application by those interested. Data in advance of publication can be furnished in blue print form.

With the limited funds available it has been necessary to concentrate the work almost entirely on the larger and more important stream systems in order to reduce the expense of field work and to take advantage of the assistance of the State water commissioners and irrigation districts. As a result streams in more remote portions of the State although relatively just as important to the local users have had to be neglected.

Funds for the cooperative stream measurement work have been supplemented in a substantial way by allotments from the United States Indian Service for assistance in the maintenance of stations in which it is particularly interested. The cooperation extended and records furnished by State water commissioners, irrigation districts, and private organizations have been especially valuable during the biennium in keeping the effect of the reduction in funds at a minimum.

Expenditures for the period January 1, 1927, to December 31, 1928, are shown in the following table:

State of Nevada	\$2,500.00
U. S. Geological Survey*	3,550.94
U. S. Indian Service*	593.00

*Does not include cost at Washington of supervising, reviewing, editing, and publishing of records.

On December 31, 1928, there were being maintained on Nevada streams the following stations:

Humboldt River at Palisade.
Humboldt River near Oreana.
South Fork of Humboldt River near Elko.
Martin Creek near Paradise Valley.
Cottonwood Creek near Paradise Valley.
H. L. I. L. & P. Co's. feeder canal near Mill City.
H. L. I. L. & P. Co's. outlet canal near Humboldt.
Carson River near Fort Churchill.*
East Carson near Gardnerville.
Owyhee River at Mountain City.†
Walker River near Wabuska.*‡
Walker River at Schurz.
West Walker near Coleville, Calif.‡
West Walker near Wellington.‡
East Walker near Bridgeport, Calif.‡

*Complete records for publication furnished by United States Bureau of Reclamation.

†Financial assistance rendered by United States Indian Service.

‡Maintained in cooperation with Walker River Irrigation District.

CHAPTER VIII—RELATED ACTIVITIES OF STATE ENGINEER THE COLORADO RIVER

The State Engineer was made a member of the Colorado River Commission of Nevada in January, 1927, and since that time has attended various Lower Basin and Seven-State Conferences, over a period of two years, including Los Angeles, San Francisco, and the Conference of Governors in Denver during August and October, 1927, during which power experts and others were employed and a determined effort made to get at the facts, both economic and legal, so that the position taken by Nevada might be both reasonable and fair to the other States in the Colorado River basin, as well as to our own.

In January, 1928, he appeared before the Senate Committee on Reclamation and Irrigation in Washington, D. C., and presented Nevada's position on the pending legislation, the Swing-Johnson Bill.

His work outlining Nevada's position is more fully set forth in a report on the "Boulder Canyon, Lower Colorado River Power and Water Set-up," January 1, 1928. This report was presented to the Senate Committee on Reclamation and Irrigation January 20, 1928, and a statement rendered to that committee together with a transcript of cross-examination before the committee at that time was presented in a second pamphlet "Boulder Canyon, Colorado River Development." These documents are on file in the Governor's office and also in the State Engineer's office, who has been made Secretary of the Commission.

The upper basin States were visited in connection with a report on the physical data relating to the development of the Lower Colorado River during September and October, 1928, and considerable time was spent in the Bureau of Reclamation's office in Denver, Colorado, in the compilation of this report.

In this work all of the authentic reports bearing on the Colorado River development situation that have been put out in the past ten years were briefed and referenced and a general set-up made of the entire situation on the construction features, methods of development of the river, the power situation and the water supply, so that a balanced idea of the situation could be gathered without loss of time, and so that detailed data could be made available for future conferences among the States.

This report was presented to the United States Senate by Senator Tasker L. Oddie, and has been ordered printed as Senate Document No. 186, and will be available about the first of the year. This has entailed an enormous amount of work, but should be well worth the effort in the interest of the settlement of the situation in future conferences so that the work may proceed as outlined by the legislation.

Following is a brief outline of the provisions of the Bill as passed by the United States Congress and signed by the President December 21, 1928:

1. That $37\frac{1}{2}\%$ of any moneys collected by the Secretary of the Interior above the amounts due the Government shall go to Arizona and Nevada.

2. That the power be sold at a price that seems justified by competitive conditions at the distributing point.

3. That the provisions of the Federal Water Power Act and regulations of the Federal Power Commissioner shall be conformed with in connection with the protection of the investor and the consumer.

4. That there shall be readjustment periods for the sale price of the power, the first to be at the end of 15 years and every 10 years thereafter.

5. That water can be sold for potable purposes outside of Imperial and Coachella valleys.

6. That preference be given the States for purchase of power at the switchboard for use in the State.

7. That a board be appointed consisting of one representative from each State to confer in an advisory capacity with the Secretary of the Interior on matters relative to the States.

8. That the All-American Canal shall be constructed under the Reclamation Act, which provides that all expenditures be underwritten by the lands benefitted prior to beginning the construction.

9. That the sum of \$25,000,000 be set aside for flood control, and in the event it should not be replaced out of power sales during the amortization period it shall be replaced thereafter out of the remaining 62½% of the net profits.

10. That California shall be limited to a diversion of 4,400,000 acre feet of water from the Colorado River; Nevada 300,000 acre feet of water; Arizona 2,800,000 acre feet of water, and that California must ratify this provision through her Legislature before the Bill shall become effective.

11. That a dam be constructed to a height of 550 feet with a capacity of 26,000,000 acre feet for silt control, flood control and storage.

12. That power plants of 1,000,000 horsepower installed capacity to be constructed that will furnish 550,000 firm h. p.

13. That firm contracts be made by the Secretary of the Interior for the sale of power generated and for the use of the water to generate power that will replace the Government investment in the dam and power plants within 50 years, before construction shall be undertaken.

14. That the consent of Congress is given to the seven States of Colorado, New Mexico, Wyoming, Utah, Arizona, California and Nevada to enter into a compact or agreement supplemental to and in conformity with the Colorado River Compact.

15. That the consent of Congress is given to the three States of California, Arizona and Nevada to enter into an agreement which shall provide that the 7,500,000 acre feet annually apportioned to the lower basin of the seven-State compact shall be divided as follows: 300,000 acre feet to Nevada; 2,800,000 acre feet to Arizona; and 4,400,000 acre feet to California.

16. That Arizona shall have the exclusive beneficial consumptive use of the Gila River and its tributaries within the boundaries of that State.

17. That the Department of Interior investigate through surveys, etc., the possibilities for development of the upper basin States and also of the Gila River project in Arizona, and lands susceptible of irrigation from the Colorado River in Nevada.

18. That any money accruing from the 62½% of the net profit, after the \$25,000,000 set aside for flood control has been replaced, shall be expended within the States of New Mexico, Colorado, Wyoming, Utah, Nevada, Arizona and California.

19. That any rights the States may have to the water within their boundaries or the right to adopt such policies and enact such laws as they may deem necessary with respect to apportionment, control or use of the water within their borders shall not be interfered with except as modified by inter-State agreement.

The following recommendations were submitted to the Senate Committee on Reclamation and Irrigation, January 20, 1928, by the Nevada Colorado River Commission:

1. That Nevada and Arizona should benefit from the proposed development, at least to the extent that they would benefit if developed by private capital, second only to Government payments and any reasonable reserve.

2. That the power be not sold as low as the repayments to the Government will permit, but should be sold at a competitive figure comparable with the cost of power available elsewhere for these markets.

3. That arrangements be made for the sale of the power so that fair offers may be had and that legitimate bidders be not handicapped.

4. That suitable readjustment periods be arranged for *power charges per KWII* and also for the proper charges for other *service rendered*.

5. That proper charges be made for other service rendered, *flood control, silt control, irrigation water storage, and domestic water storage*.

6. That the States shall have the right to withdraw, upon proper notice, certain blocks of power to be used within their own States.

7. That a board be arranged for from the three lower States to assist the Secretary of the Interior, or any agency supervising the sale of the power and other service rendered, in an advisory capacity to fix the proper *charges per KWII* and *proper charges* for other service rendered.

8. That an attempt be made to equalize, in some manner, between the three States the benefits from reclamation financing.

9. That after Government advancement is entirely repaid, the benefits from this development accrue to the States.

It will be seen that the first eight of the nine recommendations are included in the Bill as passed, *none of which were included in the original Bill*; these recommendations are found in the *Nevada Colorado River Commission's* report, "Colorado River Power and Water Set-up" of January 1, 1928, and printed in the Congressional Record of April, 1928.

If the power generated by this construction is disposed of on a competitive basis in the market by the Secretary of the Interior, 37½% of the net returns over the payments due the Government should provide payments to Nevada and Arizona at least equal to the amount they would receive from the project through taxes if developed by private capital, and should amount to a substantial sum annually.

Representatives of our State consider the provisions of this legislation fair if properly administered, and will do everything in their power to secure early ratification by the seven States.

It is certain that great benefits will accrue to the State by reason of this legislation.

The State Administration, early in 1927, demanded that two definite items be included in the legislation, viz.

(a) That Nevada and Arizona be allowed to benefit by this development, if constructed by the Government, in lieu of the taxes they would receive if developed by private capital.

(b) That we be allowed to purchase power at cost at the switchboard for use within the State.

Both of these amendments were included in the legislation as passed by Congress and signed by the President.

The 37½% of the net earnings of the project above payments due to the Government assures the State of an income that could very well amount to several hundred thousand dollars per year during the 50 year amortization period, and after the Government is repaid the income will be substantially increased; and should make possible a material reduction in State taxes or furnish funds for further development.

The power at cost amendment, for use within the State, has unlimited possibilities if any of our people decide to take advantage of that feature for development of mining properties, etc.

In addition to the direct returns the indirect benefits are almost incalculable, since the expenditure of approximately \$125,000,000 within our State will encourage all other lines of business.

PUBLIC SERVICE COMMISSION

The State Engineer by virtue of his position is also an ex officio member of the Public Service Commission.

This body has been gaining in importance during the last few years due to the increase in public utility business within the State, it being their function to pass upon the rates charged by all public utilities within the State and requires no small amount of time to properly care for this branch of the work.

Since April 1, 1927, the State Engineer has held the greater part of the outside hearings of the Commission in the State, including work at Battle Mountain, Midas, Elko, Ely, Yerington, Hawthorne, Caliente, Las Vegas and Searchlight, and sitting jointly with other members of the Commission in various hearings at Carson City, Reno, Winnemucca and Elko.

The total number of hearings held by the State Engineer for the Commission totals approximately 30, and no expense account has been rendered to the Public Service Commission for this service, the trips to the various hearings being arranged for to coincide with the State Engineer's business upon other matters.

WESTERN ASSOCIATION OF STATE ENGINEERS

This association was formed at Denver, Colorado, in 1927, and includes seventeen of the western States, all arid or semiarid; Texas,

Oklahoma, Kansas, Nebraska, South Dakota, North Dakota, Minnesota, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon and California make up the organization.

All of the irrigated area in the United States is included in this Association, which has been formed to exchange experiences and ideas relative to the administration of water rights and to work out and establish policies for the appropriation and use of water so that the highest beneficial use may ultimately be had of this limited and valuable commodity.

The first annual meeting of the Association was held in Salt Lake City, Utah, October 29-31, 1928, at which practically all of the States were represented, and the following papers were read and discussed:

"Proposed State Laws Covering Dam Construction"—By R. K. Tiffany, State Engineer, Olympia, Washington.

"Proper State Control and Protection of Individual Appropriators of Underground Waters"—By Harold Conkling, Division of Water Rights, Department of Public Works, Sacramento, California.

"Duty of Water with Special Reference to Control by Adjudication"—By M. C. Hinderlider, State Engineer, Denver, Colorado.

"Measuring Devices and their Relation to the Apportionment of Water Among Individual Water Users, Including the use of Fish Screens and Screens for Clarification Purposes"—By Edward Hyatt, Jr., State Engineer, Sacramento, California.

"National Legislation of Common Interest to our Irrigated States"—By John A. Whiting, State Engineer, Cheyenne, Wyoming.

"Ownership of Return Flow and Its Relation to the Relative Rights on a Stream System"—By R. I. Meeker, Engineer for the Interstate Rivers Commission, Denver, Colorado.

"Requirements for the Establishment of a Valid Stock Watering Right on the Open Range"—By Geo. N. Carter, Commissioner, Department of Reclamation, Boise, Idaho.

"Irrigation and Drainage District Laws with Special Reference to Standardization Whenever Practicable"—By Thos. R. King, Consulting Engineer, Reno, Nevada.

"Interstate River Compacts and their Place in Water Utilization"—By Delph E. Carpenter, Interstate Rivers Commissioner, Denver, Colo.

"Relation of the Federal Government to the States, Relative to Control of Water Within the States"—By Sardis Summerfield, Attorney at Law, Reno, Nevada.

Following the presentation of each of the papers, general discussion was had, during which the experience of each State in that particular matter was outlined in considerable detail.

A complete "Proceedings" was kept of the meeting and will be printed very soon, including all of the papers and discussion, and copies can be secured through this office.

The State Engineer of Nevada was elected Temporary President of the Association in Denver, Colorado, in 1927, and made President of the permanent organization at the Salt Lake City meeting in October, 1928; while R. K. Tiffany of Washington and John A. Norris of

Texas were elected Directors; George M. Bacon of Utah was appointed Secretary, and Reno, Nevada, was selected for the 1929 convention to be held in November.

STATE IRRIGATION DISTRICT BOND COMMISSION

During the biennium of 1927-1928 the State Irrigation District Bond Commission, of which the State Engineer is a member, acted upon the following applications:

On April 1, 1927, the Board approved an application by the Lovelock Irrigation District to sell \$10,000 in bonds for the purpose of investigation, surveys, etc.

On July 1, 1927, upon application of the Truckee-Carson Irrigation District, Newlands Project, the board approved the sale of bonds to the amount of \$15,000 for the purpose of the construction of an electrical distribution system.

On July 19, 1927, upon application of the Truckee-Carson Irrigation District, the board approved the sale of \$30,000 of bonds for the construction of an electrical distribution system in Local Improvement District No. 1.

On July 19, 1927, upon application of the Truckee-Carson Irrigation District, the board approved the sale of bonds in amount of \$17,610 for the construction of an electrical distribution system in Local Improvement District No. 3.

On October 24, 1927, upon application of the Truckee-Carson Irrigation District, the board approved the sale of bonds in amount of \$36,000 for the purpose of construction of an electrical distribution system in Local Improvement District No. 5.

On November 3, 1927, upon application of the Truckee-Carson Irrigation District, the board approved the sale of bonds in amount of \$18,350 for the purpose of construction of an electrical distribution system in Local Improvement District No. 6.

On November 3, 1927, upon application by the Truckee-Carson Irrigation District, approval was given for the sale of bonds in amount of \$11,800 for the purpose of construction of an electrical distribution system in Local Improvement District No. 4.

On December 5, 1927, upon application of the Lovelock Irrigation District, approval was given for the sale of bonds in amount of \$10,000 to defray the expense of investigation and surveys in the district.

On March 28, 1928, upon application of the Truckee-Carson Irrigation District, the board authorized the State Controller to certify to bonds in amount of \$11,800.

On March 28, 1928, upon application of the Walker River Irrigation District, permission was given to purchase, by surplus funds, district bonds in amount of \$16,000.

On April 16, 1928, upon application of the Walker River Irrigation District, approval was given for the sale of bonds in amount of \$30,000 for the purpose of construction and improvement within the district.

On April 19, 1928, upon application of the Truckee-Carson Irrigation District, approval was given for the sale of bonds in amount of \$12,700 for construction of an electrical distribution system.

On June 6, 1928, upon application of the Walker River Irrigation

District, approval was given for the sale of bonds in amount of \$90,000 for the purpose of construction and improvements in Local Improvement District No. 3.

On July 6, 1928, upon application of the Lovelock Irrigation District, the board approved the contract for the construction of the Oreana dam.

On September 22, 1928, the State Controller was authorized to certify to bonds in Local Improvement District No. 7, of the Truckee-Carson Irrigation District, in amount of \$12,700.

On October 23, 1928, upon application of the Walker River Irrigation District, the board authorized the refunding of a previous bond issue in amount of \$10,000 and the sale of additional bonds in amount of \$14,000 for additional construction and improvements in Local Improvement District No. 1.

On October 23, 1928, upon application of the Walker River Irrigation District, approval was given for the sale of bonds in amount of \$36,000 for construction and improvement work in Local Improvement District No. 3.

On November 1, 1928, upon application of the Truckee-Carson Irrigation District, approval was given for the sale of bonds in amount of \$12,000 for the purpose of construction of an electrical distribution system.

CHAPTER IX—SNOW SURVEYS

By Professor H. P. BOARDMAN, Chairman of Forecast Committee in Charge of Snow Surveying

In the biennial report of the State Engineer for the years 1925-1926, Dr. J. E. Church, Director of the Nevada Cooperative Snow Surveys, reviewed the snow survey work for the prior ten years of State direction, hence no effort will here be made to give an historical résumé of this work since its inception.

In both seasons of 1927 and 1928 snow storms occurring near the end of March continued for several days in April and most of the snow surveys were made after these storms. In the 1927 forecast the "seasonal percentages" of normal were adjusted as of April 1 as has been Dr. Church's custom, but in 1928 the committee in charge of making the forecasts, in the absence of Dr. Church, adjusted the results of the earlier surveys to the date of April 5. The reason for this as stated in the forecast was that the "committee thinks, since the principal use of the bulletin is to forecast water available for the coming season, that it is advisable to include the effects of a heavy storm occurring so soon after April 1 even if it leads to discounting slightly the expected April-July precipitation to follow."

The comparison of the forecasts and actual April-July run-offs on various streams for 1927-1928 appears on the following page.

DISCUSSION OF THE 1927 RESULTS

As will be seen from the table the discharge of the Truckee at Iceland was 7% of normal relative to the forecast.

The rise of Lake Tahoe checked almost exactly the April forecast in spite of the fact that the May forecast lowered the estimate because of deficiency of precipitation after the storm of about March 30-April 4. The deficiency in precipitation continued, and yet the Lake exceeded the maximum estimate by .01 feet. The Rubicon Peak course was not surveyed and the Lake Lucille course only partly so because of an accident to the apparatus. Had these important courses been completely surveyed probably the estimates would have been increased so that the *minimum* forecast would have been closer to the actual rise.

The forecasts for the Carson and East and West Walker Rivers were much too high in 1927 as disclosed by actual run-offs. The snow surveys showed high percentage of normal at Burnside Lake in the Carson basin and at Center Mountain in the East Walker, close to the divide between the East and West Walker. However, at Blue Lakes, close to the divide between the Carson and Mokelumne, and at Willow Flat and Buckeye Meadows in the Walker basins the percentages of normal were very much lower. Dr. Church has considered Center Mountain a very reliable course, but it apparently was not reliable in 1927. Probably one more well located course in the East Walker and one more in the West Walker basin and perhaps one at 7,000 to 7,500 altitude on the East Carson would in time give a useful check on the present courses. In the Truckee and Tahoe basins where the surveys have been carried on longer and more courses are used such erroneous forecasts are rare if not entirely avoided.

FORECAST OF AVAILABLE WATER SUPPLY BASED ON SNOW SURVEY DATA

Streams

Season of 1927— Stream	Acre feet	Predicted Results Seasonal Run-off —Based on Forecast of April 5—		Actual Results of the Seasonal Run-off —Based on Seasonal Measurements—		Remarks
		Per cent of normal	Per cent of normal	Per cent of normal	Per cent of normal	
Truckee River (Iceland)	370,145	105.4	394,800	112.4	Flow at Iceland exclusive of Tahoe	
Carson River (Clifton)	325,147	126.5	244,498	91.3	Based on old normal of 252,000	
	325,147	130.0	244,498	105.3	Based on new normal of 232,470	
West Walker River (Colesville)	587,655	140.6	190,100	99.9		
East Walker River (Bridgesport)	132,840	137.6	60,240	74.7	Based on approximate 1923 normal of 89,000	
	98,200	137.6	60,240	92.8	Based on 1923 revised normal of 71,370	
Humboldt River (Palisade)	232,278	100.0	182,800	78.4		
<i>Season of 1925—</i>						
Truckee River (Iceland)	168,000	51.8	179,685	55.2	Based on new 24-year normal of 325,745	
Carson River (Clifton)	50,000	25.8	103,910	44.7	Based on new normal of 232,470	
West Walker River (Colesville)	76,150	30.0	108,050	56.8		
East Walker River (Bridgesport)	25,000	35.0	29,532	41.4		
Humboldt River (Palisade)	60,000 (Max.)	25.7	87,510	37.5		

Lakes

Season of 1927— Lake	Date	Predicted Results —Based on Forecast as of April 5—		Actual Results —Based on Seasonal Measurements—	
		Rise Feet	Per cent of normal	Rise Feet	Per cent of normal
Tahoe	7-7	2.08	125.6	7-18	2.09
Tahoe	6-25	1.02	61.6	6-6, 7	0.88
Tahoe					0.226, 85
					125.9
					6728.86
					53.0

*Revised forecast made on May 15 predicted a Lake elevation of 8226.65 for July 7.

DISCUSSION OF 1928 RESULTS

The results on the Truckee at Iceland were close and the maximum level of Lake Tahoe, while it was reached nearly three weeks earlier than expected and seven weeks earlier than in 1927, was a close check with the predicted "Possible Minimum." This was as it should have been since again, as in 1927, there was little April-July precipitation after the snow storm of April 1-4.

For the Carson River only one pair of courses was measured viz., at Blue Lakes, just over the divide on the Mokelumne water-shed. Because of extensive diversions in the Carson Valley a low year is naturally extra low in run-off at Clifton, and in the 1928 forecast apparently too much was allowed for this factor. Probably the heavy rains of March 24-28 wet the ground so thoroughly that less was diverted than usual in April and May, leaving a larger proportion than expected to pass down to Clifton. Also the ground must have taken up considerable of the March 24-28 rain and given it to the river early in April.

The snow surveys in the Walker basins were made earlier than usual, March 15-19, at the request of the Walker River Irrigation District, and probably not enough additional was allowed in estimating the snow storage as of April 5, the date immediately following the heavy snowfall which was included in most of the surveys from Blue Lakes north.

The Humboldt forecasts at Palisade, while not close, were not bad considering the meager data available as a guide. This is the watershed in most need of extension of snow surveys and at best will be a difficult one to forecast because of heavy diversions and low altitude of large portions of the basin, leading to early melting of snows.

INCREASING USE OF SNOW SURVEYS

During the winter of 1927-1928 letters addressed to Dr. Church came from Twin Falls Canal Company of Twin Falls, Idaho, and the State Engineer's Office of Oregon asking for detailed information concerning his system of snow surveys and the equipment and supplies needed for field operation. We answered as best we could, and actual snow surveys were started last spring by both organizations. The engineer in charge of the work for Oregon came for a conference in the summer, at which time he explained by maps that they have already begun on a large scale on the watersheds of several of the Oregon rivers.

The Division of Water Rights, California Department of Public Works, is now investigating snow surveys with a view to applying it to California watersheds not already covered. Questionnaires sent out to various power companies, irrigation districts and other organizations and individuals interested in the use of water coming from the mountain snow fields of California, brought favorable replies from a large proportion of those questioned, so it is to be hoped that as a result this work will, within a few years, be applied the full length of the Sierra Nevadas on both slopes.

SNOW SURVEY CONFERENCE

In line with a suggestion made by you last spring, a snow survey conference was held in Reno, December 14, 1928, attended by persons

representing irrigation, power development, water distribution and agriculture as well as snow surveys and stream run-off forecasting. A representative of the California Division of Water Rights was present.

The results of snow surveying and forecasting were discussed, and also programs for extending the work and methods of financing.

For several years the State of California cooperated in the work, but for about the last five or six years has not rendered actual financial aid except to permit Nevada to use equipment which had been paid for by California.

Except for the aid of various other interests the work would have been much less effective than it has been.

The Pacific Gas and Electric Company has for years furnished the help of its employees in making the surveys near Summit and at numerous other points in the South Yuba Basin, and has gladly cooperated in other ways.

The Sierra Pacific Power Company, formerly the Truckee River Power Company, has regularly furnished its employees for snow surveys; and in addition has for several bienniums contributed cash to supply the deficiencies of the last year of the biennium, so that the most important snow courses might be surveyed.

The Elko-Lamoille Power Company has furnished employees and transportation to aid in the Lamoille Canyon snow surveys, and the use of a cabin to permit of a two days' trip to cover a high level snow course at the 9,000 foot altitude.

In recent years the Truckee-Carson Irrigation District and the Walker River Irrigation District have also helped out financially. The latter contributed the labor cost for the construction of a cabin at the forks of Buckeye Creek, a tributary of the East Walker River, to afford shelter for snow surveyors close to the important Center Mountain snow survey course which is at altitude of 9,300 feet, and one of the most difficult of access of any in the central Sierra region.

As a concrete example, the financial contribution of the Sierra Pacific Power Company for the 1927-1928 biennium was as follows:

Salaries of employees while engaged in snow survey work, 1927.....	\$106.50
Salaries of employees while engaged in snow survey work, 1928.....	85.50
Salaries of employees while rebuilding Mt. Rose Contact Pass cabin, 1927.....	44.00
Material and transportation for cabin, 1927.....	150.00
Cash for use of committee in charge, April, 1928.....	150.00
Total for biennium.....	\$536.00

Throughout the whole period of development of the Church system of snow surveys many students of the University of Nevada and young men of Reno have taken part in this work for small pay, and frequently no pay at all when the funds were short. Their enthusiasm prompted largely by love of outdoor life and adventure has contributed greatly to the success of the enterprise, but let no one think it is all sport. It is hard work at any time, and especially so when storms are encountered entailing exhaustion and real danger. It is worth much higher wages than most of the men engaged in it receive.

The following is a summary statement of the receipts and expendi-

tures by the committee in charge of snow surveys for the biennium of 1927-1928 in the absence of Dr. Church:

Receipts—

Appropriation by State of Nevada.....	\$1,500.00
From Sierra Pacific Power Company.....	150.00
From Truckee-Carson Irrigation District.....	150.00
From Walker River Irrigation District.....	100.00
	\$1,900.00

Disbursements—

From the State appropriation handled through the State Engineer's office	\$1,498.01
From special fund.....	398.99
	\$1,896.01
Balance from State fund.....	1.90
Balance on hand from special fund.....	91.10
	\$1,900.00

The above expenditures do not include the cost of the snow survey made in Lamoille Canyon in the Humboldt watershed. This survey, at your request, was made earlier than usual, and as the Elko-Lamoille Power Company was unable to take care of it at that time, two men were sent from Reno to make the survey, the expense being cared for from your department funds other than the snow survey appropriation.

DEFICIENCIES AND NEEDS

The work was considerably curtailed during the biennium because of shortage of funds. Several important courses were not surveyed at all in 1927, and more were omitted in 1928. A number of key courses should be surveyed at the first of every month from January 1 to May 1. This progress surveying was only partially carried out in 1927, and in 1928 only one winter survey was made, in February, at two locations other than the Summit-South Yuba region, where the P. G. & E. generously makes surveys whenever requested.

The money on hand January 1, 1929, should be used for renewal and repairs of equipment so the parties will not be handicapped for this season's work.

I refer you to Dr. Church's report for the biennium 1925-1926 for a statement of the need of extension in the Humboldt basin, and the importance of such extension becomes more evident as prospective development along the river approaches realization.

Cabins are needed at two or three locations for night shelter and storage of food where the present conditions involve too long and hazardous trips, especially in stormy weather.

An estimate was presented at the December 14 conference which totaled approximately \$4,500 for the next biennium, not including new cabins for the Humboldt basin.

RECOMMENDATION

It was decided at the conference that the Legislature should be respectfully asked to appropriate for snow surveys \$2,500 for the next biennium, to be handled through the State Engineer's office as formerly. The committee will attempt to secure the balance needed from other sources.

CHAPTER X—COOPERATIVE WORK

U. S. GEOLOGICAL SURVEY, WATER RESOURCES BRANCH

During the biennium stream measurement work has been continued by the United States Geological Survey under a cooperative agreement with the State Engineer. Elsewhere in this report will be found a detail account of this work by Mr. A. B. Purton, District Engineer, U. S. G. S.

It is the Federal policy to cooperate with State and other non-Federal governmental agencies on a dollar-for-dollar basis in water resources investigations, consequently the value and magnitude of accruing benefits to the State are directly proportional to the amount of money appropriated by the State.

The rapidly increasing use of water in Nevada has created an urgent need for more complete and extensive hydrographic data, without which it is difficult to properly adjudicate water rights or to distribute water successfully after rights have been adjudicated.

Nevada is one of the few States in the arid and semiarid west whose water resources have not been fully determined and the flow of whose streams has not been extensively investigated and recorded.

The value of this work in cooperation with the Government cannot be overestimated.

COOPERATIVE SNOW SURVEYS

Snow survey work has been carried on under State direction and support in cooperation with the State of California and various water interests. The Nevada system, conceived and evolved by Dr. J. E. Church, Director, has been so successful in forecasting, far in advance, water supply for irrigation and power purposes that it has been widely adopted, not only in this but in foreign countries.

The value of water and its application in Nevada is such as to justify the permanent adoption and continuance of snow surveys under liberal financial support from the State.

CHAPTER XI—OPINIONS OF ATTORNEY-GENERAL

Following are several of the most important opinions of the Attorney-General given in response to definite requests of the State Engineer. For the sake of brevity, the opinions have been condensed into the shortest statements possible:

Vested Rights, Facts Necessary to Establish Under Stock Watering Act of 1925.

The facts necessary to establish a vested right must be the same whether such vested right is asserted under the Statutes of 1925, chapter 201, being "An Act relating to the use of water for watering live stock" or whether such right is asserted for the appropriation and diversion of waters of a stream system (Opinion No. 270, June 28, 1927).

State Lands in Irrigation Districts.

The inquiry states the following facts:

A legal applicant made application for forty acres of State land, not under contract of purchase, lying within the Walker River Irrigation District. The Surveyor-General's office requested the State Engineer to furnish them with a certificate under section 45 of the Nevada Irrigation District Act. The State Engineer refuses to supply such certificate on the ground that he has no jurisdiction. The questions under this state of facts are:

1. Whether or not section 45 of the Nevada Irrigation District Act, Stats. 1919, chap. 64, p. 84, as amended Stats. 1921, chap. 79, p. 133, is applicable to State lands not under contract to purchase, lying within the boundaries of a duly organized irrigation district.

2. If the State Engineer fails to file the certificate to the effect that such lands will be benefited by being included within such district, must the Surveyor-General reject all applications for such State lands?

OPINION

Section 45, above cited, reads in part as follows:

State lands, not under contract to purchase, shall not become a part of an irrigation district except by the consent of the State Land Register, who is hereby authorized and required to consent thereto on behalf of the State upon there being filed in this office a certificate signed by the State Engineer to the effect that such lands will be benefited by inclusion therein. District assessments, charges, and tolls against the lands, and any sale or contract to sell any such lands thereafter shall be conditioned upon the payment, by the purchaser or contractor, of all such accrued charges in addition to the purchase price of the land.

This statute presupposes a determination at the time of the formation of the irrigation district by the State Engineer as to whether or not State lands not under contract to purchase would be benefited by inclusion therein. Under the statute State land not under contract to purchase cannot become a part of an irrigation district except by the filing of the required certificate in the office of the Surveyor-General by the State Engineer and the consent by the Surveyor-General.

It is evident, therefore, that the land mentioned in the inquiry never became a part of the Walker River Irrigation District.

The statute quoted does not require the Surveyor-General to reject applications for such lands. Inasmuch as the lands in question did not become a part of the irrigation district, they would, therefore, be treated the same as any other State lands not a part of an irrigation district. (Opinion No. 284, October 8, 1927.)

Humboldt River Adjudication—Administration of Order of Determination Relative to Stock Watering and Storage.

Since the order does not specifically allocate definite amounts of water for stock watering purposes and exceptions raising this question are now before the Court for determination, and no bond having been executed or filed by the several claimants to permit of distribution of stock water in accordance with their exceptions, the provisions of the Order of Determination are controlling.

The State Engineer has no discretion in administering water under the Order of Determination except in instances where that discretion is reserved to him.

It is not the duty of the Court to instruct in matters within the jurisdiction of the State Engineer. In event of controversy between him and a water claimant respecting rights under the order, either party has the right to apply to Court so that matters may be finally determined. The Court is not to be interviewed as to his personal views but acts only when a matter is formally presented in course of litigation. (Opinion No. 285, Nov. 9, 1927.)

Action on Applications for Stock Watering Purposes, Filed Prior to Stock Watering Act of 1925.

If an application to appropriate water for stock watering purposes had been filed prior to the 1925 Act and no action taken thereunder until subsequent to the passage of the Act, the provisions of the Act would prevail. (Opinion No. 286, November 15, 1927.)

Regulation of Water Between Permit Holders.

In the case of persons using water by virtue of application and permission to appropriate water granted by the State Engineer, it is not the duty of the State Engineer to attempt to make any regulations as between permit holders.

The State Engineer merely gives an appropriator the right to use water. If other parties interfere with that use under the permit, the permit holders remedy is in court and there is no authority vested in the State engineer to insure the amounts of water granted in the permit.

However, the State Engineer does have authority to regulate as between permit holders and other appropriators on streams that have been adjudicated under the provisions of sections 18-39 of the water law. (Attorney-General concurring, April 10, 1928, with former Attorney-General's opinion No. 44, June 2, 1917.)

Actual Diversion of Water a Requisite for Appropriation.

To constitute an appropriation of water of a stream system there must be an actual diversion and an application to beneficial use.

It is essential that the party asserting the right establish the intent to appropriate by some open, physical demonstration, subjecting the water claimed to his control and use to the exclusion of others.

Difference in beneficial use in no manner affects the essentials necessary to constitute an appropriation. (Opinion No. 304, April 13, 1928.)

Adjudication of Isolated Springs and Water Holes Not Tributary to any Stream System.

If the springs in question are formed from percolating water, the general water code respecting adjudications does not apply; if, however, it appears that the waters of the springs come from a natural water course, subterranean in character, the general adjudication law applies. (Opinion No. 305, April 13, 1928.)

Certificate of Water Right, Recall or Cancellation Of.

Where a water right certificate has been issued by the State Engineer he has no power to recall or cancel the same. (Opinion of May 10, 1928.)

CHAPTER XII—ADMINISTRATIVE POLICIES**STOCK WATERING ACT OF 1925**

Perhaps first in importance under this head is the policy of the State Engineer concerning the administration of the stock watering Act of April 1, 1925. For the purpose of clearly understanding the present policy it is necessary to give a brief sketch of the stock watering and range problem which has been solved or attempted to be solved by the stock watering Act of 1925.

As near as may be determined only one-fifteenth of one per cent of the area of the State of Nevada, possessing any economic value, is farmed and marketed independent of the livestock industry. It is apparent, therefore, that the proper development of the livestock industry is of great importance in the economic advancement of the State as a whole.

In early days of sparse population the cattlemen experienced little difficulty in matters of range control since there was more than enough range for all. Soon, however, with the advent of new settlers to the State in ever-increasing numbers, the old condition of abundant range gradually gave way to a new order. Encroachment on existing established ranges resulted in their curtailment and contraction to a point where they were no longer sufficient to maintain the herds which had formerly flourished and increased from year to year. In addition, the steady increase in the number of sheep, which possess range habits at variance with cattle, caused further complications in existing range conditions. The result was a gradual transition from a condition of peaceful possession of sufficient range to one of range chaos and strife sometimes resulting in so-called range wars.

In belated recognition of this condition the Federal Government attempted to regulate, in some measure, the right to the use of the public range domain by the passage of successive homestead and desert entry Acts. These, however, availed little in coping with crowded range conditions, since the maximum area which could be acquired under these Acts was insufficient for livestock range purposes. At best they only afforded a means of procuring and developing an adjunct to the outside range, where perhaps some wild hay could be raised to carry stock through the winter season.

The subsequent setting aside by the Government of approximately 5,000,000 acres as forest reserves with regulated grazing privileges relieved the strained range conditions to an extent only.

Throughout this period of strife and range congestion there was growing in the minds of Nevada stockmen the conviction that the future of the livestock industry could best be secured by some form of legislation for regulation and administration of the range areas by State control. Since, however, most of the livestock range belonged to the public domain it was therefore not subject to direct control by the State, hence it seemed a hopeless problem to devise means of controlling and regulating this vast area.

A solution was finally evolved whereby range control could be indirectly accomplished, in a measure at least, through administration of water resources, over which the State exercised unquestioned control. Thus the stock watering Act of Nevada became a law on April 1, 1925.

This Act, in recognition of the fact that the value of the right to water range live stock is directly dependent on the availability to the owner of such right of the grazing use of the public range in the vicinity of his watering place, and also that the existence in separate owners of two or more rights for watering range live stock in the same vicinity, tends to produce controversies concerning the use of the public range that often results in breaches of the peace, provides, in brief, as follows:

1. That the use of water for watering live stock is a beneficial use and the right to its use for such purpose *may be acquired in the same manner as the right to use water for any other beneficial purpose.*

Note—This provision was nothing new, since stock watering rights had been recognized and granted under the then and now existing water code in the same manner as rights to the use of water for irrigation, mining, power or any other beneficial purpose.

2. That whenever a valid stock watering right exists *at a particular place*, to water live stock in sufficient numbers to substantially utilize all the public range readily accessible to the given watering place, no appropriation of water from either the same or a different source shall subsequently be made by another for the same purpose, if the granting of such subsequent appropriation would conflict with the range use of the first or existing water right owner.

3. That the State Engineer must deny any permit under such a subsequent application to appropriate water if he finds the right applied for will conflict or interfere with the grazing use of the public range adjacent to the source on which the prior right exists.

4. That it is a misdemeanor to water live stock on two or more separate days during any season at a source on which another has a valid stock watering right.

5. That nothing in the Act is to be construed to affect the validity of stock watering rights acquired under previous State laws or to impair existing vested rights.

The term "public range" as defined in this Act means all lands belonging to the United States or the State of Nevada, on which stock is permitted to graze, and includes all national forest lands.

The constitutionality of the Act, almost at once attacked, was finally upheld by the Nevada Supreme Court in the Calvo Case, No. 2747, on February 21, 1927, just a few days prior to the present State Engineer's advent into office. Prior to this but little attempt had been made by the office of the State Engineer to administer the provisions of the Act, awaiting the outcome of the pending attack on its constitutionality.

Following the decision upholding the Act, applications for stock watering purposes were received in great numbers. Consequently, before any positive action could be taken on these applications, the State Engineer was forced to make a thorough study of the whole stock watering and range problem in order to intelligently formulate departmental policies governing the administration of the new Act. As stated in the foregoing, the Act makes it mandatory upon the State Engineer, before approving any application for stock watering purposes, to determine, by investigation on the ground or otherwise, that the right and use applied for will not be injurious or detrimental

to any prior existing right for the same purpose. Quite obviously the limited funds at the disposal of the State Engineer precluded the possibility of actually making examinations on the ground, hence the "otherwise" method was considered, which resulted, as a temporary expedient, in formulating the policy of calling upon the stockmen throughout the State to voluntarily submit to the office maps showing the boundaries of the ranges claimed by them. The response to this request was prompt and widespread with the result that a State range map was prepared showing the range claimed by the various stockmen. With this map as a working basis it was then possible to acquaint any given range claimant with the fact that an application for stock watering purposes had been made for water within the boundaries of his range, thus giving the prior existing stock range users opportunity to come forward and formally protest the granting of a permit to any applicant whose proposed use would conflict with the given range claimants prior existing rights. Thus if no protests develop after such personal notification or as a result of general newspaper publication of notice of application, it is reasonably safe to assume that approval of the application will not conflict with any existing rights. Conversely, if protests against the approval of an application develop, an official hearing must be held and evidence taken upon which to base administrative action.

This method of determining whether approval of an application will conflict with subsisting rights is, however, as above stated, a temporary expedient only, and while the State range map has and will continue to be valuable in indicating the possibility of existing rights in a given locality, it is not conclusive by any means. In the first place, since submission of individual range maps is voluntary on the part of range claimants, there can be no way of determining its completeness in showing all the stock ranges claimed throughout the State. In the second place, it must be borne in mind that there is a natural tendency on the part of all range claimants to expand their boundaries beyond the legitimate. Then again, many stockmen but recently established and having in truth little on which to base legitimate claims, are the first to submit their range maps.

There is no doubt that eventually the State range map will be an invaluable source of authentic range and stock watering information, but only as a result of evolution based upon gradual ironing out of range conflicts by determination of valid existing rights by the process of adjudication under the water law or water litigation between individuals.

While recognizing the present and potential value of the State range map in its relation to the administration of the stock watering Act, it is believed that best administrative policy must embrace actual investigation on the ground of every stock watering application. During the present biennium this has been impossible due to lack of funds. In order to gain a concrete conception of the magnitude of the task it must be borne in mind that at present there are many stock watering applications, filed prior to the present biennium, upon which investigation and action was withheld pending the decision on the constitutionality of the stock watering Act. In addition to this accumulation

there have been approximately 570 such applications filed during the biennium. It has been impossible to keep abreast with these, let alone acting on the accumulation of old applications.

If the stock watering Act is to result in the expected benefit to Nevada stockmen it must be made financially possible for the office of the State Engineer to function fully and efficiently. If funds are made available it is planned to increase the present limited organization by the addition of at least two competent field men who will devote their entire time to making exhaustive investigations in the field. In addition an extra office man will be required to handle the necessarily increased office work. With the organization thus temporarily increased it is believed that a clean-up can be made of all stock watering applications, and that thereafter a nominal organization can keep up with current applications.

To those not fully informed upon the stock watering Act in relation to the stock and range problems of the State it is pointed out that already it is bearing fruit. The Act was designed, among other things, to stabilize the values in land settlement where such land settlement values are at the mercy of the values in the public range companion to the land settlement. Already the tendency toward recognition of the fact that stock ranges have a definite loan value separate and distinct from the value in companion agricultural ranch settlement is felt. Recently, and perhaps for the first time in Nevada, a bank liquidated a stockraising property in the northwestern portion of the State under conditions where, in the sale, practically all the money involved was paid by the buyer for the rights to the stock water controlling the public range companion to the ranch property of the liquidated outfit.

It is the policy of the State Engineer to so administer the stock watering Act that its value to the stock industry will be a maximum. This, however, cannot be accomplished without adequate legislative appropriation.

ACTION ON WATER APPLICATIONS

In considering all applications to appropriate water, whether for stock watering or any other purpose, it is the policy of the office to render prompt and positive action, believing that unwarranted delay, even if the application is to be denied, works a hardship on the applicant who usually is reluctant to proceed with developments or otherwise plan for the future until he knows the outcome of his application. Here again, although this has been the policy, it has been difficult of accomplishment during the past biennium due to lack of sufficient office and field force.

POLICING POWER OF STATE ENGINEER

It is the policy of the State Engineer not to resort to bluff nor attempt to usurp judicial powers in administering water rights. Frequent demands are made by water users to personally shut down head-gates or police the distribution and flow of water in artesian wells, for example, where there has been no determination of relative rights.

The Attorney-General has given it as his opinion that the State Engineer has no authority to regulate or distribute water as between users

on a water source, either surface or underground, until the relative rights of all claimants have been determined.

In brief it is the office policy, therefore, to keep well within the bounds of powers legally conferred.

CONTROL OF UNAPPROPRIATED WATER

The policy of our State administration in the matter of the "Control of Unappropriated Water" has been outlined definitely since assuming control of the State Engineer's office March 28, 1927.

The State's interest in this matter is the highest ultimate beneficial use of the limited water supply within her borders, so that the greatest possible amount of taxable wealth may be produced; this objective, we believe, can better be brought about by requiring any agency, whether private or public, to conform to the State laws in the appropriation and use of water.

This policy does not in any manner impair the right that any agency may have at this time, either public or private, who may be making "beneficial use" of water, or handicap in any manner any future development where appropriations may be made in the regular manner.

The following statement by Sardis Summerfield in a paper on "Relation of the Federal Government to the States relative to the control of water within the State," presented to the Western Association of State Engineers, October 29, 1928, in Salt Lake City, Utah, outlines the trend of western "legal minds" on this important subject, and is concurred in by all of our representatives in Congress:

The direct question of Federal or State ownership and control of unappropriated unnavigable waters within State borders is an undecided one in the highest Federal Courts, but by State Supreme Court decisions, State constitutional provisions ratified and approved by Congress, and the effect of a succession of recognitional Federal laws persuasively lead judicial minds to the conclusion that the States are vested with the control of the unappropriated unnavigable waters within their respective borders.

This statement is concurred in, and actively supported, by Delph Carpenter, Interstate River Commissioner, Greeley, Colorado; Ward Bannister, Denver, Colorado; Francis Wilson, Interstate River Commissioner, Santa Fe, New Mexico, and William Ray, of Salt Lake City, Utah; all of these men are at the top of the legal profession west of the Rocky Mountains.

CHAPTER XIII—STATE WATER RIGHT SURVEYORS

In 1921 the State Legislature enacted the following amendment to the Water Law (Chapter 106, Statutes of 1921):

SEC. 91. All maps and surveys and measurement of water required under the provisions of this Act shall be made by a State water right surveyor, as hereinafter provided.

Any engineer or surveyor who has a practical knowledge of surveying or engineering and who is familiar with land surveying and mapping and the measurement of water, and who is of good moral standing, shall be entitled to be appointed a State water right surveyor, upon application to the State Engineer, such applications to be in the form prescribed by the State Engineer.

Every applicant for appointment as State water right surveyor shall pay a fee of five dollars (\$5) at the time of making his application to the State Engineer. If the application be not granted the amount of such fee shall be returned to the applicant.

Whenever the State Engineer shall approve the qualifications of an applicant, he shall issue a certificate to such applicant designating him as a State water right surveyor, and such applicant shall, within ten (10) days thereafter, file with the State Engineer a good and sufficient bond, payable to the State of Nevada, in the sum of five hundred dollars (\$500), conditioned for the faithful performance of his duties as such officer. Said appointment may be revoked by the State Engineer at any time for good cause shown.

The State Engineer may require any applicant for appointment to the position of State water right surveyor to pass such reasonable examination as to his qualifications as may be provided by the State Engineer. The State Engineer may also provide such additional rules and regulations governing the qualifications and official acts of State water right surveyors as may be reasonable, and not inconsistent with this Act.

No survey, map, or measurement of flow of water shall be approved by the State Engineer unless such survey is made by a State water right surveyor, as herein provided.

The State of Nevada shall not be liable for the compensation of any State water right surveyor, but said surveyor shall be paid by the party employing him.

Since this statute has been effective, 117 State water right surveyors have been licensed to practice before the office. Of this number 63 are at the present time still in good standing, the remainder having been dropped from the roster on account of death, removal from the State or for other causes.

It is desired to express sincere appreciation for the spirit of cooperation shown by the practicing water right surveyors, as evinced by their evident desire to become familiar with and closely follow the rules and regulations of this office regarding the conduct of their duties.

Following is a complete list of State water right surveyors licensed and in good standing to practice before the office of the State Engineer:

State Water Right Surveyors

- Adams, O. P., Battle Mountain, Nevada.
 Allen, R. A., Carson City, Nevada.
 Arnold, R. P., Ely, Nevada.
 Baker, C. D., Las Vegas, Nevada.
 Barnes, Corrin, Goldfield, Nevada.
 Bye, Norman, 503 Scott Building, Salt Lake City, Utah.
 Bruce, H. F., Tonopah, Nevada.
 Canterbury, L. F., Fallon, Nevada.
 Crehore, L. S., Fallon, Nevada.
 DeArmond, Chas. F., Elko, Nevada.
 Engle, G. F., Carson City, Nevada.
 Fisk, W. W., Winnemucca, Nevada.
 Giles, Ed. S., Goldfield, Nevada.
 Green, A. M., Alturas, California.
 Hesse, J. F., Las Vegas, Nevada.
 Hutchison, Mont E., Gerlach, Nevada.
 Johnson, Clarence, Eureka, Nevada.
 Johnson, D. S., Tonopah, Nevada.
 King, John W., Tuscarora, Nevada.
 King, Thos. R., Reno, Nevada.
 Liddell, C. A. (address unknown).
 McClymonds, J. H., 65 Market Street, San Francisco, California.
 McGill, Neil A., Ely, Nevada.
 McQuiston, H. T., Carson City, Nevada.
 McWilliams, J. F., Las Vegas, Nevada.
 Merritt, Harold M., Twin Falls, Idaho.
 Millar, J. A., Winnemucca, Nevada.
 Millard, F. W., Ely, Nevada.
 Mueller, John V., Reno, Nevada.
 O'Leary, F. R., Winnemucca, Nevada.
 Osgood, E. P., Fallon, Nevada.
 Payne, H. M., Carson City, Nevada.
 Pray, M. A., Reno, Nevada.
 Pray, W. A., Fernley, Nevada.
 Quate, G. S., Baker, Nevada.
 Raine, W. S., Palisade, Nevada.
 Rapp, F. M., Tonopah, Nevada.
 Rinearson, A. L., Jarbidge, Nevada.
 Rodder, J. C. (address unknown).
 Runner, John A., Lovelock, Nevada.
 Saxton, Geo. T., East Ely, Nevada.
 Settelmeyer, W. H., Elko, Nevada.
 Shufer, S. J., Mina, Nevada.
 Sheldon, H. H., Winnemucca, Nevada.
 Spencer, L. B., Mina, Nevada.
 Stewart, F. B., Paradise Valley, Nevada.
 Stoddard, Carl, Reno, Nevada.
 Sweetland, E. H., Carson City, Nevada.
 Taylor, C. Y., Reno, Nevada.
 Taylor, L. H., Reno, Nevada.
 Tilden, R. E., Berkeley, California.
 Thorne, Wm. F., Alamo, Nevada.
 Townsend, C. R., Ely, Nevada.
 Updike, D. H., Reno, Nevada.
 Vall, E. A., Salt Lake City, Utah.
 Walker, Frank, Pioche, Nevada.
 Watson, J. D., Reno, Nevada.
 Warren, D. R., 1303 Waller Street, San Francisco, California.
 Way, H. B., care of Utah Construction Co., Ogden, Utah.
 Whiting, L. W., Mina, Nevada.
 Williams, J. W., Mills Building, San Francisco, California.
 Wilson, Hugh, Fallon, Nevada.
 Woodward, Chester L., Tuscarora, Nevada.

CHAPTER XIV—UPSTREAM STORAGE INVESTIGATION TRUCKEE AND CARSON RIVERS

During the fall of the year 1926 a preliminary meeting was called between representatives of the Board of Directors of the Truckee-Carson Irrigation District and the Directors of the Truckee Meadows Association, where the matter of a Federal appropriation for upstream storage investigation on the Truckee and Carson Rivers was discussed.

At a subsequent meeting, at which Nevada's congressional representatives were invited to be present, the plan was laid before them and resulted, after their return to Washington, in an appropriation of \$50,000 for investigation of the upstream storage possibilities on the Truckee River; the Carson River not being considered.

Investigations were therefore commenced, under the supervision of the Bureau of Reclamation, during the summer of 1927, on the headwaters of the Truckee River. Satisfactory progress was not made, however, and as a consequence only a partial report was rendered late in that year, proving of little practical benefit. Only about \$12,000 of the \$50,000 appropriated by Congress had been expended in this work.

Under the law any moneys remaining in the fund at the end of the fiscal year (June 30) revert to the General Fund, therefore it became necessary to reappropriate the money to finish the investigation.

The matter was discussed with the Bureau of Reclamation officials in Washington by the State Engineer in February, 1928, and in accordance with the decision reached at that time a resolution was introduced by Senator Tasker L. Oddie in the United States Senate reappropriating the unexpended balance of the \$50,000 originally appropriated to complete the Truckee River investigations, and also to investigate storage possibilities on the Carson River.

The resolution, as introduced, carried a provision that the work be done in connection with the State Engineer's office. This provision was, however, later eliminated, but through written instructions from Dr. Elwood Mead, Commissioner of Reclamation, and A. F. Walter, Chief Engineer, Bureau of Reclamation, the field men consulted with the State Engineer's office frequently during the course of the investigation, and the State Engineer viewed, personally, practically all of the reservoir sites investigated.

The report has been somewhat delayed due to the thorough manner in which the investigations have been conducted by A. W. Walker, Field Engineer for the Bureau of Reclamation. It is expected, however, that a complete report will be in the hands of the Bureau officials by February 15, 1929.

In this report a compilation is being made of all existing data from prior authentic investigations, either public or private, and an earnest attempt made to complete the investigations on both rivers, and it is believed that the resulting report should be of real value to all property owners on both rivers in the matter of future developments, either public or private.

There was some discussion over the advisability of sinking test wells in the Truckee meadows and running pumping tests to determine

whether a further water supply could be developed in this manner. However, the Comptroller of the Treasury ruled, after the direct question had been raised by the Bureau of Reclamation, that under the resolution as passed the money could not be expended for this work. Senator Oddie has now introduced an amendment that is designed to allow this work to be done, and it is assumed that it will be undertaken during the summer of 1929.

Since the Truckee-Carson Irrigation Project appropriates water from both the Truckee and Carson Rivers, any solution of the problem will of necessity affect both streams.

There is no doubt that the Truckee-Carson Irrigation District is entitled to sufficient flood waters from the two rivers, as of their 1903 priority, to irrigate the lands susceptible of irrigation within their project, the vested rights being determined in the regular way. There is no doubt, on the other hand, that there is more flood water available from these two rivers than can be used for this purpose. Therefore, the amount needed should be determined as soon as practicable so that further development will not be unduly retarded.

The State is not interested in either "upstream" or "downstream" development as against the other, but it is concerned that the fullest beneficial use be ultimately made of all the water within its borders.

CHAPTER XV—OFFICE FINANCES
SEGREGATED EXPENDITURES FROM APPROPRIATION FOR SUPPORT OF IRRIGATION DURING PERIOD JANUARY 1, 1927, TO DECEMBER 31, 1928, INCLUSIVE

Month	Appropriation by Legislature	Salaries	Traveling	Supplies	Equipment	Miscellaneous	Totals
1927							
January
February
March
April
May
June
July
August
September
October
November
December
Totals	\$11,287.29	\$2,411.52	\$1,481.36	\$4,082.06	\$882.03	\$20,144.36
1928							
January
February
March
April
May
June
July
August
September
October
November
December
Totals	\$10,927.98	\$3,167.42	\$1,042.89	\$664.80	\$1,552.66	\$17,355.64
Grand totals	\$22,215.27	\$5,578.94	\$2,524.25	\$4,746.75	\$2,434.69	\$37,560.00

REPORT OF STATE ENGINEER

FEES RECEIVED AND DISPOSITION MADE OF SAME

Month	Fees received	Deposited with State Treasurer	Paid for public cautions	Refunds on cancelled applications	Recording certificates and transfers	Blue prints	Excess remittance refunds	Balance held for publication fees	Balance held for recording certificates
1927									
Balance, 1926	\$8,329.06							\$937.50	\$7,392.16
January	1,000.70	\$489.70	\$237.50	\$12.50	\$30.00	\$1.00		782.50	7,674.16
February	727.00	385.39	390.00			6.50		1,137.50	7,722.16
March	1,792.00	1,023.09	275.00	37.50		1.50		1,356.00	7,812.16
April	1,385.10	789.60	275.00	37.50		.50		1,225.00	7,822.16
May	722.70	319.70	462.50	50.00		5.50		1,600.00	7,902.16
June	1,134.00	492.09	225.00	37.50		4.50		1,987.50	7,962.16
July	1,450.75	678.75	312.50	12.50		1.50		2,412.50	8,072.16
August	1,451.40	587.70	100.00	175.00		3.70		2,387.50	8,072.16
September	328.00	281.00	212.50	60.00		7.50		2,475.00	8,282.16
October	1,452.00	638.00	497.50	37.50		16.00		2,287.50	8,462.16
November	1,949.00	408.00	475.00	12.50		7.00		2,175.00	8,582.16
December	511.00	299.00	275.00						
Totals	\$21,446.40	\$6,252.04	\$3,357.50	\$462.50	\$30.00	\$107.30		\$2,175.00	\$8,582.16
1928									
Balance, 1927	\$10,737.16							\$2,127.00	\$8,792.16
January	979.20	\$118.10	\$362.50	\$12.50		\$13.60		2,150.00	8,812.16
February	540.05	260.65	175.00	62.50		2.00		2,412.50	8,822.16
March	1,139.25	725.87	125.00			21.88	\$5.00	2,475.00	8,842.16
April	1,092.00	654.50	525.00	25.00		6.00	15.00	2,262.50	8,852.16
May	1,910.00	572.60	300.00	12.50		3.00	17.00	2,912.50	8,912.16
June	1,500.00	642.50	125.00	12.50		2.00	29.00	3,037.50	8,960.16
July	1,966.70	540.83	267.50		\$3.00	.37	29.00	3,000.00	8,949.16
August	369.25	372.80	257.50	112.50		4.13	30.00	2,725.00	8,869.16
September	451.50	451.50	300.00	75.00		2.00	18.05	2,650.00	8,909.16
October	879.70	482.25	387.00	62.50		.50	22.00	2,737.50	8,959.16
November	792.00	539.50	237.50	100.00		2.50	5.00	2,860.00	9,029.16
December	873.00	262.00	262.50	37.50		1.50	53.00		
Totals	\$22,207.81	\$6,369.72	\$3,700.00	\$512.50	\$3.00	\$59.43	\$194.05	\$2,860.00	\$9,029.16

SEGREGATED STATEMENT OF FEES COLLECTED BY STATE ENGINEER FROM JANUARY 1, 1927, TO
DECEMBER 31, 1928, INCLUSIVE

Month	Fees received	Proof of appropriation	Applications		Issuing and recording permits	Proof of labor	Proof of completion of work	Proof of benefits use	Protests	Excess collections	Miscellaneous
			Publications	Fees							
1927											
January	\$1,000.70	\$110.00	\$400.00	\$750.00	\$194.70	\$1.00	\$3.00	\$3.00	\$12.00		\$20.00
February	227.00	10.00	225.00	185.00	125.00	3.00	10.00	66.00	2.00		50.00
March	1,792.00	80.00	682.00	420.00	253.09	50.00	10.00	90.00	9.00		105.00
April	1,382.50	36.00	357.00	312.50	178.00	10.00	31.00	5.00	2.00		114.50
May	222.50	10.00	222.50	222.50		10.00	7.00	1.00	1.00		28.00
June	1,124.00	10.00	327.50	327.50	15.00	8.00	11.00	13.00	11.00		24.00
July	1,150.75	10.00	726.75	462.50	160.00	13.00	11.00	14.00	1.00		26.00
August	1,151.00	110.00	427.50	553.50	50.00	12.00	14.00	4.00	8.00		36.00
September	1,425.00	100.00	472.50	122.50	110.00	12.00	21.00	27.00	1.00		39.00
October	1,949.00	200.00	525.00	200.00	100.00	17.00	7.00	14.00	18.00		123.00
November	511.00	120.00	175.00	105.00	10.00	0.00	6.00	13.00	23.00		74.00
Totals	\$13,106.74	\$1,000.00	\$5,687.50	\$3,472.50	\$1,311.79	\$290.00	\$187.00	\$201.00	\$120.00		\$850.35
1928											
January	\$979.20	\$210.00	\$327.00	\$207.50	\$87.50	\$4.00	\$4.00	\$14.00	\$20.00		\$84.70
February	1,640.25	50.00	200.00	160.00	50.00	11.00	28.00	18.00	3.00		36.00
March	1,150.25	10.00	357.00	287.50	326.00	11.00	17.00	8.00	1.00		100.00
April	1,029.50	20.00	419.10	217.50	225.00	7.00	1.00	4.00	4.00		52.00
May	1,010.50	50.00	300.00	155.00	207.00	21.00	12.00	8.00	8.00	15.00	70.50
June	1,500.00	50.00	787.50	477.50	203.00	21.00	32.00	33.00	8.00		41.00
July	1,188.20	60.00	387.50	227.50	233.75	11.00	12.00	12.00	17.00		29.75
August	1,050.25	10.00	512.50	207.50	111.00	4.00	9.00	7.00	3.00		56.15
September	781.55	10.00	203.00	180.00	122.50	12.00	15.00	5.00	2.00		18.00
October	879.75	10.00	275.00	225.00	200.75	12.00	8.00	8.00	6.00		23.00
November	793.00	50.00	425.00	225.00	100.00	12.00	2.00	5.00	11.00		17.00
December	879.00	50.00	302.50	217.50	105.00	23.00	1.00	2.00	23.00		20.00
Totals	\$11,450.75	\$1,450.00	\$4,857.50	\$2,927.50	\$1,962.50	\$135.00	\$125.00	\$102.50	\$112.00	\$94.65	\$594.20
Balance from 1926	9,359.66			\$6,400.00	\$3,264.29			\$203.00	\$272.00	\$194.05	\$1,445.15
Grand total	\$22,897.15	\$4,510.00	\$10,525.00	\$8,400.00	\$5,264.29	\$311.50	\$313.00	\$203.00	\$272.00	\$194.05	\$1,445.15

GENERAL STATEMENT FOR 1927-1928

Held for 1926.....			
For recording certificates.....	\$7,532.16		\$6,522.04
For publication fees.....	878.50		3,837.50
		28,239.66	3,462.50
Fees collected, 1927.....		13,105.74	107.20
Fees collected, 1928.....		11,409.75	30.00
			0,999.72
			3,700.00
			232.50
			3.00
			50.48
			194.05
			\$2,800.00
			9,029.16
Total.....		\$32,897.15	11,859.16
			\$42,897.15

Deposited with State Treasurer, 1927

Paid for publications, 1927

Paid for refunds, account of canceled publications, etc.

Paid for blue prints, 1927

Paid for recording certificates

Deposited with State Treasurer, 1928

Paid for publications

Paid for refunds, 1928

Paid for recording certificates, 1928

Paid for blue prints, 1928

Paid for refunds on excess collections

Balance held January 1, 1929:

For publication fees

For recording certificates

Total

**SEGREGATED EXPENDITURES FROM APPROPRIATION FOR SUPPORT
OF COOPERATIVE WATER RESOURCES U. S. G. S.**

Month	Appropriated by Legislature	Salaries	Traveling expense	General expense	Totals	Balance
<i>1927</i>						
January 1 to March 31	\$2,500.00	\$291.71			\$391.71	
April 1 to June 30		303.50	\$51.88	\$9.65	365.01	
July 1 to September 30		176.50			176.50	
October 1 to December 31		131.50			131.50	
Totals		\$1,063.21		\$9.65	\$1,072.86	
<i>1928</i>						
January 1 to March 31		\$120.00	\$0.50	\$1.70	\$122.20	
April 1 to June 30		671.53	46.39		717.92	
July 1 to September 30		318.01	43.79		361.80	
October 1 to December 31		74.50			74.50	
Totals		\$1,169.54	\$90.68	\$1.70	\$1,261.92	
Grand totals	\$2,500.00	\$2,187.25	\$142.54	\$11.35	\$2,341.14	\$158.86

**SEGREGATED EXPENDITURES FROM APPROPRIATION FOR SUPPORT
OF COOPERATIVE SNOW SURVEY**

Month	Appropriated by Legislature	Salaries	Traveling expense	General expense	Totals	Balance
<i>1927</i>						
January 1 to May 1	\$1,500.00	\$742.00	\$74.20	\$141.65	\$957.85	
May 1 to July 1		60.00		20.15	80.15	
July 1 to December 1			7.16	9.57	16.67	
December 1 to December 31		10.09	19.50		29.59	
Totals 1927		\$812.00	\$100.86	\$171.37	\$1,084.23	\$415.83
<i>1928</i>						
January 1 to May 1		\$312.50		\$101.34	\$413.84	
Totals 1927 and 1928	\$1,500.00	\$1,124.50	\$100.86	\$272.71	\$1,498.07	\$1.00

SEGREGATED EXPENDITURES FROM APPROPRIATION FOR SUPPORT OF COLORADO RIVER COMMISSION

Month	Salaries Commissioners, engineers	Traveling expenses			Miscellaneous			Equipment		Totals
		Auto	Train	Sub- sistence	Phones	Wires	Office supplies	Steno- grapher	Maps	
1927										
January										\$3.18
February										5.40
March										8.08
April						\$3.25				873.32
May	\$959.00							\$6.50	\$11.88	
June			\$397.58	\$123.60						
July										
August	\$1.00		25.20	48.80						
September										
October			151.74	477.85	\$10.10		3.00	237.25		312.25
November		40.28	138.90	154.70	9.50			201.50		219.52
December	149.00	9.10						231.95		1,003.88
Subtotals	\$460.00	\$50.36	\$893.42	\$804.55	\$10.00	\$119.81	\$15.50	\$698.80	\$11.80	\$3,014.33
1928										
January		\$20.65	\$476.50	\$397.35	\$65.16	\$70.74	\$0.79	\$59.85		\$1,297.04
February	\$2,510.00	12.05	933.56	796.72	42.25	73.77	28.10	908.50	\$89.65	4,774.00
March	12.00	68.00	271.51	480.29	17.83	53.85	688.90	58.00	23.40	1,644.28
April	1,829.00	197.50	754.45	1,427.87	71.88	344.55	545.98	1,078.35		6,080.58
May						53.31	5.86	68.00		126.97
June						17.87				114.74
July						10.58	4.87			25.28
August		64.70	24.25	17.40		9.12		57.00		172.52
September						2.50				1.53
October	130.00	5.40	170.09	315.52		7.25		228.75		2.25
November			249.08	184.80	10.00	34.77		324.42		884.79
December						78.77	9.30		.90	87.87
Subtotals	\$4,482.00	\$268.85	\$2,940.04	\$3,792.25	\$224.49	\$846.76	\$1,084.16	\$2,182.87	\$93.95	\$15,855.67
Grand totals	\$4,942.00	\$419.21	\$3,713.46	\$4,597.30	\$244.09	\$996.57	\$1,099.96	\$2,681.67	\$105.84	\$19,000.00

CHAPTER XVI—RECOMMENDATIONS

WATER COMMISSIONERS' SALARIES AND EXPENSES

The State Engineer is charged with the administration and distribution of water on adjudicated streams within the State. If efficient distribution is to be accomplished skilled engineers must be employed and paid with reasonable promptness. The water law directs that the State Engineer prepare a budget for submission to the various boards of County Commissioners, setting forth the unit assessment on each acre of cultivated land embraced under distribution activities in each county. The assessed amounts are collected as are other taxes with the result that the money represented is not available in the various county treasuries until long after the services rendered by the water commissioners are completed.

In an attempt to remedy this vexing condition the Legislature in 1927 amended the statutes to make it lawful for counties to advance money for the payment of water commissioners' salaries and expenses when such advances are reimbursable from the proceeds of any tax levied for such purpose. (See sec. 4, chapter 133, Statutes of 1927.)

This attempted remedial measure has not been successful due to the refusal of several counties to make such lawful advances on account of alleged depleted treasury funds or reluctance to cooperate fully in furthering efficient water distribution.

It is therefore recommended that adequate amendment to the water law be enacted for the purpose of providing some means of assessing and collecting distribution funds in advance of the period during which they will be expended.

ADMINISTRATION OF STOCK WATERING ACT OF 1925

Elsewhere in this report the difficulties of efficiently administering the stock watering Act of 1925 have been discussed in detail, stressing the fact that such administration is impossible without the availability of adequate funds for this purpose. It is therefore recommended that the sum of \$24,000, in addition to the amount required to carry on regular routine activities, be allowed for the purpose of clearing up the accumulated mass of applications upon which it has been impossible, during the past biennium, to make field investigations required by law. This matter is of paramount importance to the livestock industry of the State, and should receive careful and considerate attention. The value of the stock watering Act to stockmen is dependent on its efficient and speedy administration, which cannot be accomplished without adequate funds for this purpose.

CARSON RIVER ADJUDICATION

The Final Order of Determination of the State Engineer in this matter has been filed with the First Judicial District Court at Carson City, and hearing on same set by the court for February 4, 1929. Since there are approximately 250 claimants embraced in this proceeding and, it is estimated, each party will require at least one-half day for hearing before the Court, the total length of the proceeding will therefore be approximately 125 court days. The hearing will have to be

reported at a cost of \$10 per day, and a complete transcript of testimony prepared.

It is conservatively estimated that \$7,000 will be required for this purpose. If the adjudication is to proceed to successful completion it will be necessary that this amount be appropriated, the State to be reimbursed when the Court enters its final decree and assesses the costs among the parties represented in the action.

SNOW SURVEY

The cooperative snow survey work carried on under State direction and support in cooperation with other agencies is of such importance to the State's agricultural and power interests as to justify continued and increased support. It is therefore recommended that the sum of \$2,500 be appropriated for carrying on this excellent work during the next biennium.

COOPERATIVE STREAM MEASUREMENT

This work is carried on by the United States Geological Survey cooperating financially with the State on a dollar for dollar basis. There is no need to dwell upon the value of a knowledge of our natural water resources as afforded by extensive stream flow and hydrographic records. Without such records ultimate maximum development of water resources becomes impossible and determination of water rights and distribution of water on our stream systems very difficult. When it is considered that the Federal Government cooperates in this valuable work on a dollar for dollar basis, it is poor economy to curtail appropriations for this purpose.

It is respectfully recommended that at least \$5,000 be appropriated for this purpose.

FIREPROOF VAULT SPACE FOR RECORDS OF STATE ENGINEER

Former biennial reports have repeatedly called attention to the advisability of providing fireproof housing for records which at this time are valued at in excess of \$1,000,000, if they can be valued at all. As a matter of fact, these records can scarcely be given a monetary value since, if destroyed, many of them could never be replaced. There has never been, nor is there now, protection of any kind against loss by fire.

It is therefore once more urgently recommended that \$5,000 be appropriated for the purchase of adequate fireproof files for properly housing the records of the State Engineer's office.

Respectfully submitted,

GEO. W. MALONE,
State Engineer.





