

TYPE OR PRINT
IN BLACK INK
(For instructions, see
booklet: "How to File an
Application to
Appropriate Water in
California")



California Environmental Protection Agency

State Water Resources Control Board
Division of Water Rights
P.O. Box 2000, Sacramento, CA 95812-2000
Tel: (916) 341-5300 Fax: (916) 341-5400
www.waterboards.ca.gov/waterrights

2010 JAN 21 AM 11:25

APPLICATION NO. 31816

APPLICATION TO APPROPRIATE WATER

1. APPLICANT/AGENT

	APPLICANT	ASSIGNED AGENT (if any)
Name	Carson Water Subconservancy District	
Mailing Address	777 E. William St., Suite 110A	
City, State & Zip	Carson City, NV 89701	
Telephone	775-887-7456	
Fax	775-887-7457	
E-mail	edjames@cwsd.org	

2. OWNERSHIP INFORMATION (Please check type of ownership.)

- Sole Owner
- Limited Partnership*
- Corporation
- Limited Liability Company (LLC)
- Business Trust
- Joint Venture
- General Partnership*
- Husband/Wife Co-Ownership
- Other Governmental Agency

*Please identify the names, addresses and phone numbers of all partners.

3. PROJECT DESCRIPTION (Provide a detailed description of your project, including, but not limited to, type of construction activity, area to be graded or excavated, and how the water will be used.) Add additional pages if needed and check box below and label as an attachment.

The purpose of the application is to correct an error that occurred with the original Application No. 4019 regarding the amount of water that can be stored in the Upper and Lower Lost Lakes. Attachment No. 1 gives a brief overview of the request for an additional storage water right of 47.8 acre-feet for the Upper and Lower Lost Lakes and various supporting documents

For continuation, see Attachment No. 1

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4. PURPOSE OF USE, DIVERSION/STORAGE AMOUNT AND SEASON

a. PURPOSE OF USE (irrigation, domestic, etc.)	DIRECT DIVERSION				STORAGE		
	AMOUNT		SEASON OF DIVERSION		AMOUNT	SEASON OF COLLECTION	
	Rate (cfs or gpd)*	Acre-feet per annum	Beginning date (month & day)	Ending date (month & day)	Acre-feet per annum	Beginning date (month & day)	Ending date (month & day)
Irrigation						Dec 1	Mar 31
Instream Flow					47.8	October 1	June 30
Municipal							
recreation							
Total afa				Total afa	47.8		

See Attachment No. _____ * If rate is less than 0.025 cubic feet per second (cfs), use gallons per day (gpd).

b. Total combined amount taken by direct diversion and storage during any one year will be 47.8 acre-feet.

c. Reservoir storage is: onstream offstream underground (If underground storage, attach Underground Storage Form.)

d. County in which diversion is located: Alpine County in which water will be used: Alpine Co. and downstream counties in Nevada.

7-6-11 pers. comm w/ Ed James (per station 9d) kdm

4/13/11 email kdm

5. SOURCES AND POINTS OF DIVERSION/REDIVERSION

- a. Sources and Points of Diversion (POD)/Points of Rediversion (PORD):
- POD / PORD # 1/6 Unnamed streams tributary to West Fork Carson River thence _____
 - POD / PORD # 1 tributary to _____ thence _____
 - POD / PORD # 2 tributary to _____ thence _____
 - POD / PORD # 3, 4 tributary to _____ thence _____

If needed, attach additional pages, check box below and label attachment See Attachment No. _____

7-6-11 pers. comm. w/ Ed James kdm

b. State Planar and Public Land Survey Coordinate Description:

POD/PORD #	CALIFORNIA COORDINATES (NAD 83)	ZONE	POINT IS WITHIN (40-acre subdivision)	SECTION	TOWNSHIP	RANGE	BASE AND MERIDIAN
2	N2004986' NAD83 E 7147455'	2	SW 1/4 of SE 1/4	1	T9N	R18E	M.D.B. & M.
1	N2003891' NAD83 E 7148816'	2	NE 1/4 of NE 1/4	12	T9N	R18E	M.D.B. & M.
1	POD #1		SE 1/4 of SE 1/4	26	T11N	R19E	M.D.B. & M.
2	POD #2		SE 1/4 of SE 1/4	26	T11N	R19E	M.D.B. & M.
3	POD #3		SE 1/4 of NW 1/4	19	T11N	R20E	M.D.B. & M.
4	POD #4		SW 1/4 of SE 1/4	18	T11N	R20E	M.D.B. & M.

If needed, attach additional pages, check box below and label attachment See Attachment No. _____

c. Name of the post office most often used by those living near the proposed point(s) of diversion: Markleeville, California

6. WATER AVAILABILITY

- a. Have you attached a water availability analysis for this project? YES NO
 If NO, provide sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation: If needed, attach additional pages, check box below and label attachment.

See Attachment No. 2

- b. Is your project located on a stream system declared to be fully appropriated by the State Water Resources Control Board (State Water Board) during your proposed season of diversion?
 YES NO (Entitled for an exemption because it is already listed in the Alpine Decree.)
- c. In an average year, does the stream dry up at any point downstream of your project? YES NO
 If YES, during which months? Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
- d. What alternate sources of water are available if a portion of your requested diversion season must be excluded because water is not available for appropriation? (e.g., percolating groundwater, purchased water, etc.) If needed, attach additional pages, check box below and label attachment
 N/A

See Attachment No. _____

7. PLACE OF USE

a.

USE IS WITHIN (40-acre subdivision)	SECTION*	TOWNSHIP	RANGE	BASE & MERIDIAN	IF IRRIGATED	
					Acres	Presently cultivated?
1/4 of 1/4	See attachment					<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
1/4 of 1/4						<input type="checkbox"/> YES <input type="checkbox"/> NO
Total Acres:						

*Please indicate if section is projected with a "(P)" following the section number.

See Attachment No. 3 Please provide the Assessor's Parcel Number(s) for the place of use:

8. PROJECT SCHEDULE

Project is: proposed, partially complete or complete (Year completed - 1930).

Extent of completion: N/A

Estimated amount of time in years it will take for construction to be completed: N/A

Estimated amount of time in years it will take for water to be put to full beneficial use: N/A 20

John
 4-13-11
 email

9. JUSTIFICATION OF AMOUNTS REQUESTED

a. IRRIGATION: Maximum area to be irrigated in any one year: 771.2 acres.

CROP	ACRES	METHOD OF IRRIGATION (sprinklers, flooding, etc.)	WATER USE (Acre-foot/Yr.)	SEASON OF WATER USE	
				Beginning date (month & day)	Ending date (month & day)
Meadow Pasture	771.2	flooding	3,500	April 1	Sept. 30

enwe

See Attachment No.

b. DOMESTIC: Number of residences to be served: Separately owned?
 YES NO Number of people to be served: Estimated daily use per person is:
 gallons per day Area of domestic lawns and gardens: square feet
 Incidental domestic uses:

 (dust control area, number and kind of domestic animals, etc.)

a. STOCKWATERING: Kind of stock: Maximum number:
 Describe type of operation:
 (feedlot, dairy, range, etc.)

d. RECREATIONAL: Type of recreation: Fishing Swimming Boating Other Instream

e. MUNICIPAL:

POPULATION List for 5-year periods until use is completed		MAXIMUM MONTH		ANNUAL USE		
Period	Population	Average daily use (gallons per capita)	Rate of diversion (cfs)	Average daily use (gallons per capita)	Acre-foot (per capita)	Total (acre-feet)
Present	66,300	413	35.3	200	0.22	12,372

See Attachment No.

Month of maximum use during year: July
 Month of minimum use during year: December

f. HEAT CONTROL: Area to be heat controlled: net acres
 Type of crops protected:
 Rate at which water is applied to use: gpm per acre
 Heat protection season will begin and end .
 (month and day) (month and day)

g. FROST PROTECTION: Area to be frost protected: net acres
 Type of crops protected:
 Rate at which water is applied to use: gpm per acre
 The frost protection season will begin and end .
 (month & day) (month & day)

h. INDUSTRIAL: Type of industry:

Basis for determination of amount of water needed: _____

- i. MINING: Name of the claim: _____ Patented Unpatented
 Nature of the mine: _____ Mineral(s) to be mined: _____
 Type of milling or processing: _____
 After use, the water will be discharged into _____ (watercourse)
 in _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____ B. & M.
- j. POWER: Total head to be utilized: _____ feet
 Maximum flow through the penstock: _____ cfs Maximum theoretical horsepower capable of
 being generated by the works (cfs x fall ÷ 8.8): _____
 Electrical capacity (hp x 0.746 x efficiency): _____ kilowatts at: _____% efficiency
 After use, the water will be discharged into _____ (watercourse)
 in _____ ¼ of _____ ¼ of Section _____, T _____, R _____, _____ B&M. FERC No.: _____
- k. FISH AND WILDLIFE PRESERVATION AND/OR ENHANCEMENT: List specific species and
 habitat type that will be preserved or enhanced: _____
- l. OTHER: Describe use: _____
 Basis for determination of amount of water needed: _____

10. DIVERSION AND DISTRIBUTION METHOD

- a. Diversion will be by gravity by means of: flow through the West Fork of the Carson River
 (dam, pipe in unobstructed channel, pipe through dam, siphon, weir, gate, etc.)
- b. Diversion will be by pumping from: Carson River through infiltration wells by Carson City
 (sump, offset well, channel, reservoir, etc)
 Pump discharge rate: 1,600 cfs or gpd Horsepower: 200
 Pump Efficiency: 80

c. Conduit from diversion point to first lateral or to offstream storage reservoir:

CONDUIT (pipe or channel)	MATERIAL (type of pipe or channel lining; indicate if pipe is buried or not)	CROSS-SECTION (pipe diameter, or ditch depth and top and bottom width) (inches or feet)	LENGTH (feet)	TOTAL LIFT OR FALL		CAPACITY (cfs, gpd or gpm)
				feet	+ or -	

See Attachment No. _____

d. Storage reservoirs: (For underground storage, complete and attach underground storage form)

RESERVOIR NAME OR NUMBER	DAM				RESERVOIR		
	Vertical height from downstream toe of slope to spillway level (feet)	Construction material	Length (feet)	Freeboard: dam height above spillway crest (feet)	Surface area when full (acres)	Capacity (acre-feet)	Maximum water depth (feet)
Lower Lost Lk.	17.6	earth dam	200	3.5	12.9	126	16
Upper Lost Lk.	11.6	earth dam	240	4.0	17.5	124	10

See Attachment No. _____

e. Outlet pipe: Complete for storage reservoirs having a capacity of 10 acre-feet or more.

RESERVOIR NAME OR NUMBER	OUTLET PIPE				
	Diameter in inches	Length in feet	Fall: Vertical distance between entrance and exit of outlet pipe in feet	Head: Vertical distance from spillway to entrance of outlet pipe in feet	Dead Storage: Storage below entrance of outlet pipe in acre-feet
Upper Lost Lk.	18	60	1.5	16	73.0
Lower Lost Lk.	18	36	1.5	10	74.0

See Attachment No. ___

e. If water will be stored and the reservoir is not at the point of diversion, the maximum rate of diversion to off-stream storage will be _____ cfs. Diversion to offstream storage will be made by:
 Pumping Gravity

11. CONSERVATION AND MONITORING

a. What methods will you use to conserve water? Explain.
Both Carson City and Lyon County Utilities have active water conservation programs, such as tiered rate structure, watering restrictions, water waste ordinances., etc. CWSD is currently developing a Regional Water Conservation Program for the entire watershed

b. How will you monitor your diversion to be sure you are within the limits of your water right and you are not wasting water? Weir Meter Periodic sampling Other (describe)
Water will be measured using a 1-foot Parshall flume located just downstream of the Lower Lost Lake outlet. This amount will be available for use downstream.

12. RIGHT OF ACCESS

a. Does the applicant own all the land where the water will be diverted, transported and used?
 YES NO
If NO, I do do not have a recorded easement or written authorization allowing me access.

b. List the names and mailing addresses of all affected landowners and state what steps are being taken to obtain access:

See Attachment No. 4

13. EXISTING WATER RIGHTS AND RELATED FILINGS

a. Do you claim an existing right for the use of all or part of the water sought by this application?
 YES NO
If YES, please specify: Riparian Pre-1914 Registration Permit License
 Percolating groundwater Adjudicated Other (specify) Federal Decree

b. For each existing right claimed, state the source, year of first use, purpose, season and location of the point of diversion (to within quarter-quarter section). Include number of registration, permit, license, or statement of water diversion and use, if applicable.

See Attachment No. 1 Exhibit A and Exhibit B

c. List any related applications, registrations, permits, or licenses located in the proposed place of use or that utilize the same point(s) of diversion.

See Attachment No. ____

14. OTHER SOURCES OF WATER

Are you presently using, or do you intend to use, purchased water or water supplied by contract in connection with this project? Yes No If yes, please explain: _____

15. MAP REQUIREMENTS

The Division cannot process your application without accurate information showing the source of water and location of water use. You must include a map with this application form that clearly indicates the quarter/quarter, section, township, range, and meridian of (1) the proposed points of diversion and (2) the place of use. A copy of a U.S.G.S. quadrangle/topographic map of your project area is preferred, and can be obtained from sporting goods stores or through the Internet at <http://topomaps.usgs.gov>. A certified engineering map is required when (1) appropriating more than three cubic feet per second by direct diversion, (2) constructing a dam which will be under the jurisdiction of the Division of Safety of Dams, (3) creating a reservoir with a surface area in excess of ten acres or (4) appropriating more than 1,000 acre-feet per annum by underground storage. See the instruction booklet for more information.

See Attachment No. 5

ENVIRONMENTAL INFORMATION

Note: Before a water right permit may be issued for your project, the State Water Board must consider the information contained in an environmental document prepared in compliance with the California Environmental Quality Act (CEQA). This form is not a CEQA document. If a CEQA document has not yet been prepared for your project, a determination must be made of who is responsible for its preparation. If the State Water Board is determined to be responsible for preparing the CEQA document, the applicant will be required to pay all costs associated with the environmental evaluation and preparation of the required documents. Please answer the following questions to the best of your ability and submit with this application any studies that have been conducted regarding the environmental evaluation of your project.

16. COUNTY PERMITS

a. Contact your county planning or public works department and provide the following information:

Person contacted: Brian Peters Date of contact: Jan. 13, 2010
Department: Community Development Telephone: (530) 694-2140
County Zoning Designation: _____

Are any county permits required for your project? YES NO If YES, check appropriate box below:

- Grading permit Use permit Watercourse Obstruction permit Change of zoning
- General plan change Other (explain): _____

b. Have you obtained any of the required permits described above? YES NO
If YES, provide a complete copy of each permit obtained.

See Attachment No. ____

17. STATE/FEDERAL PERMITS AND REQUIREMENTS

- a. Check any additional state or federal permits required for your project:
- Federal Energy Regulatory Commission
 - U.S. Forest Service
 - U.S. Bureau of Land Management
 - U.S. Corps of Engineers
 - U.S. Natural Res. Conservation Service
 - Calif. Dept. of Fish and Game
 - State Lands Commission
 - Calif. Dept. of Water Resources (Div. of Safety of Dams)
 - Calif. Coastal Commission
 - State Reclamation Board
 - Other (specify) _____

N/A

- b. For each agency from which a permit is required, provide the following information:

AGENCY	PERMIT TYPE	PERSON(S) CONTACTED	CONTACT DATE	TELEPHONE NO.

See Attachment No. ____

- c. Does your proposed project involve any construction or grading-related activity that has significantly altered or would significantly alter the bed, bank, or riparian habitat of any stream or lake? YES NO

If YES, explain:

See Attachment No. ____

- b. Have you contacted the California Department of Fish and Game concerning your project?

YES NO If YES, name, telephone number and date of contact:

18. ENVIRONMENTAL DOCUMENT

- a. Has any California public agency prepared an environmental document for your project?

YES NO (This application should be exempted from CEQA.)

- b. If YES, submit a copy of the latest environmental document(s) prepared, including a copy of the notice of determination adopted by the California public agency. Public agency: _____

- c. If NO, check the appropriate box and explain below, if necessary:

The applicant is a California public agency and will be preparing the environmental document.*

I expect that the State Water Board will be preparing the environmental document.**

I expect that a California public agency other than the State Water Board will be preparing the environmental document.* Public agency: _____

See Attachment No. ____

* Note: When completed, submit a copy of the final environmental document (including notice of determination) or notice of exemption to the State Water Board, Division of Water Rights and proof of payment of the State Clearinghouse filing fee. Processing of your application cannot be completed until these documents are submitted.

** Note: CEQA requires that the State Water Board, as Lead Agency, prepare the environmental document. The information contained in the environmental document must be developed by the applicant and at the applicant's expense under the direction of the State Water Board, Division of Water Rights.

19. WASTE/WASTEWATER

- a. Will your project, during construction or operation, (1) generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or (2) cause erosion, turbidity or sedimentation? YES NO

If YES, or you are unsure of your answer, explain below and contact your local Regional Water Quality Control Board for the following information (See instruction booklet for address and telephone no.):

See Attachment No. ____

- b. Will a waste discharge permit be required for your project? YES NO
 Person contacted: _____ Date of contact: _____

- c. What method of treatment and disposal will be used? _____

See Attachment No. ____

20. ARCHEOLOGY

- a. Have any archeological reports been prepared on this project? YES NO
- b. Will you be preparing an archeological report to satisfy another public agency? YES NO
- c. Do you know of any archeological or historic sites located within the general project area?
 YES NO If YES, explain:

See Attachment No. ____

21. ENVIRONMENTAL SETTING

Attach **two complete sets of color photographs**, clearly dated and labeled, showing the vegetation that exists at the following three locations:

- Along the stream channel immediately downstream from the proposed point(s) of diversion.
- Along the stream channel immediately upstream from the proposed point(s) of diversion.
- At the place(s) where the water is to be used.
- See Attachment No. 6

SUBMITTAL FEES

Calculate your application filing fee using the "Water Right Fee Schedule Summary" that was enclosed in the application packet. The "Water Right Fee Schedule Summary" can also be viewed at the Division of Water Rights' website (www.waterrights.ca.gov).

A check for the application filing fee, payable to the "Division of Water Rights" and an \$850 check for the Streamflow Protection Standards review fee [Pub. Resources Code § 10005(a)], payable to the "California Department of Fish and Game," must accompany this application. All applicable fees are required at the time of filing. If the application fees are not received, your application will not be accepted and will be returned to you. Please check the fee schedule for any fee changes prior to submitting the application.

DECLARATION AND SIGNATURE

I declare under penalty of perjury that all information provided is true and correct to the best of my knowledge and belief. I authorize my agent, if I have designated one above, to act on my behalf regarding this water right application.

<i>Edwin D. James</i>	General Manager	Jan. 15, 2010
Signature of Applicant	Title or Relationship	Date

Signature of Co-Applicant (if any)	Title or Relationship	Date

Applications that are not completely filled out and/or do not have the appropriate fees will not be accepted. In the event that the Division has to return the application because it is incomplete, a portion of the application submittal fee will be charged for the initial review.

“APPLICATION TO APPROPRIATE WATER” CHECKLIST

Before you submit your application, be sure to:

- Answer each question completely.**
- Number, label and include all necessary attachments.**
- Include a legible map that meets the requirements discussed in the instruction booklet.**
- Include the Water Availability Analysis or sufficient information to demonstrate that there is reasonable likelihood that unappropriated water is available for the proposed appropriation.**
- Include two complete sets of color photographs of the project site.**
- Enclose a check for the required fee, payable to the Division of Water Rights.**
- Enclose an \$850 check for the Streamflow Protection Standards review fee, payable to the Department of Fish and Game.**
- Sign and date the application.**

Send the original and one copy of the entire application to:

**State Water Resources Control Board
 Division of Water Rights
 P.O. Box 2000
 Sacramento, CA 95812-2000**

Attachment No. 1

The purpose of the application is to correct an error that occurred with the original Application No. 4019 regarding the amount of water that can be stored in the Upper and Lower Lost Lakes. The License for Diversion and Use of Water allows the amount of water that can be stored between the two reservoirs of 171.2 acre feet, 142 acre-feet in the Upper Lost Lake and 29.2 acre-feet in the Lower Lost Lake (See Exhibit A). The error has to do with the storage capacity of Lower Lost Lake. This error was recognized and corrected in the 1980 Federal Alpine Decree that allocated all the water in the Carson River for both California and Nevada (See Exhibit B). The Alpine Decree recognizes the combined storage capacity for both reservoirs at 219 acre-feet, 92 acre-feet in Upper Lost Lake and 127 acre-feet in Lower Lost Lake. In reviewing the Lost Lakes water right and the dam safety files, there are several documents that recognized that the storage amount in Lower Lost Lake is greater than 29.5 acre-feet as stated in the License (See Exhibit C). In the summer of 2009, Carson Water Subconservancy District (CWSD) staff measured the capacity of both reservoirs (See Exhibit D). The total combined storage capacity for both reservoirs is 251 acre-feet, 124 acre-feet in the Upper Lost Lake and 127 acre-feet in the Lower Lost Lake.

Based on this information, CWSD is requesting additional storage water right for 47.8 acre-feet to correspond with the water right allocated in the Alpine Decree for both Upper and Lower Lost Lakes in a combined total amount of 219 acre-feet.

Exhibit A

License containing the erroneous water storage rights values



DIVISION OF WATER RESOURCES

License for Diversion and Use of Water

Not County Assignment (Over)

LICENSE 2002

PERMIT 2306

APPLICATION 4019

THIS IS TO CERTIFY, That E. W. Bassman, E. Besseman, Fred Bruns, Wennhold Bros.

and Fred Gansberg of Gardnerville, Nevada, have made proof to the satisfaction of the Division of Water Resources of California of a right to the use of the waters of two (2) unnamed gulches (Nos. 1 and 2) in Alpine County

tributary of West Carson River

for the purpose of irrigation use under Permit 2306 of the Division of Water Resources and that said right to the use of said waters has been perfected in accordance with the laws of California, the rules and regulations of the Division of Water Resources and the terms of the said permit; that the priority of the right herein confirmed dates from June 10, 1924;

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to the amount actually beneficially used for said purposes and shall not exceed (1) one hundred forty-two (142) and (2) twenty-nine and two tenths (29.2), total one hundred seventy-one and two tenths (171.2) acre feet per annum by storage to be collected from about October 1st to about June 1st of each season.

The points of diversion of such water are located (1) South one hundred twenty-five (125) feet and East thirty-four hundred fifteen (3415) feet from the Northwest corner of Section 12, T 9 N, R 18 E, M.D.B.&M. and being within the NW $\frac{1}{4}$ of NE $\frac{1}{4}$ of said Section 12, and (2) North nine hundred sixty-eight (968) feet and East three thousand forty-five (3045) feet from the southwest corner of Section 1, T 9 N, R 18 E, M.D.B.&M. and being within the SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 1.

The points of re-diversion of stored waters are located as follows:

- (a) North sixteen degrees West (N. 16° W.) one thousand forty-five (1045) feet from the southeast corner of Section 26, T 11 N, R 19 E, M.D.B.&M. and being within the SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 26.
- (b) North forty-six degrees West (N. 46° W.) fourteen hundred sixty (1460) feet from the southeast corner of Section 26, T 11 N, R 19 E, M.D.B.&M. and being within the SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 26.
- (c) South fifty degrees East (S. 50° E.) three thousand twenty (3020) feet from the northwest corner of Section 19, T 11 N, R 20 E, M.D.B.&M. and being within the SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of said Section 19.
- (d) North eighty-nine degrees West (N. 89° W.) twenty-one hundred thirty-five (2135) feet from the southeast corner of Section 18, T 11 N, R 20 E, M.D.B.&M. and being within the SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 18.

A description of the lands or the place where such water is put to beneficial use is as follows:

771.2 acres within Sections 1, 25, 26, 34, T 11 N, R 19 E, M.D.B.&M. and Sections 6, 7 and 18, T 11 N, R 20 E, M.D.B.&M., as shown on map entitled "Map of Lost Lakes Reservoirs and West Fork of Carson River, Alpine County, California, Application No. 4019" filed with the Division of Water Rights, August 6, 1924.

Reports shall be filed promptly by licensee on appropriate forms which will be provided for the purpose from time to time by the Division of Water Resources.

The right to the diversion and use of the water aforesaid hereby confirmed is restricted to the point of diversion herein specified and to the lands or place of use herein described.

Exhibit D

**Upper and Lower Lost Lakes Capacity Calculations Report produced by the Carson Water
Subconservancy District**

UPPER AND LOWER LOST LAKE
STORAGE CAPACITY ANALYSIS

PREPARED BY

Edwin D. James, P.E. # C 49224

Carson Water Subconservancy District

777 E. William St., Suite 110A

Carson City, NV 89701

Upper and Lower Lost Lakes Capacity Calculations

From August 3, 2009, to August 12, 2009, the Carson Water Subconservancy District released all the stored water in the lower reservoir at Lost Lakes in order to perform repairs on the dam. The water released was measured and monitored for a one-and-a-half week period.

A one-foot Parshall flume was used to measure the releases from Lower Lost Lake. Every day or two, the height measurements were taken at the Parshall flume and an average discharge was established for each day that water was released. During this period, the water level and the height of the dam's spillway were also measured each day using self-leveling laser survey gear. These pieces of data were combined to form a capacity curve (see Table 1 and Figure 1). The initial findings indicated that the lower lake's storage capacity is approximately 127 acre-feet of water.

Once construction on the dam was completed in late September, a survey was conducted of the lake bed. The lake area was divided into two sections to ensure line of sight to the laser receiver. The survey rod was set to the height of the spillway and this height was used to determine a ring at that level all around the lake. This same process was repeated at 4', 8', and 12' below the height of the spillway. The height between the spillway and the bottom of the intake is 15.89 feet. At every point that a measurement was taken, a handheld GPS unit (accurate within 10-15ft) was used to mark a waypoint for each measurement site. Once all the data was gathered, the GPS program was used to calculate the area of the different levels of the lake bed. These surface areas were then multiplied by heights that would produce a reasonable ratio between over estimation and under estimation (Riemann Sum). When all the water was released, there were three distinct dead pools. Three different sections were created for calculation purposes since the three dead pools had different elevations. This process gave a value of 126 acre-feet of possible storage. (See Table 2 and Figure 2)

Because Upper Lost Lake does not have a measuring device at the outlet, the only way to measure the storage capacity is to survey the lake bed. Smaller intervals between surface areas were used. The same process for surveying and mathematical computation was used as in the lower lake (See Table 3 and Figure 3). According to this process, about 121 acre-feet can be stored in the Upper Lost Lake.

TABLE 1

Lost Lakes Reservoir Water Release

Date	Time	Time Between	Flume Reading	Start CFS	End CFS	Average CFS	AF Released	Spillway Height	Water Height	Total Height Difference	Height Change Per Day
8/3/2009	10:45		1.81	9.87			0	0	0	0	
8/4/2009	10:00	23.25	1.72	9.13	9.50	18.24	4.33	5.65	1.32	1.32	1.32
8/4/2009	10:00		1.72	9.13							
8/5/2009	10:30	24.5	1.62	8.34	8.73	17.67	4.45	7.48	3.03	3.03	1.71
8/5/2009	10:30		1.62	8.34							
8/6/2009	11:30	25	1.56	7.87	8.11	16.74	1.33	5.76	4.43	4.43	1.4
8/6/2009	11:30		1.72	9.13							
8/7/2009	11:15	23.75	1.7	8.97	9.05	17.75	1.33	7.39	6.06	6.06	1.63
8/7/2009	11:15		1.8	9.79							
8/8/2009	8:30	21.25	1.65	8.57	9.18	16.11	1.72	9.74	8.02	8.02	1.96
8/8/2009	8:30		1.65	8.57							
8/10/2009	8:45	48.25	1.24	5.55	7.06	28.14	7.46	19.11	11.65	11.65	3.63
8/10/2009	8:45		1.24	5.55							
8/12/2009	10:30	49.75	0.24	0.46	3.00	12.34	0.41	16.3	15.89	15.89	4.24
				Total AF Storage =		127.0					

Figure 1
Lower Lost Lake Capacity
By Water Release

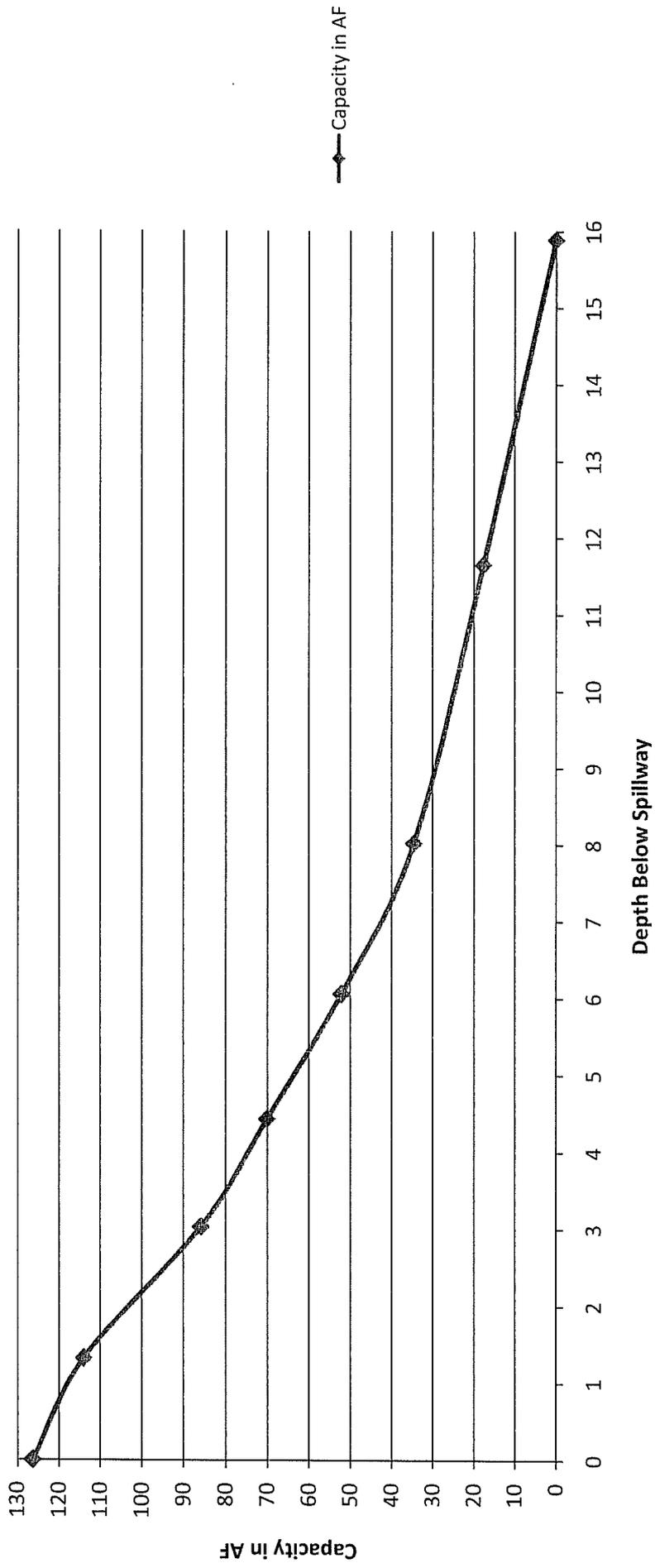


Table 2 Lower Lost Lakes Calculation

(North Section)

Height Below Spillway (ft)	Area (ft ²)	Area (Acres)	Height Used for Calculations (ft)	Volume (AF)
0	191799	4.4		
			2	8.8
4	158052	3.63		
			4	14.52
8	117356	2.69		
			4	10.76
12	79021	1.81		
			4	7.24
(Dead Pool) 15.89	30674	0.7		
			1.89	1.32
			Total:	42.64
			15.89	

(Southwest Section)

Height Below Spillway (ft)	Area (ft ²)	Area (Acres)	Height Used for Calculations (ft)	Volume (AF)
0	66476	1.53		
			2	3.06
4	64631	1.48		
			4	5.92
8	65165	1.5		
			4	6
(Dead Pool) 11.06	32667	0.75		
			1.06	0.8
			Total:	15.78
			11.06	

(Southeast Section)

Height Below Spillway (ft)	Area (ft ²)	Area (Acres)	Height Used for Calculations (ft)	Volume (AF)
0	303916	6.98		
			2	13.96
4	244828	5.62		
			4	22.48
8	203966	4.68		
			4	18.72
12	168235	3.86		
			2	7.72
(Dead Pool) 13.7	128525	2.95		
			1.7	5.02
			Total:	67.9
			13.7	

Total (All Sections): 126.32

Figure 2
Lower Lake Capacity
By Survey Method

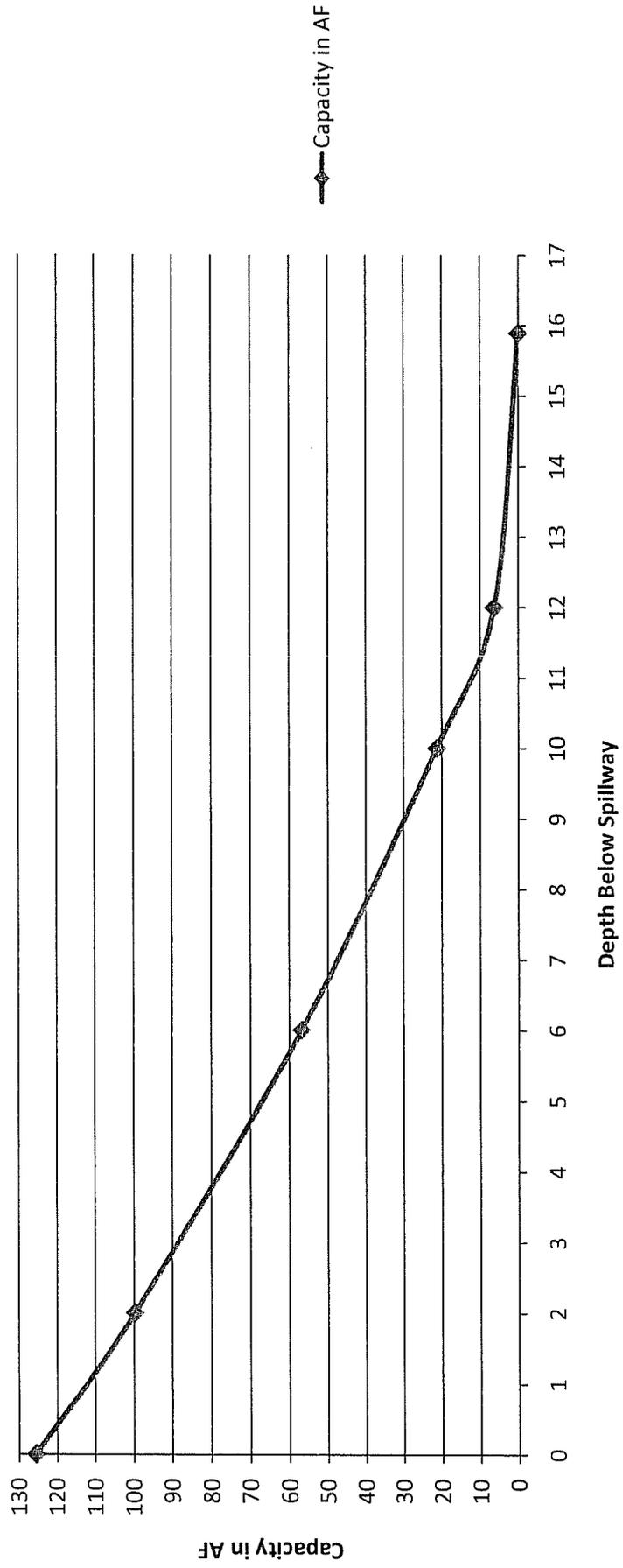


Table 3
Upper Lost Lakes Calculation

Height Below Spillway (ft)	Area (ft²)	Area (Acres)	Height Used for Calculations (ft)	Volume (AF)
0	766576	17.53		
2	618830	14.21	1	17.5
5.23	500031	11.48	2.62	37.2
(Dead Pool) 9.89	414332	9.51	3.94	56.7
			2.33	12.6
		Total:	9.89	124

Capacity to Water Level

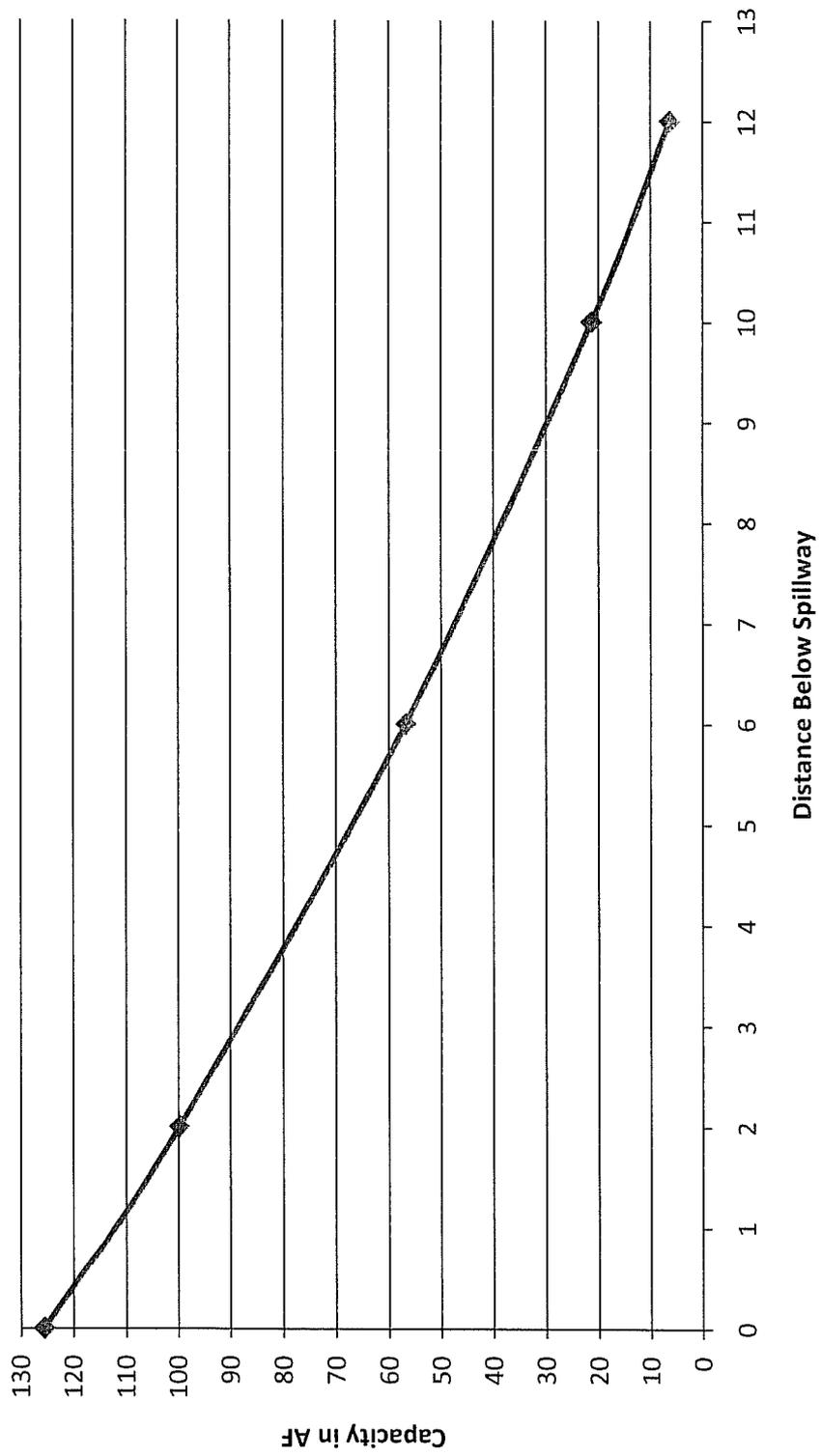




Exhibit E
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

License for Diversion and Use of Water

Not a
Assignment (Over)

LICENSE 2002 PERMIT 2306 APPLICATION 4019

THIS IS TO CERTIFY, That E. W. Bassman, E. Bassman, Fred Brass, Wenhald Bros.

and Fred Gansberg of Gardnerville, Nevada, have made proof to the satisfaction of the Division of Water Resources of California of a right to the use of the waters of two (2) unnamed gulches (Nos. 1 and 2) in Alpine County

tributary of West Carson River

for the purpose of irrigation use under Permit 2306 of the Division of Water Resources and that said right to the use of said waters has been perfected in accordance with the laws of California, the rules and regulations of the Division of Water Resources and the terms of the said permit; that the priority of the right herein confirmed dates from June 10, 1924;

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to the amount actually beneficially used for said purposes and shall not exceed (1) one hundred forty-two (142) and (2) twenty-nine and two tenths (29.2), total one hundred seventy-one and two tenths (171.2) acre feet per annum by storage to be collected from about October 1st to about June 1st of each season.

The points of diversion of such water are located (1) South one hundred twenty-five (125) feet and East thirty-four hundred fifteen (3415) feet from the Northwest corner of Section 12, T 9 N, R 18 E, M.D.B.&M. and being within the NW $\frac{1}{4}$ of NE $\frac{1}{4}$ of said Section 12, and (2) North nine hundred sixty-eight (968) feet and East three thousand forty-five (3045) feet from the southwest corner of Section 1, T 9 N, R 18 E, M.D.B.&M. and being within the SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 1.

The points of re-diversion of stored waters are located as follows:

- (a) North sixteen degrees West (N. 16° W.) one thousand forty-five (1045) feet from the southeast corner of Section 26, T 11 N, R 19 E, M.D.B.&M. and being within the SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 26.
- (b) North forty-six degrees West (N. 46° W.) fourteen hundred sixty (1460) feet from the southeast corner of Section 26, T 11 N, R 19 E, M.D.B.&M. and being within the SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 26.
- (c) South fifty degrees East (S. 50° E.) three thousand twenty (3020) feet from the northwest corner of Section 19, T 11 N, R 20 E, M.D.B.&M. and being within the SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of said Section 19.
- (d) North eighty-nine degrees West (N. 89° W.) twenty-one hundred thirty-five (2135) feet from the southeast corner of Section 18, T 11 N, R 20 E, M.D.B.&M. and being within the SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Section 18.

A description of the lands or the place where such water is put to beneficial use is as follows:

771.2 acres within Sections 1, 25, 26, 36, T 11 N, R 19 E, M.D.B.&M. and Sections 6, 7 and 18, T 11 N, R 20 E, M.D.B.&M., as shown on map entitled "Map of Lost Lake Reservoirs and West Fork of Carson River, Alpine County, California, Application No. 4019" filed with the Division of Water Rights, August 6, 1924.

Reports shall be filed promptly by licensee on appropriate forms which will be provided for the purpose from time to time by the Division of Water Resources.

The right to the diversion and use of the water aforesaid hereby confirmed is restricted to the point of diversion herein specified and to the lands or place of use herein described.

Carson City Utilities Department Service Area

Township 14 North, Range 20 East, M.D.M.

Sections 2, 3, 4, E½ of Section 5, and that portion of the N½ NE¼ of Section 6 which lies within Carson City.

ALL of Township 15 North, Range 20 East, M.D.M.

The E½ of Township 15 North, Range 19 East, M.D.M.

Township 16 North, Range 19 East, M.D.M.

The S½ of Section 34, the S½ of Section 35, those portions of the S½ NE¼ of Section 35 which lie within Carson City, the S½ of Section 36, the NE¼ of Section 36, and those portions of the SW¼ NW¼ of Section 36 which lie within Carson City.

Township 16 North, Range 20 East, M.D.M.

Sections 28, 29, 31, 32, 33, 34, 35, the W½ of Section 36, and those portions of the E½ of Section 36 which lie within Carson City.

Lyon County Utilities Department Service Area

Township 16 North, Range 20 East, M.D.M.

Section 24, the E½ of Section 25, those portions of the W½ of Section 25 which lie within Lyon County, the portions of the NE¼ and the NE¼ SE¼ of Section 36 which lie within Lyon County.

Township 16 North, Range 21 East, M.D.M.

Section 1, the SE¼ SE¼ of Section 2, Sections 11, 12, 13, 14, 19, 20, 23, 24, 26, 27, 28, 29, 30, the N½ of Section 31, the portion of the S½ of Section 31 which lies within Lyon County, the N½ of Section 32, the N½ of Section 33, the N½ of Section 34, and the N½ of Section 35.

Township 16 North, Range 22 East, M.D.M.

Sections 3, 4, 5, 6, 7, 8, 9, the N½ of Section 16, Sections 17, 18, 19, and 20.

Township 17 North, Range 22 East, M.D.M.

The portion of the S½ of Section 21 which lies within Lyon County, the S½ of Section 22, the portion of the N½ of Section 22 which lies within Lyon County, Section 27, the S½ of Section 28, the NE¼ of Section 28, the portion of the NW¼ of Section 28 which lies within Lyon County, the SE¼ of Section 29, those portions of the SW¼, NW¼, and NE¼ of Section 29 which lie within Lyon County, the portion of the S½ of Section 30 which lies within Lyon County, the S½ of Section 31, the NE¼ of Section 31, the portion of the NW¼ of Section 31 which lies within Lyon County, Sections 32, 33, 34, and 35.

Township 17 North, Range 21 East, M.D.M.

The SE¼ of Section 36, those portions of the SW¼, NW¼, and NE¼ of Section 36 which lie within Lyon County.

Attachment No. 3

Historically, the water was used to irrigate approximately 771.2 acres as described in the License for Diversion and Use of Water (See Exhibit E). Recently, the water has been used for recreational purposes, ~~enhancement of in-stream flows on the West Fork of the Carson River,~~ and for municipal use by Carson City, Nevada (See Exhibit F for service area).

*pers. comm.
Ed James
7-6-11*