

**Conflicts Analysis Related to  
Southern Nevada Water Authority  
Groundwater Applications in Spring,  
Cave, Dry Lake, and Delamar Valleys,  
Nevada and Vicinity**

**PRESENTATION TO THE OFFICE OF THE NEVADA STATE ENGINEER**

Prepared by



**SOUTHERN NEVADA  
WATER AUTHORITY**

June 2011

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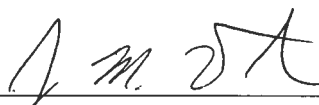
**Conflicts Analysis Related to Southern Nevada Water Authority  
Groundwater Applications in Spring, Cave, Dry Lake, and  
Delamar Valleys, Nevada and Vicinity**


Submitted to:  
Jason King, P.E., State Engineer  
State of Nevada  
Department of Conservation & Natural Resources  
Division of Water Resources  
901 S. Stewart Street, Suite 2002  
Carson City, Nevada 89701

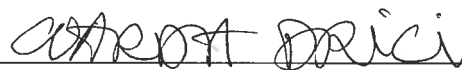
Pertaining to:  
Groundwater Applications 54003 through 54021 in  
Spring Valley  
and  
Groundwater Applications 53987 through 53992 in  
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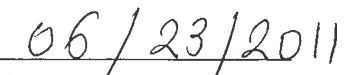
June 2011

Prepared by:  
Southern Nevada Water Authority  
Water Resources Division  
P.O. Box 99956  
Las Vegas, Nevada 89193-9956

  
\_\_\_\_\_  
James M. Watrus, Sr. Hydrologist

  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Warda Drici, Hydrologist

  
\_\_\_\_\_  
Date

**CONTENTS**

List of Figures ..... iii

List of Plates ..... v

List of Tables .....vii

List of Acronyms and Abbreviations ..... ix

1.0 Introduction..... 1-1

    1.1 Purpose and Scope ..... 1-1

    1.2 Analysis Approach ..... 1-1

        1.2.1 Groundwater Model ..... 1-3

    1.3 Document Organizations ..... 1-3

2.0 Summary of Groundwater Model Development ..... 2-1

    2.1 General Groundwater Model Development ..... 2-1

    2.2 CCRP Model Development Reports..... 2-2

    2.3 Differences in the EIS Model and the Model Used in this Analysis ..... 2-2

3.0 Locations of Interest ..... 3-1

    3.1 SNWA Application Points of Diversion..... 3-1

    3.2 Existing Water-Right Points of Diversion ..... 3-1

    3.3 Environmental Areas of Interest..... 3-1

4.0 Groundwater Modeling Scenarios ..... 4-1

    4.1 Baseline Scenario ..... 4-1

    4.2 SNWA Application Points of Diversion at Full Volume ..... 4-1

        4.2.1 Water-Use Spatial Distribution ..... 4-1

        4.2.2 Water-Use Schedule..... 4-1

    4.3 Scenario Simulations ..... 4-3

        4.3.1 Initial Conditions ..... 4-3

        4.3.2 Points in Time of Interest..... 4-4

    4.4 Application Point of Diversion 54021 ..... 4-4

5.0 Model Limitations..... 5-1

    5.1 Hydrogeologic Framework..... 5-1

        5.1.1 Complex Geometry ..... 5-1

        5.1.2 Complex Spatial Variability..... 5-2

        5.1.3 Hydrogeologic Model Representation ..... 5-2

    5.2 Precipitation Recharge ..... 5-3

    5.3 Historical Anthropogenic Data..... 5-3

    5.4 Observations ..... 5-4

        5.4.1 Quality of Observations ..... 5-4

        5.4.2 Interpretation of Observations ..... 5-4

        5.4.3 Representation of Observations ..... 5-5

    5.5 Hydrologic Conditions Representation..... 5-6





6.0 Effects Analysis Results ..... 6-1

    6.1 Analysis Approach ..... 6-1

    6.2 Additional Considerations ..... 6-2

    6.3 Senior Existing Rights Initial Qualitative Analysis ..... 6-3

    6.4 Senior Existing Rights Quantitative Model Results ..... 6-4

        6.4.1 Spring Valley ..... 6-4

            6.4.1.1 Underground Water Rights ..... 6-4

            6.4.1.2 Spring Water Rights ..... 6-7

            6.4.1.3 Stream Water Rights ..... 6-10

        6.4.2 Cave Valley ..... 6-11

        6.4.3 Dry Lake Valley ..... 6-11

        6.4.4 Delamar Valley ..... 6-11

    6.5 Environmental Areas of Interest Initial Qualitative Analysis ..... 6-11

    6.6 Environmental Areas of Interest Model Results ..... 6-11

        6.6.1 Spring Valley ..... 6-12

        6.6.2 White River Valley ..... 6-13

    6.7 CCRP Model as an Adaptive Management Tool ..... 6-13

7.0 Summary ..... 7-1

8.0 References ..... 8-1

Appendix A - NDWR Water-Right Information

A.1.0 Water Rights ..... A-1

Appendix B - Water-Right Points of Diversion Attributes and Applicability for Model Analysis

B.1.0 Introduction ..... B-1

Appendix C - Quantitative Analysis Results

C.1.0 Introduction ..... C-1

**FIGURES**

<b>NUMBER</b>	<b>TITLE</b>	<b>PAGE</b>
1-1	Location of SNWA Application Points of Diversion. . . . .	1-2
3-1	Points of Diversion for Permitted Water Rights in Cave Valley . . . . .	3-3
3-2	Points of Diversion for Permitted Water Rights in Dry Lake Valley. . . . .	3-4
3-3	Points of Diversion for Permitted Water Rights in Delamar Valley . . . . .	3-5
3-4	Environmental Areas of Interest. . . . .	3-8
4-1	Pumping Distribution and Schedule for SNWA Pumping Simulation . . . . .	4-2
4-2	Application Point of Diversion 54021 . . . . .	4-5
6-1	Generalized Block Diagram of a Range Front and Valley Bottom . . . . .	6-3



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***PLATES***

***NUMBER***

***TITLE***

- 1      Spring Valley Points of Diversion and Permitted Water Rights ..... Pocket
  
- 2      Simulated Drawdown Conditions for the Baseline and  
Points of Diversion Model Simulations ..... Pocket



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**TABLES**

<b>NUMBER</b>	<b>TITLE</b>	<b>PAGE</b>
3-1	SNWA Application Points of Diversion. . . . .	3-2
3-2	Environmental Areas of Interest. . . . .	3-6
4-1	Project Water-Use Schedule. . . . .	4-3
6-1	Spring Valley Underground Water Rights . . . . .	6-6
6-2	Spring Valley Spring Water Rights . . . . .	6-8
6-3	Spring Valley Stream Water Rights . . . . .	6-10
6-4	Environmental Areas of Interest where the Model Simulation Criteria were Exceeded . . . . .	6-12
A-1	Spring Valley Water-Right Information as Downloaded from NDWR. . . . .	A-3
A-2	Cave Valley Water-Right Information as Downloaded from NDWR . . . . .	A-39
A-3	Dry Lake Valley Water-Right Information as Downloaded from NDWR. . . . .	A-43
A-4	Delamar Valley Water-Right Information as Downloaded from NDWR . . . . .	A-51
B-1	Spring Valley Water-Rights Attributes and Applicability for Model Analysis . . . . .	B-2
B-2	Cave Valley Water-Rights Attributes and Applicability for Model Analysis . . . . .	B-11
B-3	Dry Lake Valley Water-Rights Attributes and Applicability for Model Analysis. . . . .	B-13
B-4	Delamar Valley Water-Rights Attributes and Applicability for Model Analysis . . . . .	B-16
C-1	Model Simulated Results at Spring Valley Water-Right Locations Spring Valley Production Begins in Year 2028 . . . . .	C-2
C-2	Model Simulated Results at Cave Valley Water-Right Locations Cave Valley Production Begins in Year 2020 . . . . .	C-5
C-3	Model Simulated Results at Dry Lake Valley Water-Right Locations Dry Lake Valley Production Begins in Year 2020. . . . .	C-5
C-4	Environmental Areas of Interest Model Simulated Drawdowns . . . . .	C-6



**TABLES (CONTINUED)**

<i>NUMBER</i>	<i>TITLE</i>	<i>PAGE</i>
C-5	Environmental Areas of Interest Model Simulated Changes in Discharge . . . . .	C-8

## **ACRONYMS**

3D	three-dimensional
ABR	Abrogated
APP	Application
BLM	Bureau of Land Management
CAN	Cancelled
CCRP	Central Carbonate-Rock Province
Cert	Certificate
CSI	Coyote Spring Investment
DEN	Denied
DLE	Desert Land Entry
DOI	U.S. Department of Interior
DOM	Domestic
DTW	depth to water
EIS	environmental impact statement
ET	evapotranspiration
HFB	hydrologic flow barrier
IND	Industrial
IRD	Irrigation-DLE
IRR	Irrigation
LAK	Lake
MM	Mining and Milling
MUN	Municipal
NAD83	North American Datum of 1983
NDWR	Nevada Division of Water Resources
NRS	Nevada Revised Statutes
NSE	Nevada State Engineer
OSW	Other Surface Water
OTH	Other
PER	Permit
POD	point of diversion
PWR	Power
Q	Quarter
QM	Quasi-Municipal
QQ	Quarter-Quarter
RES	Reserved





## **ABBREVIATIONS (CONTINUED)**

RFA	Ready for Action
RFP	Ready for Action (Protested)
RMU	regional modeling unit
Rng	Range
Sec	Section
SNWA	Southern Nevada Water Authority
SPR	Spring
STK	Stock
STR	Stream
TRP	Technical Review Panel
TwN	Township
UG	Underground
UTM	Universal Transverse Mercator
VST	Vested Right
WDR	Withdrawn

## **ABBREVIATIONS**

°C	degrees Celsius
afa	acre-feet per acre
afs	acre-feet per season
afy	acre-feet per year
bgs	below ground surface
cfs	cubic feet per second
ft	foot
gal	gallon
in.	inch
km	kilometer
m	meter
m <sup>3</sup>	cubic meter
mi	mile
mi <sup>2</sup>	square mile

## 1.0 INTRODUCTION

This report demonstrates how the Southern Nevada Water Authority (SNWA) will satisfy the requirements of Nevada Revised Statutes (NRS) 533.370(5), which requires SNWA applications to avoid conflicts with existing rights, as well as to provide information that may be used in Marshall and Luptowitz (2011) to satisfy the requirements in NRS 533.370(6)(c), for environmental soundness. This report analyzed the potential effects of groundwater production and describes how groundwater modeling, monitoring, and management will be used to avoid adverse effects related to the SNWA applications in Spring, Cave, Dry Lake, and Delamar valleys (Figure 1-1). The purpose and scope of this report as well as the approach followed to perform the analysis are described in the following sections.

### 1.1 Purpose and Scope

The purpose of the work described in this document is to analyze and describe the potential conflicts associated with SNWA's groundwater applications in Spring, Cave, Dry Lake, and Delamar valleys, and how groundwater modeling, monitoring, and management will be used to avoid unreasonable effects. The scope of work includes identifying the locations of interest and performing both a qualitative and quantitative analysis of the potential effects at those locations.

### 1.2 Analysis Approach

The technical approach followed to perform the conflicts analysis consisted of the following steps.

1. Identification of water-right points of diversion (PODs):
  - Acquisition of data from Nevada Division of Water Resources (NDWR).
  - Determination of senior existing rights.
2. Identification of environmental areas of interest:
  - Provided in the *Environmental evaluation regarding Southern Nevada Water Authority applications in Spring, Cave, Dry Lake, and Delamar Valleys* (Marshall and Luptowitz, 2011).
3. Qualitative Analysis of points to be analyzed with the numerical model:
  - Identification of regional and intermediate locations.
4. Numerical model simulations.

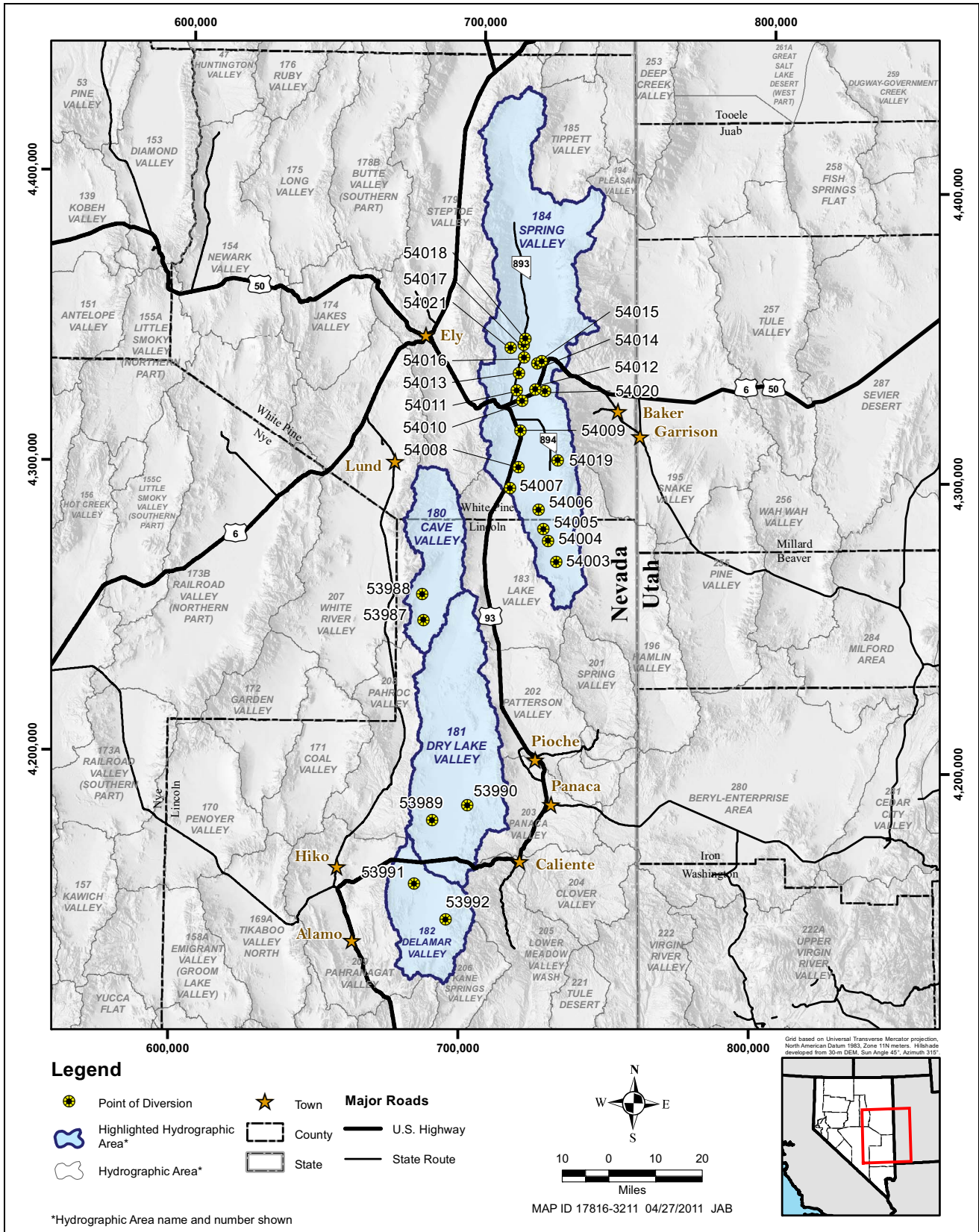


Figure 1-1  
Location of SNWA Application Points of Diversion

5. Analysis of results:
  - Quantitative and Qualitative analysis of the locations of interest.
6. Description of future groundwater modeling.

### **1.2.1 Groundwater Model**

The Central Carbonate-Rock Province (CCRP) Model was developed by SNWA in support of an Environmental Impact Statement (EIS). Guidance in CCRP model development was provided by the Bureau of Land Management (BLM) and a Hydrology Technical Group formed by the BLM (BLM, 2011, p. 3.3-82).

The BLM Hydrology Technical Group members included:

- Penny Woods, BLM
- Eileen Poeter, Poeter Engineering (for BLM)
- Patrick Plumley, AECOM (for BLM)
- Bob Boyd, BLM
- Dan Netcher, BLM
- Rick Felling, Nevada State Engineer's Office
- Keith Halford, U.S. Geological Survey

Two versions of the CCRP model are documented in the EIS documents (see [Section 2.0](#)). The original model was selected as the tool to perform the quantitative analysis described within this report.

### **1.3 Document Organizations**

This document consists of eight sections and three appendices. A brief description of each section and appendix follows:

- [Section 1.0](#) is this introduction.
- [Section 2.0](#) describes general groundwater model development as well as the reports prepared to document the two CCRP models and the differences between the two models.
- [Section 3.0](#) describes the water-right PODs and environmental areas of interest analyzed as a part of this analysis.
- [Section 4.0](#) describes the groundwater development scenarios and their simulation using the original CCRP model.
- [Section 5.0](#) describes the limitations associated with the CCRP model used to simulate the effects of the groundwater development scenarios.



- [Section 6.0](#) describes the analysis results for both the water-right PODs and environmental areas of interest.
- [Section 7.0](#) provides a summary of this document.
- [Section 8.0](#) provides a list of references cited in this report.
- [Appendix A](#) contains the water-rights information as downloaded from NDWR for Spring, Cave, Dry Lake, and Delamar valleys.
- [Appendix B](#) contains a qualitative analysis of water-rights ownership, priority, geographic location, and suitability for analysis with the model.
- [Appendix C](#) provides the quantitative analysis results for both senior existing rights and environmental areas of interest.

## **2.0 SUMMARY OF GROUNDWATER MODEL DEVELOPMENT**

The effects of SNWA's proposed production wells were evaluated using the original version of the CCRP groundwater flow model. The model was originally constructed to analyze the indirect effects of SNWA's Clark, Lincoln, and White Pine Counties Groundwater Development Project as part of an EIS prepared by the BLM. This section provides a brief summary of the groundwater model development process used to create the CCRP models, the reports prepared to document the EIS model, and the differences between the model currently used for the EIS and the one used for the analysis presented within this report.

### **2.1 General Groundwater Model Development**

A groundwater model is a tool designed to represent a simplified version of reality that can be a valuable asset for water resource managers. The value of a model as a predictive tool depends upon how well the simplified model represents reality and is largely dependent upon both the quantity and quality of the information that is used to construct and calibrate the model. However, efforts to model a system without extensive field information may still provide valuable information on the types and locations where additional field data may be critical for the future success of the model. In this way, the model can assist water resource managers by guiding future data collection activities (Wang and Anderson, 1982; Anderson and Woessner, 2002).

A first step in creating a numerical groundwater flow model is the development of a conceptual model of the system. The conceptual model defines the hydrostratigraphic units, system boundaries, and groundwater-budget components (i.e., precipitation recharge, groundwater discharge by evapotranspiration [ET], and interbasin inflows and outflows). The conceptual model also contains initial estimates of hydraulic properties, field data, including water levels and spring discharges, and historical stresses to be applied to the system (pumping data).

The conceptual model is then used to construct a numerical model by designing the grid, selecting time steps, setting boundary and initial conditions, defining initial estimates of aquifer properties, applying hydrologic stresses, and establishing observation locations. Once set up, the numerical model is calibrated to observed hydrologic system conditions which consist of field-measured heads and flows.

If a model does not accurately simulate steady-state conditions or the conditions resulting from historical changes to the system, then it is not an appropriate tool to predict future impacts. However, as described above, the model may still provide valuable information as to potential data gaps as well as provide future projections of anticipated influence at locations which can be field-verified and used to refine the model.





## 2.2 CCRP Model Development Reports

The development of the CCRP model is described in the following series of reports prepared by SNWA:

- *Baseline Characterization Report for Clark, Lincoln, and White Pine Counties Groundwater Development Project* (SNWA, 2008). This report is further subdivided into four volumes.
  - Volume 1 is a data volume titled *Geology of White Pine and Lincoln Counties and Adjacent Areas, Nevada and Utah: The Geologic Framework of Regional Groundwater Flow Systems*.
  - Volume 2 is a data volume titled *Physical Settings of Selected Streams in Clark, Lincoln, and White Pine Counties Groundwater Development Project*.
  - Volume 3 is a data volume titled *Physical Settings of Selected Springs in Clark, Lincoln, and White Pine Counties Groundwater Development Project*.
  - Volume 4 is a data volume titled *Water-Level Data Compilation and Evaluation for Clark, Lincoln, and White Pine Counties Groundwater Development Project*.
- *Conceptual Model of Groundwater Flow for the Central Carbonate-Rock Province: Clark, Lincoln, and White Pine Counties Groundwater Development Project* (SNWA, 2009a).
- *Transient Numerical Model of Groundwater Flow for the Central Carbonate-Rock Province: Clark, Lincoln, and White Pine Counties Groundwater Development Project* (SNWA, 2009b).
- *Addendum to the Groundwater Flow Model for the Central Carbonate-Rock Province: Clark, Lincoln, and White Pine Counties Groundwater Development Project* (SNWA, 2010a).
- *Simulation of Groundwater Development Scenarios Using the Transient Numerical Model of Groundwater Flow for the Central Carbonate-Rock Province: Clark, Lincoln, and White Pine Counties Groundwater Development Project* (SNWA, 2010b).

The numerical model used in this analysis is documented in SNWA (2009b), whereas the numerical model used to simulate the EIS groundwater development scenarios is documented in SNWA (2010a).

## 2.3 Differences in the EIS Model and the Model Used in this Analysis

The numerical model used in this analysis differs slightly from the one used to simulate the EIS groundwater development scenarios submitted as part of the Draft EIS. The version of the model used in this analysis is the original model initially developed for the EIS and documented in the Numerical Model Report (SNWA, 2009b). After completing the original model, BLM requested an alternate representation of the Big Springs, Snake Valley area that involved shifting the southern Snake Range hydrologic flow barrier (HFB), and removing springs that could not be adequately

represented in this regional model. The details of the changes made to the original version and a description of the modified model were described in the Addendum Report (SNWA, 2010a).

As described in the Addendum Report, the location of the Snake Range HFB originally represented a combination of the range front fault and several Quaternary faults located downgradient of Big Springs. In the modified model, the Snake Range HFB in the area of Big Springs was moved further to the west to more accurately approximate the range front fault. As a result of this move, the Quaternary faults were no longer represented in the modified model and additional steps were necessary in order to simulate groundwater discharge from Big Springs. In the end, the modified model simulated approximately one-half of the observed discharge at Big Springs (SNWA, 2010a).

The effects of alternate representations of the Big Springs area were evaluated in the Simulation Report. The change to the representation had the most significant impact once simulated pumping in Snake Valley commenced (SNWA, 2010b). BLM's choice of the modified model provides a more conservative analysis as it relates to simulated SNWA pumping in Snake Valley. As the analysis presented in this report does not consider SNWA pumping in Snake Valley, and the original model reproduced the flows at Big Springs better than the modified version, SNWA has chosen to use the original model described in SNWA (2009b).





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## **3.0 LOCATIONS OF INTEREST**

The locations of interest for this analysis are: (1) the SNWA application points of diversion; (2) the PODs associated with senior existing water rights in Spring, Cave, Dry Lake, and Delamar valleys; (3) environmental areas of interest as identified in Marshall and Luptowitz (2011). The federal interests in these areas have been included in the analysis of senior existing rights as well as environmental areas of interest. The federal interests are also protected by two Stipulation Agreements that have been entered into between the U.S. Department of the Interior (DOI) and SNWA (Stipulation, 2006; Stipulation, 2008). The details of the stipulations are presented in Prieur (2011).

### **3.1 SNWA Application Points of Diversion**

The analysis was performed on the SNWA application PODs that are the subject of this report (Figure 1-1). The applications include 19 PODs in Spring Valley and two each in Cave, Dry Lake, and Delamar valleys (Table 3-1).

### **3.2 Existing Water-Right Points of Diversion**

Existing water-right PODs were obtained from the NDWR on September 7, 2010 and updated on April 6, 2011 (NDWR, 2011a). Tables A-1 through A-4 contain the water-right information as obtained from NDWR for Spring, Cave, Dry Lake and, Delamar valleys. Plate 1 depicts: (1) the locations of the PODs for permitted water rights in Spring Valley, with each point symbolized by source and labeled with application number and manner of use; and (2) the locations of the 19 SNWA application PODs that are the subject of this report. Figures 3-1 through 3-3 depict: (1) the locations of the PODs for permitted water rights in Cave, Dry Lake, and Delamar valleys, with each point symbolized by source and labeled with application number and manner of use; and (2) the locations of the two SNWA application PODs for each valley that are the subject of this report. Senior water-rights, which are those that existed prior to the SNWA applications (pre-1989), are the focus of the conflict analysis described in this report.

### **3.3 Environmental Areas of Interest**

Table 3-2 lists the location information for the environmental areas of interest as identified in Marshall and Luptowitz (2011). The majority of these areas are located within Spring, Cave, Dry Lake, and Delamar valleys as well as in nearby basins such as Snake, Lake, White River, and Pahrangat valleys. The Moapa National Wildlife Refuge was also listed as an area of environmental interest for this analysis (Figure 3-4).

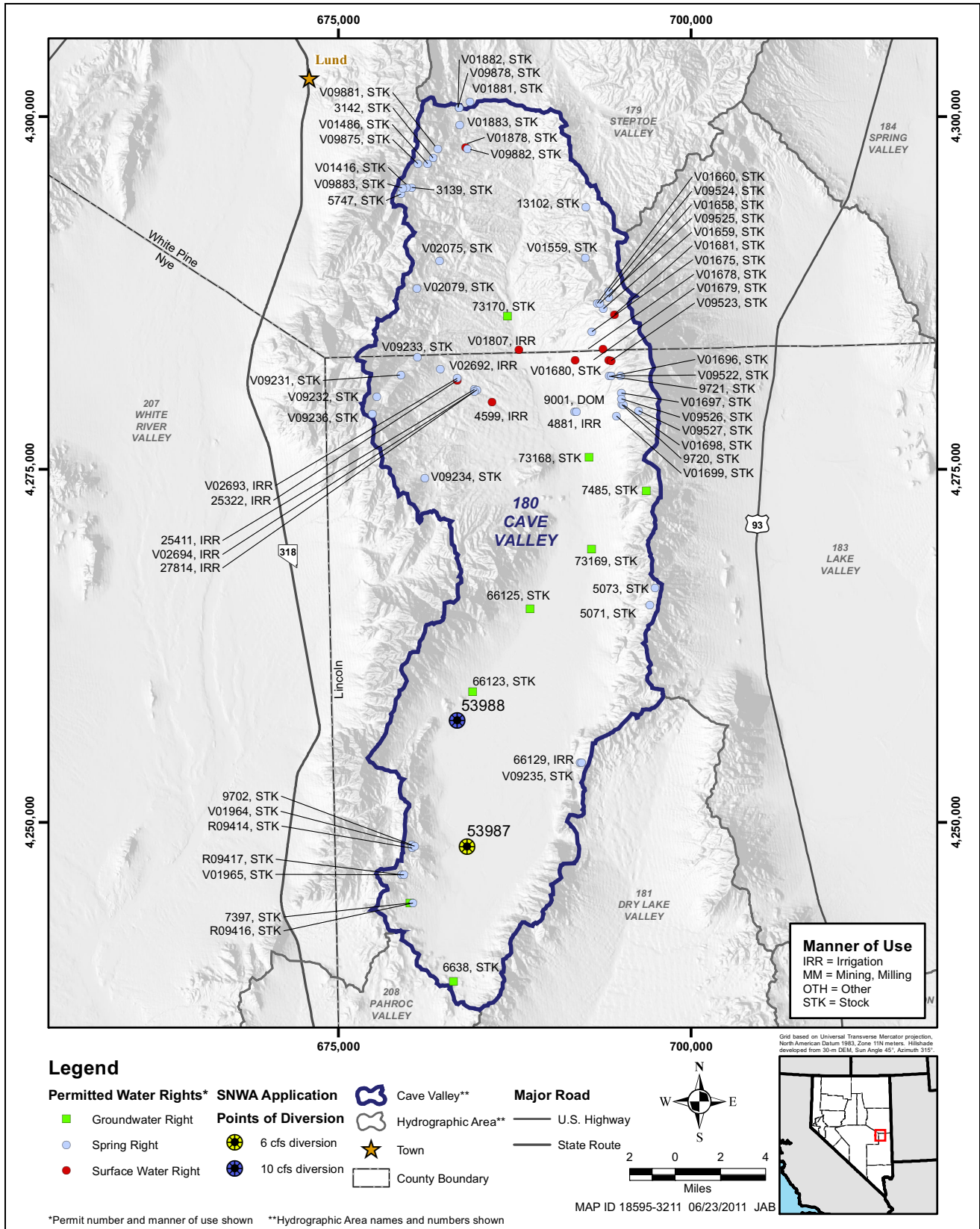


**Table 3-1  
SNWA Application Points of Diversion**

Site ID	Diversion Rate		Location <sup>a</sup>		Elevation (ft)
	(cfs)	(afy)	UTM Northing (m)	UTM Easting (m)	
<b>Spring Valley</b>					
54003	6	4,344	4,269,528	729,384	6,108
54004	6	4,344	4,276,703	726,302	6,085
54005	6	4,344	4,280,656	724,603	6,043
54006	6	4,344	4,287,348	722,804	5,944
54007	6	4,344	4,294,575	712,586	5,923
54008	6	4,344	4,301,886	715,360	5,854
54009	6	4,344	4,314,538	715,749	5,936
54010	6	4,344	4,324,756	715,994	5,806
54011	6	4,344	4,328,286	714,079	5,953
54012	6	4,344	4,328,796	720,458	5,744
54013	6	4,344	4,334,341	714,565	5,893
54014	6	4,344	4,337,748	720,951	5,648
54015	6	4,344	4,338,479	722,410	5,724
54016	6	4,344	4,339,574	716,329	5,741
54017	6	4,344	4,344,106	716,089	5,873
54018	6	4,344	4,346,240	716,553	5,752
54019	10	7,240	4,304,620	728,928	6,384
54020	10	7,240	4,328,152	723,868	6,528
54021 <sup>b</sup>	10	7,240	4,342,875	711,496	6,478
<b>Cave Valley</b>					
53987	6	4,344	4,248,279	684,117	5,978
53988	10	7,240	4,257,220	683,439	6,047
<b>Dry Lake Valley</b>					
53989	6	4,344	4,179,174	689,141	4,791
53990	10	7,240	4,184,836	701,088	4,811
<b>Delamar Valley</b>					
53991	6	4,344	4,157,168	683,444	4,913
53992	10	7,240	4,145,180	694,792	5,329

<sup>a</sup>All coordinates are Universal Transverse Mercator, North American Datum of 1983 (NAD83), Zone 11.

<sup>b</sup>Site ID 54021 was located differently within the model simulations. This change is described in [Section 4.4](#).

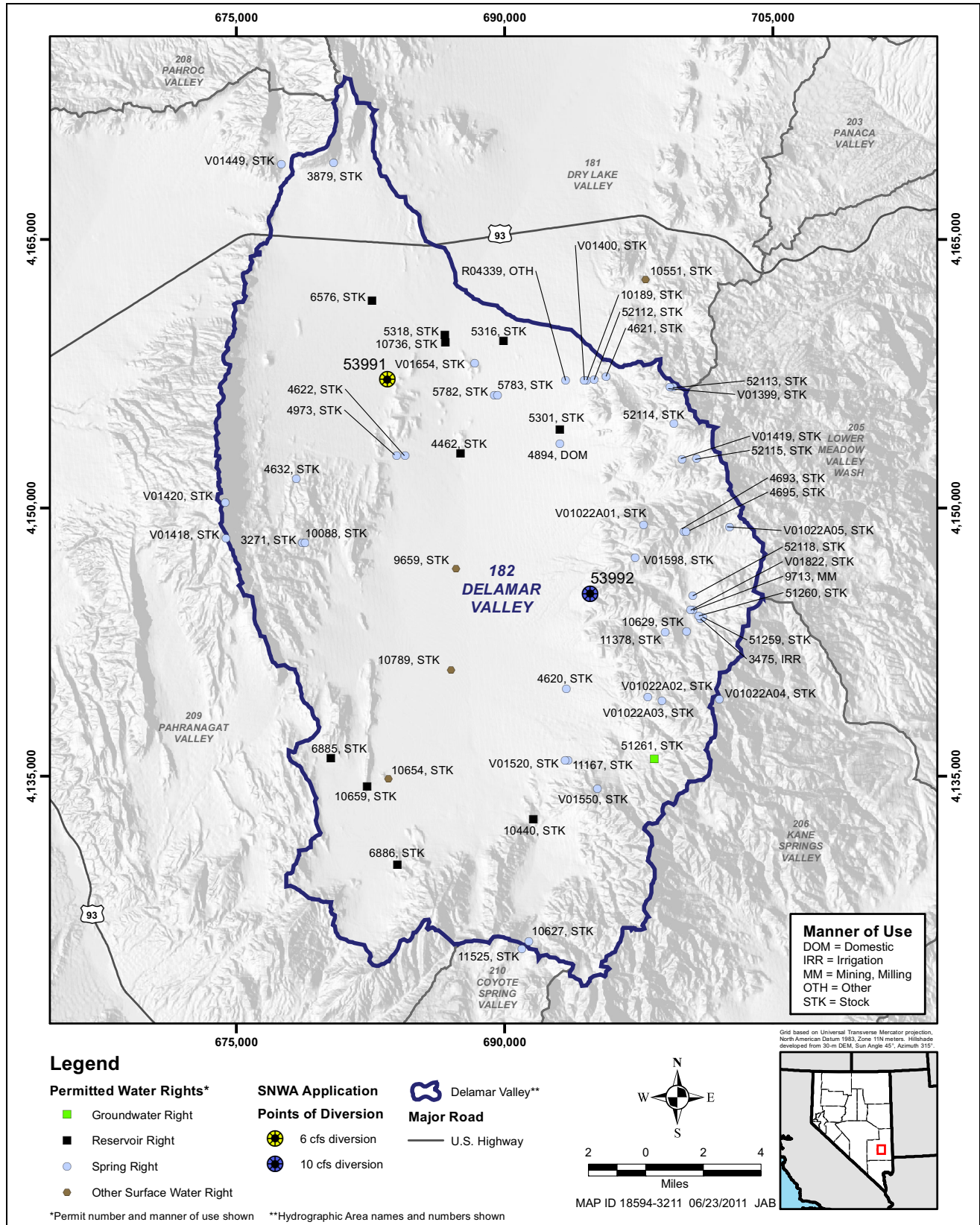


**Figure 3-1**  
**Points of Diversion for Permitted Water Rights in Cave Valley**





Conflicts Related to SNWA Groundwater Applications



**Figure 3-3**  
Points of Diversion for Permitted Water Rights in Delamar Valley





**Table 3-2**  
**Environmental Areas of Interest**  
 (Page 1 of 2)

Site ID	Name	Hydrographic Area	Site Type	Location <sup>a</sup>		Elevation (ft)
				UTM Northing (m)	UTM Easting (m)	
<b>Spring Valley and Vicinity</b>						
1847401	Stonehouse Spring	Spring Valley	Spring	4,406,507	710,511	6,256
1845501	Willow Spring	Spring Valley	Spring	4,397,069	713,756	5,987
1847101	Keegan Spring near Piermont, NV	Spring Valley	Spring	4,369,664	715,050	5,617
1847601	West Spring Valley Complex 1	Spring Valley	Spring	4,353,812	717,309	5,603
1845702	South Millick Spring	Spring Valley	Spring	4,353,754	725,031	5,593
---	Swamp Cedar North	Spring Valley	Area	4,342,717	719,507	5,621
1847701	Unnamed 5 Spring	Spring Valley	Spring	4,340,641	718,911	5,645
1847301	Rock Spring	Spring Valley	Spring	4,340,204	726,798	6,364
1847001	Four Wheel Drive Spring	Spring Valley	Spring	4,335,256	716,255	5,754
385613114250401	184 N12 E67 02ACBA1 USBLM (Shoshone Pond Well)	Spring Valley	Flowing Well/ Ponds	4,312,898	723,711	5,781
---	Swamp Cedar South	Spring Valley	Area	4,310,128	724,802	5,813
1846201	Swallow Springs	Spring Valley	Spring	4,302,920	728,597	6,080
1847201	Minerva Spring	Spring Valley	Spring	4,301,025	726,101	5,825
1846401	Blind Spring	Spring Valley	Spring	4,298,025	724,717	5,773
1841610	Cleve Creek	Spring Valley	Stream	4,343,870	710,765	5,964
1840704	Kalamazoo Creek	Spring Valley	Stream	4,382,169	710,123	6,233
1842004	Negro Creek	Spring Valley	Stream	4,348,593	727,948	6,032
1842702	Pine and Ridge Creeks	Spring Valley	Stream	4,318,879	727,728	7,345
1843102	Shingle Creek	Spring Valley	Stream	4,320,388	727,332	7,309
183 N09 E65 23AA 1	Wambolt Springs	Lake Valley	Spring	4,278,675	705,543	5,950
183 N09 E65 02DA 1	Geyser Creek Spring	Lake Valley	Spring	4,282,764	705,194	6,101
1953001	Clay Spring	Snake Valley	Spring	4,306,147	760,875	5,446
---	Stateline Springs	Snake Valley	Spring	4,295,881	756,735	5,423
---	Unnamed 1 Spring North of Big Springs	Snake Valley	Spring	4,289,483	750,194	5,572
1951901	Big Spring	Snake Valley	Spring	4,287,293	749,422	5,578
195 N10 E70 34DC	North Little Springs	Snake Valley	Spring	4,286,207	751,006	5,562
1951301	Lehman Creek	Snake Valley	Stream	4,321,757	741,187	6,734
1951403	Baker Creek	Snake Valley	Stream	4,319,788	742,379	6,588
1951508	Snake Creek	Snake Valley	Stream	4,312,614	753,449	5,576
1951902	Big Springs Creek	Snake Valley	Stream	4,295,165	755,908	5,450
1951605	Big Wash	Snake Valley	Stream	4,306,797	750,951	6,187

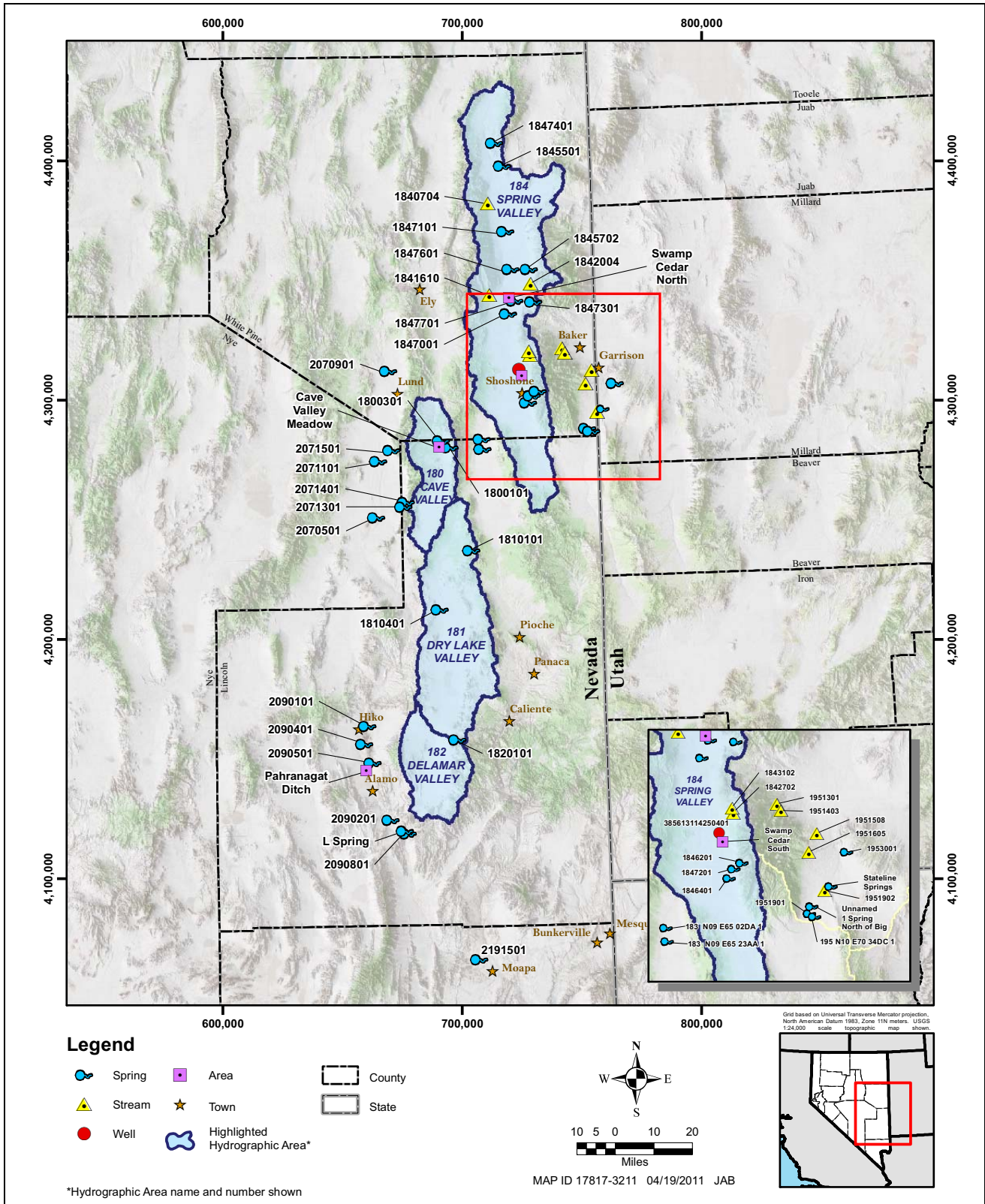
**Table 3-2**  
**Environmental Areas of Interest**  
 (Page 2 of 2)

Site ID	Name	Hydrographic Area	Site Type	Location <sup>a</sup>		Elevation (ft)
				UTM Northing (m)	UTM Easting (m)	
<b>Cave, Dry Lake, Delamar Valleys and Vicinity</b>						
1800301	Parker Station Spring	Cave Valley	Spring	4,282,096	688,179	6,490
---	Cave Valley Meadow	Cave Valley	Area	4,280,420	690,235	6,467
1800101	Cave Spring	Cave Valley	Spring	4,279,249	691,760	6,486
1810101	Meloy Spring	Dry Lake Valley	Spring	4,236,201	700,888	6,178
1810401	Coyote Spring	Dry Lake Valley	Spring	4,211,513	687,693	5,224
1820101	Grassy Spring	Delamar Valley	Spring	4,157,193	695,124	5,786
2070901	Preston Big Spring	White River Valley	Spring	4,311,153	666,296	5,732
2071301	Flag Spring 3	White River Valley	Spring	4,254,416	672,579	5,294
2071501	Hardy Springs	White River Valley	Spring	4,278,196	667,553	5,354
2071101	Moorman Spring	White River Valley	Spring	4,273,440	662,053	5,299
2071401	Butterfield Spring	White River Valley	Spring	4,256,472	673,530	5,324
2070501	Hot Creek Spring near Sunnyside, NV	White River Valley	Spring	4,249,926	661,290	5,229
2090101	Hiko Spring	Pahranagat Valley	Spring	4,162,744	657,549	3,878
2090401	Crystal Springs	Pahranagat Valley	Spring	4,155,348	656,165	3,803
2090501	Ash Springs	Pahranagat Valley	Spring	4,147,460	659,684	3,603
---	Pahranagat Ditch	Pahranagat Valley	Area	4,145,350	659,798	3,559
2090201	Cottonwood Spring	Pahranagat Valley	Spring	4,123,643	667,261	3,238
---	L Spring	Pahranagat Valley	Spring	4,119,155	673,202	3,159
2090801	Maynard Spring	Pahranagat Valley	Spring	4,117,909	674,444	3,107
2191501	Moapa National Wildlife Refuge Warm Springs West	Muddy River Springs Area	Spring	4,065,272	704,211	1,772

Source: Environmental Areas of Interest Identified in Marshall and Luptowitz (2011).

<sup>a</sup>UTM, NAD83, Zone 11N





\*Hydrographic Area name and number shown

MAP ID 17817-3211 04/19/2011 JAB

Source: Marshall and Luptowitz (2011)

Figure 3-4  
Environmental Areas of Interest

## **4.0 GROUNDWATER MODELING SCENARIOS**

A groundwater modeling scenario representing anticipated pumping conditions prior to the development of the SNWA applications (Baseline Scenario) and a scenario for the development of these applications were included in this analysis. The results of the analysis are presented in [Section 6.0](#). Descriptions of the scenarios including the basis and underlying assumptions applied to derive the corresponding water-use schedules, and their simulation using the CCRP model are provided in the following sections.

### **4.1 Baseline Scenario**

The Baseline Scenario represents the continuation of current (as of 12/31/2004) groundwater use into the future. The simulation is required to establish the pre-SNWA pumping hydrologic conditions from which the potential effects of the application POD scenario can be derived. The details of this scenario are further described within the report documenting the EIS scenario simulations (SNWA, 2010b).

### **4.2 SNWA Application Points of Diversion at Full Volume**

In this development scenario, SNWA's proposed groundwater production is added to the baseline-scenario groundwater production. The SNWA's full application volume is distributed spatially and temporally following a pumping schedule as described in the following text.

#### **4.2.1 Water-Use Spatial Distribution**

The Application PODs scenario represents the full volume of SNWA's applications in Spring, Cave, Dry Lake, and Delamar valleys. The pumping in each valley was distributed equally among all the PODs in each valley based on the demand schedule, up to maximum diversion rates associated with the individual applications. The total number of wells that are scheduled to pump during a given year was based on the volume required to meet demands for that year.

#### **4.2.2 Water-Use Schedule**

The water-use schedule for these applications reflects the staged development anticipated for these project basins, including a sequence in which the basins may be developed and the rate of development in each ([Figure 4-1](#)). The difference between SNWA's available Colorado River supply and other nonproject water resources and the projected water-resource demand dictated the annual groundwater volume required from these basins and the time in which it is needed. SNWA's currently available water resources are described in detail in the current Water Resource Plan (SNWA, 2009c).



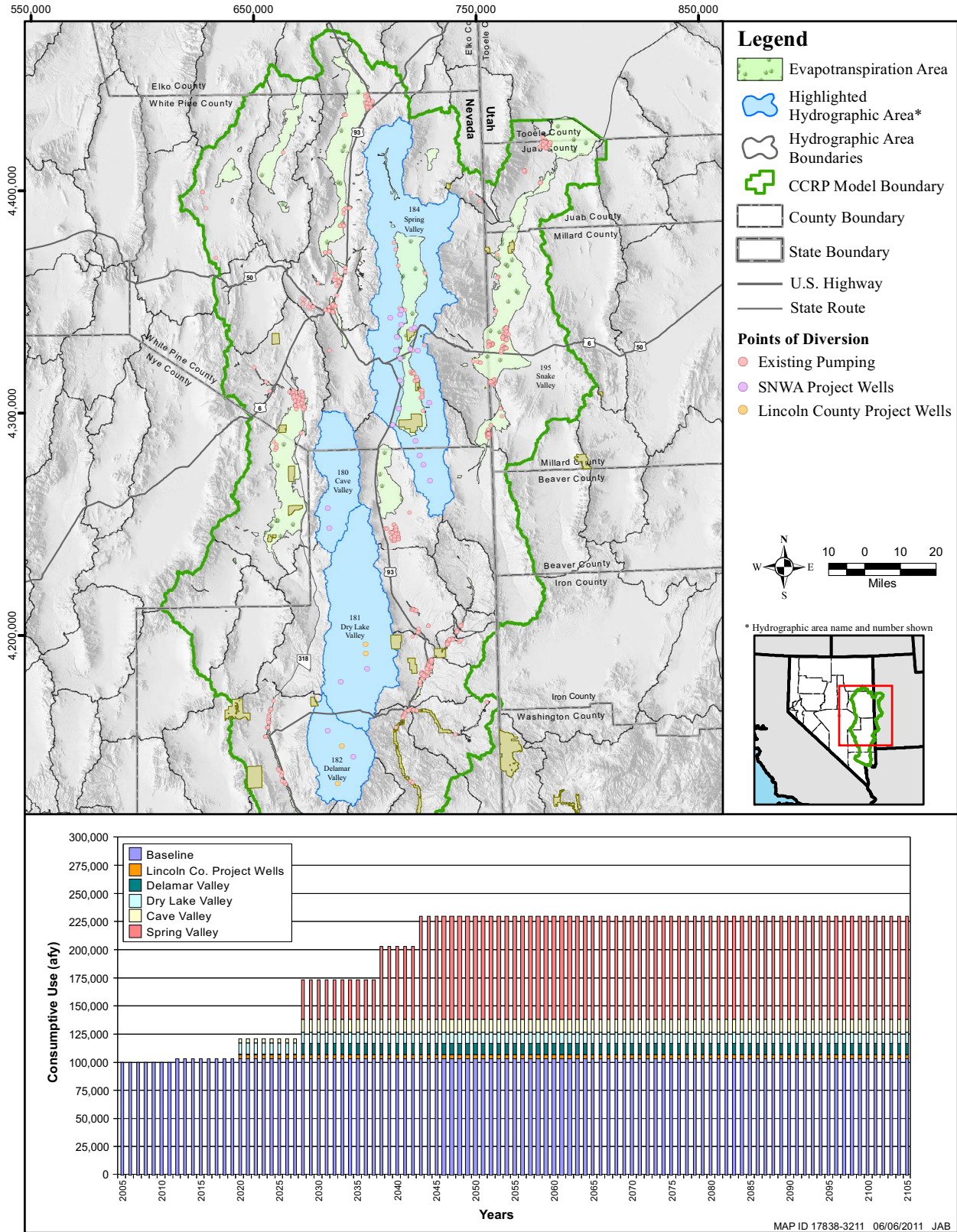


Figure 4-1 Pumping Distribution and Schedule for SNWA Pumping Simulation

It must also be recognized that while these projections are best estimates, determined prior to the start of EIS modeling scenarios, they are subject to the variability of demand and the hydrologic conditions on the Colorado River, SNWA’s primary water source. Therefore, the anticipated need for groundwater derived from these basins may occur sooner or later and vary over time from what is assumed for the schedule. The schedule for pumping in Spring, Cave, Dry Lake, and Delamar valleys is shown in [Table 4-1](#). This scenario differs from the Current Points of Diversion Scenario presented in the EIS as there is no Project related pumping being simulated for Snake Valley.

This scenario also assumes that once pumping begins, it continues non-stop throughout the simulation time period without intervention from SNWA, federal agencies, or the NSE. This scenario is not realistic as it does not take into account SNWA management decisions, system maintenance, major repairs, facility replacement, or a potential lack of need for the water in certain years. It also does not take into account management decisions made between SNWA and the federal agencies as part of the stipulated agreements, or actions taken by the NSE. This scenario is, therefore, considered a conservative approach to the analysis because it likely over-estimates impacts.

**Table 4-1  
Project Water-Use Schedule**

Year <sup>a</sup>	Production Volume (afy)	
	Cave, Dry Lake, and Delamar Valleys	Spring Valley
2019 to 2028	14,077	0
2028 to 2038	34,751	35,000
2038 to 2042	34,751	64,544
2042	34,751	91,222

<sup>a</sup>Pumping begins on December 31 for the specified year.

### **4.3 Scenario Simulations**

The original CCRP model was used to simulate the two scenarios described above for the time period spanning 01/01/2005 to 2117. A description of the initial conditions and the points in time of interest are described in the following sections. Also, the reasons for slightly moving one of the SNWA application PODs (54021) during the simulation process are provided.

#### **4.3.1 Initial Conditions**

Initial conditions (01/01/2005) were set to be the same as the conditions simulated by the calibrated transient numerical model for the end of 2004 (SNWA, 2009b). Initial conditions are represented in the calibrated transient numerical model by the hydraulic-head distribution of each model layer. This initial hydraulic-head distribution, together with the calibrated distributions of all model parameters, produces initial values for all other simulated variables, such as groundwater ET rates, spring flow, and boundary flow.



### 4.3.2 Points in Time of Interest

The results presented in [Section 6.0](#) are summarized for selected points in time over a 75-year period following full build-out of the application volumes. The 75-year period was selected to match the expected life of the equipment and infrastructure. The 75-year time period was also chosen as a result of the reduced level of confidence in the model predictions for the 200-year simulation period versus the 75-year simulation period. Model outputs and further analysis have been performed for the following points in time:

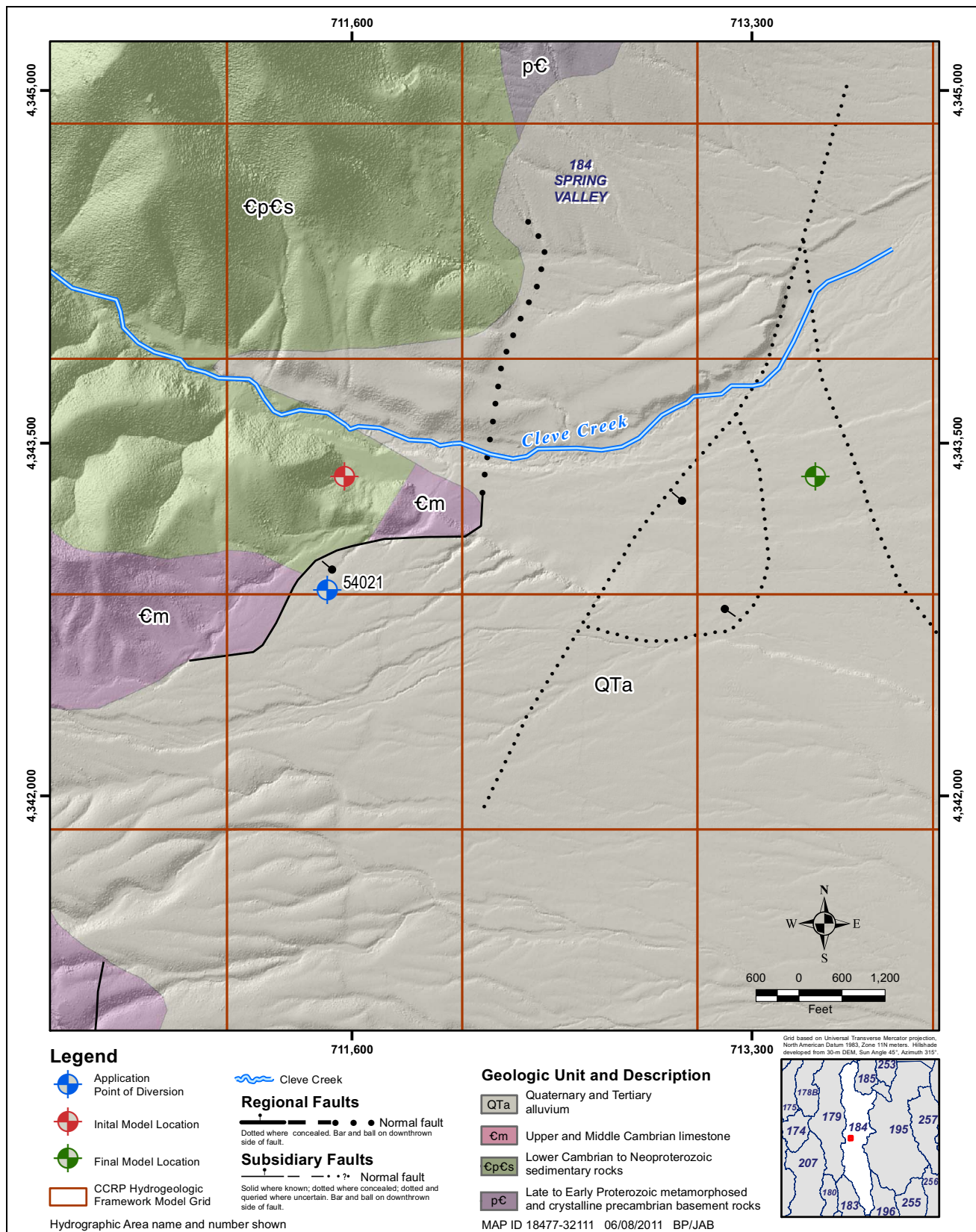
- December 31, 2029: 10 years after the initiation of pumping in Cave, Dry Lake and Delamar valleys.
- December 31, 2042: Start of full production of the application volumes in Spring, Cave, Dry Lake, and Delamar valleys.
- December 31, 2062: 20 years after the start of full production.
- December 31, 2082: 40 years after the start of full production.
- December 31, 2117: 75 years after the start of full production.

### 4.4 Application Point of Diversion 54021

During preliminary simulations of the scenarios described above, it was noticed that a single POD location (54021) was not able to fully simulate the pumping of the required volume of water. Upon inspection of the model files, it was discovered that this POD is located within the coarse geologic framework of the model, in the BASE regional modeling unit (RMU) representing extremely low-permeability rocks. [Figure 4-2](#) depicts the location of application number 54021 along with the geology and model grid cells for this region. The bedrock geology within the model cell is dominated by the Lower Cambrian to Neoproterozoic sedimentary rocks and therefore, the hydraulic conductivity of this cell is more representative of the BASE RMU. However, this POD is actually located on a coarse grained alluvial surface with nearby bedrock being composed of Upper and Middle Cambrian carbonate rocks and Lower Cambrian to Neoproterozoic sedimentary rocks (Rowley et al., 2011). As such, while the model places the well at the center of the grid cell, rather than at this location, the actual location of the POD may be suitable for a production well.

In order to simulate the pumping of the entire application volume and maintain the results of pumping in their approximate location, the POD was shifted two model cells to the east for the purpose of these simulations.





**Figure 4-2**  
Application Point of Diversion 54021



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## **5.0 MODEL LIMITATIONS**

The numerical model contains the most up-to-date representation of hydrogeologic data for the CCRP of the Great Basin region. However, it is still a model covering vast and remote regions of Nevada and Utah where data required for numerical model calibration (most importantly hydraulic-head observations, hydraulic-drawdown observations, spring-flow observations, and stream-flow observations) are limited. This lack of data inevitably leads to limitations and uncertainties in values simulated by the numerical model.

As described in other modeling studies in this region (D’Agnese et al., 1997; Belcher and Sweetkind, 2010), these limitations and uncertainties are very common for regional-scale models developed for very large expanses of the geologically and tectonically complex Great Basin. Inevitably, uncertainties are unavoidable but can be reduced through time with continued data collection and iterative model updates as development and monitoring occurs in the Project Basins.

Inherent model limitations result from uncertainty in five basic aspects of the model, including inadequacies in (1) the hydrogeologic framework, (2) the precipitation recharge, (3) the historical anthropogenic data, (4) the observations, and (5) the representation of hydrologic conditions. These limitations are described below.

### **5.1 Hydrogeologic Framework**

Accurate simulation of many of the important flow-system characteristics depends on an accurate understanding and representation of the hydrogeologic framework. Limitations exist in the numerical model because of the difficulties inherent in the interpretation and representation of the complex geometry and spatial variability of hydrogeologic materials and structures in a hydrogeologic framework and numerical model. The hydrogeologic framework is further complicated by the lack of data within the model area.

#### **5.1.1 Complex Geometry**

Geometric complexity of hydrogeologic materials and structures is apparent throughout the model domain. Notable large-scale examples that have a significant effect on regional groundwater flow are (1) the fault system at the Muddy River Springs Area, (2) the lateral faults of the Pahrnatag Shear Zone, and (3) the calderas of the Caliente Caldera complex.

A system of apparent regional-scale large transmissivity features likely provides the mechanisms for groundwater discharge at the Muddy River Springs Area. The complexity of these features is not fully known and the hydrogeologic framework represented in the model is grossly simplified because of the coarse numerical model resolution.





Regional-scale small transmissivity features associated with the Pahranaagat Shear Zone contribute to a generally southward stair stepping of the regional water table. The lack of available geologic knowledge in this area adds uncertainty to the simulation of directions and quantities of groundwater flow out of Pahranaagat Valley. East and northeast of the Pahranaagat Valley, a series of interpreted calderas and intra-caldera intrusions cause regional discontinuities in the flow system. The complex geometries associated with these features are not fully known and cause uncertainties in simulating the regional, large-hydraulic gradient coincident with these features. Given the large size of the study area and the significant number of hydrogeologic features, it is neither practical nor possible to collect more precise geologic data to resolve these uncertainties. However, the modeling approach chosen is appropriate to evaluate regional groundwater flow and behavior for the purposes of the model.

### **5.1.2 Complex Spatial Variability**

As with complex hydrogeologic geometries, spatial variability of material properties of the hydrogeologic units and structures is also a limitation in the CCRP model. The assumption of homogeneity within a given RMU in the hydrogeologic framework model, or hydraulic-conductivity parameter zone in the numerical model, limits the simulation by removing the potential effects of variability in grain-size distribution, degree of welding, and fracture density and orientation. This limitation is the unavoidable result of data limitations and simplifications due to lack of understanding of the hydrogeologic framework and flow model construction and discretization techniques required to model such a large region.

The Upper and Lower Valley Fill RMUs are good examples of hydrogeologic units that have significant spatial variability. The upper valley fill within extensional basins such as those within the CCRP model is often characterized as having coarse-grained sediments on the basins margins and fine-grained sediments on the interiors. This characterization may be accurate for short term depositional events but is invalid over larger periods of time. The stratigraphy of the upper valley fill would more accurately be described by a complex intertonguing of beds of all lithologies (Rowley et al., 2011). The Lower Valley Fill RMU is another good example of a hydrogeologic unit that has significant spatial variability. This highly heterogeneous unit consists of (1) older Tertiary sediments, which possess varying grain-size distributions and degrees of lithification and (2) Tertiary volcanic rocks, which possess units of varying composition, degrees of welding, and hydrothermal alterations (SNWA, 2009a). These heterogeneities, which can affect hydraulic properties and consequently groundwater flow, cannot be represented accurately in the hydrogeologic framework and numerical models. In fact, many of the limitations of the simulation within the Caliente area are in part due to the underrepresentation of local-scale hydrogeologic complexities in the regional-scale hydrogeologic framework and numerical models. Those limitations notwithstanding, the modeling approach chosen is appropriate to evaluate regional groundwater flow and behavior.

### **5.1.3 Hydrogeologic Model Representation**

Discretization and abstraction of the physical hydrogeologic framework impose limitations on all components of the hydrogeologic framework and numerical models. While the 3,281 ft (1,000 m) resolution is appropriate to represent regional-scale conditions, it presents difficulty in accurately simulating areas of geologic complexity. The grid cells tend to generalize complexities that have an

impact on regional hydrologic conditions. This situation is particularly prevalent in large-hydraulic-gradient areas where sharp geologic contacts or fault characteristics can influence regional hydraulic heads and groundwater discharges. The current level of understanding of the geology throughout the model area, while state-of-the-art, is not detailed enough to warrant a higher-resolution regional flow model at this time.

## **5.2 Precipitation Recharge**

Modeling limitations for precipitation recharge stem from the approximation methods used to estimate recharge and the assumption that the effects of both year-to-year and season-to-season precipitation variability on recharge are negligible.

Groundwater recharge cannot be measured directly in the field for areas as large as the model area. Furthermore, groundwater recharge is spatially and temporally variable. The yearly rates and spatial distribution of the mean recharge were estimated through model calibration. Although a solution was obtained in this manner, the actual annual rates and particularly the spatial distribution of recharge remain very uncertain. Another source of uncertainty is the assumption that recharge does not vary with time. This assumption constitutes an important limitation, particularly in the simulations of the groundwater development scenarios. Under this assumption, potential variations in recharge due to precipitation variability cannot be simulated. Data does not exist to aid in forecasting spatial and temporal variability in precipitation, and therefore the use of the assumption that recharge does not vary over time is necessary and appropriate for this exercise. Despite this limitation, the modeling approach chosen is appropriate to evaluate regional groundwater flow and behavior.

Precipitation variability over the course of the simulation affects groundwater recharge. However, the numerical model simulates a constant average recharge from precipitation rates averaged over 30 years (Parameter-elevation Regressions on Independent Slopes Model [PRISM] normal precipitation grid) and does not account for precipitation and recharge variability over the simulation period.

Recent analysis of ET and resulting recharge estimates for Spring Valley have resulted in an increase in the estimated recharge values for Spring Valley as compared to those used in developing the CCRP model (Burns and Drici, 2011). The model simulates a recharge for Spring Valley of 82,600 afy while the new estimates put the recharge value at 99,200 afy. This new estimate was not incorporated into the model. In general, an increase in the recharge for Spring Valley would lessen the impacts associated with any well designed future pumping program.

## **5.3 Historical Anthropogenic Data**

Historical groundwater-pumping and surface-water diversion records are insufficient to develop very useful historical stress data sets for the model. In particular, there are very few continuous records of ground water pumping for any given hydrographic area in the model domain. In addition, there are no records of groundwater withdrawals of the magnitude expected to occur during the Project. Therefore, the historical anthropogenic data sets were estimated from the available information. The estimation process has important limitations leading to uncertainties in the data set.



As historical records of actual groundwater use are sparse, the consumptive water-use estimates were derived using estimates based on water-rights information obtained from the NDWR and the Utah Division of Water Rights. Reported groundwater-production or surface-water diversion data were used, where available, to support the estimation process.

In many of the croplands, irrigation with groundwater could not be clearly identified because irrigation water is supplied by both surface water and groundwater. In these areas, groundwater is commonly pumped to supplement surface-water sources used to irrigate crops. This adds another layer of complexity to estimating groundwater use in that supplemental groundwater pumping generally only occurs when conditions warrant it, such as in low runoff years.

## **5.4 Observations**

Hydraulic-head and groundwater-discharge observations constrain model calibration through the parameter-estimation process; therefore, uncertainty in these observations results in uncertainty in the numerical model. Uncertainty exists in (1) the quality of the observation data, (2) the appropriateness of the hydrogeologic interpretations, and (3) the way in which the observation was represented in the numerical model. This uncertainty was minimized via thorough analysis of all available hydraulic-head observation data prior to and throughout the calibration process.

### **5.4.1 Quality of Observations**

The sparse distribution and high concentration, or clustering, of hydraulic-head observations are numerical model limitations. Because available data in the overall region are scarce and available multiple observations in isolated areas are overemphasized, biasing occurs in those parts of the model. Water-level-data scarcity is particularly noticeable in Long, Jakes, Coal, Garden, Dry Lake, and Delamar valleys and Lower Meadow Valley Wash because of the lack of wells in those valleys. High clustering of observations occurs along riparian areas of Pahrnagat Wash, Meadow Valley Wash, and the Muddy River. Given the vast area of the model, it is not practical or possible to obtain more precise water-level data to resolve this issue, nor is it necessary to do so for the purposes of this modeling effort. A declustering method was used to address this situation; however, this declustering only applies to situations where multiple water levels occur in a given model cell (SNWA, 2009b, Section 4.7.3, p. 4-82).

### **5.4.2 Interpretation of Observations**

It is difficult to determine whether hydraulic-head observations represent regional versus perched or localized conditions. Field testing is often not sufficient to distinguish conclusively between regional or localized conditions. The data necessary to determine unequivocally the presence of perched or local groundwater are rarely, if ever, available. Because large simulated hydraulic-head residuals in recharge areas often suggest the possibility of perched water, either the hydraulic-head observations in this category were removed or the observation weight was decreased. Fewer observations, or observations with lower weights, result in higher uncertainty in the numerical model.

Large-hydraulic-gradient areas also are difficult to interpret. Limited water-level data in these areas exacerbate the situation. Hydraulic-head observations defining large hydraulic gradients are also typically associated with perched or localized water.

The model also does not account for precipitation variability over the course of the simulation. The majority of wells that show possible water level changes due to precipitation variability (85 out of 112) occur in isolated geographic locations within Steptoe Valley and occur within a 10-year time period of an extremely wet cycle in the region. This limited precipitation variability data could not be reasonably extrapolated to the remaining wells (1,751) due to differences in location and precipitation. As a result, the weight (or the relevance) of these observations as model constraints was reduced (SNWA, 2009b, p. 7-4).

Accurate groundwater-discharge estimates for many of the springs and ET areas do not exist and are thus numerical model limitations. Collection of higher quality, spatially distributed, groundwater-discharge observations began only as recently as 2002 (SNWA, 2008; 2009a; Welch et al., 2007). The lack of long-term, high quality estimates of ET rates (and the variability of these rates) significantly limits the ability of the model to simulate these groundwater-discharge areas accurately. In addition, using estimates of present day groundwater discharge to approximate predevelopment groundwater discharge also is a model limitation. The lack of historical groundwater-discharge estimates is an unrecoverable data gap that adds uncertainty to any groundwater flow simulation of this region.

### **5.4.3 Representation of Observations**

Although the volumetric discharge from ET per basin is reasonably matched, the model does not accurately simulate the specific areas where ET occurs. This is due to the limitations associated with the representation of groundwater ET areas in the model, including the coarse resolution of the model and the representation of ET areas using hydraulic-head dependent boundaries known as drains.

Simulating small discharge volumes less than 296 afy (less than 1,000 m<sup>3</sup>/day) was difficult in the CCRP numerical model. For instance, incised drainages and other focused discharge areas are difficult to simulate accurately. This difficulty is particularly noticeable along Meadow Valley Wash and Pahrnagat Wash. In many cases, the hydraulic conductivity of the hydrogeologic units present at the land surface and the geometry of these topographic features control the simulated discharge.

The elevations assigned to numerical model cells that contain ET also affect the ability to simulate groundwater conditions more accurately. The elevations in ET cells were set to values of land-surface elevation reduced by one of two values of extinction depth depending on location. The values of land-surface elevation were based on a 1:24,000-scale digital elevation model, and the extinction depth values were set to either 16.4 ft (5 m bgs) or 32.8 ft (10 m bgs). This simplified method of representing ET cell elevations does not accurately approximate extinction depth for all discharge areas, particularly in areas with highly variable rooting depths and discontinuous areas of capillary fringe. Snake Valley is an example of a discharge area that may have a zone of extensive capillary fringe. In areas of the model where these conditions exist, observed hydraulic heads may be lower than the ET cell elevations. The consequence is that the numerical model has difficulty simulating groundwater discharge within the delineated ET areas.



In summary, in several cases, the distribution of ET is not simulated accurately; however, the total ET from a given ET area matches estimates well. This limitation will cause simulated drawdowns to propagate faster between the basin edge and simulated ET areas until ET is captured due to decline in the water table. Errors in ET simulation minimally affect drawdown propagation after ET capture starts because simulated discharge volumes are approximately correct.

### **5.5 Hydrologic Conditions Representation**

The hydrologic conditions that, perhaps, most influence the CCRP numerical model are the representation of external and internal boundary conditions. Limitations in external-boundary condition definition are the result of both incomplete understanding of natural conditions and associated poor representation of the natural conditions in the numerical model. Because very little data exist in the areas defined as lateral flow-system boundaries, the boundaries are highly uncertain. Also, defining these boundaries in the numerical model is effectively limited to either a no-flow or a constant-head boundary. Both types of boundary definitions impose significant constraints on model results. Given the vast area of the model, it is neither practicable nor possible to obtain information allowing precise definition of boundary conditions. However, the modeling approach chosen is appropriate to evaluate regional groundwater flow.

In summary, the described model limitations are predominantly inherent and unavoidable.

## **6.0 EFFECTS ANALYSIS RESULTS**

This section provides an analysis of senior existing water-rights as well as environmental areas of interest. It includes a discussion of the approach along with additional considerations, the analysis results, monitoring, management, and mitigation, and the model use as a tool for adaptive management.

### **6.1 Analysis Approach**

The approach used to analyze the senior existing water-rights as well as environmental areas of interest includes both a qualitative assessment based upon the geographic location of the POD or area of interest, and a quantitative analysis using the results of the CCRP model simulations. It must be recognized that the CCRP model is a regional model developed for environmental impact analysis with inherent uncertainties and limitations (Section 5.0). While considerable time was spent creating the CCRP model using the best available data, there are still significant uncertainties that result largely from the sparsity of currently available data. This general lack of data is even more common for the basins that are the subject of this report. Despite these uncertainties, the CCRP model may still be used as a management tool to provide valuable information with regards to the general trends that may result from specific pumping scenarios, as well as to help guide future data-collection activities and project management decisions.

For the purposes of the NSE hearing, the existing senior water-rights and environmental areas of interest were evaluated with respect to a simulated change in groundwater elevation of greater than 50 ft, or a change in spring flow greater than 15 percent at the POD or area of interest. The selection of these two criteria was based on the increased confidence of the model's predictions at this scale and due to inherent uncertainties associated with the scarcity of available data in the region and the unavoidable generalization of geologic features with a regional model. These predictions become even more unreliable with increasing simulation time.

It should also be noted that only regional and a select set of large intermediate springs were selected as calibration targets in the CCRP model. None of these calibrated springs were located within Spring, Cave, Dry Lake, or Delamar valleys. Simulated values for regional springs closely matched the observations while the intermediate springs were less of a match. This is likely the result of the inability to accurately represent the complex hydrogeologic framework that gives rise to these springs. In addition, a major component of the flow at intermediate springs may be derived from localized groundwater-flow processes that are not represented in this regional-scale model. Therefore, simulated changes in flow at these springs are less meaningful as their original flows were never accurately simulated. As a result, predictions of changes in spring flow are more accurate at the regional springs than at intermediate springs.





The BLM is using a change in drawdown of greater than 10 ft or a change in spring flow greater than 5 percent as the thresholds for the EIS analysis. This level of change is used in the EIS as a frame of reference to identify water-dependent resources that may be affected and to help make a reasoned choice among alternatives (BLM, 2011, p. 3.3-87). By choosing these thresholds in association with the greater than 200-year simulation time period, BLM is choosing a more conservative analysis. However, BLM still acknowledges that the model is most appropriately used to provide insight as to the general, long-term drawdown patterns and relative trends likely to occur from the proposed pumping.

## 6.2 Additional Considerations

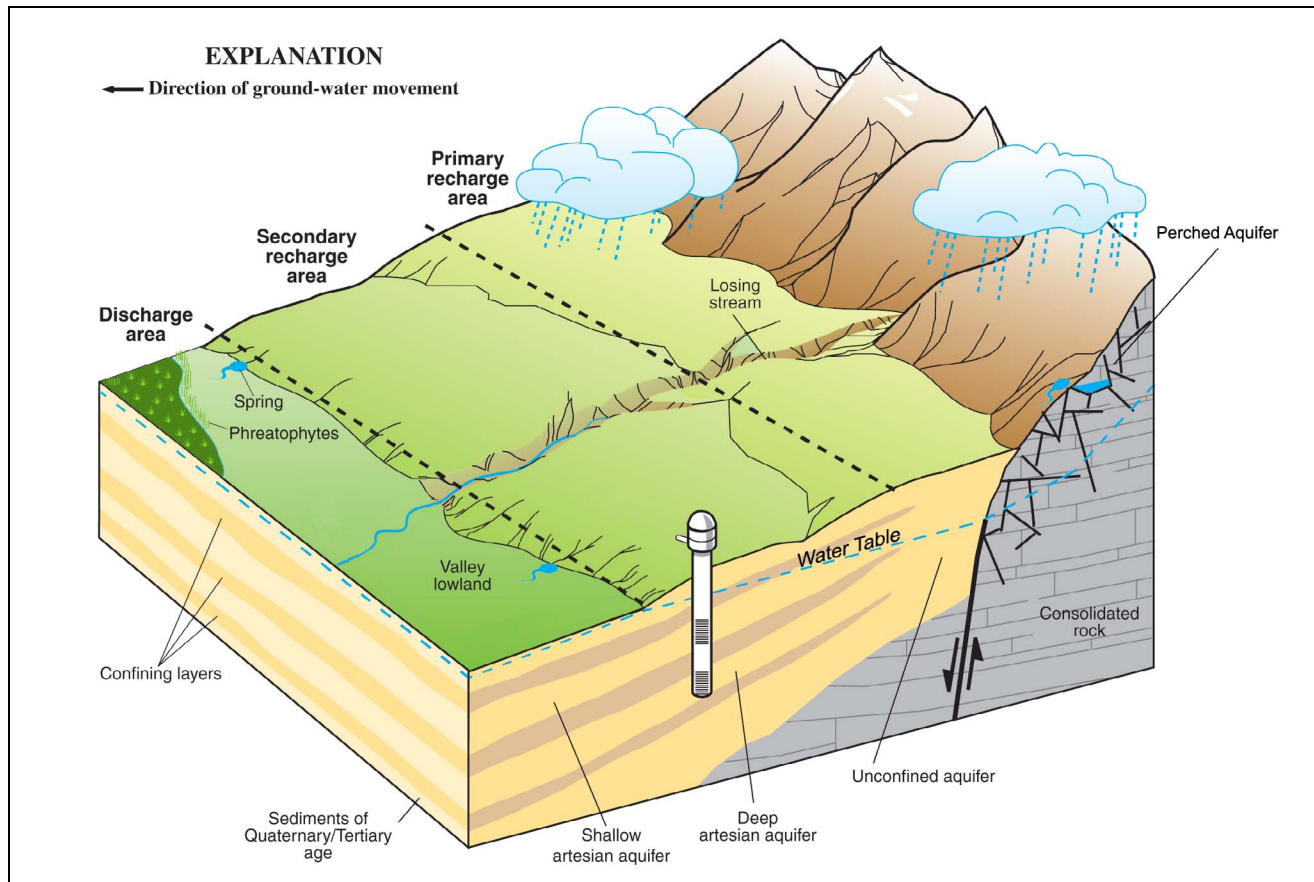
The CCRP model is used in this analysis to identify areas where a change in groundwater elevation of greater than 50 ft or a change in spring flow greater than 15 percent is simulated for the groundwater development scenario described in [Section 4.0](#). However, specific impacts to senior water rights and environmental areas of interest will depend on additional factors that are not considered in the model and include: (1) the interconnectivity of surface-water features to the water table; (2) the interconnectivity between aquifers; (3) well-construction characteristics such as well depth, depth to water (DTW), and pump setting; and (4) well performance details such as yield or static and pumping water levels.

The actual impacts to surface waters, both in terms of water rights and environmental areas of interest, depend on the interconnectivity of a given surface-water feature to the aquifers from which SNWA's groundwater withdrawals will occur. If, for example, an unsaturated zone exists between a streambed or spring and the aquifer where groundwater production is occurring, there will be no impact to the stream or spring as a result of drawdown within the aquifer. [Figure 6-1](#) is a depiction of this disconnection where a stream is flowing across an alluvial fan and the water table is located at depth below the fan's surface. In this example, the stream would be unaffected by changes in the water table.

The actual impacts to underground water rights or environmental areas of interest supplied by a well depend on the interconnectivity between the aquifer in which the prior appropriator's well is located and the aquifer where SNWA's groundwater production will occur. Little is known about the various aquifers that make up Spring, Cave, Dry Lake, and Delamar valleys or the amount of interconnectivity that may occur between these aquifers. While lithologic information does exist within drillers' logs for specific well locations, the quantity and quality of this information is such that it is not possible to represent the three-dimensional (3D) variability within the basins. As described in [Section 5.0](#), there is an assumption of homogeneity within the model for a given RMU. The assumption of homogeneity limits the simulation by removing the potential effects of variability.

Well construction and performance characteristics provide information as to the ability of a given well to continue to perform with a change in water level at its location. For example, all other things being equal, a well completed to a depth of 20 ft bgs will be impacted by a 19 ft change in water level more so than a well completed to a 120 ft bgs. While basic well-construction information may be obtained from drillers' logs or occasionally from the Certificates for Appropriation, detailed information such as pump setting and well performance is rarely available.





Source: Modified from Thiros (2006) and Price (1985).

**Figure 6-1**  
**Generalized Block Diagram of a Range Front and Valley Bottom**

### 6.3 Senior Existing Rights Initial Qualitative Analysis

An initial qualitative analysis was performed on senior existing rights. The data sets obtained from NDWR were first queried for certificated, decreed, permitted, reserved, and vested water rights (Tables B-1 through B-4). These water-rights were then queried for ownership and priority date. Water-rights that are owned by SNWA, as well as those with a priority date later than the date of the SNWA applications (junior rights), were identified and removed from further consideration in this analysis. The remaining water-right locations have been included in the analysis.

A geographic location for each POD was assigned based upon the inspection of the POD within a geographic information system. Many of the remaining rights were excluded from further quantitative analysis based upon their geographic location. Figure 6-1 provides a generalized depiction of the water table in a setting similar to these valleys. The excluded rights include springs and streams that occur in the mountain block (Figure 6-1) and their waters are derived from local precipitation. The springs and streams in these mountain block regions are controlled by discharge from local or perched groundwater systems that are likely not in hydraulic continuity with either the alluvial or carbonate-rock aquifer systems (Prudic et al., 1995, p. D13). As a result, it is highly improbable that these rights would be impacted from pumping on the valley floor.



The remaining rights for Spring, Cave, and Dry Lake valleys, which are geographically located on either alluvial fans or valley floors, were further evaluated with the use of the groundwater model simulations as described in [Section 6.4](#). The remaining rights in Delamar Valley all have surface water sources including springs, reservoirs, or other surface water types. The limited water-level data in Delamar Valley, as described in Burns and Drici (2011), indicate a deep water table. This would suggest that these surface water sources are likely derived from perched systems that would be unaffected by pumping the proposed SNWA applications and therefore, the water rights in Delamar Valley were removed from further consideration in this analysis.

[Tables B-1](#) through [B-4](#) list the existing senior water rights that could be further analyzed with the model simulations and those that are SNWA owned, have a junior priority, or would likely be unaffected by the pumping associated with these water-right applications.

## **6.4 Senior Existing Rights Quantitative Model Results**

The effects of pumping the proposed SNWA PODs on the remaining water rights were evaluated quantitatively using the results of CCRP numerical model simulations. The groundwater modeling scenarios described in [Section 4.0](#) were simulated using the calibrated transient numerical model (SNWA, 2009b). The results were used to develop drawdown maps, as well as changes in flows for spring locations identified as flow observations within the model. Since the simulated results included the combined effects of the Baseline pumping and the POD pumping, the incremental effects of the SNWA pumping were derived by subtracting the simulated effects of the Baseline pumping from the combined simulated effects for the same point in time. The drawdowns associated with these model simulations are presented on [Plate 2](#).

NRS 534.110(4-5) allows for a reasonable lowering of the water level at the POD for prior appropriators. The statute also allows for the granting of permits that may lower the water table as long as the rights of existing appropriations can be satisfied. The results of the quantitative analysis for senior existing rights are presented in subsequent subsections along with information, where available, on DTW, well construction, well performance, lithologic descriptions, and discussions of monitoring and management.

### **6.4.1 Spring Valley**

In Spring Valley, there were a total of 114 water-right PODs that were further analyzed using the model outputs ([Table C-1](#)). Of the 114, only 31 were located in an area where the model simulated a drawdown of greater than 50 ft and 3 were located where the model simulated a drawdown of less than 50 ft but a reduction of spring flow of greater than 15 percent. Each of these water rights will be discussed according to their source type.

#### **6.4.1.1 Underground Water Rights**

Underground water rights account for 10 of the 31 PODs located in an area where the model simulated a drawdown of greater than 50 ft. To further evaluate the effects of the proposed SNWA

pumping on underground water rights, the well construction and water levels must be considered. [Table 6-1](#) provides a summary of the information known about the well locations.

Application numbers 29371, 29567, and 31239 all have mining and milling water uses. Of these, Application numbers 29371 and 29567 share the same POD and correspond to drillers' log number 10816 (NDWR, 2011b). According to the drillers' log, the well was completed to 458 ft bgs through predominantly clays and minor salt and pumice layers and has a DTW of 46 ft bgs. The 412 ft saturated zone in this well may provide for a reasonable lowering of the water table at this location. Application number 31239 corresponds to drillers' log number 17124 which indicates the well was completed through gravels, sands, and silts to a depth of 535 ft bgs (NDWR, 2011b). The DTW in this well is 231 ft bgs, which indicates a 304 ft saturated zone that may provide for a reasonable lowering of the water table at this location. Continued monitoring within the valley may provide additional information on the sources of water, and how these locations may be impacted by future pumping within the valley.

Application numbers 7446, 8075, and 8077 are all valley floor stockwatering wells drilled to shallow depths ([Table 6-1](#)). Effects to these well locations will depend largely upon the interconnectivity between the aquifer in which the prior appropriator's well is located and the aquifer where SNWA's groundwater production will occur. Drillers' logs were not available for these wells and as mentioned previously, the quantity and quality of lithologic information is such that it is not possible to represent the 3D variability within the basin. As described within [Section 5.0](#), there is an assumption of homogeneity within the model for a given RMU. The assumption of homogeneity limits the simulation by removing the potential effects of variability. Continued monitoring within the valley may provide additional information on the sources of water for these water rights, and how these locations may be impacted by future pumping within the valley. These rights are small volume stockwater rights that, should they become impacted by the proposed pumping, could be mitigated by deepening the current well, drilling a substitute well, or providing a like amount of water from either existing SNWA water-rights or those being applied for as part of these applications.

Application number 45496 is a stockwater right for 86.24 afy. This well corresponds to Spring Valley existing-well monitoring location 383351114180201. According to SNWA (2011), this well is completed to 495 ft bgs with a screened interval from 50 to 495 ft bgs. There were four DTW measurements made at this well in 2010 with the latest of 406.81 ft bgs being made on October 27, 2010 (SNWA, 2011). Continued monitoring at this location may provide additional information on how this location may be impacted by future pumping within the valley. This right is a small volume stockwater right that, should it become impacted by the proposed pumping, could be mitigated by deepening the current well, drilling a substitute well, or providing a like amount of water from either existing SNWA water-rights or those being applied for as part of these applications.

Application numbers 18841, 18842, and 18843 are all stockwater rights located on the valley floor ([Table 6-1](#)). Each of these wells have completion depths greater than 200 ft bgs. All of these wells are listed as flowing wells within the Certificates of Appropriation. The water bearing zones that are responsible for the flowing nature of these wells may be completely confined and insulated from the effects of pumping elsewhere within the valley. If this is the case, the model greatly over predicts impacts at these locations. However, if a connection exists between the water bearing zones and zones being produced by SNWA, the hydraulic head may decline from its current above ground

**Table 6-1  
Spring Valley Underground Water Rights**

App.	Cert.	Use	Duty Balance (afy)	Geographic Location	Drillers Log Number	Well Depth (ft bgs)	Depth To Water (ft bgs)	First Simulation Period where Drawdown is Greater than 50 ft (Year)	Comments
29371	10328	Mining and Milling	803.41	Alluvial Fan/ Valley Floor	10816	458	46	2062	Same POD as application number 29567. Drillers log indicates well is completed predominantly in clays, with additional minor salt and pumice layers.
29567	10329	Mining and Milling	699.92	Alluvial Fan/ Valley Floor	10816	458	46	2062	Same POD as application number 29371. Drillers log indicates well is completed predominantly in clays, with additional minor salt and pumice layers.
31239	10334	Mining and Milling	177.43	Alluvial Fan	17124	535	231	2062	Drillers log indicates well is completed in gravels, sands, and silts.
7446	1515	Stockwatering	13.44	Valley Floor	NA	30	19 <sup>a</sup>	2062	Well depth is taken from the Application.
8075	1366	Stockwatering	27.27	Valley Floor	NA	36	25 <sup>b</sup>	2062	Well depth is taken from the Certificate for Appropriation.
8077	1368	Stockwatering	27.01	Valley Floor	NA	35	21	2117	Well depth is taken from the Certificate for Appropriation. DTW from Burns and Drici (2011) for site 385627114292101.
45496	11965	Stockwatering	86.24	Alluvial Fan/ Valley Floor	NA	495	407	2082	Spring Valley Existing-Well Monitoring Location 383351114180201. Well depth and DTW from SNWA (2011).
18841	5673	Stockwatering	8.96	Valley Floor	NA	200	Flowing	2082	Well depth is taken from the Application. DTW information is from the Certificate of Appropriation.
18842	5674	Stockwatering	8.96	Valley Floor	NA	200	Flowing	2082	Well depth is taken from the Application. DTW information is from the Certificate of Appropriation.
18843	5675	Stockwatering	8.96	Valley Floor	NA	200	Flowing	2082	Well depth is taken from the Application. DTW information is from the Certificate of Appropriation.

NA = Not Available

<sup>a</sup>DTW from nearby well 390315114304701 (Burns and Drici, 2011).

<sup>b</sup>DTW from nearby well 390417114302701 (Burns and Drici, 2011).



value. Continued monitoring within the valley may provide additional information on the sources of water, and how these locations may be impacted by future pumping within the valley. If a water-level decline does occur, the greater than 200 ft bgs depths of these wells may provide for a reasonable lowering of the water table at these locations. Should drawdowns at these locations become unreasonable, mitigation may include installing pumps in the previously flowing wells, installing new wells, or providing a like amount of water from either existing SNWA water-rights or those being applied for as part of these applications.

SNWA currently has a hydrologic monitoring, management, and mitigation plan in place for Spring Valley that includes a well-distributed existing-well monitoring network as well as requirements for the completion of additional monitoring wells. Some of the additional monitoring locations such as the Cleveland Ranch, Cleve Fan, Shoshone Ponds area wells, and piezometers at spring locations have already been completed. An effective hydrologic monitoring, management, and mitigation program as described by Prieur (2011) will avoid adverse impacts at these locations.

#### **6.4.1.2 Spring Water Rights**

Spring water rights accounted for 15 of the 31 PODs located in an area where the model simulated a drawdown of greater than 50 ft. These include 4 vested, 1 certificated, and 10 federally reserved water rights. Additionally, 3 water-rights associated with North and South Millick springs were simulated as having a greater than 15 percent reduction in flow. [Table 6-2](#) contains summary information for each of these PODs.

Application numbers 4171 and V02077 are two stockwatering rights that are included within the 15 springs. Both rights are located at springs in the central portion of Spring Valley. Application number 4171 is the single certificated spring water right for 14.33 afy and the POD for this right is Layton Spring. Layton Spring was selected as a monitoring location for both spring discharge and piezometer installation within the Spring Valley Hydrologic Monitoring and Mitigation Plan (SNWA, 2011). Miscellaneous discharge measurements have been made by SNWA at the spring since 2004 with the largest flow measured being 1 gallon per minute. Three discharge measurements were made in 2010, each of which recorded the spring as dry (SNWA, 2011). Piezometer SPR7019Z was installed at this location in May of 2010 and a DTW measurement of 11.17 ft bgs was made on November 10, 2010 (SNWA, 2011). Application V02077 is a stockwatering right for 11.20 afy and the POD for this right is Willard Springs. Willard Springs has been selected as a biological monitoring location within the Spring Valley Stipulated Agreements (Marshall and Luptowitz, 2011). As described in [Section 5.0](#) and [Section 6.2](#), the CCRP model does not contain the variability within the alluvium that may control these springs. Continued monitoring at these locations may provide additional information on the sources of water, the variability of flow, and how these locations may be impacted by future pumping within the valley. Both of these rights are small volume stockwater rights that, should they become impacted by the proposed pumping, could be mitigated by providing a like amount of water from either existing SNWA water-rights or those being applied for as part of these applications.

Ten of the spring water rights are federally reserved rights. Nine of these rights are located near the valley floor while R05274 is located high on an alluvial fan. Application R05274 is located approximately 0.7 mi southeast of Well SPR7023I where Burns and Drici (2011) report a DTW of



**Table 6-2**  
**Spring Valley Spring Water Rights**

App.	Cert.	Use	Duty Balance (afy)	Spring Name	Geographic Location	First Simulation Period where Drawdown is Greater than 50 ft (Year)	Comments
4171	1981	Stockwatering	14.33	Layton Spring	Valley Floor	2082	Spring Valley Discharge Monitoring Location 1845901 and Piezometer SPR7019Z. Three miscellaneous discharge measurements reported the spring dry in the summer and fall of 2010. The DTW for SPR7019Z was 11.17 ft bgs (SNWA, 2011).
V02077	NA	Stockwatering	11.20	Willard Springs	Valley Floor	2082	Willard Springs is an area of biological monitoring associated with the stipulated agreements (Marshall and Luptowitz, 2011).
R05274	NA	Other	1.84	Unnamed Spring	Alluvial Fan	2117	Nearby well SPR7023I has a DTW of 301.47 ft bgs (Burns and Drici, 2011).
R05273	NA	Other	2.15	Spring Creek Springs	Alluvial Fan/ Valley Floor	2082	---
R05269	NA	Other	3.59	4WD Spring	Alluvial Fan/ Valley Floor	2062	Spring Valley Piezometer Monitoring Location SPR7012Z has a DTW of 2.36 ft bgs (SNWA, 2011).
R05272	NA	Other	67.24	Unnamed Spring	Alluvial Fan/ Valley Floor	2062	Unnamed spring located within the same quarter quarter section as 4WD Spring.
R05278	NA	Other	67.24	Unnamed Spring	Alluvial Fan/ Valley Floor	2062	Unnamed spring located within the same quarter section as 4WD Spring.
R05279	NA	Other	7.95	Unnamed Spring	Valley Floor	2117	Located very near Spring Valley Piezometer Monitoring Location SPR7016Z with a DTW of 1.65 ft bgs (SNWA, 2011).
R05280	NA	Other	7.95	Unnamed Spring	Alluvial Fan/ Valley Floor	2082	Located very near Spring Valley Piezometer Monitoring Location SPR7016Z with a DTW of 1.65 ft bgs (SNWA, 2011).
R05292	NA	Other	7.95	Unnamed Spring	Alluvial Fan/ Valley Floor	2082	Located approximately 1.25 mi north of SPR7016Z (SNWA, 2011).
R05294	NA	Other	7.95	Unnamed Spring	Alluvial Fan/ Valley Floor	2082	Located approximately 1.25 mi north of SPR7016Z (SNWA, 2011).
R05293	NA	Other	7.95	Unnamed Spring	Alluvial Fan/ Valley Floor	2117	Located approximately 0.46 mi southwest of Spring Valley Discharge Monitoring Location 1848501 Cleveland Ranch Spring South (SNWA, 2011).
V02821	NA	Irrigation	9600	Big Reservoir Spring No. 4	Valley Floor	2117	Cleveland Ranch Spring Location. Spring Valley Monitoring Program spring location South Cleveland Ranch Spring and monitoring well locations SPR7029M, SPR7029M2, SPR7030M, and SPR7030M2.
V02824	NA	Irrigation	9600	Big Reservoir Spring No. 7	Alluvial Fan/ Valley Floor	2117	Cleveland Ranch Spring Location. Spring Valley Monitoring Program spring location South Cleveland Ranch Spring and monitoring well locations SPR7029M, SPR7029M2, SPR7030M, and SPR7030M2.
V02825	NA	Irrigation	9600	Big Reservoir Spring No. 8	Valley Floor	2117	Cleveland Ranch Spring Location. Spring Valley Monitoring Program spring location South Cleveland Ranch Spring and monitoring well locations SPR7029M, SPR7029M2, SPR7030M, and SPR7030M2.
8721 <sup>a</sup>	2509	Stockwatering	14.48	South Millick Spring	Valley Floor	---	Spring Valley Discharge Monitoring Location 1845702 and Piezometer SPR7018Z.
10921 <sup>a</sup>	3375	Irrigation	570.73	South Millick Spring	Valley Floor	---	Spring Valley Discharge Monitoring Location 1845702 and Piezometer SPR7018Z.
10993 <sup>b</sup>	3376	Irrigation	433.62	North Millick Spring	Valley Floor	---	North Millick Spring is located near the monitoring for South Millick Spring.

NA = Not Applicable

<sup>a</sup>Application Numbers 8721 and 10921 correspond to South Millick Spring. While the drawdowns at this spring never exceed 50 ft, the model simulates a change in flow of greater than 15 percent.

<sup>b</sup>Application Number 10993 corresponds to North Millick Spring. While the drawdowns at this spring never exceed 50 ft, the model simulates a change in flow of greater than 15 percent.





301.47 ft bgs. Therefore, this spring is likely perched and it is highly improbable that there will be any effect to reserved water right R05274 as a result of the proposed SNWA applications.

Application number R05273 is located in the west-central portion of Spring Valley at the alluvial fan/valley floor interface. Application number R05269 corresponds to 4WD Spring which was selected as a monitoring location for piezometer installation within the current Spring Valley Hydrologic Monitoring and Mitigation Plan (SNWA, 2011). Piezometer SPR7012Z was installed at this location on May 8, 2010 and has a DTW recorded on October 14, 2010 of 2.36 ft bgs (SNWA, 2011). Application numbers R05272 and R05278 are for Unnamed Springs located within a 0.25 mi of 4WD spring. Application numbers R05279, R05280, R05292, and R05294 are all located within 1.25 mi from Spring Valley Monitoring Plan location SPR7016Z which corresponds to Unnamed Spring 5. Piezometer SPR7016Z was installed on May 4, 2010 and has a DTW of 1.65 ft bgs measured on October 12, 2010. The final reserved water right R05293 is located less than 0.5 mi southwest of Spring Valley Monitoring Plan Location 1848501 which corresponds to Cleveland Ranch Spring South (SNWA, 2011). A 3-in. modified parshall flume with concrete wing walls was installed at this location on November 2, 2010 and a discharge measurement of 52.5 gal per minute was made on November 4, 2010. As described in [Section 5.0](#) and [Section 6.2](#), the CCRP model does not contain the variability within the alluvium that may control these springs. Continued monitoring in this area may provide additional information on the sources of water, the variability of flow, and how these locations may be impacted by future pumping within the valley. These federally reserved water rights are small volume rights that, should they first be adjudicated and then become impacted by the proposed pumping, could be mitigated by providing like quantities of water from existing SNWA water rights or waters that are the subject of these applications.

Application numbers V02821, V02824, and V02825 are irrigation water rights located on the valley floor or at the valley floor and alluvial fan interface on the Cleveland Ranch. The area surrounding the Cleveland Ranch is an area of significant monitoring associated with the Spring Valley Monitoring and Mitigation Plan (SNWA, 2011). Monitoring locations in this area include the monitoring of Cleve Creek, station number 1841611, the installation of two monitoring wells on the alluvial fan, SPR7029M and SPR7029M2, the installation of two wells on Cleveland Ranch, SPR7030M and SPR7030M2, and the monitoring of spring discharge at South Cleveland Ranch Spring, station number 1848501 (Prieur, 2011). As described in [Section 5.0](#) and [Section 6.2](#), the CCRP model does not contain the variability within the alluvium that may control these springs. Continued monitoring at these location may provide additional information on the sources of water, the variability of flow, and how these locations may be impacted by future pumping within the valley. The collection of additional data at these locations will allow SNWA to make the necessary management decisions such as reduction in pumping or the filing of change applications to move the point of diversion in order to avoid adverse impacts at these locations. As an example of the type of data collection that may occur, a short term aquifer test has recently been completed at SPR7029M and preliminary data results are provided in Prieur and Ashinhurst (2011).

Application numbers 8721 and 10921 correspond to South Millick Spring while application number 10993 corresponds to North Millick Spring. While the simulated drawdowns at North and South Millick springs never become greater than 50 ft, the model simulates a change in spring discharge reduction of greater than 15 percent. However, it should be noted that these springs were not included as calibration targets for flow during model construction and therefore no attempt has been made to



accurately simulate the initial flows of these springs. South Millick Spring was selected as a hydrologic monitoring location (Site 1845702) for spring discharge as part of the Spring Valley Hydrologic Monitoring and Mitigation Plan (SNWA, 2011). Continued monitoring at these location may provide additional information on the sources of water, the variability of flow, and how these locations may be impacted by future pumping within the valley. The collection of additional data at these locations will allow SNWA to make the necessary management decisions such as reduction in pumping or the filing of change applications to move the point of diversion in order to avoid adverse impacts at these locations.

### 6.4.1.3 Stream Water Rights

Stream water rights accounted for 6 of the 31 PODs located in an area where the model simulated a drawdown of greater than 50 ft. The 6 stream PODs include 3 on Cleve Creek, 2 on Willard Creek, and 1 on Bastian Creek. Table 6-3 contains summary information for each of these PODs along with comments related to the likely hydrology at each location. As described in Table 6-3, all of these locations occur up on the alluvial fans where the streams do not appear to be in direct connection with the aquifers below. This lack of hydrologic connection indicates that if drawdowns within the aquifers reach these locations there will be no effects to the PODs. Additional data collection on Cleve Creek and the surrounding area is occurring as a result of the Stipulated Agreements. Current monitoring includes the USGS gage on Cleve Creek as well as two SNWA monitor wells SPR7029M and SPR7029M2 that were installed in 2011 on the alluvial fan near the Cleve Creek PODs (Prieur, 2011).

**Table 6-3  
Spring Valley Stream Water Rights**

App.	Cert.	Use	Duty Balance (afy)	Stream Name	Geographic Location	First Simulation Period where Drawdown is Greater than 50 ft (Year)	Comments
V00790	NA	Irrigation	10,847.7	Cleve Creek	Alluvial Fan	2062	These PODs are located on the alluvial fan. A nearby well 184 N16 E66 26A1 has a DTW of 230 ft bgs (Burns and Drici, 2011). Additionally, SNWA has installed two wells SPR7029M and SPR7029M2 in this area with DTW greater than 200 ft bgs. The significant DTW would indicate there is no connection between the stream and aquifer at this location.
2852	902	Irrigation	2,406.48	Cleve Creek	Alluvial Fan	2062	
V01217	NA	Irrigation	12,000	Cleve Creek	Alluvial Fan	2062	
V02078	NA	Stockwatering	11.20	Bastian Creek	Alluvial Fan	2062	This POD is located approximately 1 mi up the alluvial fan from wells 390940114314801 and 184 N15 E66 24CD 1 that have DTW of approximately 20 ft bgs (Burns and Drici, 2011). The DTW would indicate there is no connection between the stream and aquifer at this location.
983	171	Mining and Milling	723.95	Willard Creek	Alluvial Fan	2082	This POD is located approximately 2 mi up the alluvial fan from well 390032114281901 where the DTW is approximately 14 ft bgs (Burns and Drici, 2011). The DTW would indicate there is no connection between the stream and aquifer at this location.
1052	244	Irrigation	80	Willard Creek	Alluvial Fan	2117	This POD is located on the alluvial fan between two wells with drillers log numbers 23441 and 107717. These logs indicate the DTW is greater than 80 ft at this location. The DTW would indicate there is no connection between the stream and aquifer at this location.

NA = Not Applicable

#### **6.4.2 Cave Valley**

In Cave Valley there are a total of 13 water right PODs that were further analyzed with respects to the model outputs (Table C-2). Of the 13, none were located in an area where drawdowns exceeded 50 ft during the period of analysis. An effective hydrologic monitoring, management, and mitigation program as described by Prieur (2011) will avoid the potential for conflicts with existing rights into the future.

#### **6.4.3 Dry Lake Valley**

In Dry Lake Valley there were a total of 17 water right PODs that were further analyzed with respects to the model outputs (Table C-3). Of the 17, none were located in an area where drawdowns exceeded 50 ft during the period of analysis. An effective hydrologic monitoring, management, and mitigation program as described by Prieur (2011) will avoid the potential for conflicts with existing rights into the future.

#### **6.4.4 Delamar Valley**

As described in Section 6.3, the existing senior water rights located on an alluvial fan or on the valley floor of Delamar Valley were all sourced from surface waters. Given the significant DTW in Delamar Valley it is highly unlikely that there will be any effects to these water rights as a result of the proposed SNWA applications. An effective hydrologic monitoring, management, and mitigation program as described by Prieur (2011) will avoid the potential for conflicts with existing rights into the future.

### **6.5 Environmental Areas of Interest Initial Qualitative Analysis**

As described for senior existing rights, many of the environmental areas of interest were excluded from the quantitative analysis based upon their geographic location. Figure 6-1 is a generalized depiction of the water table in a setting similar to these valleys. The excluded environmental areas of interest include springs and streams that occur in the mountain block and their waters are derived from local precipitation. The springs and streams in these mountain block regions are controlled by discharge from local or perched groundwater systems that are likely not in hydraulic continuity with either the alluvial or carbonate-rock aquifer systems (Prudic et al., 1995, p. D13). As a result, it is highly improbable that these areas would be impacted from pumping on the valley floor. The excluded locations have been included in Table C-4 and described as having a geographic location of mountain block. The remaining environmental areas of interest, which are geographically located on either alluvial fans or valley floors, were further evaluated with the use of the groundwater model simulations as described in Section 6.6.

### **6.6 Environmental Areas of Interest Model Results**

There were a total of 36 environmental areas of interest that were further analyzed with respects to the model outputs. As described in Section 6.1, the threshold for model analysis was a simulated drawdown of greater than 50 ft or a reduction of spring flow of greater than 15 percent. Of the 36



locations, only 3 were located in an area where the model simulated a drawdown of greater than 50 ft (Table C-4). Thirteen of the environmental areas of interest were included as spring flow observations within the groundwater model and were therefore evaluated with respect to changes in spring flow discharge (Table C-5). Of these 13, only 3 were located in an area where the model simulated a change in spring flow of greater than 15 percent. The details of these six locations are presented in Table 6-4.

**Table 6-4  
Environmental Areas of Interest where the Model Simulation Criteria were Exceeded**

Site ID	Name	Hydrographic Area	Site Type	Geographic Location	First Simulation Period where Criteria were Exceeded (Year) <sup>a</sup>	Comments
---	Swamp Cedar North	Spring Valley	Area	Valley Floor	2117	Current biologic monitoring location
1847701	Unnamed 5 Spring	Spring Valley	Spring	Valley Floor	2082	Current hydrologic and biologic monitoring location.
1847001	Four Wheel Drive Spring	Spring Valley	Spring	Alluvial Fan/Valley Floor	2062	Current hydrologic and biologic monitoring location.
1845702 <sup>b</sup>	South Millick Spring	Spring Valley	Spring	Valley Floor	2062	Current hydrologic and biologic monitoring location.
2071401 <sup>b</sup>	Butterfield Spring	White River Valley	Spring	Alluvial Fan/Valley Floor	2042	Current biologic monitoring location
2071301 <sup>b</sup>	Flag Springs	White River Valley	Spring	Alluvial Fan/Valley Floor	2042	Current hydrologic and biologic monitoring location.

<sup>a</sup>Criteria included where simulated drawdowns at the location exceeded 50 ft or where simulated spring flows were reduced by greater than 15 percent.

<sup>b</sup>While the drawdowns at these springs never exceed 50 ft, the model simulates a change in flow greater than 15 percent.

### 6.6.1 Spring Valley

Of the 6 environmental areas of interest where the model simulated drawdown of greater than 50 ft or a change in spring flow of greater than 15 percent, 4 are located in Spring Valley.

Swamp Cedar North Area, Unnamed 5 Spring, Four Wheel Drive Spring, and South Millick Spring are the only environmental areas of interest within Spring Valley where the simulated change in groundwater elevation or spring discharge exceeded 50 ft of drawdown or 15 percent reduction in spring flow. These four sites are located on the valley floor with three of the sites located between SNWA application PODs 54013 through 54019 inclusive. The fourth site, South Millick Spring, is located approximately 7 mi to the northeast of application number 54018 and while the drawdowns never become greater than 50 ft at this location the model simulates a reduction in spring discharge of greater than 15 percent. However, it should be noted that this spring was not included as a calibration target for flow during model construction and therefore no attempt has been made to accurately simulate the initial flows of this spring. Unnamed 5 Spring, Four Wheel Drive Spring, and South Millick Spring were all selected as springs to be monitored hydrologically and biologically as part of the Spring Valley Stipulation Agreement signed between the DOI and SNWA (Marshall and Luptowitz, 2011; Prieur, 2011). The Swamp Cedar North Area was selected as an area for further biologic monitoring and study in the same agreement (Marshall and Luptowitz, 2011).

As described in [Section 5.0](#), there is an assumption of homogeneity within the model for a given RMU. The assumption of homogeneity limits the simulation by removing the potential effects of variability. Each of the environmental areas of interest described within this section have been included in either or both the hydrologic and biologic monitoring programs as part of the Spring Valley Stipulated Agreement. Continued monitoring within the valley may provide additional information on the sources of water and how these locations may be impacted by future pumping. The collection of additional hydrologic and biologic data along with continued model refinement, as prescribed in the monitoring plans, will allow SNWA to make the necessary management decisions to avoid adverse impacts to these locations (Marshall and Luptowitz, 2011; Prieur, 2011).

### **6.6.2 White River Valley**

The two remaining environmental areas of interest that had a simulated change of spring flow of greater than 15 percent occurred in White River Valley. Flag and Butterfield springs were both below the simulated drawdown criteria of 50 ft but were above the 15 percent reduction in spring flow. However, it should be noted that these springs were not included as calibration targets for flow during model construction and therefore no attempt has been made to accurately simulate their initial flows.

Both Flag and Butterfield springs are located at the alluvial fan and valley floor interface on the eastern side of White River Valley. Both of these springs have been included as either hydrologic or biologic monitoring locations as part of the Stipulated Agreement for Cave, Dry Lake, and Delamar valleys (Stipulation, 2008). The collection of additional hydrologic and biologic data, as prescribed in the monitoring plans, will allow SNWA to make the necessary management decisions to avoid adverse impacts to these locations (Marshall and Luptowitz, 2011; Prieur, 2011).

### **6.7 CCRP Model as an Adaptive Management Tool**

As stated previously, the CCRP model is a regional model developed for environmental impact analysis and has inherent uncertainties and limitations. At this time, the CCRP model may still be used as a management tool to provide valuable information with regards to the general trends that may result from specific pumping scenarios as well as to help guide future data collection activities and project management decisions. Numerical groundwater modeling will be one component of the adaptive management program. Future analyses may include updates to the regional groundwater model, updates to a smaller sub-portion of the groundwater model, and/or site-specific hydrologic analysis, depending upon the availability of geologic and hydrologic information and areas or species of concern. Updates to the regional groundwater model or additional modeling are anticipated only if new information becomes available which would significantly improve the calibration and predictive abilities of the current model. Updates to the regional groundwater model will also be completed in accordance with the Stipulated Agreements between SNWA and DOI agencies.



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## **7.0 SUMMARY**

This report includes an analysis of the potential effects of proposed groundwater production related to the SNWA applications in Spring, Cave, Dry Lake, and Delamar valleys. The analysis of the potential effects of groundwater production as well as how monitoring and management, and future groundwater modeling will be used to avoid conflicts with senior water rights is provided in this report. The analysis of potential effects was also applied to environmental areas of interest, which were provided by Marshall and Luptowitz (2011).

The potential effects of pumping from SNWA's proposed application PODs on senior water rights and environmental locations of interest were analyzed using both qualitative and quantitative approaches. The qualitative approach consisted of assessing which water rights and environmental areas of interest were located in areas that are disconnected from the regional flow system represented in the CCRP model. The quantitative approach consisted of using a version of the CCRP numerical groundwater flow model (SNWA, 2009b) to identify areas where the simulated drawdowns exceeded 50 ft or where the changes in spring discharge exceeded 15 percent. The modeling performed for this analysis assumed that once pumping began, it continued non-stop through the analysis time period without intervention from SNWA, federal agencies, or the NSE. This scenario is not realistic as it does not include SNWA management decisions, system maintenance, major repairs, facility replacement, or the potential lack of need for the water in certain years. It also does not take into account management decisions made between SNWA and the federal agencies as part of the stipulated agreements, or actions taken by the NSE. This scenario is therefore, considered a conservative approach to the analysis.

Each of the senior water-right locations where the thresholds were exceeded were evaluated. The evaluation focused on additional considerations to see what if any impacts may occur and how an effective monitoring, management, and mitigation program as described by Prieur (2011) will ensure that SNWA avoids conflicts with senior existing water rights. The results of the analysis on the environmental areas of interest were provided to Marshall and Luptowitz (2011) for an assessment of environmental effects.

Both the Spring Valley and DDC Stipulated Agreements require the implementation of extensive hydrologic and biological monitoring programs (Marshall and Luptowitz, 2011; Prieur, 2011). The Spring Valley and DDC Monitoring Plans require a well-calibrated numerical groundwater flow model. SNWA will maintain, update, and operate the model, in cooperation with the Technical Review Panels formed from the Stipulated Agreements and the NSE. The model will be refined in an adaptive process to improve its predictive capability as additional basin characterization, pumping, and response monitoring data becomes available.



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**Appendix A**  
**NDWR Water-Right Information**

## **A.1.0 WATER RIGHTS**

This appendix contains water-rights information for Spring, Cave, Dry Lake, and Delamar valleys and vicinity as downloaded from the NDWR website on September 7, 2010 and updated on April 6, 2011 (NDWR, 2011). The fields and codes in these tables are described as follows.

- App. - Application Number.
- Cert. - Certificate Number.
- Status - Status of the Application.
  - ABR - Abrogated
  - APP - Application
  - CAN - Cancelled
  - CER - Certificate
  - DEN - Denied
  - PER - Permit
  - RES - Reserved
  - RFA - Ready for Action
  - RFP - Ready for Action (Protested)
  - VST - Vested Right
  - WDR - Withdrawn
- Source - Source of the water.
  - LAK - Lake
  - OSW - Other Surface Water
  - RES - Reservoir
  - SPR - Spring
  - STR - Stream
  - UG - Underground
- Use Code - The use identified for the water.
  - DOM - Domestic
  - IND - Industrial
  - IRD - Irrigation-DLE
  - IRR - Irrigation
  - MM - Mining and Milling
  - MUN - Municipal



- OTH - Other
  - PWR - Power
  - QM - Quasi-Municipal
  - STK - Stock
- 
- Owner - Owner name.
  - POD Qtr - Point of Diversion Quarter.
  - POD QQ - Point of Diversion Quarter Quarter.
  - POD Sec - Point of Diversion Section.
  - POD Twn - Point of Diversion Township.
  - POD Rng - Point of Diversion Range.
  - Annual Duty - Annual duty of water right.
  - Duty Balance - Remaining duty.
  - Units - Units associated with the annual duty either AFY for acre-feet per year or AFS for acre-feet per season.
  - Diversion Rate (cfs) - Diversion Rate in cubic feet per second.
  - Diversion Balance - Remaining Diversion rate.

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 1 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
45	---	CAN	STR	PWR	MORTON, E.D.	2/14/1906	---	---	29	16N	66E	0	0	---	0	0
74	---	DEN	STR	PWR	CLEVELAND, A.C.	4/3/1906	---	---	29	16N	66E	0	0	---	0	0
84	---	DEN	STR	PWR	MORTON, E.D.	4/17/1906	---	---	30	20N	66E	0	0	---	0	0
99	---	CAN	STR	PWR	CLEVELAND A.C.	5/20/1906	---	---	7	16N	66E	0	0	---	0	0
100	---	CAN	STR	PWR	CLEVELAND, A.C.	5/20/1906	---	---	6	16N	66E	0	0	---	0	0
186	---	CAN	STR	PWR	NORTON, E.D.	8/20/1906	---	---	29	16N	66E	0	0	---	10	10
204	---	CAN	STR	PWR	LACKNER, E.C.	9/11/1906	---	---	29	16N	66E	0	0	---	50	50
208	---	CAN	OSW	PWR	OSCEOLA PLACER MINING CO.	9/17/1906	SW	---	4	14N	68E	0	0	---	0	0
209	---	CAN	OSW	PWR	OSCEOLA PLACER MINING CO.	9/17/1906	---	---	7	14N	68E	0	0	---	0	0
211	---	CAN	STR	PWR	YELLAND, JOHN	9/19/1906	---	---	---	14N	68E	0	0	---	0	0
225	---	CAN	SPR	MM	CAROTHERS, W.J. (ET AL)	10/11/1906	SE	---	1	14N	65E	0	0	---	10	10
311	---	CAN	SPR	MM	CAMPBELL, E.J.	12/12/1906	---	---	---	---	---	0	0	---	10	0
312	---	CAN	STR	MM	CAMPBELL, E.J.	12/12/1906	---	---	---	---	---	0	0	---	10	0
344	---	CAN	SPR	MM	SAINT LAWRENCE MINING CO.	1/24/1907	---	---	---	---	---	0	0	---	1	0
345	---	DEN	SPR	MM	ADIRONDACK MINING CO.	1/24/1907	---	---	---	---	---	0	0	---	0.2	0
346	---	DEN	SPR	MM	SAINT LAWRENCE MINING CO.	1/24/1907	---	---	---	---	---	0	0	---	0.2	0
396	563X	SUP	STR	IRR	SWALLOW, RICHARD T.	3/13/1907	SE	SW	6	11N	68E	480	480	AFA	25	0
414	---	DEN	STR	PWR	LACKNER, E.C.	3/26/1907	---	---	29	16N	66E	0	0	---	20	0
455	---	CAN	STR	MM	BUTSON, WM. P.	5/6/1907	---	---	5	16N	69E	0	0	---	10	0
481	---	CAN	STR	MM	DEVER, GEO. M.   HANCOCK, SOLOMON   HOLBROOK, E.H.   TOWNSEND, B.H.   TOWNSEND, J.L.	5/17/1907	---	---	15	20N	66E	0	0	---	10	0
502	---	WDR	STR	PWR	MCCRACKEN, PETER B.	6/1/1907	---	---	4	11N	68E	0	0	---	20	20
530	---	DEN	SPR	MM	JACKSON, PERCY   JOHNSON, CHARLEY	6/15/1907	---	---	---	17N	65E	0	0	---	1	1
560	---	CAN	STR	PWR	SNYDER, GRANT	7/12/1907	---	---	12	12N	67E	0	0	AFA	45	45
589	---	CAN	STR	PWR	HAWKINS, IRVING	7/29/1907	---	---	33	16N	66E	0	0	---	0	0
595	---	CAN	STR	PWR	PORCH, H.F.	8/1/1907	---	---	21	15N	66E	0	0	---	15	15
600	---	CAN	STR	PWR	PORCH, H.F.	8/6/1907	NE	NW	29	16N	66E	0	0	---	12	12
622	---	CAN	SPR	PWR	CLEVELAND, MRS A. C.	8/19/1907	---	---	---	16N	66E	0	0	---	15	15
655	---	CAN	SPR	PWR	KEEN, EDWIN R.	8/29/1907	---	---	---	17N	68E	0	0	---	0	0
685	---	CAN	STR	PWR	CLEVELAND, MRS A C.	9/13/1907	---	---	---	18N	66E	0	0	---	0	0
693	---	CAN	SPR	IRR	NEVADA- UTAH IRR. & DEVELOP. CO.	9/19/1907	---	---	---	12N	65E	0	0	---	0	0
697	---	CAN	STR	MM	BLACKWELL, HARRY H.	9/26/1907	---	---	---	15N	66E	0	0	---	0	0
706	---	CAN	STR	PWR	FLETCHER, E.L.	10/12/1907	SE	SE	9	20N	66E	0	0	---	0	0
707	---	CAN	STR	PWR	FLETCHER, E.L.	10/12/1907	SW	---	12	19N	65E	0	0	---	0	0
729	---	CAN	STR	IRR	GABY, C.W.   RICHARDSON, R.H.   WEEKS, F.B.	11/15/1907	---	---	---	12N	67E	0	0	---	10	10
730	---	CAN	STR	PWR	GABY, C.W. ET AL.	11/15/1907	---	---	---	12N	67E	0	0	---	20	20
732	---	CAN	STR	MM	GABY, C.W.   RICHARDSON, R.H.   WEEKS, F.B.	11/15/1907	---	---	---	13N	68E	0	0	---	5	5

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 2 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
733	---	CAN	STR	MM	GABY, C.W. RICHARDSON, R.H WEEKS, F.B.	11/15/1907	---	---	---	13N	68E	0	0	---	20	20
734	---	CAN	STR	MM	GABY, C.W. RICHARDSON, R.H WEEKS, F.B.	11/15/1907	---	---	---	13N	68E	0	0	---	5	5
802	25	CER	SPR	STK	OLSEN, GASTEN	1/28/1908	NW	SW	9	21N	66E	12.030088	12.030088	AFA	0.025	0
809	---	WDR	STR	IRR	KIRKBY, SIGVART O.	2/3/1908	SW	NW	13	12N	67E	1280	1280	AFA	2.8	2.8
811	131	CER	LAK	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/8/1908	NE	NW	34	12N	67E	1120	1120	AFA	2.8	2.8
812	---	ABR	STR	IRR	KIRKEBY, S.O.	2/8/1908	SE	NE	12	12N	67E	0	0	---	4.8	0
813	659	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/8/1908	SW	SW	8	12N	68E	60	60	AFA	0.2	0.2
814	---	CAN	STR	IRR	FOX, JASPER M. KIRKEBY, S.O.	2/8/1908	---	---	19	12N	68E	0	0	---	1	1
835	---	CAN	STR	MM	MILLICK, R.A.	2/22/1908	SE	---	25	19N	65E	0	0	AFA	10	10
857	---	CAN	STR	MM	FLETCHER, E.L.	3/18/1908	NE	SW	16	20N	66E	0	0	---	0.25	0.25
868	---	CAN	STR	PWR	HOWARD, EARL	3/25/1908	---	---	16	16N	66E	0	0	---	35	35
896	---	CAN	STR	IRR	RAMSEY, E.G.	4/2/1908	N2	---	35	13N	67E	0	0	---	0	0
898	---	CAN	STR	IRR	RAMSEY, J.L.	4/2/1908	NW	NE	34	13N	67E	1280	1280	AFA	10	10
920	866	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	4/16/1908	NE	NE	22	13N	67E	543.99	543.99	AFA	1.813	1.813
921	---	CAN	STR	IRR	LUNDGREN, JOHN A.	4/16/1908	NW	---	23	13N	67E	0	0	---	5	5
936	---	CAN	STR	PWR	SAMPSON, SUMNER	4/24/1908	---	---	---	16N	66E	0	0	---	35	35
946	---	CAN	STR	IRR	KEEN, EDWIN R.	4/29/1908	NW	NW	22	13N	67E	1280	1280	AFA	5	5
957	71	CER	SPR	STK	MARVIS, HELEN B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) & GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	5/8/1908	---	---	---	23N	66E	54.3	54.3	AFA	0.075	0.075
974	---	DEN	UG	MM	DOYLE, GEORGE SCHILLING, HENRY W.	5/19/1908	---	---	7	14N	68E	0	0	---	2	2
983	171	CER	STR	MM	PILOT KNOB GOLD MINING & MILLING CO.	5/26/1908	---	---	3	13N	67E	723.95351	723.95351	AFA	1	1
1047	---	CAN	STR	IRR	RAMSEY, J.L.	7/11/1908	NE	---	34	13N	67E	0	0	---	2	2
1050	---	WDR	STR	IRR	FOX, JASPER M.	7/13/1908	---	---	---	13N	68E	0	0	---	3	3
1051	---	CAN	SPR	IRR	FOX, JASPER M.	7/13/1908	SW	SE	36	12N	67E	0	0	---	0	0
1052	244	CER	STR	IRR	BAAL, JOHN MICHAEL JR.	7/13/1908	NW	---	23	13N	67E	80	80	AFA	0.2	0.2
1053	---	CAN	STR	IRR	MILLER, HYMAN W. THOMAS, JOSEPH S.	7/13/1908	---	---	31	13N	68E	0	0	---	0	0
1080	---	CAN	SPR	MM	SCHESWOHL, JOS F.	8/3/1908	---	---	---	14N	67E	0	0	---	2	2
1095	---	CAN	STR	MM	MILLICK, R.A.	8/18/1908	---	---	---	19N	66E	0	0	---	0	0
1101	---	CAN	STR	PWR	GATES, CHARLES G.	8/24/1908	SE	SE	8	18N	66E	0	0	---	8	0
1134	---	WDR	STR	MM	FOX, JASPER M.	9/30/1908	NW	SW	29	12N	68E	0	0	---	5	5
1159	134	CER	STR	IRR	GEORGE ELDRIDGE & SON, INC.	10/28/1908	SE	SE	32	17N	67E	758.44	758.44	AFA	2.09	2.09
1341	---	CAN	STR	PWR	LAUDIE, LUCIUS	4/29/1909	---	---	16	16N	66E	0	0	---	30	0
1356	---	CAN	STR	PWR	PLUMMER, GEORGE LAYTON	5/17/1909	---	---	---	13N	68E	0	0	---	25	0
1411	---	DEN	STR	MM	MARRIOTT, JAMES H.	8/24/1909	---	---	---	14N	67E	0	0	---	7.5	0
1414	---	CAN	STR	IRR	FLETCHER, E.L.	8/28/1909	---	---	14	20N	67E	0	0	---	3.2	0
1443	---	CAN	STR	PWR	LACKNER, E.C.	9/29/1909	---	---	---	16N	66E	0	0	---	40	0
1463	---	CAN	STR	IRR	WELDON, T.W.	10/15/1908	---	---	---	09N	67E	0	0	---	1	0



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 3 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
1509	---	CAN	STR	PWR	COLEMAN, BEN W.	11/6/1909	---	---	29	16N	66E	0	0	---	60	60
1519	---	CAN	STR	STK	MILLER, CHARLES S.	11/15/1909	---	---	15	18N	67E	0	0	---	0	0
1520	107	CER	STR	IRR	OLSEN, CASTEN	1/1/1901	SW	SW	33	21N	66E	32	32	AFA	0.08	0.08
1571	---	CAN	SPR	STK	HILL, WILL E.	1/3/1910	SW	SE	29	21N	69E	0	0	AFA	0.025	0.025
1575	---	CAN	STR	IRR	ROBINSON, E.B.	1/12/1910	NW	NE	22	13N	68E	1280	1280	AFA	3.2	3.2
1601	---	CAN	SPR	IRR	ROSENLUND, ALBERT	1/31/1910	---	---	---	23N	65E	0	0	---	0	0
1607	---	DEN	SPR	STK	TIPPETT, JOHN(MRS)	2/3/1910	SE	---	35	23N	66E	0	0	---	0	0
1616	109	CER	SPR	STK	KEEGAN, C JOLSEN, CASTEN	2/18/1910	NW	NW	26	19N	68E	4.357838	4.357838	AFA	0.006	0.006
1618	---	DEN	SPR	STK	BEWS, HARRY	2/19/1910	NE	NW	9	22N	66E	0	0	---	3	3
1678	---	CAN	STR	IRR	HUDSON, ORSON	5/5/1910	NE	SE	27	12N	68E	0	0	---	2.4	2.4
1686	---	CAN	SPR	IRR	GORDON, FRANK J	5/12/1910	---	---	---	21N	66E	0	0	---	0	0
1724	184	CER	SPR	STK	CORP. OF CHURCH OF LATTER-DAY SAINTS	6/15/1910	NW	SE	15	17N	68E	7.211915	7.211915	AFA	0.01	0.01
1862	---	DEN	STR	PWR	MCCABE, THOS. M.	11/2/1910	SE	NE	33	13N	68E	0	0	---	3	0
1900	117	CER	SPR	STK	GEORGE ELDRIDGE & SON, INC.	12/7/1910	SE	SW	2	17N	68E	1.53445	1.53445	AFA	0.025	0.025
1901	118	CER	SPR	STK	GEORGE ELDRIDGE & SON, INC.	12/7/1910	NE	NE	22	18N	68E	1.53445	1.53445	AFA	0.025	0.025
1922	179	CER	SPR	IRR	FARREL, FRANKLIN JR.	1/2/1911	NE	SW	21	15N	68E	60	60	AFS	0.2	0.2
1970	188	ABN	SPR	MM	DUNDAS, JAMES W OHANA MINING CO.	3/6/1911	SW	SW	16	15N	68E	0	0	AFA	2	2
1972	---	DEN	STR	IRR	ROBINSON, E.B.	3/6/1911	SE	NW	18	13N	68E	240	240	AFA	2	2
2004	---	CAN	STR	PWR	UNITED STATES TUNGSTEN CORP.	4/12/1911	NE	SE	33	13N	68E	0	0	---	5	5
2005	406	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	4/12/1911	NW	NW	32	13N	68E	320	320	AFA	0.8	0.8
2108	29	CER	SPR	STK	PRODUCTION CREDIT CORPORATION	6/16/1911	SW	NE	29	14N	68E	2.976833	2.976833	AFS	0.025	0.025
2115	---	DEN	STR	IRR	DUNCAN, ELLEN M.	6/21/1911	---	---	---	13N	67E	640	640	AFS	2	2
2151	---	DEN	STR	IRR	DOYLE, GEORGE	7/19/1911	NE	SW	12	12N	67E	0	0	---	1.5	1.5
2198	---	DEN	SPR	DOM	DUNHAM, CHARLES A.	9/8/1911	SW	SE	24	14N	67E	0	0	---	0	0
2234	---	CAN	SPR	MM	OHANA MINING COMPANY	10/9/1911	SE	SE	6	15N	68E	0	0	---	10	10
2261	215	CER	SPR	IRR	KOLCHEK, ALEX	11/21/1911	---	---	23	16N	65E	0	0	AFA	0	0
2288	---	CAN	STR	IRR	ROBINSON, E.B.	12/16/1911	SW	SE	13	13N	67E	1280	1280	AFS	3.2	3.2
2445	---	CAN	STR	IRR	MCCURDY & CHAPMAN	---	---	---	---	24N	66E	0	0	---	0.5	0.5
2446	---	CAN	STR	IRR	CHAPMAN, JOHN H. MC CURDY, G.F.	6/10/1912	---	---	---	24N	67E	0	0	---	0.5	0.5
2458	---	WDR	SPR	IRR	SNYDER, LUCY A.	6/22/1912	SW	SE	25	17N	67E	0	0	---	6	6
2486	258	CER	SPR	MM	PONY EXPRESS MINING & MILLING MCMILLIN TRUST	8/9/1912	SW	NE	29	14N	68E	0	0	---	0.2	0.2
2534	---	WDR	STR	IRR	ARVOLD, EMARY	10/18/1912	SW	NE	14	21N	65E	0	0	---	1	1
2543	---	CAN	STR	IRR	ZUBIRI, MIGUEL	11/7/1912	SW	SE	13	21N	65E	0	0	---	0.5	0.5
2578	---	CAN	SPR	IRR	ROSENLUND, JOHN	12/5/1912	SE	SW	15	23N	65E	640	640	AFS	2	2
2703	---	CAN	STR	MM	HAWKINS, M.G. MC CULLOCH, H.G.	5/6/1913	SW	SW	1	14N	65E	0	0	AFA	2	2
2710	259	CER	SPR	MM	PONY EXPRESS MINING AND MILLING CO. MCMILLIN TRUST	5/12/1913	NE	SE	30	14N	68E	0	0	---	0.2	0.2



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 4 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
2713	---	CAN	SPR	MM	BURKE, MRS. WILLIAM	5/15/1913	SE	SW	3	22N	65E	0	0	---	0.025	0.025
2745	167	CER	SPR	IRR	ADAMS-MCGILL COMPANY	6/30/1913	NE	SW	31	17N	67E	80	80	AFA	0.2	0.2
2808	---	DEN	STR	MM	MILLICK, R.A.	10/23/1913	NE	NE	29	19N	66E	0	0	---	10	10
2852	902	CER	STR	IRR	LDS	12/1/1913	NW	NW	25	16N	66E	2406.48	2406.48	AFA	8.02	8.02
2906	---	DEN	STR	PWR	CALLOWAY, FRANK	3/6/1914	SE	NE	8	18N	66E	0	0	---	1000	1000
3056	---	WDR	STR	IRR	ADAMS-MCGILL COMPANY	7/27/1914	NE	SE	25	17N	66E	0	0	---	3	3
3186	567	CER	STR	IRR	CORP. OF CHURCH OF LATTER-DAY SAINTS	11/27/1914	SW	NE	35	17N	67E	640	640	AFA	1.6	1.6
3203	2645	CER	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	12/9/1914	SE	SE	9	16N	67E	190.6	190.6	AFA	0.35	0.35
3329	---	CAN	SPR	IRR	PURSLEY, H.G.	3/31/1915	SE	NW	4	14N	67E	640	640	AFS	1.6	1.6
3383	1036	CER	STR	IRR	ANDRAE, ARTHUR & AUDRAE	5/5/1915	SW	NE	14	17N	66E	0	59.88	AFA	0.7	0.1996
3420	---	DEN	SPR	PWR	DOYLE, GEORGE	6/9/1915	SE	---	12	15N	67E	0	0	---	2	2
3433	1210	CER	STR	IRR	BUNDY, CLARENCE A.   BUNDY, M. JOSPHINE	6/14/1915	NW	NW	4	21N	66E	261.36	261.36	AFA	0.726	0.726
3559	---	CAN	SPR	IRR	BACON, WM.	8/20/1915	---	---	---	15N	68E	0	0	---	0.5	0.5
3584	---	WDR	STR	IRR	DAVIES, W.J.	9/20/1915	SW	NW	9	16N	67E	0	0	---	1.6	1.6
3610	---	CAN	STR	IRR	KIRKEBY, ALBIN C.	10/11/1915	SE	SE	32	13N	68E	800	800	AFS	2	2
3618	---	CAN	SPR	STK	MARRIOTT BROS.	10/13/1915	---	---	---	15N	68E	0	0	---	1	1
3646	1976	CER	SPR	STK	DOUTRE, JAMES	10/21/1915	NE	NW	14	24N	65E	8.961188	8.961188	AFA	0.012	0.012
3674	---	CAN	STR	MM	MILLICK, R.A.	11/4/1915	NE	NE	29	19N	66E	0	0	---	10	10
3768	---	DEN	SPR	MM	TILFORD, J.D.	1/5/1916	SW	NE	29	14N	68E	0	0	---	1	1
3769	---	CAN	SPR	MM	U.S. TUNGSTEN CORP.	1/7/1916	SW	SW	21	13N	68E	1085.930265	1085.930265	AFA	1.5	1.5
3782	---	DEN	STR	PWR	WITCHER, A.B.	1/22/1916	NE	NE	7	16N	66E	0	0	---	40	40
3783	---	DEN	STR	PWR	WELLER, G.	1/22/1916	NE	NE	29	16N	66E	0	0	---	60	60
3793	2377	CER	SPR	IRR	ROGERS, G.W.   ROGERS, H.T.	12/11/1915	SW	SE	15	16N	68E	50	50	AFA	0.102	0.102
3828	---	WDR	STR	MM	ROSS, E.A. & GABY, CHAS.	3/11/1916	SE	NW	5	13N	68E	0	0	---	0.25	0.25
3865	1068	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	4/6/1916	SW	SE	6	11N	68E	641.94	641.94	AFA	2.14	2.14
3881	---	CAN	STR	MM	MYERS, A.D.	4/10/1916	NW	NE	6	13N	68E	0	0	---	3.2	3.2
3922	---	CAN	STR	PWR	CONSOLIDAED TUNGSTEN MINES COMPANY	4/22/1916	---	---	33	13N	68E	0	0	---	2.5	2.5
3926	1475	CER	SPR	STK	ROGERS, G.W.   ROGERS, H.T.	4/24/1916	NE	NW	21	16N	68E	18.075821	18.075821	AFA	0.025	0.025
3927	469	CER	SPR	IRR	CORP. OF CHURCH OF LATTER-DAY SAINTS	4/24/1916	NW	SW	27	17N	68E	40	40	AFA	0.1	0.1
3969	1824	CAN	SPR	STK	PRODUCTION CREDIT CORPORATION	5/11/1916	NE	SE	7	15N	68E	15.006921	15.006921	AFS	0.025	0.025
3973	5993	CER	SPR	STK	ROGERS, G.W.   ROGERS, H.T.	5/13/1916	NW	SW	10	16N	67E	5.646776	5.646776	AFA	0.008	0.008
3974	---	DEN	SPR	IRR	YELLAND, R.A.	5/13/1916	NW	NW	7	15N	68E	80	80	AFS	0.25	0.25
4018	---	DEN	STR	MM	MILLICK, R.A.	6/17/1916	NE	NE	28	19N	66E	0	0	---	0.25	0.25
4041	1930	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/29/1916	NE	NW	14	19N	66E	0	435	AFA	2	1.2
4042	1929	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/29/1916	NW	SE	11	19N	66E	0	435	AFA	2	1.2
4043	1928	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/29/1916	SE	NE	27	19N	66E	0	870	AFA	1	2.4
4069	---	DEN	STR	IRR	BOUNDY, ANDREW	7/21/1916	SW	NW	35	22N	65E	0	0	---	0.5	0.5
4171	1981	CER	SPR	STK	ROBISON BROTHERS	10/2/1916	SE	NW	4	14N	67E	14.331763	14.331763	AFA	0.02	0.02



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 5 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
4202	---	CAN	STR	IRR	CRAIN, CHAS.	10/23/1916	NE	SE	32	17N	67E	0	0	---	1.6	1.6
4251	---	CAN	SPR	MM	PATELLA, PETER	12/18/1916	---	---	---	21N	69E	0	0	---	0	0
4252	---	CAN	SPR	MM	PATELLA, PETER	12/18/1916	---	---	---	21N	69E	0	0	---	0	0
4253	---	CAN	SPR	MM	PATELLA, PETER	12/18/1916	---	---	---	21N	69E	0	0	---	0	0
4291	1761	ABR	STR	IRR	HEINBAUGH, R.O.	2/2/1917	NW	NE	6	13N	68E	96	0	AFS	0.318	0
4402	---	CAN	STR	IRR	LUNDGREN, JOHN A.	4/20/1917	NW	SE	15	13N	67E	0	0	---	2.5	2.5
4418	660	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/8/1908	SE	NE	32	13N	68E	1349.7	1349.7	AFA	4.497	3.697
4482	---	DEN	STR	IRR	ROGERS, WASHINGTON	6/27/1917	NE	NE	25	17N	66E	0	0	---	1.6	1.6
4587	---	CAN	STR	PWR	CONSOLODATED COPPERMINES COMPANY	9/13/1917	SW	NW	17	16N	66E	0	0	---	25	25
4600	---	CAN	SPR	MM	DOYLE, GEORGE	9/24/1917	SE	SE	17	15N	68E	0	0	---	1	1
4601	---	CAN	STR	IRR	MUNCY CREEK MINING COMPANY	9/24/1917	SE	SE	13	20N	66E	640	640	AFS	1.6	1.6
4641	---	CAN	STR	PWR	CONSOLODATED COPPERMINES COMPANY	10/16/1917	NE	NW	29	16N	66E	0	0	---	25	25
4642	---	CAN	STR	PWR	CONSOLODATED COPPERMINES COMPANY	10/16/1917	NW	NW	19	16N	66E	0	0	---	10	10
4951	1209	CER	STR	IRR	BUNDY, CLARENCE A. & JOSEPHINE	3/7/1918	SE	SE	29	21N	66E	25.08	25.08	AFA	0.083	0.083
5028	1541	CER	SPR	IRR	CORP. OF CHURCH OF LATTER-DAY SAINTS	4/26/1918	NW	SE	27	17N	68E	24	24	AFA	0.066	0.066
5143	517	CER	STR	STK	DOLAN, PHILIP J. GIBEAUT, F.A. HUFF, CLARK MURRAY SHEEP CO. SOUTHERN NEVADA WATER AUTHORITY	7/10/1918	NE	NE	27	09N	67E	10.863906	10.863906	AFA	0.015	0.015
5247	---	PER	STR	IRR	GEORGE ELDRIDGE & SON, INC.	9/16/1918	SW	NW	15	20N	66E	201.64	201.64	AFA	2	2
5308	603	CER	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	11/15/1918	SE	SE	29	21N	69E	7.242604	7.242604	AFA	0.01	0.01
5499	562	CER	STR	MM	LESTER, VIRGINIA BOWEN OSTLUND, ROBERT E. WHITE, MARY MACCLAREN COGHLAN	5/15/1919	SE	NE	12	14N	67E	1206.630102	1206.630102	AFA	5	5
5526	---	CAN	STR	IRR	WILCOX, HYDE W.	6/14/1919	NW	SE	8	13N	68E	0	0	---	3.4	3.4
5546	714	CER	SPR	IRR	KAISER, KATHERINE A. KAISER, ROBERT G.	6/18/1919	SW	SW	16	15N	68E	93	93	AFA	0.232	0.232
5563	605	CER	OSW	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	6/23/1919	SW	SE	17	21N	69E	5.922977	5.922977	AFA	0.012	0.012
5571	11720	CER	SPR	STK	NEVADA LAND & RESOURCE CO LLC	6/23/1919	NW	NE	14	24N	66E	8.684987	8.684987	AFA	0.012	0.012
5572	---	CAN	STR	STK	BOUNDY, ANDREW	6/23/1919	NW	SE	1	23N	66E	0	0	---	1	1
5598	---	CAN	SPR	IRR	ANDERSON, H.L.	7/8/1919	---	---	31	23N	66E	0	0	---	0.4	0.4
5599	---	CAN	SPR	IRR	ANDERSON, H.L.	7/8/1919	---	---	31	23N	66E	0	0	---	0.4	0.4
5600	---	CAN	SPR	STK	ANDERSON, H.L.	7/8/1919	SW	SW	10	22N	65E	0	0	---	0.1	0.1
5667	---	CAN	STR	PWR	THE PIERMONT MINES COMPANY	8/13/1919	SW	NE	29	19N	66E	0	0	---	15	15
5674	---	CAN	STR	IRR	KIRKEBY, ALBIN C.	8/15/1919	SW	NW	5	12N	68E	0	0	---	5	5
5691	1325	CER	STR	IRR	GEORGE ELDRIDGE & SON, INC.	8/25/1919	SE	SE	33	17N	67E	919	919	AFA	1.895	1.895

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 6 of 36)

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5694	---	CAN	SPR	DOM	MATSON, R.B.	8/28/1919	W2	---	---	17N	66E	0	0	---	1	1
5713	797	CER	SPR	STK	ROGERS, G.W./ROGERS, H.T.	9/5/1919	NW	NW	32	16N	68E	3.651991	3.651991	AFA	0.006	0.006
5923	1280	CER	STR	IRR	GEORGE ELDRIDGE & SON, INC.	12/26/1919	SW	NW	27	18N	68E	306	306	AFA	0.85	0.85
5952	---	DEN	STR	PWR	THE PIERMONT MINES COMPANY	1/19/1920	SW	NW	10	18N	66E	0	0	---	4	4
5953	---	DEN	STR	MM	THE PIERMONT MINES CO.	1/19/1920	NE	NW	3	17N	66E	0	0	---	6	6
5954	---	WDR	SPR	MM	THE PIERMONT MINES CO.	1/19/1920	SE	SW	3	17N	66E	0	0	---	1	1
5989	---	CAN	OSW	IRR	DAVIES, W.J.	2/18/1920	SW	NE	9	16N	67E	640	640	AFA	1.6	1.6
6015	---	CAN	OSW	IRR	DOLAN, PATRICK T.	3/12/1920	SE	NE	29	22N	66E	0	0	---	5	5
6016	---	CAN	STR	PWR	MUNROE, H.S.	3/12/1920	---	---	20	16N	66E	0	0	---	8	8
6074	1038	CER	SPR	STK	YELLAND, LOUIS A.	4/26/1920	SW	NW	2	17N	68E	8.961188	8.961188	AFA	0.018	0.018
6075	1037	CER	SPR	STK	GEORGE ELDRIDGE & SON, INC.	4/26/1920	NE	SW	22	18N	68E	9.728413	9.728413	AFA	0.018	0.018
6290	1045	CER	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	10/4/1920	SW	SW	25	22N	68E	7.119848	7.119848	AFA	0.01	0.01
6360	---	PER	SPR	IRR	DOUTRE, STEVE	12/22/1920	SW	SW	21	21N	69E	640	640	AFA	1	1
6361	---	DEN	SPR	IRR	DOUTRE, STEVE	12/22/1920	SE	SE	29	21N	69E	0	0	---	0.25	0.25
6404	---	DEN	SPR	IRR	COOLEY, ELTON	2/21/1921	NE	E2	18	23N	65E	0	0	---	0.25	0.25
6445	---	CAN	SPR	STK	ROBISON, BRYAN S. & GEORGE W.	4/23/1921	NE	NE	24	14N	67E	0	0	---	0.006	0.006
6503	1296	CER	SPR	STK	PRODUCTION CREDIT CORPORATION	6/30/1921	SW	NW	13	13N	65E	1.503761	1.503761	AFA	0.003	0.003
6520	---	CAN	OSW	IRR	DAVIES, MRS. W. J. AKA DAVIES, GERTRUDE H. AKA DUNIPACE, ETC.	7/20/1921	SW	NW	16	16N	67E	1920	1920	AFA	4.8	4.8
6632	1378	CER	UG	STK	GEORGE ELDRIDGE & SON, INC.	2/17/1922	NW	NW	7	19N	69E	17.032395	17.032395	AFA	0.024	0.024
6645	---	DEN	SPR	STK	ROBISON, B.H.	3/6/1922	SE	---	26	18N	68E	11.201485	11.201485	AFA	0.25	0.25
6654	---	DEN	STR	MM	TILFORD, LAINE T.	3/23/1922	SE	SE	12	14N	67E	0	0	---	0	0
6667	---	CAN	SPR	STK	ROBISON BROTHERS	4/19/1922	SW	SE	8	15N	67E	0	0	---	0.015	0.015
6696	---	CAN	STR	PWR	MITCHELL, GLEN H.	6/13/1922	---	---	17	16N	66E	0	0	---	16	16
6754	1623	CER	SPR	IRR	CAZIER, JAMES	8/30/1922	SE	NW	30	17N	67E	195	195	AFA	0.538	0.538
6808	1501	CER	SPR	STK	NEVADA LAND & RESOURCE CO LLC	11/1/1922	SW	NW	20	24N	67E	2.178919	2.178919	AFA	0.007	0.007
6834	1211	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/9/1922	SW	SE	13	13N	67E	583.8	583.8	AFA	0.973	0.973
6985	---	DEN	SPR	IRR	RICHAN, AGUSTUS FREDRICK	10/8/1923	SW	NW	15	17N	68E	0	0	---	1.6	1.6
7097	1314	CER	STR	STK	BEWS, HARRY	4/24/1924	SE	NE	23	21N	65E	1.319627	1.319627	AFA	0.007	0.007
7161	1950	CER	SPR	STK	MURRAY SHEEP CO.	6/27/1924	SE	SE	20	07N	68E	1.687895	1.687895	AFA	0.004	0.004
7265	---	CAN	SPR	STK	HENRIOD, EUGENE A.	12/2/1924	---	---	---	19N	68E	13.441782	13.441782	AFA	0.025	0.025
7304	---	CAN	SPR	IRR	ANDERSON, CLARA M.	2/12/1925	NW	NE	2	22N	65E	0	0	---	0.025	0.025
7305	---	CAN	SPR	IRR	ANDERSON, H.L.	2/12/1925	NE	SE	2	22N	65E	0	0	---	0.25	0.25
7332	---	WDR	STR	PWR	ELY CALUMET MINING CORPORATION	3/28/1925	SW	NE	9	18N	66E	0	0	---	4	4
7333	---	ABR	STR	PWR	ELY CALUMET MINING CORPORATION	3/28/1925	SE	NE	29	19N	66E	0	0	---	3	0
7378	---	DEN	STR	PWR	VENABLE, EDGAR H.	5/21/1925	SE	SE	35	18N	66E	0	0	AFA	8	8



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 7 of 36)

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7419	1329	CER	SPR	STK	GEORGE S. ROBINSON & SONS	6/28/1925	SE	NE	18	14N	68E	3.744058	3.744058	AFA	0.012	0.012
7446	1515	CER	UG	STK	PRODUCTION CREDIT CORP. OF BERKELEY	7/22/1925	NW	NE	25	14N	66E	13.441782	13.441782	AFA	0.019	0.019
7497	1618	CER	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	9/8/1925	NW	NE	24	11N	66E	5.370575	5.370575	AFA	0.007	0.007
7558	---	CAN	SPR	MM	PARKER, HARRY W.	10/26/1925	NE	SW	10	20N	69E	0	0	---	0.25	0.25
7613	---	CAN	SPR	MM	PARKER, HARRY W.	1/5/1926	NW	NW	2	20N	69E	0	0	---	0.5	0.5
7700	1481	CER	SPR	STK	ROBISON BROS.	4/7/1926	NE	NE	25	12N	65E	11.815265	11.815265	AFA	0.015	0.015
7701	1346	CER	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	4/8/1926	SE	SE	19	21N	69E	17.922376	17.922376	AFA	0.025	0.025
7724	2170	CER	STR	MM	MARRIOTT, HENRY NICHOLSON, HENRY C.	4/23/1926	NW	SE	7	14N	68E	0	0	AFA	0.2	0.2
7725	2171	CER	STR	MM	MARRIOTT, HENRY NICHOLSON, HENRY C.	4/23/1926	SW	NE	7	14N	68E	0	0	AFA	0.082	0.082
7735	---	DEN	STR	MM	MUNCY LEAD SILVER MINING CO.	4/30/1926	NW	NW	17	20N	66E	0	0	---	0.1	0.1
7847	2221	CER	STR	PWR	ELY CALUMET MINING CORPORATION	8/12/1926	SW	NW	29	19N	66E	0	0	AFA	2.484	2.484
7913	---	CAN	STR	MM	WILSON, GEORGE C.	10/16/1926	---	---	20	13N	68E	0	0	---	25	25
8026	---	CAN	STR	IRR	BOUNDY, ANDREW	3/9/1927	NE	SE	27	12N	68E	0	0	---	2.4	2.4
8027	---	WDR	STR	STK	ROBISON, B.H.	3/9/1927	NW	SE	1	23N	66E	2.240297	2.240297	AFS	1	1
8050	---	DEN	STR	IRR	ELDRIDGE, DONALD D.	3/25/1927	NW	SE	25	17N	67E	0	0	---	3.2	3.2
8074	1365	CER	UG	STK	CL CATTLE COMPANY LLC	4/1/1927	SE	NW	35	11N	66E	26.914253	26.914253	AFA	0.05	0.05
8075	1366	CER	UG	STK	ADAMS-MCGILL COMPANY	4/1/1927	SE	SE	13	14N	66E	27.27	27.27	AFA	0.05	0.05
8076	1367	CER	UG	STK	CL CATTLE COMPANY LLC	4/1/1927	NE	NE	1	11N	66E	36.2	36.2	AFA	0.05	0.05
8077	1368	CER	UG	STK	ROBISON, DOYLE C. ROBISON, JAMES F.	4/1/1927	SE	SW	31	13N	67E	27.00632	27.00632	AFA	0.05	0.05
8098	---	CAN	STR	IRR	JENSEN, JAMES C.	4/18/1927	NE	SE	9	21N	66E	0	0	---	0.4	0.4
8101	---	DEN	STR	STK	ROBISON, B.H.	4/19/1927	NE	SE	9	21N	66E	0	0	---	1	1
8104	2065	CER	STR	STK	NEVADA LAND & RESOURCE CO LLC	4/19/1927	SE	NE	15	20N	66E	3.744058	3.744058	AFA	0.012	0.012
8132	---	DEN	STR	PWR	STONG, D.T. FIELD, J.C. RINGER, E.O.	5/13/1927	SE	SW	20	16N	66E	0	0	---	100	100
8144	---	DEN	OSW	IRR	RICHAN, AUGUSTUS F.	5/29/1927	NE	NE	32	17N	68E	0	0	---	1.5	1.5
8162	---	DEN	OSW	IRR	MILLER, HERBERT A.	6/10/1927	SW	SE	16	17N	67E	0	0	---	2.5	2.5
8172	---	CAN	SPR	IRR	ELDRIDGE, DONALD	6/15/1927	SE	SE	23	17N	67E	0	0	---	1	1
8231	---	DEN	SPR	STK	ROBISON, B.H.	7/16/1927	SW	NW	12	21N	65E	0	0	---	0.025	0.025
8232	---	DEN	SPR	STK	ROBISON, B.H.	7/16/1927	NE	NW	26	23N	66E	0	0	---	0.025	0.025
8362	---	DEN	SPR	STK	WANT, ERNEST	10/26/1927	NW	NW	21	15N	68E	0	0	---	0.025	0.025
8393	3213	CER	STR	IRR	CORP OF CHURCH OF LATTER-DAY SAINTS	11/18/1927	NE	SE	2	16N	67E	544.86	544.86	AFA	1.512	1.512
8396	2220	CER	STR	MM	ELY CALUMET MINING CORPORATION	3/28/1925	SW	NW	29	19N	66E	112.94	112.94	AFA	0.156	0.156
8525	2409	CER	SPR	STK	SOUTHERN NEVADA WATER AUTHORITY	4/26/1928	SE	SW	3	08N	67E	5.984355	5.984355	AFA	0.013	0.013
8530	---	WDR	STR	PWR	ELY CALUMET MINING CORPORATION	5/6/1928	SE	NE	8	18N	66E	0	0	---	3	3
8542	1720	CER	UG	STK	GEORGE ELDRIDGE & SON, INC.	5/22/1928	NE	NE	13	19N	67E	17.922376	17.922376	AFA	0.025	0.025
8543	---	CAN	SPR	STK	ROSEN LUND, JOHN	5/22/1928	NW	NE	14	24N	65E	0	0	---	0.25	0.25

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 8 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
8544	---	CAN	SPR	STK	ROSELUND, JOHN	5/22/1928	NE	SW	14	24N	65E	0	0	---	0.012	0.012
8547	2263	CER	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	5/28/1928	SW	NW	4	22N	65E	5.401264	5.401264	AFA	0.00899999	0.00899999
8554	---	DEN	SPR	MM	TOWNSEND, C.R.   MOYLE, RUSSELL   KROTZER, JOHN	6/3/1928	SW	SE	8	15N	68E	0	0	---	1	1
8555	---	DEN	SPR	MM	MOYLE, RUSSELL   TOWNSEND, C.R.   KROTZER, JOHN	6/3/1928	SE	SE	8	15N	68E	0	0	---	1	1
8642	---	DEN	STR	MM	BAUERMEISTER, R.C.	7/30/1928	NW	SE	26	12N	68E	0	0	---	0.1	0.1
8675	---	DEN	SPR	STK	ROBISON, BURTON H.	8/25/1928	SE	SW	6	24N	67E	0	0	---	0.025	0.025
8701	2626	CER	UG	STK	GEORGE ELDRIDGE & SON, INC.	9/20/1928	SW	SW	1	18N	67E	8.961188	8.961188	AFA	0.012	0.012
8713	2410	CER	UG	STK	SWALLOW, GEORGE N.   SWALLOW, RICHARD M.	10/6/1928	NE	NE	16	10N	67E	9.421523	9.421523	AFA	0.013	0.013
8716	---	DEN	SPR	MM	ST. LAWRENCE MINES CO.	10/10/1928	NW	SE	26	12N	68E	0	0	---	1	1
8717	---	DEN	SPR	MM	ST. LAWRENCE MINES CO.	10/10/1928	NW	SE	26	12N	68E	0	0	---	1	1
8721	2509	CER	SPR	STK	CORP. OF CHURCH OF LATTER-DAY SAINTS	10/13/1928	SW	SE	25	17N	67E	14.485208	14.485208	AFA	0.02	0.02
8804	1967	CER	STR	STK	BAAL, JOHN MICHAEL JR.	1/2/1929	NW	NE	6	13N	68E	22.40297	22.40297	AFA	0.032	0.032
8979	---	WDR	STR	STK	YELLAND, RICHARD A.	7/4/1929	NW	NW	15	16N	67E	0	0	---	0.2	0.2
9048	---	WDR	STR	IRR	JENSEN, JAMES C.	9/7/1929	NE	NE	32	22N	66E	0	0	---	0.5	0.5
9049	---	DEN	STR	MM	ENGLAND, WILLIAM J.	9/7/1929	SE	SE	31	14N	68E	0	0	---	2	2
9050	---	DEN	STR	MM	ENGLAND, WILLIAM J.	9/7/1929	SW	NE	8	13N	68E	0	0	---	3	3
9088	---	CAN	UG	MM	ENGLAND, W.J.	10/14/1929	SE	NE	21	14N	67E	0	0	---	2	0
9183	---	ABR	SPR	STK	WALKER, FRANK   FRANCIS, DAVID	12/16/1929	NW	NW	25	07N	68E	8.408786	0	AFS	0.05	0
9231	---	WDR	STR	STK	ROGERS, G.W. AND H.T.	1/1/1887	NE	NW	16	16N	68E	0	0	---	0.02	0.02
9296	---	DEN	STR	IRR	DOUTRE, JAMES	7/13/1930	SE	SE	29	21N	66E	0	0	---	1.5	1.5
9435	2473	CER	UG	STK	GEORGE ELDRIDGE & SON, INC.	4/6/1931	NE	NW	26	20N	67E	10.250126	10.250126	AFA	0.019	0.019
9447	---	WDR	EFF	IRR	DAVIS, LEO L.	4/28/1931	NE	SW	20	22N	66E	0	0	---	0.166	0.166
9500	---	DEN	STR	IRR	HESSELGESSER, ERWIN W.	7/16/1931	NW	SW	9	15N	67E	0	0	---	1	1
9591	---	WDR	SPR	IRR	HECKETHORN, LOLA   JOHANSEN, J.P.	5/28/1932	NW	NW	9	15N	67E	0	0	---	1	1
9624	---	CAN	STR	IRR	FARNSWORTH, MYRL Y.	9/10/1932	NE	SE	27	12N	68E	0	0	---	3.2	3.2
9782	---	WDR	OSW	MM	BOWEN, W.N.	7/26/1934	---	---	7	14N	68E	0	0	---	1	1
9795	---	DEN	SPR	MM	LEACH, ROY	8/31/1934	SE	SE	30	14N	68E	0	0	---	0.25	0.25
9817	---	CAN	STR	MM	BOWEN, W.N.	11/15/1934	---	---	---	---	---	0	0	---	2	2
9819	---	CAN	SPR	MM	TOWNSEND, C.R.	11/28/1934	SW	NW	16	15N	68E	0	0	---	0.25	0.25
9828	---	DEN	SPR	MM	WAGNER GOLD PLACER CO. INC.	1/9/1935	SE	N2	18	14N	68E	0	0	---	3.2	3.2
9837	---	WDR	UG	MM	BELLO, MARINO	2/15/1935	---	---	---	---	---	0	0	---	2	0
9941	---	CAN	SPR	MM	KOLCHEK, ALEX	2/21/1936	NE	SW	28	16N	66E	724.229711	724.229711	AFA	1	1
9943	---	CAN	STR	PWR	KROHN, ALBERT H.	2/25/1936	NW	NW	16	16N	66E	7242.020909	7242.020909	AFA	10	10



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 9 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
10385	---	CAN	UG	MM	WAGNER, EDWARD R.	6/19/1939	SE	NE	21	14N	67E	0	0	---	1	0
10437	---	DEN	STR	IRR	ROGERS, G.W. AND H.T.	11/8/1939	NE	NW	16	16N	68E	0	0	---	1.5	1.5
10487	5042	CER	STR	IRR	COPR. OF CHURCH OF LATTER-DAY SAINTS	4/8/1940	NE	NE	2	16N	67E	1149.2	1149.2	AFA	2.873	2.873
10510	2607	CER	SPR	STK	FRANCIS, DAVID WALKER, FRANK	12/16/1929	NW	NW	25	07N	68E	9.912547	9.912547	AFA	0.019	0.019
10611	2812	ABR	STR	IRR	YELLAND, MARION E.	1/1/1870	SE	NE	14	17N	66E	721	0	AFS	4	0
10636	---	WDR	SPR	MM	NICHOLS, ARTHUR S.	3/12/1941	SW	SW	16	15N	68E	0	0	---	1	1
10699	---	WDR	STR	IRR	HECKETHORN, WILL S.	1/1/1886	NW	NE	2	17N	66E	6400	6400	AFA	0	0
10703	8088	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/28/1941	NE	SE	23	15N	66E	256.76	256.76	AFA	4	4
10710	4011	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/31/1941	NW	NE	2	17N	66E	1240	1240	AFA	3.1	3.1
10766	3182	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/29/1941	SE	SE	22	19N	66E	1210.2	1210.2	AFA	6.4	3
10772	---	CAN	SPR	IRR	ROGERS, H.T.	1/21/1942	---	---	15	16N	68E	0	0	---	0.5	0.5
10801	5202	CER	STR	IRR	MORIAH RANCHES INC	4/1/1942	NW	SE	28	17N	67E	277.17	277.17	AFA	6	6
10807	---	CAN	STR	IRR	ELDRIDGE, GEORGE	4/11/1942	SW	NW	24	20N	66E	0	0	---	2.8	0
10808	---	CAN	STR	IRR	ELDRIDGE, GEORGE	4/11/1942	SE	SW	23	20N	66E	0	0	---	2.8	2.8
10809	---	WDR	STR	IRR	ELDRIDGE, GEORGE	4/11/1942	SE	NE	13	20N	66E	0	0	---	2.8	2.8
10817	---	CAN	STR	IRR	ESPLIN, HENRY	4/27/1942	NW	SW	10	18N	66E	0	0	---	10	10
10842	---	WDR	SPR	IRR	ROGERS, H.T.	6/20/1942	SW	SE	15	16N	68E	0	0	---	1	1
10843	4870	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/22/1942	SW	NE	31	19N	67E	0	65.9899999	AFA	4	0.311
10852	---	DEN	SPR	IRR	YELLAND, JOHN	8/17/1942	SW	SE	15	16N	68E	0	0	---	2	2
10853	---	WDR	SPR	IRR	ROGERS, H.T. AND G.W.	12/11/1915	SW	SE	15	16N	68E	0	0	---	0.102	0.102
10874	---	CAN	STR	IRR	ELDRIDGE, JOE	9/30/1942	SE	NE	28	17N	67E	0	0	---	1.6	1.6
10892	---	DEN	STR	IRR	ROGERS, G.W.	11/2/1942	SE	SE	35	17N	67E	800	800	AFA	5	5
10902	---	DEN	SPR	STK	HENRIOD, E.A.	12/17/1942	SE	NW	10	22N	66E	0	0	---	0.1	0.1
10913	---	DEN	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/9/1943	SE	SW	28	20N	66E	0	0	AFA	3	3
10914	---	RFA	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/9/1943	SE	SW	15	20N	66E	640	640	AFA	1	1
10920	---	WDR	SPR	IRR	ELDRIDGE, GEORGE	2/3/1943	SW	NW	34	20NH	69E	0	0	---	0.5	0.5
10921	3375	CER	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	2/3/1943	SE	SE	23	17N	67E	570.73	570.73	AFA	0.79	0.79
10993	3376	CER	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	9/1/1943	SE	NW	24	17N	67E	433.62	433.62	AFA	0.6	0.6
10994	4272	ABR	STR	IRR	YELLAND, MARY	9/2/1943	SE	NE	14	17N	66E	1540	0	AFS	3.5	0
11029	---	DEN	STR	IRR	ROBISON, REED B.	11/29/1943	NE	NW	10	18N	66E	0	0	---	6	6
11242	---	DEN	SPR	STK	ROBISON, B.H.	2/13/1945	SE	SW	13	23N	65E	0	0	---	0.05	0.05
11301	---	CAN	STR	IRR	ROBISON, REED B.	5/25/1945	SW	NE	2	18N	66E	1600	0	AFS	4	0
11311	3125	CER	UG	STK	INTERMOUNTAIN RANCHES. LTD	6/9/1945	SE	SW	19	23N	66E	7.05847	7.05847	AFA	0.017	0.017
11313	3126	CER	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	6/16/1945	NE	SE	2	22N	65E	7.580183	7.580183	AFA	0.017	0.017
11314	3138	CER	UG	STK	INTERMOUNTAIN RANCHES, LTD	6/16/1945	SW	SW	5	22N	66E	6.536757	6.536757	AFA	0.016	0.016



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 10 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
11350	---	DEN	STR	STK	DOUTRE, JAMES E.	8/11/1945	SE	NE	4	21N	66E	0	0	---	0.05	0.05
11351	---	DEN	SPR	STK	DOUTRE, JAMES E.	8/11/1945	NW	NE	12	21N	65E	0	0	---	0.05	0.05
11352	---	DEN	SPR	STK	DOUTRE, JAMES E.	8/11/1945	SW	SW	1	21N	65E	0	0	---	0.05	0.05
11353	---	CAN	STR	IRR	DOUTRE, JAMES E.	8/11/1945	NE	---	1	21N	65E	0	0	---	2	2
11354	3127	CER	UG	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	8/11/1945	NE	NE	10	20N	67E	26.42322897	26.42322897	AFA	0.04	0.04
11355	3075	CER	UG	STK	HENRIOD, EUGENE A.	8/11/1945	SE	SE	7	23N	66E	2.884765969	2.884765969	AFA	0.004	0.004
11804	---	CAN	OSW	IRR	YELLAND, R.A.	3/12/1947	SE	SE	33	17N	67E	0	0	---	5	5
11954	---	CAN	SPR	MM	ST. LAWRENCE MINING CO.	8/11/1947	SE	SE	14	12N	68E	0	0	---	0.25	0.25
12256	---	WDR	STR	IRR	YELLAND, MARION E.	2/11/1948	NE	NW	22	13N	67E	714.679999	714.679999	AFS	3.186	3.186
12463	---	CAN	UG	IRR	FARNSWORTH, MYRL Y.	5/24/1948	SW	SE	24	12N	67E	0	0	---	3	0
12464	---	CAN	UG	IRR	FARNSWORTH, MYRL Y.	5/24/1948	SW	SE	24	12N	67E	0	0	---	3	0
12467	3702	CER	UG	MM	MINERVA SCHEELITE MINING CO.	5/27/1948	SE	NE	12	11N	67E	72.364662	72.364662	AFA	0.1	0.1
12528	---	DEN	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/7/1948	NE	NW	34	20N	66E	0	0	AFA	12	12
12571	4946	CER	SPR	IRR	DAVID J. ELDRIDGE DAVID J. ELDRIDGE & HELEN ELDRIDGE ROGERS, H.T.	8/9/1948	NE	SW	21	15N	68E	65	65	AFA	0.334	0.334
12899	---	CAN	UG	IRR	SWALLOW, ARLO B.	5/7/1949	NW	NE	26	13N	67E	0	0	---	2	0
12900	---	CAN	UG	IRR	SWALLOW, ARLO B.	5/7/1949	NW	SE	26	13N	67E	1280	1280	AFS	2	2
12901	---	CAN	UG	IRR	SWALLOW, ARLO B.	5/7/1949	SW	NE	26	13N	67E	0	0	---	2	0
12902	---	CAN	UG	IRR	SWALLOW, BEATRICE KATHERINE	5/7/1949	SW	NE	26	13N	67E	0	0	---	2	0
12903	---	CAN	UG	IRR	SWALLOW, BEATRICE KATHERINE	5/7/1949	NE	NE	27	13N	67E	0	0	---	2	0
12904	---	CAN	UG	IRR	SWALLOW, BEATRICE KATHERINE	5/7/1949	NE	SE	27	13N	67E	0	0	---	2	0
12905	---	CAN	UG	IRR	SWALLOW, RICHARD M.	5/7/1949	NE	NE	34	13N	67E	0	0	---	2	0
12906	---	CAN	UG	IRR	SWALLOW, RICHARD M.	5/7/1949	NE	SE	34	13N	67E	1280	1280	AFS	2	2
12907	---	CAN	UG	IRR	SWALLOW, RICHARD M.	5/7/1949	SE	SE	34	13N	67E	0	0	---	2	0
12908	---	CAN	UG	IRR	SWALLOW, ETHEL BURR	5/7/1949	SW	SE	35	13N	67E	0	0	---	2	0
12909	---	CAN	UG	IRR	SWALLOW, ETHEL BURR	5/7/1949	NW	NE	2	12N	67E	0	0	---	2	0
12910	---	CAN	UG	IRR	SWALLOW, ETHEL BURR	5/7/1949	NW	NW	2	12N	67E	0	0	---	2	0
12943	---	CAN	UG	IRR	SWALLOW, GEORGE N.	5/31/1949	NE	NE	24	11N	67E	0	0	---	2	0
12944	---	CAN	UG	IRR	SWALLOW, GEORGE N.	5/31/1949	NE	SE	24	11N	67E	0	0	---	2	0
13457	4236	CER	STR	IRR	GEORGE ELDRIDGE & SON, INC.	7/31/1950	SE	SE	15	18N	66E	613.9	613.9	AFA	3.44	3.44
13652	4159	CER	SPR	IRR	BERGER, ALFRED R. BERGER, TREVA L.	3/5/1951	NW	NW	21	15N	68E	8	8	AFA	0.03	0.03
13653	---	WDR	SPR	MM	PETERSON, GLADIS ABEL, HELEN A. ABEL, DAVID F. ABEL, ALBERT H.	3/5/1951	SE	NE	18	14N	68E	0	0	---	0.75	0.75
13729	---	CAN	SPR	PWR	WILLIAMS, JAMES D.	5/21/1951	SE	SE	26	12N	68E	0	0	---	0	0
13852	---	DEN	UG	IRD	SWALLOW, ETHEL BURR	10/3/1951	SE	SW	35	13N	67E	0	0	AFA	0.5	0
13853	---	DEN	UG	IRR	SWALLOW, ETHEL BURR	10/3/1951	NE	SW	2	12N	67E	0	0	---	0.5	0





**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 11 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
13854	---	DEN	UG	IRD	SWALLOW, ETHEL BURR	10/3/1951	NE	NW	2	12N	67E	0	0	AFA	0.5	0
13855	---	DEN	UG	STK	SWALLOW BROS.	10/3/1951	NE	SW	2	12N	67E	0	0	---	0.5	0
13863	---	WDR	UG	IRR	ROBISON, B.H.	10/15/1951	NW	NE	11	19N	66E	0	0	---	3	0
14012	---	CAN	UG	IRR	SWALLOW, ETHEL BURR	1/23/1952	NE	SW	2	12N	67E	640	640	AFA	0.5	0.5
14463	---	WDR	STR	IRD	KIRKEBY, GORDON A.	7/31/1952	SW	SE	4	11N	68E	0	0	---	3	3
14464	---	DEN	STR	IRD	KIRKEBY, GORDON A.	7/31/1952	SW	SE	4	11N	68E	0	0	---	3	3
14509	---	DEN	STR	IRD	KNOUS, HOWARD O.	8/29/1952	SE	SW	17	13N	68E	0	0	---	4	4
15381	---	WDR	UG	MM	M.I.A. COMPANY	11/9/1953	NW	NE	29	11N	68E	0	0	---	0.7	0
15574	---	WDR	UG	MM	STUNZ, B.A.	3/29/1954	SE	NE	21	14N	67E	0	0	---	0	0
15709	---	CAN	SPR	MM	TUNGSTEN MINERALS, INC.	6/16/1954	LT04	---	34	20NH	69E	0	0	---	1	1
15812	4808	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/27/1954	NE	NW	13	13N	67E	640	640	AFA	1.593	1.593
15873	---	CAN	STR	IRR	JEPPSON, CLARA ROBISON (ET AL)	6/1/1956	NE	NW	22	13N	67E	0	0	---	1.593	1.593
16412	---	WDR	UG	IRR	HARRIS, NORMA E.	4/21/1955	NW	SW	36	11N	66E	0	0	---	5	0
16495	---	WDR	UG	IRD	LAKE, VIOLA E.	5/26/1955	SW	SE	27	11N	67E	0	0	---	6	6
16496	---	WDR	UG	IRD	BECK, DOTTIE J.	5/26/1955	SE	SE	27	11N	67E	0	0	---	6	0
16497	---	WDR	UG	IRD	TACKETT, LEE A.	5/26/1955	SE	SE	26	11N	67E	0	0	---	6	0
16498	---	WDR	UG	IRD	TACKETT, CORALLEE A.	5/26/1955	SE	SE	23	11N	67E	0	0	---	6	0
16499	---	WDR	UG	IRD	TACKETT, REUBEN A.	5/26/1955	SW	SE	23	11N	67E	0	0	---	6	0
16500	---	WDR	UG	IRD	RICE, HENRY L.	5/26/1955	SE	SW	29	11N	67E	0	0	---	6	0
16501	---	WDR	UG	IRD	RICE, MARY L.	5/26/1955	SW	SW	29	11N	67E	0	0	---	6	0
16503	---	WDR	UG	IRD	CHASE, BARBARA J.	5/31/1955	SW	SE	26	11N	67E	0	0	---	6	0
16504	---	WDR	UG	IRD	TACKETT, BETTY	5/31/1955	SE	NE	25	11N	67E	0	0	---	6	0
16505	---	WDR	UG	IRD	TACKETT, DEON R.	5/31/1955	NE	NE	25	11N	67E	0	0	---	6	0
16506	---	WDR	UG	IRD	HAMMONDS, BERTHA F.	5/31/1955	SE	SE	22	11N	67E	0	0	---	6	0
16507	---	WDR	UG	IRD	HAMMONDS, JOHNNIE L.	5/31/1955	SW	SE	22	11N	67E	0	0	---	6	0
16508	---	CAN	UG	IRD	CURTEN, CLIFFORD	5/31/1955	NE	NE	20	11N	67E	0	0	---	6	6
16509	---	WDR	UG	IRD	COLE, RUBY J.	5/31/1955	SW	SW	32	11N	67E	0	0	---	6	0
16510	---	WDR	UG	IRD	COLE, HERBERT C.	5/31/1955	SE	SW	32	11N	67E	0	0	---	6	0
16511	---	WDR	UG	IRD	DOWDY, KENNETH A.	5/31/1955	E2	---	19	11N	67E	0	0	---	0	0
16512	---	WDR	UG	IRD	GIBSON, IMOGENE	5/31/1955	NW	NE	36	11N	67E	0	0	---	6	0
16513	---	WDR	UG	IRD	GIBSON, JOHN F.	5/31/1955	NE	NW	36	11N	67E	0	0	---	6	0
16514	---	WDR	UG	IRD	MC CLURE, RUTH I.	5/31/1955	SE	SW	30	11N	67E	0	0	---	0	0
16515	---	WDR	UG	IRD	MC CLURE, WILLIAM C.	5/31/1955	SW	SW	30	11N	67E	0	0	---	0	0
16516	---	WDR	UG	IRR	DOWDY, JULEY MAY	5/31/1955	SW	SW	31	11N	67E	0	0	---	6	0
16517	---	WDR	UG	IRD	DOWDY, OREN TURNER	5/31/1955	SE	SW	31	11N	67E	0	0	---	6	0
16518	---	WDR	UG	IRD	LAKE, ROBERT D.	5/31/1955	SW	SE	28	11N	67E	0	0	---	6	0
16519	---	WDR	UG	IRD	LAKE, LEONARD L.	5/31/1955	SE	SW	35	11N	67E	0	0	---	6	6

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 12 of 36)



App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
16520	---	WDR	UG	IRD	GIBSON, RUTH I.	5/31/1955	NW	NW	35	11N	67E	0	0	---	6	0
16521	---	WDR	UG	IRD	GIBSON, THOMAS F.	5/31/1955	NE	NW	35	11N	67E	0	0	---	6	0
16522	---	WDR	UG	IRD	GIBSON, EVA N.	5/31/1955	NE	NE	34	11N	67E	0	0	---	6	0
16664	---	CAN	UG	IRD	WITHERSPOON, JAMES W.	7/27/1955	NW	NW	6	12N	67E	0	0	---	0	0
16665	---	WDR	UG	IRD	WOMBLE, ELIZABETH J.	7/27/1955	SW	NW	31	13N	67E	0	0	---	4.5	4.5
16666	---	CAN	UG	IRD	SPRADLEY, NELL P.	7/27/1955	NW	NW	31	13N	67E	0	0	---	4.5	4.5
16667	---	WDR	UG	IRD	WITHERSPOON, MARGARET J.	7/27/1955	NW	NW	6	12N	67E	0	0	---	0	0
16668	---	WDR	UG	IRD	LANGLEY, EARNST L.	7/27/1955	NW	NW	4	12N	67E	0	0	---	4.5	0
16669	---	WDR	UG	IRD	THOMAS, MARY	7/27/1955	NW	NW	5	12N	67E	0	0	---	4.5	0
16670	---	CAN	UG	IRD	THOMAS, WAYNE E.	7/27/1955	NW	NW	5	12N	67E	0	0	---	4.5	4.5
16671	---	WDR	UG	IRD	LANGLEY, HELEN	7/27/1955	SW	NW	4	12N	67E	0	0	---	4.5	0
16672	---	WDR	UG	IRD	AIKIN, JOHN D.	7/27/1955	NW	NW	3	12N	67E	0	0	---	4.5	4.5
16673	---	WDR	UG	IRD	AIKIN, MEL R.	7/27/1955	NW	NW	3	12N	67E	0	0	---	4.5	4.5
16797	---	DEN	UG	IRR	SWALLOW, GEORGE N.	11/28/1955	NE	SE	24	11N	24E	0	0	---	2	0
16890	4672	CER	UG	QM	PIERCE, L.L.   PIERCE, RACHEL	3/29/1956	NE	SW	5	13N	66E	72.364662	72.364662	AFA	0.1	0.1
17017	4673	CER	STR	IRR	BAAL, JOHN MICHAEL JR.	2/2/1917	LT03	---	6	13N	68E	97	97	AFA	0.318	0.318
17049	---	WDR	UG	MM	FOTHERGILL, ALFRED A.   HANCHETT, BRUCE	9/19/1956	SE	SW	21	14N	67E	0	0	---	1	0
17074	---	CAN	STR	MM	DAVIDSON, ARLIN	10/23/1956	NE	NW	6	13N	68E	0	0	---	0.75	0.75
17106	---	CAN	UG	IRR	SWALLOW, GEORGE N.	11/29/1956	NE	SE	24	11N	57E	0	0	---	2	0
17163	4810	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	1/28/1957	NE	NW	22	13N	67E	320	320	AFA	1.6	1.6
17168	---	CAN	UG	MM	DAVIDSON, ARLIN	2/1/1957	NE	NW	6	13N	68E	0	0	---	1	0
17169	---	DEN	STR	MM	DAVIDSON, ARLIN	2/1/1957	NE	NW	6	13N	68E	0	0	---	0.75	0.75
17205	---	CAN	UG	IRD	ELDRIDGE, DELBERT D.	3/11/1957	NE	NW	13	20N	66E	1240	1240	AFA	2	2
17206	---	CAN	OSW	IRD	ELDRIDGE, DELBERT D.	3/11/1957	SE	NE	13	20N	66E	25	25	AFA	0	0
17207	---	DEN	OSW	IRD	ELDRIDGE, DELBERT D.	3/11/1957	SE	SW	23	20N	66E	42	42	AFA	0	0
17208	---	CAN	OSW	IRD	ELDRIDGE, DELBERT D.	3/11/1957	SW	NW	24	20N	66E	54	54	AFA	0	0
17319	---	DEN	SPR	STK	ROBISON, B.H.	7/1/1957	NE	NW	26	23N	66E	4.511283	4.511283	AFS	0.25	0.25
17342	---	DEN	STR	IRR	ROBISON, B.H.	8/5/1957	SW	SW	34	19N	66E	376	376	AFS	2	2
17344	---	WDR	SPR	MM	FOTHERGILL, ALFRED A.   HANCHETT, BRUCE	8/7/1957	NE	SE	30	14N	68E	0	0	---	0.25	0.25
17592	---	CAN	STR	IRR	BATES, RICHARD MRS.	6/27/1958	---	---	10	18N	66E	4000	4000	AFA	10	10
17605	---	DEN	STR	IRR	GEORGE ELDRIDGE & SON, INC.	7/10/1958	SE	SW	28	20N	66E	960	960	AFA	10	10
17723	---	RFA	STR	IRR	ELDRIDGE, GEORGE H.   ELDRIDGE, MARY E.	11/21/1958	NE	NW	10	18N	66E	7360	7360	AFA	10	10
18043	5490	CER	UG	STK	CL CATTLE COMPANY LLC	6/8/1959	SW	SW	31	12N	67E	4.480594	4.480594	AFA	0.0062	0.0062
18044	5672	CER	UG	STK	CL CATTLE COMPANY LLC	6/8/1959	NW	NW	6	11N	67E	4.480594	4.480594	AFA	0.0062	0.0062
18045	5491	CER	UG	STK	CL CATTLE COMPANY LLC	6/8/1959	SE	NW	35	11N	66E	8.961188	8.961188	AFA	0.0125	0.01
18136	---	CAN	UG	MM	WHITE PINE MINING COMPANY	7/23/1959	SE	---	8	14N	67E	0	0	---	27	0
18138	---	WDR	UG	IRR	ROBISON, B.H.	7/24/1959	NW	NE	14	19N	66E	2400	2400	AFA	6	6
18183	5649	CER	SPR	MM	HUNTINGTON, GLEN	8/3/1959	NW	NE	25	14N	67E	241.9827647	241.9827647	AFA	0.5	0.5

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 13 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
18524	6138	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	1/18/1960	NE	NE	26	12N	67E	21.15	21.15	AFA	1.002	1.002
18525	6992	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	1/18/1960	SW	SE	24	12N	67E	57.84	57.84	AFA	2.12	2.12
18827	7567	ABR	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	SE	SE	12	12N	67E	1088.66	0	AFA	3	0
18828	5492	CER	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	NW	NE	13	12N	67E	4.480594	4.480594	AFA	0.006	0.006
18829	5493	CER	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	NW	SE	24	12N	67E	4.480594	4.480594	AFA	0.006	0.006
18830	5494	CER	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	NW	NE	27	12N	67E	4.480594	4.480594	AFA	0.006	0.006
18841	5673	CER	UG	STK	NEVADA LAND & RESOURCE CO LLC	5/13/1960	SE	NW	20	15N	67E	8.961188	8.961188	AFA	0.0125	0.0111
18842	5674	CER	UG	STK	NEVADA LAND & RESOURCE CO LLC	5/13/1960	NE	NW	32	15N	67E	8.961188	8.961188	AFA	0.0125	0.0125
18843	5675	CER	UG	STK	NEVADA LAND & RESOURCE CO LLC	5/13/1960	NE	SW	29	15N	67E	8.961188	8.961188	AFA	0.0125	0.0125
19076	---	RFP	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/29/1960	NE	SW	10	18N	66E	3840	3840	AFA	7	7
19435	7800	CER	RES	IRR	ELDRIDGE, DELBERT D.	1/10/1961	SW	NW	24	20N	66E	54	54	AFA	0	0
19436	7805	CER	RES	IRR	ELDRIDGE, DELBERT D.	1/10/1961	SE	NE	13	20N	66E	25	25	AFA	0	0
19653	---	CAN	UG	IRD	RHODES, PEARL M.	3/9/1961	SW	NE	6	12N	67E	0	0	AFA	4.7	0
19654	6449	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	3/9/1961	SE	SE	31	13N	67E	575.83	575.83	AFA	2.45	2.45
20107	---	CAN	UG	QM	WHITE PINE COUNTY SCHOOL DISTRICT	9/27/1961	NE	SW	2	12N	67E	0	0	---	0.05	0
20549	---	ABR	UG	IRD	LARSON, PHYLLIS SEDERHOLM	7/9/1962	NE	SE	34	13N	67E	1280	0	AFA	5.4	0
20550	---	ABR	UG	IRD	LARSON, JOSEPH LYN	7/9/1962	SW	SE	26	13N	67E	1280	0	AFA	5.4	0
20817	6777	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	10/29/1962	NE	NE	21	13N	67E	640	640	AFA	3.5	3.5
20818	---	CAN	UG	IRD	RHODES, VAUGHN W.	10/29/1962	NW	NE	27	13N	67E	1280	1280	AFA	5.4	5.4
20889	---	ABR	UG	IRR	ELDRIDGE, DELBERT D.	12/12/1962	NE	NW	13	20N	66E	1280	0	AFA	2	0
20895	7560	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/13/1962	SE	SW	25	19N	66E	2240	554.32	AFA	7.891	3
21201	---	CAN	SPR	STK	CHACAS INC.	4/16/1963	NW	NW	9	15N	67E	0	0	---	1	1
21220	6505	CER	STR	IRR	ANDRAE, ARTHUR J.	1/1/1870	NE	SW	15	17N	66E	721	721	AFA	4	4
21231	---	WDR	SPR	STK	CHACHAS INC.	4/29/1963	SW	SE	32	16N	67E	0	0	---	1	1
21687	6506	CER	STR	IRR	ANDRAE, ARTHUR J.	9/2/1943	NE	SW	15	17N	66E	1540	1540	AFA	3.5	3.5
21688	6507	CER	STR	IRR	ANDRAE, ARTHUR J.	12/13/1963	NW	NW	23	17N	66E	1540	1540	AFA	4	4
21831	---	WDR	SPR	STK	DRAKULICH, MILAN J. DRAKULICH, LOU JEAN	2/21/1964	NW	NW	17	15N	68E	0	0	---	0.1	0.1
21832	5817	CER	SPR	STK	ELDRIDGE, DAVID AND HELEN	2/21/1964	SW	SE	8	15N	68E	0.675158	0.675158	AFA	0.001	0.001
22016	---	ABR	UG	IRD	LARSON, PHYLLIS SEDERHOLM	7/9/1962	NW	SE	26	13N	67E	1280	0	AFA	5.4	0
22017	---	CAN	UG	IRD	RHODES, URSEL C.	7/9/1962	NE	NE	34	13N	67E	1280	640	AFA	5.4	2.7
22105	---	CAN	UG	IRR	EL TEJON CATTLE CO.	7/16/1964	NE	SE	1	11N	67E	0	0	---	4.01	0
22106	---	CAN	UG	IRR	EL TEJON CATTLE CO.	7/16/1964	SE	NW	1	11N	67E	0	0	---	5.4	0
22107	---	CAN	UG	IRR	EL TEJON CATTLE CO.	7/16/1964	SE	NE	13	11N	67E	0	0	---	5.4	0
22108	---	CAN	UG	IRR	EL TEJON CATTLE CO.	7/16/1964	NW	SE	24	11N	67E	0	0	---	5.4	0
22109	---	CAN	UG	IRR	EL TEJON CATTLE CO.	7/16/1964	SW	SE	7	11N	68E	0	0	---	2.4	0
22493	---	ABR	STR	IRR	GEORGE ELDRIDGE & SON, INC.	3/16/1965	SE	SW	25	18N	66E	1600	0	AFA	6	0
22544	7566	ABR	UG	IRR	HARBECKE, FERN A. HARBECKE, ROBERT L.	4/16/1965	NW	NE	22	13N	67E	640	0	AFA	2.68	0

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 14 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
22545	7571	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	4/16/1965	SW	NE	15	13N	67E	640	640	AFA	2	2
22561	---	CAN	UG	IRR	SWALLOW RANCHES INC.	4/29/1965	NE	SW	2	12N	67E	0	0	---	0.7	0.7
22562	---	CAN	UG	IRR	SWALLOW RANCHES INC.	4/29/1965	LT02	---	2	12N	67E	0	0	---	0.7	0.7
22563	---	CAN	UG	IRR	SWALLOW RANCHES INC.	4/29/1965	NE	SW	2	12N	67E	0	0	---	0.7	0.7
22564	---	CAN	UG	IRR	SWALLOW RANCHES INC.	4/29/1965	SE	SW	35	13N	67E	0	0	---	0.7	0.7
22629	---	CAN	UG	IRD	RHODES, URSEL C.	6/14/1965	SE	NE	27	13N	67E	320	320	AFA	1.7	1.7
22630	---	CAN	SPR	STK	ROGERS BROTHERS	6/14/1965	NW	SW	10	16N	67E	0	0	---	0.025	0.025
22645	8112	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/16/1965	SW	NE	12	12N	67E	60	60	AFA	0.61	0.61
22750	---	CAN	UG	STK	EL TEJON CATTLE CO.	9/2/1965	NE	NW	2	12N	67E	0	0	---	0.021	0.021
22751	---	CAN	UG	STK	EL TEJON CATTLE CO.	9/2/1965	SE	SW	35	13N	67E	15.682079	15.682079	AFA	0.021	0.021
22752	---	CAN	UG	STK	EL TEJON CATTLE CO.	9/2/1965	NE	SW	2	12N	67E	0	0	---	0.021	0.021
22753	---	CAN	UG	STK	EL TEJON CATTLE CO.	9/2/1965	NE	NW	2	12N	67E	0	0	---	0.021	0.021
22803	---	CAN	UG	IRR	EL TEJON CATTLE CO.	9/29/1965	NE	NW	2	12N	67E	640	0	AFA	0.7	0
22804	---	CAN	UG	IRR	EL TEJON CATTLE CO.	9/29/1965	NE	NW	2	12N	67E	640	0	AFA	0.7	0
22805	---	CAN	UG	IRR	EL TEJON CATTLE CO.	9/29/1965	NE	SW	2	12N	67E	640	0	AFA	0.7	0
22806	---	CAN	UG	IRR	EL TEJON CATTLE COMPANY	9/29/1965	SE	SW	35	13N	67E	640	0	AFA	0.7	0
22979	---	CAN	STR	IRR	FARNSWORTH, MYRL Y.	2/28/1966	NE	SE	27	12N	68E	1280	649.76	AFA	5.4	5.4
23274	---	CAN	UG	IRR	ELDRIDGE, DELBERT D.	12/12/1962	NW	NE	13	20N	66E	0	0	---	2	0
23556	---	CAN	UG	MM	FRANDSEN, REX TURNER, ACE	12/21/1966	SW	SW	22	14N	67E	0	0	---	5	0
23821	---	CAN	UG	IRD	SPENCER, L. CLAY	4/19/1967	NE	NW	31	13N	67E	640	640	AFA	2.7	2.7
23852	---	ABR	UG	IRD	LARSON, PHYLLIS SEDERHOLM	5/22/1964	SE	SW	26	13N	67E	640	0	AFA	2.7	0
23907	---	CAN	UG	IRD	MCLAIN, OLGA M.	5/31/1967	SW	SE	15	13N	67E	480	480	AFA	2.4	2.4
23908	---	CAN	UG	IRD	MCLAIN, LAURENCE C.	5/31/1967	SE	NE	16	13N	67E	960	960	AFA	4	4
23963	---	CAN	UG	IRD	SWALLOW, ROLAND	6/30/1967	SW	SE	29	13N	67E	0	0	---	5.6	0
23964	---	CAN	UG	IRD	SWALLOW, JO ANN	6/30/1967	NW	SE	29	13N	67E	0	0	---	5.6	0
24260	8030	CER	SPR	MM	CRAWFORD, GLEN	12/4/1967	NW	SW	28	13N	68E	5.646776	5.646776	AFA	0.008	0.008
24306	---	CAN	UG	IRD	MCLAIN, SHIRLEY A.	1/8/1968	NW	NW	7	14N	67E	0	0	---	5.4	0
24307	---	CAN	UG	IRD	MCLAIN, JAMES C.	1/8/1968	NE	NW	12	14N	66E	1280	1280	AFA	5.4	5.4
24308	---	CAN	UG	IRD	MCLAIN, HUBERT H.	1/8/1968	SW	NW	24	14N	66E	1280	1280	AFA	5.4	5.4
24309	---	CAN	UG	IRD	MC CLAIN, MILDRED J.	1/8/1968	SE	NW	23	14N	66E	1280	1280	AFA	5.4	5.4
24334	---	CAN	UG	IRD	RICHBURG, LOWELL	1/22/1968	NE	NW	36	14N	66E	1280	1280	AFA	5.4	5.4
24336	---	CAN	UG	IRD	SWINDLE, BILLY L.	1/23/1968	NE	NW	13	14N	66E	1280	1280	AFA	5.4	5.4
24343	---	CAN	UG	IRD	HANSEN, VIRGINIA N.	1/26/1968	NW	NW	18	14N	67E	0	0	---	5.4	0
24366	---	CAN	UG	IRD	SWALLOW, JO ANN	2/14/1968	NW	NE	29	13N	67E	0	0	---	5.4	0
24367	---	CAN	UG	IRD	SWALLOW, ROLAND	2/14/1968	SW	NE	29	13N	67E	0	0	---	5.4	0
24576	---	CAN	UG	MM	TAYLOR, GLENN W.	7/15/1968	SE	SE	21	14N	67E	0	0	---	2	0
24898	---	ABR	UG	IRD	LARSON, PHYLLIS SEDERHOLM	5/12/1967	SE	SW	26	13N	67E	640	0	AFA	2.7	0
24899	---	ABR	UG	IRD	LARSON, PHYLLIS SEDERHOLM	5/22/1964	NW	SE	26	13N	67E	640	0	AFA	2.3	0



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 15 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
24900	---	ABR	UG	IRD	LARSON, PHYLLIS SEDERHOLM	2/5/1969	NW	SE	26	13N	67E	0	0	---	3.5	0
24908	---	DEN	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/13/1960	SE	SE	34	20N	66E	4320	4320	AFA	10	10
25365	---	CAN	SPR	MM	TAYLOR, GLENN WADE	11/26/1969	NW	SW	29	14N	68E	0	0	---	1	1
25366	---	CAN	SPR	MM	TAYLOR, GLEN WADE	11/26/1969	NE	SW	29	14N	68E	0	0	---	0.5	0.5
25367	---	CAN	SPR	MM	TAYLOR, GLENN WADE	11/26/1969	SW	NE	29	14N	68E	0	0	---	0.5	0.5
25368	---	CAN	SPR	MM	TAYLOR, GLEN WADE	11/26/1969	NE	SE	30	14N	68E	0	0	---	0.5	0.5
25439	9213	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	7/9/1962	NE	NE	34	13N	67E	240	240	AFA	1.3	1.3
25524	8666	ABR	UG	MM	MINEL INC.	4/3/1970	SE	SE	16	14N	67E	302.440095	0	AFA	6	0
25591	---	CAN	OSW	MM	TAYLOR, GLENN WADE	5/6/1970	NW	SE	32	14N	68E	0	0	---	1	1
25624	---	CAN	STR	MM	TAYLOR, GLENN WADE	5/21/1970	SE	NE	5	13N	68E	0	0	---	5	5
25677	---	CAN	SPR	MM	TAYLOR, GLENN WADE	6/24/1970	NW	SW	29	14N	68E	0	0	---	1	1
25678	9294	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/28/1966	NE	SE	27	12N	68E	630.24	630.24	AFA	4	4
25679	9295	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/24/1970	SE	NE	24	12N	67E	630.24	630.24	AFA	1.36	1.36
25680	9296	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/24/1970	NE	NE	24	12N	67E	630.24	630.24	AFA	1.58	1.58
25704	---	CAN	UG	MM	TAYLOR, GLENN WADE	7/8/1970	SW	SE	1	13N	67E	0	0	---	5	0
25827	---	CAN	UG	MM	BRADLEY, KENNETH H.	10/8/1970	---	---	---	14N	67E	0	0	---	6	0
25857	---	RFP	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	11/9/1970	SE	SE	3	18N	66E	0	0	AFA	3	3
25896	---	DEN	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/25/1945	SE	SE	3	18N	66E	0	0	AFA	4	4
26038	---	CAN	UG	MM	SPRING VALLEY GOLD DREDGING, INC.	4/7/1971	NW	SW	17	14N	67E	0	0	---	6	0
26051	---	DEN	UG	IRR	SWALLOW, JO ANN	4/19/1971	NW	NE	29	13N	67E	0	0	---	5.4	0
26071	---	RFA	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	4/22/1971	SW	NE	1	18N	66E	0	0	AFA	3	3
26072	---	RFP	STR	IRR	GEORGE ELDRIDGE & SON, INC.	4/23/1971	SE	SW	23	18N	66E	0	0	AFA	10	10
26105	---	RFP	STR	IRR	GEORGE ELDRIDGE & SON, INC.	5/5/1971	SE	SW	23	19N	66E	0	0	AFA	7.5	7.5
26112	---	RFA	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/10/1971	NE	NE	26	19N	66E	6000	6000	AFA	8	8
26165	---	RFA	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/9/1971	NE	NE	15	19N	66E	4000	4000	AFA	2	2
26166	---	RFA	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/9/1971	SE	NE	15	19N	66E	4000	4000	AFA	4	4
26167	---	CAN	STR	IRR	ROBISON, B.H.	6/9/1971	---	---	23	18N	66E	0	0	---	2	2
26223	---	CAN	UG	MM	NELSON, MERRILL A. LARSON, J. LYN	7/20/1971	NW	SW	27	14N	67E	0	0	---	6	0
26228	8363	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	7/26/1971	SE	NE	16	13N	67E	239	239	AFA	0.891	0.891
26229	8364	CER	UG	IRD	SOUTHERN NEVADA WATER AUTHORITY	7/26/1971	SW	SE	15	13N	67E	157.68	157.68	AFA	1.504	1.504
26263	---	RFA	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/17/1971	SE	SW	25	19N	66E	0	0	AFA	2	2
26266	---	RFA	STR	IRR	GEORGE ELDRIDGE & SON, INC.	8/23/1971	SE	SE	3	18N	66E	960	960	AFA	3.2	3.2
26268	---	RFA	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/23/1971	SW	SW	36	19N	66E	3200	3200	AFA	2	2
26343	---	CAN	UG	IRR	GREAT BASIN RANCHING & MINING, INC.	10/6/1971	SE	NE	22	13N	67E	1280	1280	AFA	5.4	5.4
26398	---	RFA	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	11/9/1971	SW	NW	36	19N	66E	3200	3200	AFA	2	2
26399	---	RFA	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	11/9/1971	SW	NW	36	19N	66E	0	0	AFA	2	2
26430	---	RFA	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	12/6/1971	SE	NE	26	19N	66E	1600	1600	AFA	2	2

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 16 of 36)



App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
26502	9300	CER	UG	IRR	RASMUSSEN, JAMES B.   SOUTHERN NEVADA WATER AUTHORITY	1/25/1972	NE	SE	22	13N	67E	73.48	73.48	AFA	0.27	0.27
26546	8365	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	4/16/1965	NW	NE	22	13N	67E	157.68	157.68	AFA	2.68	2.68
26655	---	RFA	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	4/7/1972	SW	SW	25	19N	66E	1040	1040	AFA	1	1
26656	---	RFP	SPR	IRR	GEORGE ELDRIDGE & SON, INC.	4/7/1972	SW	NW	25	19N	66E	1280	1280	AFA	1	1
26740	---	RFP	OSW	IRR	GEORGE ELDRIDGE & SON, INC.	5/24/1972	SW	SW	33	17N	67E	533.33	533.33	AFA	3	3
26741	---	DEN	OSW	IRR	MT. MORIAH RANCHES, INC.	5/24/1972	NW	SW	28	17N	67E	480	480	AFA	2	2
26742	---	DEN	OSW	IRR	MT. MORIAH RANCHES, INC.	5/24/1972	SE	SE	28	17N	67E	160	160	AFS	2	2
26753	---	WDR	OSW	IRR	GEORGE ELDRIDGE & SON, INC.	8/25/1919	SW	SW	33	17N	67E	505.41	505.41	AFA	1.895	1.895
26952	8366	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1972	NW	NE	22	13N	67E	239	239	AFA	2.5	2.5
26953	8367	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1972	SW	SE	15	13N	67E	239	239	AFA	1.504	1.504
27378	8357	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/28/1973	NW	NE	14	19N	66E	3200	1266.64	AFA	4	1.75
27516	---	DEN	UG	MM	FRANDSEN, REX	6/4/1973	SE	SE	21	14N	67E	0	0	---	3	0
27517	---	CAN	UG	MM	FRANDSEN, REX	6/4/1973	SW	SW	22	14N	67E	0	0	---	1.12	0
27540	---	CAN	OSW	MM	MORROS, PETER G. & DRAKULICH, MILAN	6/11/1973	NE	NE	8	14N	68E	0	0	---	2	2
27739	9772	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1973	NE	NW	32	13N	68E	823.24	823.24	AFA	2.3	2.3
27740	9773	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1973	SE	NE	18	13N	68E	753.8	753.8	AFA	3.2	3.2
27741	9774	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1973	SW	NW	20	13N	68E	361.99	361.99	AFA	0.5	0.5
27742	9775	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1973	SE	NE	18	13N	68E	753.8	753.8	AFA	3.2	3.2
27743	9743	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1973	SW	SW	4	11N	68E	12348.3	12348.3	AFA	87	87
27768	8979	CER	UG	WLD	WILDLIFE DEPARTMENT-NEVADA	9/19/1973	NE	SW	2	12N	67E	20.009228	20.009228	AFA	0.027	0.027
27901	9776	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	11/15/1973	SE	NW	29	13N	68E	823.24	823.24	AFA	1.5	1.5
27902	9744	CER	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	11/15/1973	SW	NE	5	11N	68E	66	66	AFA	0.46	0.46
27912	---	WDR	UG	MM	STEVENS, R. LAMONT	11/20/1973	SW	SW	22	14N	67E	0	0	---	2	0
28653	10020	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/9/1974	NE	SE	34	13N	67E	1.2	1.2	AFA	0.027	0.027
28680	---	DEN	UG	MM	COMSTOCK SIX PLACER INC.	9/12/1974	SE	SE	21	14N	67E	0	0	---	5	0
28790	9777	CER	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1974	NE	NE	35	13N	67E	144.88	144.88	AFA	0.2	0.2
28818	9023	CER	STR	IRR	GEORGE ELDRIDGE & SON, INC.	3/16/1965	SE	NW	25	18N	66E	243.08	243.08	AFA	4.8	4.8
28841	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SW	NW	20	13N	68E	2200	2200	AFA	2.5	2.5
28842	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	NW	NE	31	13N	68E	2200	2200	AFA	1	1
28843	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SE	SW	30	13N	68E	2200	2200	AFA	1	1
28844	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	NW	NW	36	13N	67E	2200	2200	AFA	1	1
28845	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	NW	NE	31	13N	68E	2200	2200	AFA	1	1
28846	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SW	SW	25	13N	67E	2200	2200	AFA	1	1
28847	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SW	NW	25	13N	67E	2200	2200	AFA	0.5	0.5
28848	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	10/29/1974	NW	NW	36	13N	67E	2200	2200	AFA	0.5	0.5
28849	---	WDR	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	NW	NE	31	13N	68E	0	0	---	0.65	0.65
28850	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SE	NW	30	13N	68E	2200	2200	AFA	1	1



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 17 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
28851	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SE	SW	30	13N	68E	2200	2200	AFA	1.5	1.5
28852	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SE	SW	30	13N	68E	2200	2200	AFA	1	1
28853	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	10/29/1974	SW	SW	20	13N	68E	2200	2200	AFA	1.25	1.25
28854	---	DEN	STR	IRR	SWALLOW, RICHARD M.	10/29/1974	SE	NE	18	13N	68E	2200	2200	AFA	5	5
28855	---	WDR	SPR	IRR	EL TEJON CATTLE COMPANY	10/29/1974	NW	NW	36	13N	67E	960	960	AFA	1.5	1.5
28859	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	11/1/1974	SE	NE	18	13N	68E	2200	2200	AFA	5	5
28860	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	11/1/1974	NE	NW	32	13N	68E	2200	2200	AFA	5	5
28892	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	11/8/1974	SE	NE	32	13N	68E	0	0	---	10	10
28893	---	WDR	STR	IRR	SWALLOW, RICHARD M.	11/8/1974	NE	NW	17	12N	68E	0	0	---	2.5	2.5
28894	---	DEN	STR	IRR	SWALLOW, RICHARD M.	11/8/1974	NE	NE	8	12N	68E	2200	2200	AFA	10	10
29106	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	12/27/1974	SW	SW	25	13N	67E	2200	2200	AFA	0.5	0.5
29107	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	12/27/1974	SW	SW	25	13N	67E	2200	2200	AFA	0.5	0.5
29108	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	12/27/1974	SW	SW	25	13N	67E	2200	2200	AFA	0.5	0.5
29109	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	12/27/1974	SW	SW	25	13N	67E	2200	2200	AFA	0.5	0.5
29110	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	12/27/1974	SW	SW	25	13N	67E	2200	2200	AFA	1.5	1.5
29111	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	12/27/1974	NE	SE	29	13N	68E	2200	2200	AFA	1	1
29112	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	12/27/1974	SE	NW	29	13N	68E	2200	2200	AFA	1	1
29113	---	DEN	SPR	IRR	SWALLOW, RICHARD M.	12/27/1974	NW	NW	28	13N	68E	2200	2200	AFA	1	1
29114	---	DEN	OSW	IRR	SWALLOW, RICHARD M.	12/27/1974	SE	SE	26	13N	67E	2200	2200	AFA	0.5	0.5
29162	10107	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	1/24/1975	NE	NW	13	13N	67E	1036.68	1036.68	AFA	6.9	6.9
29178	---	CAN	UG	MM	TAYLOR, GLENN	1/30/1975	SW	SE	10	14N	67E	322.602768	322.602768	AFA	3	3
29179	---	CAN	UG	MM	GLENN TAYLOR	1/30/1975	NE	SE	34	15N	67E	322.602768	322.602768	AFA	3	3
29180	---	CAN	UG	MM	GLENN TAYLOR	1/30/1975	SE	SW	34	15N	67E	322.602768	0	AFA	3	0
29219	8875	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY TRUSCHKE, MARIANNE	2/5/1969	SE	SW	26	13N	67E	1561.12	1561.12	AFA	2.34	2.34
29220	8876	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY TRUSCHKE, MARIANNE	2/5/1969	NW	SE	26	13N	67E	1367.97	1367.97	AFA	1.89	1.89
29221	8877	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY TRUSCHKE, MARIANNE	2/5/1969	NW	SE	26	13N	67E	1049.76	1049.76	AFA	1.45	1.45
29363	---	CAN	UG	MM	GOLDEN EAGLE MINING, INC.	5/1/1975	SE	SE	21	14N	67E	3619.76755	3619.76755	AFA	5	5
29371	10328	CER	UG	MM	GOLDEN EAGLE MINING, INC.	5/6/1975	SW	SW	22	14N	67E	3257.790795	803.407331	AFA	4.5	1.11
29435	---	CAN	STR	IRR	CAZIER, JAMES P.	8/27/1975	NW	NW	36	17N	66E	1880	1880	AFA	5	5
29504	---	CAN	UG	MM	TAYLOR, GLENN W.	6/30/1975	SW	SW	15	14N	67E	0	0	---	0	0
29567	10329	CER	UG	MM	GOLDEN EAGLE MINING, INC.	8/8/1975	SW	SW	22	14N	67E	3619.76755	699.924023	AFA	5	1.11
29907	---	ABR	UG	IRR	BRANSFORD, ROBERT M.	1/13/1976	SW	NE	12	12N	67E	312.8	0	AFA	1.35	0
30319	10725	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/8/1976	SE	SW	24	12N	67E	1760	730.73	AFA	6	1.34
31239	10334	CER	UG	MM	MOYLE, LANE	3/25/1977	SE	NW	15	14N	67E	2215.346843	177.4315224	AFA	3.06	0.49
31653	---	CAN	UG	IRR	SWALLOW, RICHARD N. SWALLOW, VESTA C.	5/12/1977	NW	SE	26	13N	67E	640	640	AFA	2.7	2.7



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 18 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
31725	---	CAN	SPR	MM	ELDRIDGE, DELBERT	5/16/1977	LT04	---	34	20NH	69E	0	0	---	0.33	0.33
32030	---	WDR	UG	IRC	SOUTHERN NEVADA WATER AUTHORITY	6/13/1977	NE	NW	14	14N	66E	2560	2560	AFA	10.2	10.2
32031	---	WDR	UG	IRC	SOUTHERN NEVADA WATER AUTHORITY	6/13/1977	NE	NW	23	14N	66E	2560	2560	AFA	10.2	10.2
32032	---	WDR	UG	IRC	SOUTHERN NEVADA WATER AUTHORITY	6/13/1977	NE	NW	24	14N	66E	2560	2560	AFA	10.2	10.2
32035	---	WDR	UG	IRC	SOUTHERN NEVADA WATER AUTHORITY	6/13/1977	NE	NW	13	14N	66E	2560	2560	AFA	10.2	10.2
32036	---	WDR	UG	IRC	SOUTHERN NEVADA WATER AUTHORITY	6/13/1977	NE	NW	26	14N	66E	2560	2560	AFA	10.2	10.2
32767	---	DEN	UG	IRR	GREAT BASIN RANCHING & MINING INC.	7/12/1977	SE	NE	22	13N	67E	0	0	---	5.4	0
33492	---	CAN	UG	IRR	GEORGE ELDRIDGE & SON, INC.	9/8/1977	NW	NW	31	18N	67E	0	0	AFA	3.5	0
34704	---	PER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/7/1977	SE	NW	29	12N	68E	1760	1760	AFA	5	5
34727	11889	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/12/1977	NE	NW	22	13N	67E	804.78	804.78	AFA	0.66	0.66
34873	---	CAN	UG	MM	NELSON, MERRIL A.	1/13/1978	NW	SW	27	14N	67E	0	0	---	1	0
35613	---	CAN	UG	MM	TAYLOR, GLENN WADE	7/12/1978	NW	SW	27	14N	67E	0	0	---	1	0
35614	---	CAN	UG	MM	TAYLOR, GLENN WADE	7/12/1978	SE	SE	21	14N	67E	0	0	---	1	0
35632	---	DEN	UG	IRR	SWALLOW, RICHARD M.]SWALLOW, VESTA C. (H&W)	2/5/1969	NW	SE	26	13N	67E	1561.12	1561.12	AFA	1.134	1.134
35633	---	DEN	UG	IRR	SWALLOW, VESTA C. (H&W)]SWALLOW, RICHARD M.	2/5/1969	NW	SE	26	13N	67E	1561.12	1561.12	AFA	1.45	1.45
35634	---	DEN	UG	IRR	SWALLOW, VESTA C. (H&W)]SWALLOW, RICHARD M.	5/12/1977	NW	SE	26	13N	67E	1561.12	1561.12	AFA	2.7	2.7
35727	---	CAN	UG	MM	NELSON, MERRILL A.	8/11/1978	NW	SW	27	14N	67E	0	0	---	1	0
36811	---	ABR	UG	MM	TAYLOR, GLENN W.	2/16/1979	SE	SE	21	14N	67E	143.62452	0	AFA	1	0
37316	---	CAN	UG	IRR	CAUSEY, DAVID F.	3/29/1979	SE	NW	14	11N	66E	0	0	---	5	0
37317	---	CAN	UG	IRR	CAUSEY, DAVID F.	3/29/1979	NE	SW	14	11N	66E	0	0	---	5	0
37318	---	CAN	UG	IRR	CAUSEY, JEAN M.	3/29/1979	NE	SW	23	11N	66E	0	0	---	5	0
37319	---	CAN	UG	IRD	CAUSEY, JEAN M.	3/29/1979	SE	NW	23	11N	66E	0	0	---	5	0
37450	---	CAN	UG	IRD	COTTER, HERBERT THOMAS	3/30/1979	SE	NW	23	14N	66E	1280	1280	AFA	5.4	5.4
37451	---	CAN	UG	IRD	RODDEWIG, H.E.	3/30/1979	NE	SE	26	14N	66E	1280	1280	AFA	5.4	5.4
38209	---	WDR	UG	IND	AMERADA HESS CORPORATION OF NEVADA	5/18/1979	NW	SE	20	12N	67E	0	0	---	0.06	0
38257	---	CAN	UG	IRR	WHITE PINE PROPERTIES & INVESTMENT	5/31/1979	SW	SW	27	14N	67E	638.4	638.4	AFA	2.7	2.7
38258	---	CAN	UG	IRR	WHITE PINE PROPERTIES & INVESTMENT	5/31/1979	SE	SE	27	14N	67E	651.6	651.6	AFA	2.7	2.7
38259	---	CAN	UG	IRR	WHITE PINE PROPERTIES & INVESTMENT	5/31/1979	SW	SW	28	14N	67E	658.4	658.4	AFA	2.7	2.7
38260	---	CAN	UG	IRR	WHITE PINE PROPERTIES & INVESTMENT	5/31/1979	SE	SE	28	14N	67E	645.6	645.6	AFA	2.7	2.7
38832	---	WDR	UG	IND	LOUISIANA LAND & EXPLORATION	8/17/1979	NW	SE	20	12N	67E	0	0	---	0.06	0
38888	---	DEN	STR	MM	CHACHAS, GREGORY J.	8/30/1979	SE	NW	19	14N	68E	14810.5114	14810.5114	AFA	10	10
38972	11632	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/7/1979	NE	NW	35	13N	67E	768.48	768.48	AFA	1.75	1.75
39138	---	CAN	SPR	MM	SIMKINS, CONNIE	9/26/1979	SE	SE	20	07N	68E	0	0	---	0.03	0.03
39455	10441	CER	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	11/1/1979	SW	SW	13	12N	67E	14.485208	14.485208	AFA	0.02	0.02
39597	---	CAN	UG	IRR	EL TEJON CATTLE COMPANY	11/13/1979	NW	NE	19	15N	67E	3909.4	3909.4	AFA	5.4	5.4
39598	---	ABR	UG	IRR	EL TEJON CATTLE COMPANY	11/13/1979	NE	SE	24	15N	66E	3909.4	0	AFA	5.4	0



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 19 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
39675	---	CAN	UG	IND	SPPC	11/16/1979	NE	---	24	18N	67E	0	0	---	0	0
39676	---	CAN	UG	IND	SPPC	11/16/1979	NW	---	13	18N	67E	0	0	---	0	0
39677	---	CAN	UG	IND	SPPC	11/16/1979	NW	---	14	18N	67E	0	0	---	0	0
39678	---	CAN	UG	IND	SPPC	11/16/1979	SW	---	15	18N	67E	0	0	---	0	0
39679	---	CAN	UG	IND	SPPC	11/16/1979	SE	---	22	18N	67E	0	0	---	0	0
39680	---	CAN	UG	IND	SPPC	11/16/1979	NW	---	25	18N	67E	0	0	---	0	0
39811	---	DEN	UG	MM	ERICKSON, EINAR	11/23/1979	NW	SE	21	07N	68E	0	0	---	0.1	0
39812	---	DEN	SPR	MM	ERICKSON, EINAR	11/23/1979	SE	NE	20	07N	68E	0	0	---	0.2	0
39813	---	WDR	UG	IRD	GEORGE ELDRIDGD INC	11/23/1979	SW	SE	24	19N	66E	0	0	---	7	0
39814	---	WDR	UG	IRR	GEORGE ELDRIDGE & SON, INC.	11/23/1979	SE	SE	26	19N	66E	0	0	AFA	10.8	0
39815	---	WDR	UG	IRR	GEORGE ELDRIDGE & SON, INC.	11/23/1979	SW	NW	18	18N	66E	1480	1480	AFA	6.17	6.17
39816	---	ABR	UG	IRR	GEORGE ELDRIDGE & SON, INC.	8/30/1989	NE	NE	14	18N	66E	3520	0	AFA	6	0
39817	---	PER	UG	IRR	GEORGE ELDRIDGE & SON, INC.	11/23/1979	SW	SE	13	18N	66E	1440	1200	AFA	6	5
39818	---	PER	UG	IRR	GEORGE ELDRIDGE & SON, INC.	8/30/1989	SE	SE	24	18N	66E	3680	3440	AFA	6	5
40417	---	WDR	UG	IRD	GRESHAM, BARBARA M.	1/28/1980	SE	SW	16	14N	67E	1016	1016	AFA	4.23	4.23
41452	---	DEN	SPR	MM	CHACHAS, GREGORY J.	5/30/1980	SE	NE	18	14N	68E	0	0	---	10	10
41735	---	WDR	UG	QM	MX	7/14/1980	NE	NW	34	10N	67E	484.978267	484.978267	AFA	1	1
41736	---	WDR	UG	QM	MX	7/14/1980	SW	NE	12	08N	68E	0	0	---	1	0
41737	---	WDR	UG	QM	U.S. GOVERNMENT	7/14/1980	SW	SW	4	08N	68E	0	0	---	1	0
41738	---	WDR	UG	QM	U.S. GOVERNMENT	7/14/1980	NE	NE	30	09N	68E	484.978267	484.978267	AFA	1	1
41739	---	WDR	UG	QM	U.S. GOVERNMENT	7/14/1980	NW	NW	7	10N	67E	484.978267	484.978267	AFA	1	1
42202	---	DEN	UG	IRD	ELLIOTT, NANETTE KIBBE	8/27/1980	SW	SE	8	13N	67E	1280	1280	AFA	5.4	5.4
42203	---	DEN	UG	IRD	ELLIOTT, NANETTE KIBBE	8/27/1980	SE	SE	8	13N	67E	1280	1280	AFA	5.4	5.4
42204	---	DEN	UG	IRD	ELLIOTT, JAMES E. JR.	8/27/1980	NW	SW	17	13N	67E	1280	1280	AFA	5.4	5.4
42205	---	DEN	UG	IRD	ELLIOTT, JAMES E. JR.	8/27/1980	NE	SW	17	13N	67E	1280	1280	AFA	5.4	5.4
42206	---	DEN	UG	IRD	WINEGAR, RANDALL R.	8/27/1980	NE	NE	7	13N	67E	1280	1280	AFA	5.4	5.4
42207	---	DEN	UG	IRD	WINEGAR, RANDALL R.	8/27/1980	NW	NE	8	13N	67E	1280	1280	AFA	5.4	5.4
42208	---	DEN	UG	IRD	PAUL, R. KIP	8/27/1980	SE	NE	5	13N	67E	1280	1280	AFA	5.4	5.4
42209	---	DEN	UG	IRD	PAUL, R. KIP	8/27/1980	NE	NE	8	13N	67E	1280	1280	AFA	5.4	5.4
42210	---	DEN	UG	IRD	PETERSEN, MAUN T.	8/27/1980	SW	SW	9	13N	67E	1280	1280	AFA	5.4	5.4
42211	---	DEN	UG	IRD	PETERSEN, MAUN T.	8/27/1980	SE	SW	9	13N	67E	1280	1280	AFA	5.4	5.4
42212	---	DEN	UG	IRD	PETERSEN, MARGENE W.	8/27/1980	NW	NW	16	13N	67E	1280	1280	AFA	5.4	5.4
42213	---	DEN	UG	IRD	PETERSEN, MARGENE W.	8/27/1980	NE	NW	16	13N	67E	1280	1280	AFA	5.4	5.4
42214	---	DEN	UG	IRD	BARRETT, SCOTT F.	8/27/1980	NE	NE	19	13N	67E	1280	1280	AFA	5.4	5.4
42215	---	DEN	UG	IRD	BARRETT, SCOTT F.	8/27/1980	SE	SE	18	13N	67E	1280	1280	AFA	5.4	5.4
42226	---	DEN	UG	IRR	CAUSEY, JEAN M.	8/28/1980	NE	SE	23	11N	66E	0	0	---	5.4	0
42227	---	DEN	UG	IRD	CAUSEY, JEAN M.	8/28/1980	SE	SE	23	11N	66E	1280	0	AFA	5.4	0

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 20 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
42228	---	DEN	UG	IRR	CAUSEY, DAVID F.	8/28/1980	SE	SE	14	11N	66E	0	0	---	5.4	0
42229	---	DEN	UG	IRR	CAUSEY, DAVID F.	8/28/1980	NE	SE	14	11N	66E	0	0	---	5.4	0
42230	---	DEN	UG	IRD	BELL, CHARLES R. SR.	8/28/1980	SE	NW	9	10N	67E	0	0	---	5.4	0
42231	---	DEN	UG	IRD	BELL, CHARLES R. SR.	8/28/1980	SW	NW	9	10N	67E	0	0	---	5.4	0
42232	---	DEN	UG	IRD	BELL, CHARLES R. JR.	8/28/1980	SW	NW	8	10N	67E	1280	1280	AFA	5.4	5.4
42233	---	DEN	UG	IRD	BELL, CHARLES R. JR.	8/28/1980	SE	NW	8	10N	67E	1280	1280	AFA	5.4	5.4
42234	---	DEN	UG	IRD	BELL, DOROTHY M.	8/28/1980	NE	NW	9	10N	67E	0	0	---	5.4	0
42235	---	DEN	UG	IRD	BELL, DOROTHY M.	8/28/1980	NW	NW	9	10N	67E	0	0	---	5.4	0
42236	---	DEN	UG	IRD	BELL, KATHLEEN G.	8/28/1980	NW	NW	8	10N	67E	1280	1280	AFA	5.4	5.4
42237	---	DEN	UG	IRD	BELL, KATHLEEN G.	8/28/1980	NE	NW	8	10N	67E	1280	1280	AFA	5.4	5.4
42238	---	DEN	UG	IRD	RAMSEY, LORNA L.	8/28/1980	NE	NE	6	10N	67E	0	0	---	5.4	0
42239	---	DEN	UG	IRD	RAMSEY, LORNA L.	8/28/1980	SE	NE	6	10N	67E	0	0	---	5.4	0
42240	---	DEN	UG	IRD	ROLEY, WILLIAM H. JR.	8/28/1980	SW	SE	35	11N	66E	1280	1280	AFA	5.4	5.4
42241	---	DEN	UG	IRD	ROLEY, WILLIAM H. JR.	8/28/1980	NW	SE	35	11N	66E	1280	1280	AFA	5.4	5.4
42242	---	DEN	UG	IRD	SIMON, PETER A. II	8/28/1980	NE	SE	35	11N	66E	1280	1280	AFA	5.4	5.4
42243	---	DEN	UG	IRD	SIMON, PETER A. II	8/28/1980	SE	SE	35	11N	66E	1280	1280	AFA	5.4	5.4
42244	---	DEN	UG	IRD	STEIN, LEANN M.	8/28/1980	SW	SE	24	11N	66E	1280	1280	AFA	5.4	5.4
42245	---	DEN	UG	IRD	STEIN, LEANN M.	8/28/1980	NW	SE	24	11N	66E	1280	1280	AFA	5.4	5.4
42246	---	DEN	UG	IRD	STEIN, NONA R.	8/28/1980	NW	SE	25	11N	66E	1280	1280	AFA	5.4	5.4
42247	---	DEN	UG	IRD	STEIN, NONA R.	8/28/1980	SW	SE	25	11N	66E	1280	1280	AFA	5.4	5.4
42248	---	DEN	UG	IRD	TEEL, CHARLES F.	8/28/1980	SW	NE	7	10N	67E	1280	1280	AFA	5.4	5.4
42249	---	DEN	UG	IRD	TEEL, CHARLES F.	8/28/1980	NW	NE	7	10N	67E	0	0	AFA	5.4	5.4
42250	---	DEN	UG	IRD	TEEL, DOROTHY F.	8/28/1980	NW	NE	6	10N	67E	1280	1280	AFA	5.4	5.4
42251	---	DEN	UG	IRD	TEEL, DOROTHY F.	8/28/1980	SW	NE	6	10N	67E	0	0	AFA	5.4	5.4
42252	---	DEN	UG	IRD	CANUL, FRANK	8/28/1980	NE	SW	4	10N	67E	0	0	---	5.4	5.4
42253	---	DEN	UG	IRD	CANUL, FRANK	8/28/1980	NW	SW	4	10N	67E	1280	1280	AFA	5.4	5.4
42254	---	DEN	UG	IRD	CANUL, MARY	8/28/1980	SW	SE	1	10N	66E	0	0	---	5.4	0
42255	---	DEN	UG	IRD	CANUL, MARY	8/28/1980	NW	SE	6	10N	66E	0	0	---	5.4	0
42256	---	DEN	UG	IRD	CANUL, TOMAS	8/28/1980	NE	NE	12	10N	66E	0	0	---	5.4	0
42257	---	DEN	UG	IRD	CANUL, TOMAS	8/28/1980	SE	NE	12	10N	66E	0	0	---	5.4	0
42258	---	DEN	UG	IRD	DALEY, MARILYN H.	8/28/1980	NE	SE	1	10N	66E	1280	1280	AFA	5.4	5.4
42259	---	DEN	UG	IRD	DALEY, MARILYN H.	8/28/1980	SE	SE	1	10N	66E	1280	1280	AFA	5.4	5.4
42260	---	DEN	UG	IRD	DALEY, WILLIAM L.	8/28/1980	SW	SE	36	11N	66E	1280	1280	AFA	5.4	5.4
42261	---	DEN	UG	IRD	DALEY, WILLIAM L.	8/28/1980	NW	SE	36	11N	66E	1280	1280	AFA	5.4	5.4
42262	---	DEN	UG	IRD	EPPRECHT, JANET E.	8/28/1980	NE	SE	26	11N	66E	1280	1280	AFA	5.4	5.4
42263	---	DEN	UG	IRD	EPPRECHT, JANET E.	8/28/1980	SE	SE	26	11N	66E	1280	1280	AFA	5.4	5.4
42264	---	DEN	UG	IRD	LIVELY, DAVID A.	8/28/1980	NE	NE	36	11N	66E	1280	1280	AFA	5.4	5.4
42265	---	DEN	UG	IRD	LIVELY, DAVID A.	8/28/1980	SE	NE	36	11N	66E	1280	1280	AFA	5.4	5.4



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 21 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
42266	---	DEN	UG	IRD	RAMSEY, JOHN A.	8/28/1980	NE	NE	7	10N	67E	1280	1280	AFA	5.4	5.4
42267	---	DEN	UG	IRD	RAMSEY, JOHN A.	8/28/1980	SE	NE	7	10N	67E	1280	1280	AFA	5.4	5.4
42268	---	DEN	UG	IRD	STEIN, EDWARD R.	8/28/1980	NE	SE	25	11N	66E	1280	1280	AFA	5.4	5.4
42269	---	DEN	UG	IRD	STEIN, EDWARD R.	8/28/1980	SE	SE	25	11N	66E	1280	1280	AFA	5.4	5.4
42270	---	DEN	UG	IRD	STEIN, JOSEPH C. JR.	8/28/1980	NE	SE	24	11N	66E	1280	1280	AFA	5.4	5.4
42271	---	DEN	UG	IRD	STEIN, JOSEPH C. JR.	8/28/1980	SE	SE	24	11N	66E	1280	1280	AFA	5.4	5.4
42272	---	DEN	UG	IRD	BELL, JAMES A.	8/28/1980	SE	NW	4	10N	67E	1280	1280	AFA	5.4	5.4
42273	---	DEN	UG	IRD	BELL, JAMES A.	8/28/1980	SW	NW	4	10N	67E	1280	1280	AFA	5.4	5.4
42274	---	DEN	UG	IRD	MARTINEAU, A. DEAN	8/28/1980	SE	SE	32	14N	67E	1280	1280	AFA	0	0
42275	---	DEN	UG	IRD	MARTINEAU, A. DEAN	8/28/1980	NE	NE	5	13N	67E	1280	1280	AFA	5.4	5.4
42276	---	DEN	UG	IRD	MARTINEAU, SUSAN K.	8/28/1980	NW	NE	5	13N	67E	1280	1280	AFA	5.4	5.4
42277	---	DEN	UG	IRD	MARTINEAU, SUSAN K.	8/28/1980	SW	NE	5	13N	67E	1280	1280	AFA	5.4	5.4
42278	---	DEN	UG	IRD	MURPHY, LINDA D.	8/28/1980	SW	NW	4	13N	67E	0	0	---	0	0
42279	---	DEN	UG	IRD	MURPHY, LINDA D.	8/28/1980	SE	NW	4	13N	67E	0	0	---	0	0
42280	---	DEN	UG	IRD	MURPHY, MICHAEL C.	8/28/1980	NW	NW	4	13N	67E	0	0	---	0	0
42281	---	DEN	UG	IRD	MURPHY, MICHAEL C.	8/28/1980	NE	NW	4	13N	67E	0	0	---	0	0
42282	---	DEN	UG	IRD	SWALLOW, NANCY M.	8/28/1980	NE	SW	33	14N	67E	1280	1280	AFA	5.4	5.4
42283	---	DEN	UG	IRD	SWALLOW, NANCY M.	8/28/1980	NW	NW	33	14N	67E	640	640	AFA	5.4	5.4
42284	---	DEN	UG	IRD	ESCOTO, PETE H.	8/28/1980	SW	SW	6	12N	67E	1280	1280	AFA	5.4	5.4
42285	---	DEN	UG	IRD	ESCOTO, PETE H.	8/28/1980	NW	SW	6	12N	67E	1280	1280	AFA	5.4	5.4
42286	---	DEN	UG	IRD	GENTNER, LOUISE A.	8/28/1980	NE	NW	7	12N	67E	1280	1280	AFA	5.4	5.4
42287	---	DEN	UG	IRD	GENTNER, LOUISE A.	8/28/1980	SE	NW	7	12N	67E	1280	1280	AFA	5.4	5.4
42288	---	DEN	UG	IRD	GENTNER, VIRGIL R.	8/28/1980	SW	NW	7	12N	67E	1280	1280	AFA	5.4	5.4
42289	---	DEN	UG	IRD	CANYON VIEW UTILITY CO., INC.	8/28/1980	NW	NW	7	12N	67E	1280	1280	AFA	5.4	5.4
42290	---	DEN	UG	IRD	PAGLIA, JEAN	8/28/1980	SE	NE	5	10N	67E	1280	1280	AFA	5.4	5.4
42291	---	DEN	UG	IRD	PAGLIA, JEAN	8/28/1980	SW	NE	5	10N	67E	1280	1280	AFA	5.4	5.4
42292	---	DEN	UG	IRD	PAGLIA, RAYMOND D.	8/28/1980	NW	NE	5	10N	67E	1280	1280	AFA	5.4	5.4
42293	---	DEN	UG	IRD	PAGLIA, RAYMOND D.	8/28/1980	NE	NE	5	10N	67E	1280	1280	AFA	5.4	5.4
42294	---	DEN	UG	IRD	PISCIOTTA, JOHN S.	8/28/1980	SE	SW	6	12N	67E	1280	1280	AFA	5.4	5.4
42295	---	DEN	UG	IRD	PISCIOTTA, JOHN S.	8/28/1980	NE	SW	6	12N	67E	1280	1280	AFA	5.4	5.4
42296	---	DEN	UG	IRD	BURSON, ANNETTE	8/28/1980	NE	SE	12	11N	66E	1280	1280	AFA	5.4	5.4
42297	---	DEN	UG	IRD	BURSON, ANNETTE	8/28/1980	SE	SE	12	11N	66E	1280	1280	AFA	5.4	5.4
42298	---	DEN	UG	IRD	BROWAND, LINDA A.	8/28/1980	NE	SW	30	12N	67E	1280	1280	AFA	5.4	5.4
42299	---	DEN	UG	IRD	BROWAND, LINDA A.	8/28/1980	SE	SW	30	12N	67E	1280	1280	AFA	5.4	5.4
42300	---	DEN	UG	IRD	BROWAND, BLAIR C. D.M.D.	8/28/1980	SW	SW	30	12N	67E	1280	1280	AFA	5.4	5.4
42301	---	DEN	UG	IRD	BROWAND, BLAIR C., D.M.D.	8/28/1980	NW	SW	30	12N	67E	1280	1280	AFA	5.4	5.4
42302	---	DEN	UG	IRD	CASH, DAVID L.	8/28/1980	NW	SW	6	11N	67E	1280	1280	AFA	5.4	5.4

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 22 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
42303	---	DEN	UG	IRD	CASH, DAVID L.	8/28/1980	SW	SW	6	11N	67E	1280	1280	AFA	5.4	5.4
42304	---	DEN	UG	IRR	CASH, SUSAN L.	8/28/1980	NE	SW	6	11N	67E	1280	0	AFA	5.4	0
42305	---	DEN	UG	IRR	CASH, SUSAN L.	8/28/1980	SE	SW	6	11N	67E	1280	0	AFA	5.4	0
42306	---	DEN	UG	IRD	CARLILE, BARBARA L.	8/28/1980	NE	NW	31	12N	67E	1280	1280	AFA	5.4	5.4
42307	---	DEN	UG	IRD	CARLILE, BARBARA L.	8/28/1980	SE	NW	31	12N	67E	1280	1280	AFA	5.4	5.4
42308	---	DEN	UG	IRD	CARLILE, JOHN F.	8/28/1980	SW	NW	31	12N	67E	1280	1280	AFA	5.4	5.4
42309	---	DEN	UG	IRD	CARLILE, JOHN F.	8/28/1980	NW	NW	31	12N	67E	1280	1280	AFA	5.4	5.4
42310	---	DEN	UG	IRD	SCHROEDER, PATRICIA A.	8/28/1980	NE	SW	19	11N	67E	1280	1280	AFA	5.4	5.4
42311	---	DEN	UG	IRD	SCHROEDER, PATRICIA A.	8/28/1980	SE	SW	19	11N	67E	1280	1280	AFA	5.4	5.4
42312	---	DEN	UG	IRD	SPARKS, MICHAEL P.	8/28/1980	SW	SW	18	12N	67E	0	0	---	5.4	0
42313	---	DEN	UG	IRD	SPARKS, MICHAEL P.	8/28/1980	NW	SW	18	12N	67E	1280	0	AFA	5.4	0
42314	---	DEN	UG	IRD	STINNETT, ALICE F.	8/28/1980	NE	NW	19	12N	67E	1280	1280	AFA	5.4	5.4
42315	---	DEN	UG	IRD	STINNETT, ALICE F.	8/28/1980	SE	NW	19	12N	67E	1280	1280	AFA	5.4	5.4
42316	---	DEN	UG	IRD	STINNETT, ROGER S.	8/28/1980	SW	SW	19	12N	67E	1280	1280	AFA	5.4	5.4
42317	---	DEN	UG	IRD	STINNETT, ROGER S.	8/28/1980	NW	NW	19	12N	67E	1280	1280	AFA	5.4	5.4
42318	---	DEN	UG	IRD	WALLAN, DANIEL A.	8/28/1980	SE	SE	13	11N	66E	1280	1280	AFA	5.4	5.4
42319	---	DEN	UG	IRD	WALLAN, DANIEL A.	8/28/1980	NE	SE	13	11N	66E	1280	1280	AFA	5.4	5.4
42320	---	DEN	UG	IRD	WALLAN, MAUREEN M.	8/28/1980	SW	SE	13	11N	66E	1280	1280	AFA	5.4	5.4
42321	---	DEN	UG	IRD	WALLAN, MAUREEN M.	8/28/1980	NW	SE	13	11N	66E	1280	1280	AFA	5.4	5.4
42322	---	DEN	UG	IRD	WOODRUM, ELLEN M.	8/28/1980	NE	SW	7	11N	67E	1280	1280	AFA	5.4	5.4
42323	---	DEN	UG	IRD	WOODRUM, ELLEN M.	8/28/1980	SE	SW	7	11N	67E	1280	1280	AFA	5.4	5.4
42324	---	DEN	UG	IRD	SCHROEDER, MICHAEL G.	8/28/1980	SW	SW	19	11N	67E	1280	1280	AFA	5.4	5.4
42325	---	DEN	UG	IRD	SCHROEDER, MICHAEL G.	8/28/1980	NW	SW	19	11N	67E	1280	1280	AFA	5.4	5.4
42326	---	DEN	UG	IRD	WOODRUM, JOHN G.	8/28/1980	NW	NW	7	11N	67E	1280	1280	AFA	5.4	5.4
42327	---	DEN	UG	IRD	WOODRUM, JOHN G.	8/28/1980	SW	NE	7	11N	67E	1280	1280	AFA	5.4	5.4
42328	---	DEN	UG	IRD	ZERGA, ELAINE	8/28/1980	NW	SW	18	11N	67E	1280	1280	AFA	5.4	5.4
42329	---	DEN	UG	IRD	ZERGA, ELAINE	8/28/1980	SE	SW	18	11N	67E	1280	1280	AFA	5.4	5.4
42330	---	DEN	UG	IRD	ZERGA, JOSEPH F.	8/28/1980	NW	SW	18	11N	67E	1280	1280	AFA	5.4	5.4
42331	---	DEN	UG	IRD	ZERGA, JOSEPH F.	8/28/1980	SW	NW	18	11N	67E	1280	1280	AFA	5.4	5.4
42338	---	CAN	UG	MM	TAYLOR, GLENN W.	2/16/1979	SE	SE	21	14N	67E	143.62452	143.62452	AFA	1	1
42711	---	DEN	SPR	STK	GEYSER RANCH LIMITED PARTNERSHIP	10/24/1980	NW	NE	5	06N	68E	0	0	---	1.5	1.5
42776	---	DEN	UG	IRD	WINEGAR, LORIN R.	11/4/1980	NE	NE	6	13N	67E	1280	1280	AFA	5.4	5.4
42777	---	DEN	UG	IRD	WINEGAR, LORIN R.	11/4/1980	SE	NE	6	13N	67E	1280	1280	AFA	5.4	5.4
43032	---	DEN	UG	IRD	NEAL, MARY K.	1/2/1981	NW	NE	21	10N	67E	1280	1280	AFA	5.4	5.4
43033	---	DEN	UG	IRD	NEAL, MARY K.	1/2/1981	NE	NE	21	10N	67E	1280	1280	AFA	5.4	5.4
43034	---	DEN	UG	IRD	MARTINEAU, MARY JANET	1/2/1981	SW	SW	34	14N	67E	0	0	---	5.4	0
43035	---	DEN	UG	IRD	MARTINEAU, MARY JANET	1/2/1981	SE	SW	33	14N	67E	0	0	---	5.4	5.4
43036	---	DEN	UG	IRD	BRANDZ, RICHARD	1/2/1981	NW	NE	17	10N	67E	1280	1280	AFA	5.4	5.4



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 23 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
43037	---	DEN	UG	IRD	BRANDZ, RICHARD	1/2/1981	NE	NE	17	10N	67E	1280	1280	AFA	5.4	5.4
43038	---	DEN	UG	IRD	NEAL, GERALD F.	1/2/1981	SW	NE	16	10N	67E	1280	1280	AFA	5.4	5.4
43039	---	DEN	UG	IRD	NEAL, GERALD F.	1/2/1981	SE	NE	16	10N	67E	1280	1280	AFA	5.4	5.4
43045	---	WDR	SPR	MM	STANDARD SLAG COMPANY ATLANTA MINE	1/5/1981	SE	NE	34	07N	68E	0	0	---	0.25	0.25
43046	---	WDR	SPR	MM	STANDARD SLAG COMPANY ATLANTA MINE	1/5/1981	SE	SW	32	07N	68E	0	0	---	0.25	0.25
43047	---	WDR	SPR	MM	ATLANTA MINE STANDARD SLAG COMPANY	1/5/1981	SW	SE	33	07N	68E	0	0	---	0.25	0.25
43057	---	DEN	UG	IRD	BURKE, DONOVAN	1/6/1981	NE	NE	18	10N	67E	1280	1280	AFA	5.4	5.4
43058	---	DEN	UG	IRD	BURKE, DONOVAN	1/6/1981	NW	NE	18	10N	67E	1280	1280	AFA	5.4	5.4
43059	---	DEN	UG	IRD	BOOGADES, JOHN C.	1/6/1981	SW	NE	18	10N	67E	1280	1280	AFA	5.4	5.4
43060	---	DEN	UG	IRD	BOOGADES, JOHN G.	1/6/1981	SE	NE	18	10N	67E	1280	1280	AFA	5.4	5.4
43411	---	CAN	UG	MM	HUCKALEY, LESTER VERNON	3/27/1981	NE	NE	7	14N	68E	24.5512	24.5512	AFA	3	3
43412	---	CAN	OSW	MM	HUCKALEY, LESTER VERNON	3/27/1981	NE	NE	7	14N	68E	0	0	---	1	1
43434	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	1	14N	66E	4343.82	4343.82	AFA	6	0
43435	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	2	14N	66E	4343.82	4343.82	AFA	6	0
43436	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	11	14N	66E	4343.82	4343.82	AFA	6	0
43437	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	12	14N	66E	4343.82	4343.82	AFA	6	0
43438	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	13	14N	66E	4343.82	4343.82	AFA	6	0
43439	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	14	14N	66E	4343.82	4343.82	AFA	6	6
43897	---	CAN	UG	IRR	THOMPSON, RONALD J.	6/16/1981	NE	NE	18	13N	67E	0	0	---	5.4	0
43898	---	CAN	UG	IRR	THOMPSON, RONALD J.	6/16/1981	SE	SE	7	13N	67E	0	0	---	5.4	0
44103	---	CAN	UG	IRD	THOMPSON, RONALD J.	6/30/1981	NE	NE	18	13N	67E	0	0	---	5.4	0
44104	---	CAN	UG	IRD	THOMPSON, RONALD J.	6/30/1981	SE	SE	7	13N	67E	0	0	---	5.4	0
44632	---	CAN	UG	IRD	THOMPSON, RONALD J.	10/15/1981	NE	SE	7	13N	67E	0	0	---	5.4	0
44633	---	CAN	UG	IRD	THOMPSON, RONALD J.	10/15/1981	SE	NE	7	13N	67E	0	0	---	5.4	0
45175	---	DEN	UG	IRD	EDWARDS, MARIE	12/31/1981	SW	SE	16	14N	67E	0	0	---	5.56	5.56
45287	11017	CER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	1/13/1976	SW	NE	12	12N	67E	312.8	312.8	AFA	1.35	1.35
45311	---	DEN	UG	IRD	THOMPSON, RONALD J.	2/10/1982	NE	NE	18	13N	67E	1280	1280	AFA	5.4	5.4
45312	---	DEN	UG	IRD	THOMPSON, RONALD J.	2/10/1982	SE	SE	7	13N	67E	1280	1280	AFA	5.4	5.4
45496	11965	CER	UG	STK	OKELBERRY, RAY	4/2/1982	NW	SE	23	08N	68E	86.23609	86.23609	AFA	0.12	0.12
45527	---	DEN	UG	IRD	ELDRIDGE, DAVID J.	4/12/1982	SW	SW	4	14N	67E	1280	1280	AFA	5.4	5.4
45636	---	DEN	STR	IRR	SWALLOW, RICHARD M.	5/2/1982	SE	NE	32	13N	68E	2560	2560	AFA	5	5
45637	---	DEN	STR	IRR	SWALLOW, RICHARD M.	5/7/1982	NE	NE	8	12N	68E	2560	2560	AFA	5	5
45648	---	ABR	UG	IRR	HARBECKE, ROBERT L.	5/10/1982	SE	NW	16	13N	67E	1080	0	AFA	4.5	0
45675	---	RFA	STR	PWR	GEORGE ELDRIDGE & SON, INC.	5/17/1982	SE	SE	15	18N	66E	0	0	AFA	8	8
45676	---	RFA	STR	PWR	GEORGE ELDRIDGE & SON, INC.	5/17/1982	SW	SE	28	20N	66E	0	0	AFA	15	15
45677	---	RFA	STR	PWR	GEORGE ELDRIDGE & SON, INC.	5/17/1982	NW	SE	16	20N	66E	0	0	AFA	20	20
45678	---	RFA	STR	PWR	GEORGE ELDRIDGE & SON, INC.	5/17/1982	SW	NW	27	18N	68E	0	0	AFA	2	2



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 24 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
45679	---	RFA	STR	PWR	GEORGE ELDRIDGE & SON, INC.	5/17/1982	NE	SW	10	18N	66E	0	0	AFA	40	40
45681	---	RFA	STR	PWR	ROBISON, REED B.	5/19/1982	SW	SW	35	18N	66E	0	0	AFA	40	40
45682	---	RFA	STR	PWR	SOUTHERN NEVADA WATER AUTHORITY	5/19/1982	SW	SE	28	20N	66E	0	0	AFA	15	15
45683	---	RFA	STR	PWR	SOUTHERN NEVADA WATER AUTHORITY	5/19/1982	NE	NE	28	19N	66E	0	0	AFA	30	30
45684	---	RFA	STR	PWR	SOUTHERN NEVADA WATER AUTHORITY	5/19/1982	SW	SE	9	19N	66E	0	0	AFA	10	10
45685	---	RFA	STR	PWR	SOUTHERN NEVADA WATER AUTHORITY	5/19/1982	NE	NE	27	18N	66E	0	0	AFA	20	20
45722	---	ABR	STR	IRD	HARBECKE, ROBERT L. HARBECKE, FERN A.	5/26/1982	SW	NE	15	13N	67E	1320	0	AFA	6.5	0
45748	---	RFP	STR	PWR	ELDRIDGE, BRENT ELDRIDGE, C. MICHAEL ELDRIDGE, DELBERT D. ELDRIDGE, DENNIS H. ELDRIDGE, GORDON D.	6/3/1982	NW	NW	17	16N	68E	0	0	AFA	10	10
45749	---	RFA	STR	PWR	ELDRIDGE, BRENT ELDRIDGE, C. MICHAEL ELDRIDGE, DELBERT D. ELDRIDGE, DENNIS H. ELDRIDGE, GORDON D. ROBISON, REED B.	6/3/1982	NW	NE	1	16N	66E	0	0	AFA	6	6
45750	---	RFA	STR	PWR	ELDRIDGE, BRENT ELDRIDGE, C. MICHAEL ELDRIDGE, DELBERT D. ELDRIDGE, DENNIS H. ELDRIDGE, GORDON D. ROBISON, REED B.	6/3/1982	NE	NW	34	16N	66E	0	0	AFA	50	50
45798	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	SW	36	17N	67E	0	0	AFA	1	1
45799	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	LT03	---	1	16N	67E	0	0	AFA	1	1
45800	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	2	16N	67E	0	0	AFA	1	1
45801	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	NW	11	16N	67E	0	0	AFA	1	1
45802	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	NE	14	16N	67E	0	0	AFA	1	1
45803	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	NW	23	16N	67E	0	0	AFA	1	1
45804	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	34	16N	67E	0	0	AFA	1	1
45805	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	NE	2	15N	67E	0	0	AFA	1	1
45806	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SW	11	15N	67E	0	0	AFA	1	1
45807	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SW	14	15N	67E	0	0	AFA	1	1
45808	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	35	16N	66E	0	0	AFA	1	1
45809	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	35	16N	66E	0	0	AFA	1	1
45810	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	35	15N	66E	0	0	AFA	1	1
45811	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	2	14N	66E	0	0	AFA	1	1
45812	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	11	14N	66E	0	0	AFA	1	1
45813	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	14	14N	66E	0	0	AFA	1	1
45814	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SE	23	14N	66E	0	0	AFA	1	1
45815	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SW	26	14N	66E	0	0	AFA	1	1
45816	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SE	1	15N	66E	0	0	AFA	1	1
45817	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SE	12	15N	66E	0	0	AFA	1	1
45818	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	NW	13	15N	66E	0	0	AFA	1	1





**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 25 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
45819	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	SE	23	15N	66E	0	0	AFA	1	1
45820	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	NE	26	15N	66E	0	0	AFA	1	1
45821	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	NW	25	15N	66E	0	0	AFA	1	1
45822	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	34	14N	66E	0	0	AFA	1	1
45823	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NW	NW	11	13N	66E	0	0	AFA	1	1
45824	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SE	11	13N	66E	0	0	AFA	1	1
45825	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SW	14	13N	66E	0	0	AFA	1	1
45826	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SW	24	13N	66E	0	0	AFA	1	1
45827	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	SW	25	13N	66E	0	0	AFA	1	1
45828	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SW	NW	12	12N	66E	0	0	AFA	1	1
45829	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NW	SW	13	12N	66E	0	0	AFA	1	1
45830	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NW	24	12N	66E	0	0	AFA	1	1
45831	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NW	NE	4	13N	67E	0	0	AFA	1	1
45832	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	NE	NE	9	13N	67E	0	0	AFA	1	1
45833	---	DEN	UG	IND	WHITE PINE COUNTY	3/30/1981	SE	SE	9	13N	67E	0	0	AFA	1	1
45876	---	DEN	STR	IRR	SWALLOW, RICHARD M.	6/25/1982	SE	SW	26	13N	67E	2560	2560	AFA	10	10
46097	---	DEN	UG	IRD	NEWBERRY, DANELDA	8/27/1982	LT03	---	7	14N	67E	640	640	AFA	2.7	2.7
46098	---	DEN	UG	IRD	NEWBERRY, DANELDA	8/27/1982	LT02	---	7	14N	67E	640	640	AFA	2.7	2.7
46099	---	DEN	UG	IRD	TEEL, CHARLES F.	8/28/1980	NW	NW	23	11N	67E	1280	1280	AFA	5.4	5.4
46100	---	DEN	UG	IRD	TEEL, DOROTHY F.	8/28/1980	SE	SE	23	11N	67E	1280	1280	AFA	5.4	5.4
46101	---	DEN	UG	IRD	TEEL, CHARLES F.	8/28/1980	SW	SW	23	11N	67E	1280	1280	AFA	5.4	5.4
46102	---	DEN	UG	IRD	TEEL, DOROTHY F.	8/28/1980	NE	NE	23	11N	67E	0	0	AFA	5.4	5.4
46275	---	DEN	UG	IRD	SWALLOW, VESTA C.	10/27/1982	NW	NE	27	13N	67E	1280	1280	AFA	5.4	5.4
46276	---	DEN	UG	IRD	SWALLOW, VESTA C.	10/27/1982	SE	NW	27	13N	67E	1280	1280	AFA	5.4	5.4
46502	---	DEN	UG	IRD	HALL, ANITA L.	1/4/1983	SW	NE	29	13N	67E	1280	1280	AFA	5.4	5.4
46503	---	DEN	UG	IRD	HALL, DEWAYNE A.	1/4/1983	SW	SW	29	13N	67E	1280	1280	AFA	5.4	5.4
46695	---	WDR	UG	MM	CONTINENTAL MINING & MINERALS CORP.	3/4/1983	SW	SW	2	14N	67E	0	0	---	4	0
46790	13034	CER	OGW	MM	HUCKALEY, LESTER VERNON	4/5/1983	NE	NE	7	14N	68E	134.41782	5.063685	AFA	1	0.007
46923	---	DEN	SPR	MM	TAYLOR, GLENN WADE	5/17/1983	SW	NE	29	14N	68E	0	0	---	1	1
46924	---	DEN	SPR	MM	TAYLOR, GLENN WADE	5/17/1983	SE	NE	30	14N	68E	0	0	---	1	1
46969	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	SW	NE	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46970	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT09	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46971	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT02	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46972	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT02	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46973	12667	CER	SPR	MM	OSTLUND, ROBERT E.	6/3/1983	NW	SE	7	14N	68E	361.98	167.2366366	AFA	0.5	0.231
46974	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT37	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46975	13925	CER	SPR	MM	OSTLUND, ROBERT	6/3/1983	LT37	---	7	14N	68E	361.976755	123.799426	AFA	0.5	0.171

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 26 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
46976	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT37	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46977	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	6/3/1983	SE	SW	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
46978	14935	CER	SPR	MM	OSTLUND, ROBERT	6/3/1983	SE	NE	18	14N	68E	361.976755	277.1830477	AFA	0.5	0.5
46979	---	WDR	STR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT37	---	12	14N	67E	1227.56	1227.56	AFA	2.5	2.5
46980	---	WDR	STR	MM	CONTINENTAL GOLD INC.	6/3/1983	LT40	---	12	14N	67E	1227.56	1227.56	AFA	4	4
47191	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	8/25/1983	LT37	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
47192	---	WDR	SPR	MM	CONTINENTAL GOLD INC.	8/25/1983	LT07	---	7	14N	68E	1227.56	1227.56	AFA	0.5	0.5
47290	---	CAN	UG	MM	MCKAY, MAXINE MCKAY, CAMERON E.	10/3/1983	SE	NE	10	14N	67E	145.005525	145.005525	AFA	6	6
47352	14240	CER	SPR	MM	SALISBURY, FRED	1/24/1991	NE	NW	25	14N	67E	0.214823	0.214823	AFA	0.5	0.5
48276	---	DEN	UG	IRD	SWALLOW, VESTA C.	10/27/1982	SE	NW	35	13N	67E	640	640	AFA	5.4	5.4
48724	12339	CER	SPR	STK	SOUTHERN NEVADA WATER AUTHORITY	1/17/1985	NE	NW	15	10N	68E	4.511283	4.511283	AFA	0.18	0.18
50772	14454	CER	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/26/1982	NW	NW	12	13N	67E	752.76	752.76	AFA	4	4
51413	---	DEN	UG	MM	MCKAY, CAMERON E. MCKAY, MAXINE H.	10/7/1987	SE	NE	10	14N	67E	144.974836	144.974836	AFA	6.69	6.69
51564	---	DEN	UG	IRR	SWALLOW, VESTA C. SWALLOW, RICHARD M.	2/5/1969	NW	SE	26	13N	67E	0	0	---	1.45	1.45
51565	---	DEN	UG	IRR	SWALLOW, RICHARD M.	9/9/1974	NE	SE	34	13N	67E	0	0	---	0.027	0.027
51566	---	DEN	UG	IRR	SWALLOW, RICHARD M. SWALLOW, VESTA C.	2/5/1969	SE	SW	26	13N	67E	0	0	---	2.34	2.34
51567	---	DEN	UG	IRR	SWALLOW, VESTA C. SWALLOW, RICHARD M.	2/5/1969	NW	SE	26	13N	67E	0	0	---	1.89	1.89
51766	---	DEN	UG	IRR	SWALLOW, RICHARD M. SWALLOW, VESTA C.	5/12/1977	NW	SE	26	13N	67E	2720	2720	AFA	2.7	2.7
53911	---	DEN	UG	MM	CLARK, SOPHIE C.	10/3/1989	SE	NW	15	14N	67E	177.413109	177.413109	AFA	3	3
54003	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	NW	20	08N	68E	4343.82	4343.82	AFA	6	6
54004	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	NE	25	09N	67E	4343.82	4343.82	AFA	6	6
54005	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	NE	14	09N	67E	4343.82	4343.82	AFA	6	6
54006	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	SE	22	10N	67E	4343.82	4343.82	AFA	6	6
54007	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NW	SE	34	11N	66E	4343.83	4343.82	AFA	6	6
54008	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SW	SW	1	11N	66E	4343.82	4343.92	AFA	6	6
54009	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	NW	36	13N	66E	4343.82	4343.82	AFA	6	6
54010	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	SE	25	14N	66E	4343.82	4343.82	AFA	6	6
54011	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	NE	14	14N	66E	4343.82	4343.82	AFA	6	6
54012	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	SE	16	14N	67E	4343.905194	4343.905194	AFA	6	6
54013	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SW	SW	25	15N	66E	4343.82	4343.82	AFA	6	6
54014	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SW	SW	15	15N	67E	4343.905194	4343.905194	AFA	6	6
54015	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NW	SW	14	15N	67E	4343.905194	4343.905194	AFA	6	6
54016	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SW	NE	7	15N	67E	4343.905194	4343.905194	AFA	6	6
54017	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	NW	25	16N	66E	4343.82	4343.82	AFA	6	6
54018	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	SE	24	16N	66E	4343.82	4343.82	AFA	6	6
54019	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	SW	32	12N	68E	7239.7	7239.7	AFA	10	10
54020	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	SE	14	14N	67E	7239.7	7239.7	AFA	10	10
54021	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	SW	33	16N	66E	7230.7	7239.7	AFA	10	10



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 27 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
54204	---	PER	UG	IRR	LDS	12/1/1989	NE	NW	19	16N	67E	2082.3	2082.3	AFA	3	3
54205	---	PER	UG	IRR	LDS	12/1/1989	SW	SE	13	16N	66E	2082.3	2082.3	AFA	3	3
54425	---	WDR	UG	IRR	EL TEJON CATTLE COMPANY	11/13/1979	SW	NE	24	15N	66E	3909.4	3909.4	AFA	5.4	5.4
55363	---	PER	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	SW	SW	1	18N	66E	160	160	AFA	0.25	0.25
55364	---	PER	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	SW	NE	1	18N	66E	160	160	AFA	0.25	0.25
55365	---	PER	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	SW	NE	1	18N	66E	160	160	AFA	0.25	0.25
55366	---	DEN	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	SW	SW	1	18N	66E	180.95	180.95	AFA	0.25	0.25
55367	---	DEN	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	NW	NE	12	18N	66E	1600	1600	AFA	0.25	0.25
55368	---	DEN	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	NW	NE	12	18N	66E	1600	1600	AFA	0.25	0.25
55369	---	DEN	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	NW	NE	12	18N	66E	1600	1600	AFA	0.25	0.25
55370	---	RFP	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/11/1990	SW	SW	35	18N	66E	3200	3200	AFA	10	10
55468	---	DEN	SPR	WLD	SIMKINS, CONNIE	11/19/1990	SE	SE	20	07N	68E	0	0	---	1	1
56049	---	PER	UG	IRR	GEORGE ELDRIDGE & SON, INC.	8/30/1989	NW	SE	24	19N	66E	720	720	AFA	3	3
56050	17888	CER	UG	IRR	GEORGE ELDRIDGE & SON, INC.	11/23/1979	NE	SE	31	18N	68E	240	240	AFA	1	0.78
56051	---	PER	UG	IRR	GEORGE ELDRIDGE & SON, INC.	8/30/1989	NE	SE	26	19N	66E	240	240	AFA	1	1
56236	16462	CER	SPR	DOM	WESTLAND-RE, LLC 63.49% AND NW, LLC 36.51%	4/26/1991	SW	SW	21	21N	69E	4.04	1.03	AFA	0.007	0.005
58133	---	DEN	UG	STK	BLM	9/28/1992	NE	SW	2	12N	67E	0	0	---	0.027	0.027
58134	---	ABR	UG	STK	BLM	9/28/1992	NE	SW	2	12N	67E	7.57	0	AFA	0.035	0
58135	---	DEN	STR	STK	BLM	9/28/1992	SW	SW	35	18N	66E	0	0	---	0.055	0.055
58302	---	PER	UG	MM	MINEL, INC.	8/20/2008	NE	SE	21	14N	67E	302.440095	302.440095	AFA	6	6
58493	---	ABR	UG	IRR	HARBECKE, ROBERT L.   HARBECKE, FERN A.	5/10/1982	SW	SE	14	13N	67E	1080	0	AFA	4.5	0
58494	---	RFA	STR	PWR	SOUTHERN NEVADA WATER AUTHORITY	1/21/1993	NE	NW	13	13N	67E	0	0	AFA	4	4
59674	---	DEN	SPR	STK	BLM	1/6/1994	NE	SE	10	22N	65E	0	0	---	0.02	0.02
59712	---	DEN	SPR	STK	BLM	1/19/1994	NE	SE	10	15N	65E	0	0	---	0.02	0.02
59767	---	DEN	UG	STK	BLM	2/15/1994	NE	SW	2	12N	67E	0	0	---	0.021	0.021
59768	---	DEN	UG	STK	BLM	2/15/1994	LT08	---	2	12N	67E	0.02	0.02	AFA	0.016	0.016
60085	---	DEN	UG	STK	BLM	9/28/1992	LT06	---	2	12N	67E	7.580183	7.580183	AFA	0.027	0.027
60086	---	PER	UG	WLD	BLM	9/28/1992	NE	SW	2	12N	67E	7.57	7.57	AFA	0.035	0.035
60104	16135	CER	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	5/27/1994	SE	NW	16	13N	67E	2.26	2.26	AFA	0.0031	0.0031
63197	---	CAN	UG	IRR	SWALLOW, VESTA C.   SWALLOW, RICHARD M.	5/12/1977	NW	NE	26	13N	67E	0	0	---	2.7	2.7
63453	---	DEN	UG	IRR	SWALLOW, RICHARD M.	9/23/1997	NW	NE	26	13N	67E	640	640	AFA	2.7	2.7
63531	---	ABR	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	NE	NE	13	12N	67E	544.33	0	AFA	1.5	0
63532	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/24/1997	NE	SE	13	12N	67E	620	620	AFA	1.7	1.7
63533	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/24/1997	SE	NE	13	12N	67E	620	620	AFA	1.7	1.7
64682	---	WDR	UG	IRR	LINCOLN COUNTY WATER DISTRICT   VIDLER WATER COMPANY, INC.	12/11/1998	NE	SE	9	08N	68E	5120	5120	AFA	10	10

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 28 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
64683	---	WDR	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	SW	NE	3	09N	68E	5120	5120	AFA	10	10
65328	---	DEN	UG	IRD	BOWLER, KENDLE	7/23/1999	SW	NE	5	13N	67E	695.13	695.13	AFA	1.768	1.768
65430	---	DEN	UG	IRD	TEEPLES, LISA	8/18/1999	NW	NE	12	09N	67E	695.13	695.13	AFA	1.77	1.77
65431	---	DEN	UG	IRD	LAKE, TRISTA	8/18/1999	NE	NW	2	09N	67E	695.13	695.13	AFA	1.77	1.77
65432	---	DEN	UG	IRD	DUNN, JASON	8/18/1999	NW	SW	1	09N	67E	695.13	695.13	AFA	1.77	1.77
65433	---	DEN	UG	IRD	DUNN, HEIDI	8/18/1999	NE	SW	1	09N	67E	695.13	695.13	AFA	1.77	1.77
65434	---	DEN	UG	IRD	HUMPHRIES, AMBER	8/18/1999	SW	SE	36	10N	67E	695.13	695.13	AFA	1.77	1.77
65435	---	DEN	UG	IRD	TEEPLES, JEREMY K.	8/18/1999	SE	SE	2	09N	67E	695.13	695.13	AFA	1.77	1.77
65436	---	DEN	UG	IRD	HANBERG, TRAVIS	8/18/1999	NE	SE	4	10N	67E	695.13	695.13	AFA	0	0
65437	---	DEN	UG	IRD	JONES, RULON C.	8/18/1999	NE	SE	16	10N	67E	695.13	695.13	AFA	0	0
65438	---	DEN	UG	IRD	BOWLER, ROBIN L.	8/18/1999	NW	SE	3	10N	67E	695.13	695.13	AFA	0	0
65439	---	DEN	UG	IRD	JONES, SHIRLEY T.	8/18/1999	NW	SE	15	10N	67E	695.13	695.13	AFA	0	0
65440	---	DEN	UG	IRD	JONES, GARRIK	8/18/1999	NE	SW	8	10N	67E	695.13	695.13	AFA	0	0
65441	---	DEN	UG	IRD	JONES, LYNC	8/18/1999	NW	SW	10	10N	67E	695.13	695.13	AFA	0	0
65442	---	DEN	UG	IRD	DUNN, JUSTIN K.	8/18/1999	NW	SW	9	10N	67E	695.13	695.13	AFA	0	0
65443	---	DEN	UG	IRD	DUNN, CARI L.	8/18/1999	NE	SE	9	10N	67E	695.13	695.13	AFA	0	0
65444	---	DEN	UG	IRD	HITCH, JILL	8/18/1999	NW	SE	6	10N	67E	695.13	695.13	AFA	0	0
65445	---	DEN	UG	IRD	HITCH, MATTHEW S.	8/18/1999	NE	SE	6	10N	67E	695.13	695.13	AFA	0	0
65446	---	DEN	UG	IRD	ORTON, BRENDA	8/18/1999	NE	SE	5	10N	67E	695.13	695.13	AFA	0	0
65447	---	DEN	UG	IRD	ORTON, ERROL	8/18/1999	NW	SE	5	10N	67E	695.13	695.13	AFA	0	0
65448	---	DEN	UG	IRD	HANBERG, EMILY	8/18/1999	NW	SE	4	10N	67E	695.13	695.13	AFA	0	0
65449	---	DEN	UG	IRD	HUMPHRIES, BRANDON	2/28/2000	NW	NE	1	10N	66E	695.13	695.13	AFA	0	0
65605	---	DEN	UG	QM	LONG NOW FOUNDATION (THE)	10/15/1999	SW	SW	15	12N	68E	3.437168	3.437168	AFA	0.2	0.2
65641	---	PER	UG	QM	FAVA, PAUL & SHEILA RUSSELL, ROBERT & LOLITA	9/11/2008	SE	SE	17	15N	68E	2.24	2.240297	AFA	0.05	0.05
66734	16910	CER	SPR	IRR	FILLMAN, PATRICK D. & KRISTINE K.	8/23/2000	NW	NW	21	15N	68E	20	11.28	AFA	0.03	0.03
67064	---	WDR	UG	IRR	FREHNER, DAN	1/9/2001	NW	NW	30	09N	68E	3840	3840	AFA	10	10
67065	---	WDR	UG	IRR	FREHNER, DAN	1/9/2001	SW	SW	31	09N	68E	2560	2560	AFA	10	10
67066	---	WDR	UG	IRR	FREHNER, DAN	1/9/2001	NE	NE	7	09N	68E	5120	5120	AFA	10	10
67067	---	WDR	UG	IRR	FREHNER, DAN	1/9/2001	NE	SW	24	09N	67E	5120	5120	AFA	10	10
67068	---	DEN	UG	IRR	PEARSON, LEE	1/9/2001	NE	NE	1	09N	67E	3840	3840	AFA	10	10
67069	---	DEN	UG	IRR	PEARSON, LEE	1/9/2001	SE	SE	12	09N	67E	3840	3840	AFA	10	10
67319	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	SW	8	22N	66E	1920	1920	AFA	6	6
67320	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	SW	17	22N	66E	1920	1920	AFA	6	6
67321	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NE	NW	29	22N	66E	1440	1440	AFA	6	6
67322	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	NW	9	21N	66E	640	640	AFA	2.7	2.7
67323	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	NE	14	19N	66E	2560	2560	AFA	6	6



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 29 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
67324	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	NW	11	19N	66E	2560	2560	AFA	6	6
67325	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NE	NE	26	19N	66E	4960	4960	AFA	6	6
67326	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	SW	NE	36	19N	66E	0	0	AFA	6	6
67327	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	NW	12	18N	66E	2200	2200	AFA	6	6
67328	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NE	NW	13	18N	66E	480	480	AFA	2.4	2.4
67329	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	SW	SW	24	18N	66E	1920	1920	AFA	6	6
67330	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NW	NW	6	17N	67E	4343.82	4343.82	AFA	6	6
67331	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	NE	NE	12	17N	66E	4343.82	4343.82	AFA	6	6
67332	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/12/2001	SW	NE	30	18N	67E	800	800	AFA	3.4	3.4
67333	---	RFP	UG	IRR	JOHNSON, ALAN D. AND SHELLEY C.	3/12/2001	SE	SW	34	17N	67E	1120	1120	AFA	4.7	4.7
67886	---	ABR	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/6/2001	SE	SE	12	12N	67E	0	0	AFA	0.728	0
67887	---	ABR	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/6/2001	NE	NE	13	12N	67E	0	0	AFA	0.728	0
69087	---	DEN	UG	IRR	TRUSCHKE, MARIANNE	2/5/1969	SE	SW	26	13N	67E	560.82	560.82	AFA	0.775	0.775
69088	---	DEN	UG	IRR	TRUSCHKE, MARIANNE	2/5/1969	SE	SW	26	13N	67E	430.36	430.36	AFA	0.594	0.594
69264	---	DEN	UG	MM	MOYLE, LANE	10/21/2002	SE	NW	15	14N	67E	354.7433577	354.7433577	AFA	0.49	0.49
69316	---	ABR	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/10/1982	NE	SW	22	13N	67E	1080	0	AFA	4.5	0
69726	---	RFA	UG	IRR	CORP OF CHURCH JESUS CHRIST OF LDS	4/28/1960	SW	SE	35	17N	67E	2240	2240	AFA	4	4
69727	---	RFA	UG	IRR	CORP OF CHURCH JESUS CHRIST OF LDS	4/28/1960	SE	NW	35	17N	67E	0	0	AFA	4	4
70373	---	WDR	UG	IRR	WHITE PINE COUNTY	3/30/1981	SW	NE	5	13N	67E	1280	1280	AFA	1.768	1.768
70374	---	WDR	UG	IRR	WHITE PINE COUNTY	3/30/1981	SW	SE	36	10N	67E	1280	1280	AFA	1.768	1.768
70375	---	WDR	UG	IRR	WHITE PINE COUNTY	3/30/1981	NW	SE	3	10N	67E	1280	1280	AFA	1.768	1.768
70376	---	WDR	UG	IRR	WHITE PINE COUNTY	3/30/1981	NW	NE	1	10N	66E	1280	1280	AFA	1.768	1.768
71525	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/6/2001	NE	SE	13	12N	67E	263.53	263.53	AFA	0.728	0.728
71526	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	NE	SE	13	12N	67E	542.98	542.98	AFA	1.5	1.5
71565	---	RFA	UG	IRR	MORIAH RANCHES, INC.	8/17/2004	NW	NE	28	17N	67E	800	800	AFA	3	3
71603	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/6/2001	SE	SE	12	12N	67E	263.53	263.53	AFA	0.728	0.728
71840	---	PER	UG	IRR	GEORGE ELDRIDGE & SON, INC.	8/30/1989	NW	NE	13	20N	66E	1120	1120	AFA	3	3
72643	---	PER	UG	QM	GIANOLI, JOHN C. & JULIE A.IGUST, J. TERRY & SALLY L.	4/26/2005	NE	SW	21	15N	68E	4.04	4.04	AFA	0.06	0.06
74274	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	SE	SE	12	12N	67E	544.33	544.33	AFA	1.5	1.5
75316	---	RFA	UG	IRR	BENSON, ROBERT E. BENSON, SANDRA L.	2/7/2007	NE	NW	21	14N	67E	40	40	AFA	1	1
75395	---	RFP	OSW	IRR	MORIAH RANCHES, INC.	2/28/2007	SE	SE	28	17N	67E	0	0	AFA	2	2
75396	---	RFP	OSW	IRR	MORIAH RANCHES, INC.	2/28/2007	NW	SW	28	17N	67E	0	0	AFA	2	2
76654	---	RFA	UG	OTH	RICHARD W. AND LESLIE ANN SEARS	1/22/2008	SE	SW	28	14N	67E	14.48	14.48	AFA	0.02	0.02
77126	---	PER	SPR	DOM	PAUL F. TILMAN	6/11/2008	NE	NE	20	21N	69E	0	0	AFA	0.18	0.18
77383	---	PER	UG	WLD	BLM	9/15/2008	LT6	---	2	12N	67E	10.86	10.86	AFA	0.015	0.015
77384	---	PER	UG	WLD	BLM	9/15/2008	NE	SW	2	12N	67E	19.55	19.55	AFA	0.027	0.027
77517	---	RFP	UG	WLD	SOUTHERN NEVADA WATER AUTHORITY	10/21/2008	NE	SW	2	12N	67E	63	63	AFA	0.08702	0.08702

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 30 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
77518	---	RFP	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	10/21/2008	NE	SW	2	12N	67E	0	0	AFA	0.0118125	0.0118
77519	---	RFP	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	10/21/2008	NE	SW	2	12N	67E	0	0	AFA	0.0118125	0.0118
77520	---	RFP	UG	STK	SOUTHERN NEVADA WATER AUTHORITY	10/21/2008	NE	NW	2	12N	67E	0	0	AFA	0.0118125	0.0118
77583	---	PER	SPR	DOM	THE BURKE FAMILY TRUST	11/13/2008	NE	NW	15	22N	65E	4.3	4.3	AFA	0.006	0.006
77714	---	PER	STR	STK	SOUTHERN NEVADA WATER AUTHORITY	12/22/2008	NE	NW	13	13N	67E	0.92	0.92	AFA	0.00128125	0.00128125
78107	---	PER	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/10/1982	SE	SW	14	13N	67E	1080	1080	AFA	4.5	4.5
78767	---	RFP	UG	WLD	BLM	7/29/2009	NE	SW	2	12N	67E	0	0	AFA	0.67482	0.67482
79023	---	RFP	UG	QM	GEORGE ELDRIDGE & SON INC	11/12/2009	NW	NE	25	17N	67E	160	160	AFA	0.6	0.6
79265	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	NW	20	08N	68E	0	0	AFA	6	6
79266	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	NE	25	09N	67E	0	0	AFA	6	6
79279	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	SE	22	10N	67E	0	0	AFA	6	6
79280	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NW	SE	34	11N	66E	0	0	AFA	6	6
79281	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SW	SW	1	11N	66E	0	0	AFA	6	6
79282	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	NW	36	13N	66E	0	0	AFA	6	6
79283	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	SE	25	14N	66E	0	0	AFA	6	6
79284	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	NE	14	14N	66E	0	0	AFA	6	6
79285	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	SE	16	14N	67E	0	0	AFA	6	6
79286	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SW	SW	25	15N	66E	0	0	AFA	6	6
79287	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SW	SW	15	15N	67E	0	0	AFA	6	6
79288	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NW	SW	14	15N	67E	0	0	AFA	6	6
79289	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SW	NE	7	15N	67E	0	0	AFA	6	6
79290	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	NW	25	16N	66E	0	0	AFA	6	6
79291	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	SE	24	16N	66E	0	0	AFA	6	6
79292	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	SW	32	12N	68E	0	0	AFA	10	10
79293	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	SE	14	14N	67E	0	0	AFA	10	10
79294	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	SW	33	16N	66E	0	0	AFA	10	10
79295	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	NE	14	09N	67E	0	0	AFA	6	6
79423	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NE	NW	13	18N	66E	480	480	AFA	2.4	2.4
79424	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	NW	12	18N	66E	2200	2200	AFA	6	6
79425	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	SW	NE	36	19N	66E	4960	4960	AFA	6	6
79426	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	SW	17	22N	66E	1920	1920	AFA	6	6
79427	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	SW	8	22N	66E	1920	1920	AFA	6	6
79428	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NE	NW	29	22N	66E	1440	1440	AFA	6	6
79429	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	NW	9	21N	66E	640	640	AFA	2.7	2.7
79430	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	NW	11	19N	66E	2560	2560	AFA	6	6
79431	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NE	NE	26	19N	66E	4960	4960	AFA	6	6
79432	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	NE	14	19N	66E	2560	2560	AFA	6	6
79433	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	SW	NE	30	18N	67E	800	800	AFA	3.4	3.4





**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 31 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
79434	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NE	NE	12	17N	66E	9280	9280	AFA	6	6
79435	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	NW	NW	6	17N	67E	9280	9280	AFA	6	6
79436	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/2010	SW	SW	24	18N	66E	1920	1920	AFA	6	6
79468	---	RFP	UG	IRR	RICHARD W AND LESLIE ANN SEARS	2/3/2010	SE	SW	28	14N	67E	0	0	AFA	2.5	2.5
79499	---	RFP	STR	IRR	SNWA	2/11/2010	SE	SE	3	18N	66E	0	0	AFA	3	3
79500	---	RFP	SPR	IRR	SNWA	2/11/2010	SW	NW	36	19N	66E	0	0	AFA	2	2
79501	---	RFP	SPR	IRR	SNWA	2/11/2010	SW	SW	36	19N	66E	0	0	AFA	2	2
79502	---	RFP	STR	IRR	SNWA	2/11/2010	NE	NE	26	19N	66E	0	0	AFA	8	8
79503	---	RFP	STR	IRR	SNWA	2/11/2010	SE	NE	15	19N	66E	0	0	AFA	4	4
79504	---	RFP	STR	IRR	SNWA	2/11/2010	SE	NW	29	12N	68E	0	0	AFA	5	5
79505	---	RFP	UG	STK	SNWA	2/11/2010	SW	SW	13	12N	67E	0	0	AFA	0.02	0.02
79506	---	RFP	SPR	IRR	SNWA	2/11/2010	SW	SW	1	18N	66E	0	0	AFA	0.25	0.25
79507	---	RFP	SPR	IRR	SNWA	2/11/2010	SW	NE	1	18N	66E	0	0	AFA	0.25	0.25
79508	---	RFP	SPR	IRR	SNWA	2/11/2010	SW	NE	1	18N	66E	0	0	AFA	0.25	0.25
79509	---	RFP	STR	IRR	SNWA	2/11/2010	SW	SW	35	18N	66E	0	0	AFA	10	10
79510	---	RFP	SPR	IRR	SNWA	2/11/2010	SW	NW	36	19N	66E	0	0	AFA	2	2
79511	---	RFP	UG	STK	SNWA	2/11/2010	SE	NW	16	13N	67E	0	0	AFA	0.01	0.01
79512	---	RFP	UG	IRR	SNWA	2/11/2010	NE	SE	13	12N	67E	0	0	AFA	1.7	1.7
79513	---	RFP	UG	IRR	SNWA	2/11/2010	SE	NE	13	12N	67E	0	0	AFA	1.7	1.7
79514	---	RFP	UG	IRR	SNWA	2/11/2010	SE	SE	12	12N	67E	544.33	544.33	AFA	1.53	1.53
79515	---	RFP	STR	IRR	SNWA	2/11/2010	NE	SW	10	18N	66E	0	0	AFA	7	7
79516	---	RFP	STR	IRR	SNWA	2/11/2010	NE	NE	15	19N	66E	0	0	AFA	2	2
79517	---	RFP	SPR	IRR	SNWA	2/11/2010	SE	SW	25	19N	66E	0	0	AFA	2	2
79519	---	RFP	UG	IRR	SNWA	2/11/2010	NE	NW	22	13N	67E	0	0	AFA	8.7	8.7
79520	---	RFP	STR	IRR	SNWA	2/11/2010	NE	NW	13	13N	67E	0	0	AFA	8.5	8.5
79521	---	RFP	STR	IRR	SNWA	2/11/2010	SW	NE	15	13N	67E	0	0	AFA	2.7	2.7
79522	---	RFP	UG	IRR	SNWA	2/11/2010	NE	NE	21	13N	67E	0	0	AFA	5.4	5.4
79523	---	RFP	UG	IRR	SNWA	2/11/2010	SW	NE	12	12N	67E	0	0	AFA	1	1
79524	---	RFP	UG	IRR	SNWA	2/11/2010	SE	SE	31	13N	67E	0	0	AFA	4.7	4.7
79712	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NW	SE	26	13N	67E	921.12	921.12	AFA	1.38	1.38
79713	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/6/2001	SE	SE	12	12N	67E	0	0	AFA	0.728	0.728
79714	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	SE	SE	12	12N	67E	544.33	544.33	AFA	1.5	1.5
79715	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	5/11/1960	NE	SE	13	12N	67E	0	0	AFA	1.5	1.5
79716	---	RFP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	8/6/2001	NE	SE	13	12N	67E	0	0	AFA	0.728	0.728
79719	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/24/1997	NW	SE	26	13N	67E	362.124	362.124	AFA	0.99	0.99
79720	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/24/1997	NW	SE	26	13N	67E	362.124	362.124	AFA	0.99	0.99
79721	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/9/1974	NW	SE	26	13N	67E	1.2	1.2	AFA	0.027	0.027



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 32 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
79722	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NE	SE	34	13N	67E	807.15	807.15	AFA	1.115	1.115
79723	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NE	SE	34	13N	67E	575.832	575.832	AFA	2.45	2.45
79724	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NW	SE	26	13N	67E	619.4	619.4	AFA	0.856	0.856
79725	---	RFA	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/9/1962	NW	SE	26	13N	67E	240	240	AFA	1.3	1.3
80453	---	RFP	STR	IRR	LDS	11/27/1914	NW	NW	17	16N	68E	0	0	AFA	1.6	1.6
80454	---	RFP	STR	IRR	LDS	11/18/1927	NW	NW	17	16N	68E	544.86	544.86	AFA	1.512	1.512
80455	---	RFP	STR	IRR	LDS	4/8/1940	NW	NW	17	16N	68E	1149.2	1149.2	AFA	2.873	2.873
80456	---	RFP	STR	DEC	LDS	1/1/1887	NW	NW	17	16N	68E	77.85	77.85	AFA	0.26	0.26
80559	---	APP	UG	STK	SNWA	2/11/2011	SE	NW	22	13N	66E	0	0	AFA	0.0046	0.0046
80562	---	APP	SPR	STK	SNWA	2/11/2011	LT4	---	34	20NH	69E	0	0	AFA	0.0117	0.0117
80563	---	APP	SPR	STK	SNWA	2/11/2011	SE	SW	29	15N	67E	0	0	AFA	0.0155	0.0155
80564	---	APP	SPR	STK	SNWA	2/11/2011	SE	NW	29	15N	67E	0	0	AFA	0.0155	0.0155
80567	---	APP	SPR	STK	SNWA	2/11/2011	SE	SW	1	10N	68E	0	0	AFA	0.0023	0.0023
80568	---	APP	SPR	STK	SNWA	2/11/2011	NW	NE	25	11N	68E	0	0	AFA	0.0023	0.0023
80569	---	APP	SPR	STK	SNWA	2/11/2011	SE	NW	36	11N	68E	0	0	AFA	0.0023	0.0023
80572	---	APP	UG	STK	SNWA	2/11/2011	NW	SE	20	12N	67E	0	0	AFA	0.0117	0.0117
80573	---	APP	SPR	STK	SNWA	2/11/2011	NE	NE	18	12N	67E	0	0	AFA	0.0117	0.0117
80574	---	APP	SPR	STK	SNWA	2/11/2011	NE	NE	18	12N	67E	0	0	AFA	0.0117	0.0117
80575	---	APP	SPR	STK	SNWA	2/11/2011	NE	SE	18	12N	67E	0	0	AFA	0.0117	0.0117
58303T	---	EXP	UG	MM	MINEL, INC.	4/3/1970	NE	SE	21	14N	67E	302.440095	302.440095	AFA	6	6
60027T	---	DEN	UG	IRR	SWALLOW, VESTA C./SWALLOW, RICHARD N.	5/12/1977	NW	NE	26	13N	67E	0	0	---	0	0
74708T	---	EXP	UG	OTH	ROBERT L. HARBECKE FAMILY REV. TRUST	5/10/1982	SE	NW	11	09N	67E	20	20	AFA	0.5	0.5
74709T	---	EXP	UG	OTH	ROBERT L. HARBECKE FAMILY REV. TRUST	5/10/1982	NW	SE	26	12N	66E	20	20	AFA	0.5	0.5
74710T	---	EXP	UG	OTH	ROBERT L. HARBECKE FAMILY REV. TRUST	5/10/1982	NW	SE	11	09N	68E	20	20	AFA	0.5	0.5
74711T	---	EXP	UG	OTH	ROBERT L. HARBECKE FAMILY REV. TRUST	5/10/1982	SE	SE	34	11N	66E	20	20	AFA	0.5	0.5
75338T	---	EXP	UG	OTH	SOUTHERN NEVADA WATER AUTHORITY	5/10/1982	NE	SW	33	16N	66E	20	20	AFA	0.083	0.083
75339T	---	EXP	UG	OTH	SOUTHERN NEVADA WATER AUTHORITY	5/10/1982	NE	NW	9	14N	66E	20	20	AFA	0.083	0.083
75340T	---	EXP	UG	OTH	SOUTHERN NEVADA WATER AUTHORITY	5/10/1982	SE	SE	14	14N	67E	20	20	AFA	0.083	0.083
75341T	---	EXP	UG	OTH	SOUTHERN NEVADA WATER AUTHORITY	5/10/1982	SE	NW	25	16N	66E	20	20	AFA	0.083	0.083
79726T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/24/1997	NW	SE	26	13N	67E	362.124	362.124	AFA	0.99	0.99
79727T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	9/9/1974	NW	SE	26	13N	67E	1.2	1.2	AFA	0.027	0.027
79728T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/9/1962	NW	SE	26	13N	67E	240	240	AFA	1.3	1.3
79729T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	10/24/1997	NW	SE	26	13N	67E	362.124	362.124	AFA	0.99	0.99
79730T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	3/9/1961	NE	SE	34	13N	67E	575.832	575.832	AFA	2.45	2.45
79731T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NW	SE	26	13N	67E	921.12	921.12	AFA	1.38	1.38
79732T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NE	SE	34	13N	67E	807.15	807.15	AFA	1.115	1.115
79733T	---	APP	UG	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/5/1969	NW	SE	26	13N	67E	619.4	619.4	AFA	0.856	0.856
80601T	---	RFA	STR	COM	LDS	1/1/1873	NW	SE	24	16N	66E	35	35	AFA	1	1



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 33 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
80602T	---	RFA	UG	COM	LDS	12/1/1989	NE	NW	19	16N	67E	35	35	AFA	1	1
80715T	---	RFA	UG	CON	GEORGE ELDRIDGE AND SON INC	11/23/1979	SE	NE	4	14N	67E	480	480	AFA	2	2
R05269	---	RES	SPR	OTH	BLM	4/17/1926	NW	SE	30	15N	67E	3.590613	3.590613	AFA	0.005	0.005
R05272	---	RES	SPR	OTH	BLM	4/17/1926	NW	SE	30	15N	67E	67.239599	67.239599	AFA	0.093	0.093
R05273	---	RES	SPR	OTH	BLM	4/17/1926	SE	SE	30	13N	67E	2.14823	2.14823	AFA	0.003	0.003
R05274	---	RES	SPR	OTH	BLM	4/17/1926	NW	SE	24	13N	67E	1.84134	1.84134	AFA	0.003	0.003
R05276	---	RES	SPR	OTH	BLM	4/17/1926	SW	NE	26	09N	67E	5.769532	5.769532	AFA	0.018	0.018
R05278	---	RES	SPR	OTH	BLM	4/17/1926	NW	NW	30	15N	67E	67.239599	67.239599	AFA	0.093	0.093
R05279	---	RES	SPR	OTH	BLM	4/17/1926	NW	SE	4	15N	67E	7.948451	7.948451	AFA	0.011	0.011
R05280	---	RES	SPR	OTH	BLM	4/17/1926	SW	SW	4	15N	67E	7.948451	7.948451	AFA	0.011	0.011
R05281	---	RES	SPR	OTH	BLM	4/17/1926	NW	SW	8	15N	68E	8.101896	8.101896	AFA	0.042	0.042
R05282	---	RES	SPR	OTH	BLM	4/17/1926	SE	NW	8	15N	68E	30.38211	30.38211	AFA	0.042	0.042
R05283	---	RES	SPR	OTH	BLM	4/17/1926	NE	NE	8	15N	68E	30.38211	30.38211	AFA	0.042	0.042
R05284	---	RES	SPR	OTH	BLM	4/17/1926	NE	SE	8	15N	68E	30.38211	30.38211	AFA	0.042	0.042
R05285	---	RES	SPR	OTH	BLM	4/17/1926	SW	NW	8	15N	68E	30.38211	30.38211	AFA	0.042	0.042
R05286	---	RES	SPR	OTH	BLM	4/17/1926	NW	NW	17	15N	68E	30.38211	30.38211	AFA	0.042	0.042
R05287	---	RES	SPR	OTH	BLM	4/17/1926	NW	NE	22	16N	66E	20.25474	20.25474	AFA	0.028	0.028
R05288	---	RES	SPR	OTH	BLM	4/17/1926	NW	NW	22	16N	66E	20.25474	20.25474	AFA	0.028	0.028
R05289	---	RES	SPR	OTH	BLM	4/17/1926	SW	SW	22	16N	66E	39.067097	39.067097	AFA	0.054	0.054
R05290	---	RES	SPR	OTH	BLM	4/17/1926	SW	SW	14	16N	66E	20.25474	20.25474	AFA	0.028	0.028
R05291	---	RES	SPR	OTH	BLM	4/17/1926	NW	NW	15	16N	67E	5.769532	5.769532	AFA	0.008	0.008
R05292	---	RES	SPR	OTH	BLM	4/17/1926	SW	SE	32	16N	67E	7.948451	7.948451	AFA	0.011	0.011
R05293	---	RES	SPR	OTH	BLM	4/17/1926	NW	NE	32	16N	67E	7.948451	7.948451	AFA	0.011	0.011
R05294	---	RES	SPR	OTH	BLM	4/17/1926	SW	NE	32	16N	67E	7.948451	7.948451	AFA	0.011	0.011
R05295	---	RES	SPR	OTH	BLM	4/17/1926	NW	NE	25	16N	67E	7.948451	7.948451	AFA	0.011	0.011
R09418	---	RES	SPR	STK	BLM	4/6/2004	NE	SE	10	22N	65E	0	0	AFA	0.0015	0.0015
V00714	---	VST	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	7/1/1904	NW	---	35	13N	67E	140	140	AFA	0	0
V00767	---	VST	STR	IRR	STARKWEATHER, MR.]YELLAND, JOHN	1/1/1892	SW	NW	27	18N	68E	120	120	AFA	0	0
V00789	---	VST	STR	IRR	MCGILL, WM.	1/1/1875	NW	---	1	18N	66E	0	0	---	0	0
V00790	---	VST	STR	IRR	LDS	1/1/1873	NW	NW	25	16N	66E	10847.7	10847.7	AFA	2.5	2.5
V00791	---	VST	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	2/1/1890	SE	NW	1	17N	66E	6375.45	6375.45	AFA	0	0
V00802	---	VST	STR	STK	HYDE, J.A.	1/1/1890	NW	NE	15	09N	67E	0	0	---	0	0
V01023	---	VST	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	1/1/1885	SW	SE	7	21N	69E	5.616087	5.616087	AFA	0.3	0.3

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 34 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
V01024	---	VST	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & AND LAREE GARDNER (17.5% UNDIVIDED INTEREST)	---	NW	SW	34	21N	69E	6.260556	6.260556	AFA	0.5	0.5
V01026	---	VST	STR	IRR	SWALLOW, GEORGE	1/1/1898	NE	NE	12	12N	67E	16	16	AFS	0	0
V01069	---	VST	STR	STK	BLM ELDRIDGE, GEORGE H.	---	NW	NE	34	20NH	69E	11.96871	11.96871	AFA	0.4	0.4
V01080	---	VST	STR	IRR	CORP. OF CHURCH OF LATTER-DAY SAINTS	1/1/1887	NE	NW	16	16N	68E	266.52	266.52	AFA	0	0
V01081	---	VST	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	1/1/1884	NW	SE	13	21N	68E	11.201485	11.201485	AFA	0.0156	0.0156
V01125	---	VST	SPR	MM	TILFORD, T.B.	1/1/1895	NW	NE	25	14N	67E	0	0	AFA	0	0
V01176	---	VST	SPR	STK	SELLAS, WILLIAM	12/31/1901	SE	NE	28	23N	66E	34.525125	34.525125	AFS	0.3	0.3
V01180	---	VST	RES	STK	NEVADA LAND & RESOURCE CO LLC	---	SE	SE	6	24N	67E	5.52402	5.52402	AFA	0.1	0.1
V01181	---	VST	SPR	STK	NEVADA LAND & RESOURCE CO LLC	5/1/1895	NW	NE	32	20N	66E	0	0	---	0.025	0.025
V01194	---	VST	SPR	STK	BEWS, HARRY	1/1/1904	NE	SW	9	22N	66E	18.075821	18.075821	AFA	0.025	0.025
V01195	---	VST	SPR	STK	BEWS, HARRY	1/1/1902	SE	SE	15	22N	66E	18.10651	18.10651	AFA	0.025	0.025
V01213	---	VST	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/1/1888	NE	SE	14	18N	66E	1280	1280	AFA	0	0
V01214	---	VST	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/1/1888	SE	NW	26	18N	66E	2000	2000	AFA	0	0
V01215	---	VST	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	1/1/1886	SE	NW	1	17N	66E	6400	6400	AFA	0	0
V01216	---	VST	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1882	SW	NE	24	15N	66E	400	400	AFA	0	0
V01217	---	VST	STR	IRR	LDS	1/1/1873	NW	SE	24	16N	66E	12000	12000	AFA	0	0
V01218	---	VST	STR	IRR	LDS	1/1/1873	NW	NE	6	16N	67E	4800	4800	AFA	0	0
V01219	---	VST	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/1/1878	NW	SE	2	18N	66E	1804.26	1804.26	AFA	7.728	7.728
V01220	---	DEN	SPR	IRR	ADAMS-MCGILL COMPANY	---	NE	SW	31	17N	67E	0	0	---	1	1
V01467	---	DEN	STR	IRR	NEVADA LAND & RESOURCE CO LLC	1/1/1883	SW	SW	36	19N	66E	0	0	---	0	0
V01614	---	VST	SPR	MM	COGHLAN, LEONA WEST BOWEN BOWEN, ALBERT S. BOWEN, WILLIAM EDWARD BOWEN, HUGH W. BOWEN LUELLA VIRGINIA KENT, VIRGINIA BOWEN	1/1/1876	SE	NW	12	14N	67E	0	0	AFA	0	0
V01634	---	VST	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	1/1/1900	NW	SE	10	22N	65E	3.866814	3.866814	AFA	0.05	0.05
V01637	---	VST	SPR	STK	SOUTHERN NEVADA WATER AUTHORITY	1/1/1900	SW	NE	14	13N	65E	4.480594	4.480594	AFA	0.1	0.1
V01648	---	VST	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/1/1891	SW	NW	27	18N	68E	300	300	AFA	1	1
V01665	---	VST	SPR	STK	CARTER, A. N. & LAFAYETTE GUBLER, ERNST KERR, D.R. KIRKEBY, ALBIN C. ROBISON, LESTER J. SWALLOW BROS ET AL	1/1/1903	SE	NE	35	12N	65E	9.360145	9.360145	AFA	0.025	0.025
V01669	---	VST	SPR	STK	CL CATTLE COMPANY LLC	1/1/1900	SW	SE	2	12N	65E	7.488116	7.488116	AFA	0.025	0.025
V01686	---	VST	STR	IRR	DOUTRE, JAMES	1/1/1901	NW	NE	1	21N	65E	179.6	179.6	AFA	0	0



**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 35 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
V01728	---	VST	SPR	STK	GEYSER RANCH, LLC	12/31/1899	SE	SW	32	07N	68E	7.36536	7.36536	AFA	0.025	0.025
V01764	---	VST	STR	IRR	CASIER, ELAINE E.   CASIER, JAMES B.	4/1/1902	SW	NE	30	17N	67E	40	40	AFA	0	0
V01778	---	VST	SPR	STK	B ENTERPRISES, LIMITED PARTNERSHIP (82.5% UNDIVIDED INTEREST) AND GEORGE L. GARDNER & LAREE GARDNER (17.5% UNDIVIDED INTEREST)	1/1/1900	NW	SW	27	24N	65E	10.74115	10.74115	AFA	0.2	0.2
V01779	---	VST	SPR	STK	HENRIOD, EUGENE	1/1/1900	SW	NW	17	23N	65E	5.677465	5.677465	AFA	0.2	0.2
V01781	---	VST	SPR	STK	HENROID, EUGENE	1/1/1900	NE	SE	18	23N	65E	10.74115	10.74115	AFA	0.2	0.2
V01782	---	VST	SPR	STK	HENRIOD, EUGENE	1/1/1900	SE	SW	7	23N	65E	10.74115	10.74115	AFA	0.2	0.2
V01783	---	VST	SPR	STK	ALBERT ROSEN LUND	1/9/1922	NW	NE	7	23N	65E	0	0	AFA	0.2	0.2
V01969	---	VST	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/1/1872	NW	NW	15	20N	66E	400	400	AFA	1	1
V02077	---	VST	SPR	STK	ROBISON, DOYLE C.	1/1/1890	SE	SW	29	14N	67E	11.201485	11.201485	AFA	0.05	0.05
V02078	---	VST	STR	STK	ADAMS-MCGILL COMPANY	1/1/1870	NW	NW	23	15N	66E	11.201485	11.201485	AFA	0.05	0.05
V02222	---	VST	SPR	STK	SELLAS, GUST T.	1/1/1902	NE	NW	26	23N	66E	6.076422	6.076422	AFA	0.025	0.025
V02223	---	VST	SPR	STK	SELLAS, WILLIAM	1/1/1902	NE	NW	2	22N	66E	6.045733	6.045733	AFA	0.025	0.025
V02286	---	VST	STR	IRR	CLARK, ALONZO	1/1/1875	NW	SW	16	20N	66E	78.68	78.68	AFA	2	2
V02304	---	ABR	STR	IRR	ANDRAE, ARTHUR	1/1/1870	SW	NW	18	17N	67E	1200	0	AFA	2	0
V02305	---	DEC	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	6/29/1916	NE	NW	34	20N	66E	877.2	877.2	AFA	2.404	0
V02329	---	VST	SPR	STK	NEVADA LAND & RESOURCE CO LLC	12/31/1899	SE	SW	13	23N	65E	20.899209	20.899209	AFA	0.05	0.05
V02332	---	DEC	STR	IRR	GEORGE ELDRIDGE & SON, INC.	1/1/1900	SE	SW	28	20N	66E	517.559999	517.559999	AFA	1.418	1.418
V02804	---	DEC	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	1/1/1871	SW	SW	24	18N	66E	904.62	904.62	AFA	7.039	7.039
V02805	---	DEC	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	1/1/1872	NE	NE	26	19N	66E	629.85	629.85	AFA	6.666	6.666
V02807	---	VST	STR	STK	USFS	1/1/1878	NW	NE	29	18N	66E	1.503761	1.503761	AFA	0.015	0.015
V02808	---	DEC	STR	STK	USFS	1/1/1878	NE	SE	1	18N	65E	1.503761	1.503761	AFA	0.051	0.051
V02809	---	DEC	SPR	STK	USFS	1/1/1878	NE	NW	28	19N	66E	3.68268	3.68268	AFA	0.005	0.005
V02817	---	VST	SPR	IRR	LDS	12/31/1884	NW	SE	18	16N	67E	9600	9600	AFA	10	10
V02818	---	VST	SPR	IRR	LDS	12/31/1884	SE	NW	18	16N	67E	9600	9600	AFA	10	10
V02819	---	VST	SPR	IRR	LDS	12/31/1884	SE	NE	18	16N	67E	9600	9600	AFA	10	10
V02820	---	VST	SPR	IRR	LDS	12/31/1884	SE	SE	18	16N	67E	9600	9600	AFA	10	10
V02821	---	VST	SPR	IRR	LDS	12/31/1884	NE	NE	19	16N	67E	9600	9600	AFA	10	10
V02822	---	VST	SPR	IRR	LDS	12/31/1884	SW	SW	17	16N	67E	9600	9600	AFA	10	10
V02823	---	VST	SPR	IRR	LDS	12/31/1884	NW	NW	20	16N	67E	9600	9600	AFA	10	10
V02824	---	VST	SPR	IRR	LDS	12/31/1884	SE	NE	19	16N	67E	9600	9600	AFA	10	10
V02825	---	VST	SPR	IRR	LDS	12/31/1884	NE	SE	19	16N	67E	9600	9600	AFA	10	10
V02826	---	VST	SPR	IRR	LDS	12/31/1884	NW	SW	20	16N	67E	9600	9600	AFA	10	10
V02827	---	VST	SPR	IRR	LDS	12/31/1884	SW	NW	20	16N	67E	9600	9600	AFA	10	10
V02828	---	VST	SPR	IRR	LDS	12/31/1884	NW	SE	20	16N	67E	9600	9600	AFA	10	10
V02834	---	VST	STR	STK	USFS	12/31/1908	NW	NE	16	13N	68E	5.431953	5.431953	AFS	0.015	0.015

**Table A-1**  
**Spring Valley Water-Right Information as Downloaded from NDWR**  
 (Page 36 of 36)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
V02835	---	VST	STR	STK	USFS	12/31/1908	NE	NE	32	13N	68E	2.301675	2.301675	AFS	0.015	0.015
V02836	---	VST	STR	STK	USFS	---	SE	SW	3	11N	68E	0	0	---	0.751	0.751
V02837	---	VST	SPR	STK	USFS	12/31/1908	SE	SW	20	13N	68E	2.301675	2.301675	AFS	0.015	0.015
V02838	---	VST	STR	STK	USFS	12/31/1908	SW	NE	16	13N	68E	2.301675	2.301675	AFS	0.015	0.015
V02842	---	VST	SPR	STK	USFS	12/31/1879	NW	SW	28	13N	68E	1.411694	1.411694	AFS	0.5	0.5
V02851	---	VST	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1904	NE	SW	26	13N	67E	529.6	529.6	AFA	0	0
V02852	---	VST	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1904	SW	NW	25	13N	67E	574.4	574.4	AFA	0	0
V02853	---	VST	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1904	SE	SW	30	13N	68E	600.8	600.8	AFA	0	0
V02854	---	VST	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1904	SE	SW	30	13N	68E	659.6	659.6	AFA	0	0
V02855	---	VST	SPR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1904	NW	NW	36	13N	67E	646.8	646.8	AFA	1	1
V02860	---	VST	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1887	NW	NW	7	12N	68E	3027.72	3027.72	AFA	0	0
V02861	---	VST	STR	IRR	SOUTHERN NEVADA WATER AUTHORITY	12/31/1887	NW	NE	18	12N	68E	3027.72	3027.72	AFA	0	0
V02915	---	VST	SPR	STK	SOUTHERN NEVADA WATER AUTHORITY	1/1/1900	NE	NW	15	10N	68E	0	0	AFA	0.005	0.005
V03543	---	VST	SPR	STK	USFS	1/1/1874	NW	SE	36	17N	65E	2.270986	2.270986	AFS	0.015	0.015
V03549	---	VST	SPR	STK	USFS	1/1/1874	SW	NW	2	16N	66E	2.025474	2.025474	AFS	0.015	0.015
V03550	---	VST	SPR	STK	USFS	1/1/1874	NE	SE	12	16N	65E	1.994785	1.994785	AFS	0.015	0.015
V03551	---	VST	SPR	STK	USFS	12/5/1880	NW	NE	8	16N	66E	2.025474	2.025474	AFS	0.015	0.015
V03554	---	VST	SPR	STK	USFS	1/1/1874	NW	NE	10	16N	65E	2.025474	2.025474	AFS	0.015	0.015
V03555	---	VST	SPR	STK	USFS	1/1/1874	SE	NE	12	16N	65E	2.025474	2.025474	AFS	0.015	0.015
V03556	---	VST	SPR	STK	USFS	1/1/1874	NW	SE	1	16N	65E	2.025474	2.025474	AFS	0.015	0.015
V03557	---	VST	SPR	STK	USFS	1/1/1874	SW	SE	36	17N	65E	2.270986	2.270986	AFS	0.015	0.015
V03558	---	VST	SPR	STK	USFS	1/1/1874	SW	SW	36	17N	65E	2.270986	2.270986	AFS	0.015	0.015
V03559	---	VST	SPR	STK	USFS	1/1/1874	NW	SE	36	17N	65E	2.270986	2.270986	AFS	0.015	0.015
V03560	---	VST	SPR	STK	USFS	5/1/1874	NE	NW	10	17N	66E	0.552402	0.552402	AFS	0.015	0.015
V03562	---	VST	SPR	STK	USFS	5/1/1874	SE	NE	22	17N	66E	0.552402	0.552402	AFS	0.015	0.015
V03563	---	VST	SPR	STK	USFS	5/1/1874	NE	SE	22	17N	66E	0.552402	0.552402	AFS	0.015	0.015
V04722	---	VST	STR	MM	PONY EXPRESS MINING & MILLING	1/1/1885	NE	SW	32	14N	68E	0	0	---	0.5	0.5
V09643	---	VST	OSW	STK	GEORGE ELDRIDGE & SON, INC.	1/1/1902	---	---	---	---	---	10	10	AFA	0	0
V09665	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NW	NE	18	17N	67E	0	0	AFA	2	2
V09666	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NW	SW	18	17N	67E	0	0	AFA	2	2
V09667	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NW	SE	18	17N	67E	0	0	AFA	2	2
V09668	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	SW	NE	18	17N	67E	0	0	AFA	2	2
V09669	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NW	NE	19	17N	67E	0	0	AFA	2	2
V09670	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NW	NW	19	17N	67E	0	0	AFA	2	2
V09671	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NW	NE	30	17N	67E	0	0	AFA	2	2
V09672	---	VST	SPR	IRR	ANDRAE, ARTHUR AND AUDRAE	1/1/1900	NE	SE	19	17N	67E	0	0	AFA	2	2
V09818	---	VST	SPR	STK	BLUE DIAMOND OIL CORPORATION	1/1/1900	NE	SE	1	16N	65E	0	0	AFA	0.0116064	0.0116064



**Table A-2**  
**Cave Valley Water-Right Information as Downloaded from NDWR**  
 (Page 1 of 4)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
742	---	CAN	SPR	PWR	ROBERTSON, EDWARD L.	12/3/1907	NW	NE	16	09N	64E	0	0	---	14	14
1137	---	CAN	SPR	MM	HENDRIX, E.A.	10/2/1908	SE	NE	30	11N	63E	0	0	---	0.25	0
1379	---	CAN	OSW	IRR	BARNES, BENN CARTWRIGHT, A.J. CARTWRIGHT, AGNUS M. KEAT, E.C. KINNEY, J.W. OLDFIELD, T.D.	6/9/1909	SW	---	31	10N	64E	0	0	---	16	0
3139	1661	CER	SPR	STK	CARTER, ALICE	10/21/1914	SW	NW	29	11N	63E	1.288938	1.288938	AFA	0.003	0.003
3142	2334	CER	SPR	STK	REID, ROBERT	10/22/1914	NW	SW	21	11N	63E	1.657206	1.657206	AFA	0.004	0.004
4470	---	DEN	SPR	IRR	OLSEN, CASTEN	6/15/1917	NW	SE	16	09N	64E	0	0	---	1.6	1.6
4599	643	CER	STR	IRR	ADAMS, MYRON	9/24/1917	SE	SE	11	09N	63E	36	36	AFA	0.12	0.12
4881	1060	CER	SPR	IRR	CAVE VALLEY RANCH, LLC	1/31/1918	NE	SW	16	09N	64E	225.57	225.57	AFA	0.751	0.751
5071	540	CER	SPR	STK	CAVE VALLEY RANCH, LLC	5/13/1918	SE	SW	25	08N	64E	7.518805	7.518805	AFA	0.015	0.015
5073	542	CER	SPR	STK	CAVE VALLEY RANCH, LLC	5/13/1918	NE	NE	25	08N	64E	7.303982	7.303982	AFA	0.015	0.015
5747	707	CER	SPR	STK	REED, G.M.	9/19/1919	SE	SW	30	11N	63E	1.503761	1.503761	AFA	0.004	0.004
5755	---	CAN	SPR	STK	GREGORIO URRUTIA CO.	9/22/1919	SE	SE	12	09N	62E	2.946144	2.946144	AFS	0.012	0.012
5756	---	CAN	SPR	STK	GREGORIO URRUTIA COMPANY	9/22/1919	NE	SE	32	10N	63E	0	0	---	0.012	0.012
5757	---	DEN	SPR	STK	GREGORIO URRUTIA CO.	9/22/1919	NW	SW	23	10N	64E	0	0	---	0.025	0.025
5787	---	DEN	SPR	STK	GREGORIO URRUTIA CO.	10/2/1919	SE	NW	22	10N	64E	3.007522	3.007522	AFS	0.5	0.5
5788	---	CAN	SPR	STK	GREGORIO URRUTIA COMPANY	10/2/1919	NW	SW	11	09N	64E	2.946144	2.946144	AFS	0.012	0.012
5873	---	DEN	SPR	STK	GREGORIO URRUTIA COMPANY	11/26/1919	SE	SW	25	08N	64E	0	0	---	0.006	0.006
5874	---	CAN	SPR	STK	GREGORIO URRUTIA COMPANY	11/26/1919	NW	NE	13	09N	64E	0.736536	0.736536	AFS	0.006	0.006
6598	---	CAN	UG	STK	WHIPPLE, J.L.	12/5/1921	---	---	---	06N	63E	0	0	---	0.05	0
6616	---	WDR	SPR	IRR	STEPHENS, CARL W.	1/20/1922	NW	SE	16	09N	64E	0	0	---	0.8	0.8
6638	2105	CER	UG	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	2/27/1922	SE	NE	21	05N	63E	2.14823	2.14823	AFA	0.003	0.003
7397	1175	CER	UG	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	6/14/1925	SE	SW	31	06N	63E	1.872029	1.872029	AFA	0.015	0.015
7485	1876	CER	UG	STK	KIRKEBY, GORDON A. KIRKEBY, KAYE A. KIRKEBY, MARY HANNAH	8/20/1925	SE	SW	36	09N	64E	8.961188	8.961188	AFA	0.012	0.012
9001	4209	CER	SPR	DOM	GREAT WESTERN MINING & DEVELOPMENT CO	7/26/1929	NE	SW	16	09N	64E	0	0	AFA	0.044	0.044
9002	---	DEN	SPR	PWR	GREAT WESTERN MINING & DEVELOPMENT	7/26/1929	SE	NE	4	09N	63E	0	0	---	6	0
9003	---	DEN	SPR	MM	GREAT WESTERN MINING & DEVELOPMENT	7/26/1929	SE	NE	4	09N	63E	0	0	---	6	0
9702	2135	CER	SPR	STK	JENSEN, BRUCE A. AND PAMELA G.	10/9/1933	NE	SE	19	06N	63E	7.242604	7.242604	AFA	0.01	0.01
9720	2269	CER	SPR	STK	CAVE VALLEY RANCHES	2/8/1934	NE	NW	14	09N	64E	17.922376	17.922376	AFA	0.025	0.025
9721	2270	CER	SPR	STK	CAVE VALLEY RANCHES	2/8/1934	SW	SW	2	09N	64E	17.922376	17.922376	AFA	0.025	0.025
13102	4059	CER	SPR	STK	CAVE VALLEY RANCHES	10/13/1949	SE	NE	33	11N	64E	5.585398	5.585398	AFA	0.019	0.019
19299	---	CAN	OSW	IRR	BLM	10/26/1960	NE	SW	9	08N	64E	0	0	---	6.1	0
22692	---	CAN	SPR	IRR	CAVE VALLEY RANCHES INC.	7/15/1965	NW	SE	6	09N	64E	0	0	---	2	0
22693	---	CAN	SPR	IRR	CAVE VALLEY RANCHES INC.	7/15/1965	SW	NW	4	09N	64E	0	0	---	1	0



**Table A-2**  
**Cave Valley Water-Right Information as Downloaded from NDWR**  
 (Page 2 of 4)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
22694	---	CAN	SPR	IRR	CAVE VALLEY RANCHES INC.	7/15/1965	NE	SW	16	09N	64E	0	0	---	5	0
22695	---	CAN	SPR	IRR	CAVE VALLEY RANCHES INC.	7/15/1965	NW	NW	9	09N	64E	0	0	---	1	0
23093	---	CAN	UG	IND	GULF OIL CORPORATION	4/11/1966	SE	SE	19	07N	64E	0	0	---	0.5	0
25322	8358	CER	STR	IRR	LEWIS, LOU JEANNE LEWIS, MELANIE LEWIS, PAUL C. LEWIS, RICHARD C. LEWIS, ROBERT C. LEWIS, VIVIAN C.	10/15/1969	SW	SE	3	09N	63E	240	240	AFA	0.89	0.89
25411	8359	CER	SPR	IRR	LEWIS, LOU JEANNE LEWIS, MELANIE LEWIS, PAUL C. LEWIS, RICHARD C. LEWIS, ROBERT C. LEWIS, VIVIAN C.	1/5/1970	NW	SW	11	09N	63E	79.2	79.2	AFA	0.56399999	0.56399999
25412	---	CAN	SPR	IRR	MURRY WHIPPLE RANCH	1/5/1970	NE	SW	4	09N	63E	320	320	AFA	1	1
27814	9654	CER	SPR	IRR	LEWIS, JEANNE LOU LEWIS, MELANIE LEWIS, PAUL C. LEWIS, RICHARD C. LEWIS, ROBERT C. LEWIS, VIVIAN C.	10/5/1973	NW	SW	11	09N	63E	126	126	AFA	0.67	0.67
41696	---	WDR	UG	QM	MX	7/14/1980	SE	NW	33	07N	63E	0	0	---	1	0
41697	---	WDR	UG	QM	MX	7/14/1980	NW	SW	8	06N	64E	0	0	---	1	0
41698	---	WDR	UG	QM	MX	7/14/1980	SW	SW	21	06N	63E	0	0	---	1	0
41699	---	WDR	UG	QM	MX	7/14/1980	NW	NE	9	08N	64E	0	0	---	1	1
41700	---	WDR	UG	QM	MX	7/14/1980	NW	SW	3	07N	64E	0	0	---	1	0
41701	---	WDR	UG	QM	MX	7/14/1980	NW	NE	14	07N	63E	0	0	---	1	0
53987	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NW	SW	22	06N	63E	4344	4344	AFA	6	6
53988	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	SE	21	07N	63E	4378	4378	AFA	10	10
64670	---	RFP	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	NE	SE	8	05N	63E	5120	5210	AFA	10	10
64671	---	RFP	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	SE	NE	9	08N	64E	5120	5210	AFA	10	10
66123	16617	CER	UG	STK	JENSEN, BRUCE A. & PAMELA G.	3/8/2000	SE	NW	15	07N	63E	11.201485	11.201485	AFA	0.0156	0.0156
66125	16619	CER	UG	STK	JENSEN, BRUCE A. & PAMELA G.	3/8/2000	SW	SE	30	08N	64E	11.201485	11.201485	AFA	0.0156	0.0156
66129	---	PER	SPR	IRR	JENSEN, BRUCE A. & PAMELA G.	3/21/2005	SW	SE	33	07N	64E	80	80	AFA	0.15	0.15
68487	---	RFP	UG	IRR	JENSEN, PAMELA G.	2/11/2002	NE	NE	14	07N	63E	1280	1280	AFA	3.5	3.5
68488	---	RFP	UG	IRR	JENSEN, BRUCE A.	2/11/2002	NE	NE	14	07N	63E	1280	1280	AFA	3.5	3.5
73168	---	PER	UG	STK	CAVE VALLEY RANCH, LLC	8/19/2005	NW	SW	27	09N	64E	11.2	11.2	AFA	0.05	0.05
73169	---	PER	UG	STK	CAVE VALLEY RANCH, LLC	8/19/2005	NW	SW	15	08N	64E	11.2	11.2	AFA	0.05	0.05
73170	---	PER	UG	STK	CAVE VALLEY RANCH, LLC	8/19/2005	NE	NW	25	10N	63E	11.2	11.2	AFA	0.05	0.05
73815	---	RFA	UG	IRR	LEWIS, PAUL	1/1/1900	SE	NE	4	09N	63E	0	0	AFA	4	4
73816	---	RFA	UG	IRR	LEWIS, PAUL	1/1/1900	SW	SE	3	09N	63E	0	0	AFA	4	4
73817	---	RFA	UG	IRR	LEWIS, PAUL	1/1/1900	NE	SE	10	09N	63E	0	0	AFA	4	4
75231	---	RFA	UG	STK	WHIPPLE, KEVIN	1/3/2007	NE	NW	4	08N	64E	0	0	AFA	0.0156	0.0156
75779	---	RFA	UG	QM	CAVE VALLEY RANCH, LLC	5/24/2007	SE	SE	5	09N	64E	8.071	8.071	AFA	0.01	0

**Table A-2**  
**Cave Valley Water-Right Information as Downloaded from NDWR**  
 (Page 3 of 4)

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76124	---	RFP	STR	OTH	CAVE VALLEY RANCH, LLC	8/3/2007	SE	SE	5	09N	64E	0	0	AFA	0.16	0.16
76125	---	RFP	STR	OTH	CAVE VALLEY RANCH, LLC	8/3/2007	SE	SE	5	09N	64E	0	0	AFA	0.07	0.07
76126	---	RFP	UG	STK	CAVE VALLEY RANCH, LLC	8/3/2007	SE	SE	5	09N	64E	0	0	AFA	0.07	0.07
76127	---	RFP	UG	OTH	CAVE VALLEY RANCH, LLC	8/3/2007	SE	SE	5	09N	64E	0	0	AFA	0.07	0.07
76128	---	RFP	UG	OTH	CAVE VALLEY RANCH, LLC	8/3/2007	SE	SE	5	09N	64E	0	0	AFA	0.16	0.16
76129	---	WDR	STR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	SE	SE	5	09N	64E	0	0	AFA	0.06	0.06
76248	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/7/2007	NW	NW	6	09N	64E	0	0	AFA	1.67	1.67
76249	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/7/2007	SW	NW	31	10N	64E	0	0	AFA	2.23	2.23
76250	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/7/2007	SE	SW	6	09N	64E	0	0	AFA	2.24	2.24
76251	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/7/2007	SW	SW	30	10N	64E	0	0	AFA	2.23	2.23
76252	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/7/2007	NE	NE	8	09N	64E	0	0	AFA	1.45	1.45
76257	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/10/2007	NE	NE	25	10N	63E	0	0	AFA	1.96	1.96
76258	---	RFP	UG	IRR	CAVE VALLEY RANCH, LLC	9/10/2007	SW	NE	16	09N	64E	0	0	AFA	3.34	3.34
76281	---	RFP	STR	STK	CAVE VALLEY RANCH, LLC	9/14/2007	SE	SE	5	09N	64E	15	0	AFA	0.16	0
76897	---	RFP	UG	IRR	PAMELA G. JENSEN	2/11/2002	SE	SW	28	09N	63E	0	0	AFA	1.75	1.75
76898	---	RFP	UG	IRR	PAMELA G. JENSEN	2/11/2002	SW	SE	28	10N	63E	0	0	AFA	1.75	1.75
76899	---	RFP	UG	IRR	BRUCE A. JENSEN	2/11/2002	SE	SE	8	10N	63E	0	0	AFA	1.75	1.75
76900	---	RFP	UG	IRR	BRUCE A. JENSEN	2/11/2002	SE	SE	17	10N	63E	0	0	AFA	1.75	1.75
79276	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NW	SW	22	06N	63E	0	0	AFA	6	6
79277	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	SE	21	07N	63E	0	0	AFA	10	10
R09414	---	RES	SPR	STK	BLM	4/6/2004	NE	SE	19	06N	63E	0	0	AFA	0.0015	0.0015
R09416	---	RES	SPR	STK	BLM	4/6/2004	SE	SW	31	06N	63E	0	0	AFA	0.0015	0.0015
R09417	---	RES	SPR	STK	BLM	4/6/2004	SW	NE	30	06N	63E	0	0	AFA	0.0015	0.0015
V01416	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	1/1/1888	SE	NE	30	11N	63E	0	0	AFA	0.1	0.1
V01486	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	1/1/1887	SE	NE	20	11N	63E	0	0	AFA	0.25	0.25
V01559	---	VST	SPR	STK	CAVE VALLEY RANCHES	1/1/1898	SW	NW	10	10N	64E	0	0	AFA	0.5	0.5
V01658	---	VST	SPR	STK	CAVE VALLEY RANCHES	4/1/1903	NW	SW	23	10N	64E	7.457427	7.457427	AFA	0.3	0.3
V01659	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	4/1/1903	SE	SE	22	10N	64E	7.457427	7.457427	AFA	0.3	0.3
V01660	---	VST	SPR	STK	CAVE VALLEY RANCHES	4/1/1903	SE	NW	22	10N	64E	7.457427	7.457427	AFA	0.3	0.3
V01675	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	4/1/1903	SW	SE	27	10N	64E	7.457427	7.457427	AFA	0.025	0.025
V01678	---	VST	STR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	SE	NE	34	10N	64E	0	0	AFA	1	1
V01679	---	VST	STR	STK	CAVE VALLEY RANCHES INC.	1/1/1903	NW	NW	2	09N	64E	0	0	---	1	1
V01680	---	VST	STR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	NE	NW	4	09N	64E	0	0	AFA	1	1
V01681	---	VST	STR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	NW	NE	26	10N	64E	0	0	AFA	1	1
V01696	---	VST	SPR	STK	GEYSER LAND & CATTLE CO.	12/31/1890	SW	SW	2	09N	64E	0	0	AFA	0.025	0.025
V01697	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	12/31/1890	SE	NW	11	09N	64E	0	0	AFA	0.025	0.025

**Table A-2**  
**Cave Valley Water-Right Information as Downloaded from NDWR**  
 (Page 4 of 4)



App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD TwN	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
V01698	---	VST	SPR	STK	GEYSER LAND & CATTLE CO.	12/31/1890	NE	NW	14	09N	64E	0	0	AFA	0.025	0.025
V01699	---	VST	SPR	STK	CAVE VALLEY RANCHES INC.	12/31/1890	SW	NE	14	09N	64E	0	0	AFA	0.025	0.025
V01807	---	VST	STR	IRR	CAVE VALLEY RANCH, LLC	12/31/1880	SW	NW	31	10N	64E	0	0	AFA	0.004	0.004
V01878	---	VST	STR	STK	ADAMS-MCGILL COMPANY	12/31/1892	SE	SW	15	11N	63E	0	0	AFA	0.25	0.25
V01881	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	1/1/1892	SE	SE	3	11N	63E	0	0	AFA	0.25	0.25
V01882	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	1/1/1899	NW	NE	10	11N	63E	0	0	AFA	0.25	0.25
V01883	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	1/1/1898	SW	SE	10	11N	63E	0	0	AFA	0.05	0.05
V01964	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	4/1/1905	NE	SE	19	06N	63E	0	0	AFA	0.004	0.004
V01965	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	4/1/1905	SW	NE	30	06N	63E	0	0	AFA	0.002	0.002
V02075	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	4/1/1892	SE	NW	9	10N	63E	6.720891	6.720891	AFA	0.25	0.25
V02079	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	4/1/1892	SE	SW	17	10N	63E	6.720891	6.720891	AFA	0.25	0.25
V02692	---	VST	SPR	IRR	LEWIS, LOU JEANNE LEWIS, MELANIE LEWIS, PAUL C. LEWIS, RICHARD C. LEWIS, ROBERT C. LEWIS, VIVIAN C.	12/31/1885	NE	SW	4	09N	63E	0	0	AFA	0.414	0.414
V02693	---	VST	SPR	IRR	LEWIS, LOU JEANNE LEWIS, MELANIE LEWIS, PAUL C. LEWIS, RICHARD C. LEWIS, ROBERT C. LEWIS, VIVIAN C.	12/31/1885	SW	SE	3	09N	63E	0	0	AFA	0.414	0.414
V02694	---	VST	SPR	IRR	LEWIS, LOU JEANNE LEWIS, MELANIE LEWIS, PAUL C. LEWIS, RICHARD C. LEWIS, ROBERT C. LEWIS, VIVIAN C.	12/31/1890	NW	SW	11	09N	63E	0	0	AFA	0.12	0.12
V09231	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	5/1/1887	SE	NE	6	09N	63E	0	0	AFA	0.013	0.013
V09232	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	5/1/1887	SE	NW	12	09N	62E	0	0	AFA	0.013	0.013
V09233	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	5/1/1887	SE	SW	32	10N	63E	3.37579	3.37579	AFA	0.013	0.013
V09234	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	5/1/2000	NE	NE	32	09N	63E	0	0	AFA	0.1	0.1
V09235	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	5/1/1905	SW	SE	33	07N	64E	0	0	AFA	0.05	0.05
V09236	---	VST	SPR	STK	JENSEN, BRUCE A. JENSEN, PAMELA G.	5/1/1887	NW	SE	13	09N	62E	0	0	AFA	0.025	0.025
V09522	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	1/1/1890	SE	SW	2	09N	64E	0	0	AFA	0.025	0.025
V09523	---	VST	STR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	NW	NW	2	09N	64E	0	0	AFA	1	1
V09524	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	NW	NW	23	10N	64E	0	0	AFA	0.333	0.333
V09525	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	1/1/1903	SE	NW	22	10N	64E	0	0	AFA	0.333	0.333
V09526	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	1/1/1890	SE	SW	11	09N	64E	0	0	AFA	0.025	0.025
V09527	---	VST	SPR	STK	CAVE VALLEY RANCH, LLC	1/1/1890	NW	SE	13	09N	64E	0	0	AFA	0.025	0.025
V09875	---	VST	SPR	STK	BLUE DIAMOND OIL CORPORATION	1/1/1900	SE	NE	20	11N	63E	0	0	AFA	0.0203	0.0203
V09878	---	VST	SPR	STK	BLUE DIAMOND OIL CORPORATION	1/1/1900	NW	NE	10	11N	63E	0	0	AFA	0.0203	0.0203
V09881	---	VST	SPR	STK	BLUE DIAMOND OIL CORPORATION	1/1/1900	SW	SE	16	11N	63E	0	0	AFA	0.0203	0.0203
V09882	---	VST	SPR	STK	BLUE DIAMOND OIL CORPORATION	1/1/1900	SE	SW	15	11N	63E	0	0	AFA	0.0203	0.0203
V09883	---	VST	SPR	STK	BLUE DIAMOND OIL CORPORATION	1/1/1900	SE	NE	30	11N	63E	0	0	AFA	0.0203	0.0203

**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 1 of 8)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
387	---	CAN	SPR	IRR	ELLIS, A.C.	3/9/1907	---	---	---	04N	65E	0	0	---	0.5	0
388	---	CAN	SPR	IRR	E. & F. MINING	3/9/1907	---	---	---	---	---	0	0	---	0.5	0
524	---	CAN	SPR	MM	NEWMAN, GEO. W.	6/13/1907	---	---	10	05N	65E	0	0	---	0	0
780	566X	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS RUNNIN C RANCH FAMILY PARTNERSHIP	1/10/1908	---	---	---	01S	65E	723.984199	663.49618	AFA	1	0.91599999
3368	1980	CER	SPR	IRR	CYPHERS, ROBERT M.	4/26/1915	SE	SW	25	04N	66E	11	11	AFA	0.03	0.03
3592	---	CAN	SPR	DOM	BUTLER, N.N. HAMES, J.B.	9/27/1915	NW	NE	20	04S	65E	0	0	---	0.1	0.1
3593	---	CAN	SPR	DOM	HAMES, J.B. BUTLER, N.N.	9/27/1915	SE	NE	20	04S	65E	0	0	---	0.1	0.1
3875	724	CER	RES	STK	CORP PRESIDING BISHOP CHURCH JC LDS	4/10/1916	NE	NE	3	03S	64E	7.5	7.5	AFA	0.01	0.01
3876	725	CER	RES	STK	CORP PRESIDING BISHOP CHURCH JC LDS	4/10/1916	SW	SW	33	02S	64E	7.5	7.5	AFA	0.01	0.01
3877	---	CAN	SPR	STK	MACKIE, A.J.	4/10/1916	SW	NE	21	03S	64E	0	0	---	0.025	0.025
3878	726	CER	RES	STK	CORP PRESIDING BISHOP CHURCH JC LDS	4/10/1916	SE	NW	32	01S	64E	7.5	7.5	AFA	0	0
4550	---	CAN	SPR	STK	IMLAY, JAMES W. SMITH, WILLIAM S.	8/23/1917	---	---	---	01S	64E	0	0	---	0	0
4551	---	CAN	SPR	STK	IMLAY, JAMES W. SMITH, WILLIAM S.	8/23/1917	---	---	---	01S	64E	0	0	---	0	0
4612	---	DEN	SPR	STK	ROBINSON, J.R. JR.	10/1/1917	---	---	---	04S	65E	0	0	---	0	0
4616	---	CAN	SPR	STK	CULVERWELL, WM. OLSON, HANS	10/5/1917	NW	NE	20	04S	65E	0	0	---	0	0
4617	---	CAN	SPR	STK	CULVERWELL, WM. OLSON, HANS	10/5/1917	---	---	---	04S	65E	0	0	---	0	0
4618	---	DEN	SPR	STK	CULVERWELL, WM. OLSON, HANS	10/5/1917	---	---	---	04S	65E	0	0	---	0.4	0.4
4619	---	CAN	SPR	STK	CULVERWELL, WM. OLSON, HANS	10/5/1917	SE	NE	20	04S	65E	0	0	---	0.4	0.4
4694	---	CAN	UG	STK	CONOWAY, JOHN H.	11/12/1917	---	---	---	04S	65E	0	0	---	0	0
4696	732	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS 50% UDI CULVERWELL, WILLIAM 25% UDI THOMPSON, RAYMOND 25% UDI	11/12/1917	SE	SE	31	04S	65E	0	0	AFA	0.003	0.003
4697	733	CER	SPR	STK	CULVERWELL, WILLIAM 25% UDI CORP OF THE PRES. BISHOP OF THE CHURCH OF JC LDS 50% UDI THOMPSON, RAYMOND 25% UDI	11/12/1917	SE	SW	31	04S	65E	0	0	AFA	0.0015	0.0015
4699	---	CAN	SPR	STK	GARDNER RANCH CO.	11/12/1917	NW	NW	36	04S	64E	0	0	---	0.05	0.05
4855	---	CAN	SPR	IRR	JEFFCOTT, VERNON	1/21/1918	NW	SW	36	04N	64E	0	0	---	1	1
4906	---	CAN	STR	STK	THORLEY, ROBERT A.	---	SW	NW	20	03S	64E	0	0	---	1	1
4934	---	DEN	SPR	STK	THORLEY, ROBERT A.	2/23/1918	NW	SW	23	01N	63E	0	0	---	0.1	0.1
4961	525	CER	SPR	STK	HIGHBEE, FLORENCE S. HIGHBEE, MYRON F. HIRSCHI, GLENWOOD HIRSCHI, LANETTA SEEGMILLER, ADAM SEEGMILLER, RUTH	3/14/1918	NE	NW	23	01N	65E	2.178919	2.178919	AFA	0.003	0.003

**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 2 of 8)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD TwN	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
4962	---	CAN	SPR	STK	MATHEWS, CHARLES JR.	3/14/1918	NE	NE	14	01N	65E	0	0	---	0.4	0.4
4972	734	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY	3/21/1918	NE	NE	26	03S	65E	2.178919	0	AFA	0.003	0
5057	---	CAN	STR	IRR	WEST SIDE CATTLE CO.	---	NE	SW	26	04N	65E	0	0	---	0.125	0
5200	1924	CER	STR	STK	WEST SIDE CATTLE COMPANY	8/12/1918	SE	SW	26	04N	65E	44.80594	44.80594	AFA	0.063	0.063
5356	526	CER	SPR	STK	GOODMAN, R.F.	1/16/1919	NW	SE	11	01N	65E	0.153445	0.153445	AFA	0.002	0.002
5371	1119	CER	RES	STK	VIDLER WATER COMPANY	1/25/1919	NW	SW	24	02S	64E	10	10	AFA	0	0
5372	---	CAN	OSW	STK	THORLEY, FRANK A.	1/25/1919	SE	SW	35	01S	64E	0	0	---	0	0
5935	---	WDR	UG	IRR	ADAMS-MCGILL COMPANY	1/5/1920	NW	SE	14	05N	64E	0	0	---	0.5	0.5
5936	854	CER	UG	STK	ADAMS-MCGILL COMPANY	1/5/1920	NW	SE	14	05N	64E	18.075821	18.075821	AFA	0.025	0.025
6076	---	DEN	OSW	STK	ELLSWORTH, ROY AND MATHEWS, DAN	4/30/1920	NW	SW	24	02S	64E	0	0	---	0.031	0.031
6094	1053	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	5/6/1920	SE	NE	33	02S	63E	6.506068	6.506068	AFA	0.00899999	0.00899999
6095	1054	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY	5/6/1920	NW	SW	22	02S	63E	6.506068	0	AFA	0.00899999	0
6337	---	DEN	SPR	STK	JEFFCOTT, VERNON	11/27/1920	NW	NE	21	03S	64E	0	0	---	0.5	0.5
6338	---	DEN	SPR	STK	JEFFCOAT, VERNON	---	NW	NE	21	03S	64E	0	0	---	0.1	0
6376	---	DEN	SPR	STK	THORLEY, ROBERT A.	---	SE	NW	33	02S	66E	0	0	---	0.167	0.167
6432	---	WDR	SPR	MM	NEVADA SILVER HORN MINING CO.	4/6/1921	SW	NW	34	04N	65E	0	0	---	0.5	0.5
6454	---	CAN	SPR	STK	BRODIE, W.E.	5/5/1921	SE	SE	35	04N	65E	0	0	---	0.1	0.1
6619	835	CER	SPR	STK	WILLIAMS, ALEX WARREN WILLIAMS, THOMAS LARRY	1/27/1922	SW	NE	33	02S	66E	10.74115	10.74115	AFA	0.015	0.015
6718	1629	CER	UG	MM	COMET MINES CO.	7/17/1922	SW	SW	32	01N	66E	18.075821	18.075821	AFA	0.025	0.025
6803	971	CER	SPR	STK	FEDERAL LAND BANK OF BERKELEY HIGHBEE, FLORENCE HIGHBEE, MYRON SEEGMILLER, ADAM SEEGMILLER, RUTH	10/23/1922	SW	NE	22	01N	65E	1.595828	1.595828	AFA	0.002	0.002
7064	---	CAN	OSW	MM	NEVADA LEAD COMPANY	3/19/1924	NW	SW	36	04N	65E	0	0	---	0.25	0.25
7111	---	CAN	SPR	MM	PIOCHE UNION MINES COMPANY	5/9/1924	SE	---	26	01N	66E	0	0	---	0.33	0.33
7117	1466	CER	SPR	STK	ROBISON BROTHERS	5/16/1924	SW	NW	13	02N	63E	1.565139	1.565139	AFA	0.002	0.002
7563	2209	CER	SPR	STK	CLARK, DOUGLAS PACE, CORA M.	11/4/1925	NE	SE	22	01N	63E	2.608565	2.608565	AFA	0.006	0.006
7564	2210	CER	SPR	STK	CLARK, DOUGLAS PACE, CORA M.	11/4/1925	NW	SE	22	01N	63E	4.848862	4.848862	AFA	0.012	0.012
7565	---	DEN	SPR	STK	HAMILTON, R.H.	11/4/1925	NE	NE	34	02N	63E	0	0	---	0.003	0.003
8405	---	DEN	SPR	STK	IMPERIAL FARMS LAND & CATTLE CO.,INC	12/8/1927	NW	SE	15	06N	64E	0	0	---	0.5	0.5
8406	---	WDR	SPR	STK	TWISSELMAN, AUGUSTA TWISSELMAN, FRED TWISSELMAN, NORMAN M. TWISSELMAN, MITZI SKINNER, LUCILLE A.	---	---	---	---	06N	65E	0	0	---	0.5	0.5
8669	---	WDR	SPR	STK	SWALLOW, R.T.	8/28/1928	NE	NW	15	06N	64E	40.325346	40.325346	AFA	0.5	0.5



**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 3 of 8)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
8670	8146	CER	SPR	STK	GEYSER RANCH, LLC	8/19/1928	SE	NE	3	06N	64E	7.242604	7.242604	AFA	0.01	0.01
8698	5705	CER	SPR	STK	VIDLER WATER COMPANY WHIPPLE, RAYMOND LAIRD	9/17/1928	SE	NE	5	01S	65E	12.060777	12.060777	AFA	0.017	0.017
9335	---	DEN	UG	STK	THORLEY, FRANK A.	9/15/1930	NE	NE	2	01N	65E	0	0	---	0.03	0.03
9618	2107	CER	OSW	STK	CORP PRESIDING BISHOP CHURCH JC LDS	8/11/1932	NW	NE	11	03S	64E	6.782269	6.782269	AFA	0.00899999	0.00899999
9660	2293	CER	SPR	STK	VIDLER WATER COMPANY	5/6/1933	NE	SE	4	03S	65E	0.675158	0.675158	AFA	0.001	0.001
9965	---	WDR	UG	STK	BLM	3/6/1936	NW	NW	6	02N	65E	361.5	361.5	AFA	0.5	0.5
10070	---	DEN	OSW	STK	RYAN, JAMES JONES, ERASTUS L. JONES, WILLIAM	1/7/1937	NE	SW	7	04S	64E	3	3	AFA	0	0
10119	2355	CER	SPR	STK	VIDLER WATER COMPANY	5/17/1937	SW	NE	22	01N	65E	5.21713	5.21713	AFA	0.015	0.015
10120	2356	CER	SPR	STK	VIDLER WATER COMPANY	5/17/1937	NE	NW	23	01N	65E	5.21713	5.21713	AFA	0.015	0.015
10747	2805	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	10/17/1941	SW	NE	9	04S	65E	7.181226	7.181226	AFA	0.01	0.01
11033	3063	CER	SPR	STK	BLEAK, JUANITA W. & WHELLER, CASEY L	12/3/1943	NE	SE	26	01N	66E	2.240297	2.240297	AFA	0.003	0.003
11118	2826	CER	RES	STK	VIDLER WATER COMPANY	5/10/1944	SE	SE	33	02S	65E	6.720891	6.720891	AFA	0.013	0.013
11490	---	WDR	UG	STK	CONAWAY, JOHN H.	1/19/1946	NW	NW	2	04S	64E	4.480594	4.480594	AFA	0.1	0.1
11780	---	WDR	UG	MM	COMET COALITION MINES CO.	2/15/1947	SW	SW	9	01S	66E	0	0	---	2	2
12246	3583	CER	SPR	STK	THORLEY, FRANK	2/6/1948	SE	SW	34	02N	63E	5.21713	5.21713	AFA	0.013	0.013
12247	3584	CER	SPR	STK	THORLEY, FRANK	2/6/1948	NW	NW	35	02N	63E	4.480594	4.480594	AFA	0.013	0.013
12509	---	CAN	SPR	STK	LOWELL, M. BYRON, A. ERCANBRACK, MAX W.	6/18/1948	SW	NE	10	03S	63E	0	0	---	0.003	0.003
12511	4390	CER	SPR	STK	HIGBEE, E. EDWIN, KRISTINE H.	6/18/1948	SE	NW	32	02S	63E	1.872029	1.872029	AFA	0.003	0.003
12512	4391	CER	SPR	STK	HIGBEE, E. EDWIN AND KRISTINE H.	6/18/1948	SW	SW	34	02S	63E	1.503761	1.503761	AFA	0.003	0.003
12514	---	DEN	OSW	STK	ERCANBRACK, MAX W. ERCANBRACK, LOWELL M. ERCANBRACK, BYRON A.	6/18/1948	SE	SE	29	02S	64E	0	0	---	0.025	0.025
12793	4501	CER	SPR	STK	HIGBEE, E. EDWIN AND KRISTINE H.	6/22/1921	NW	NE	27	02S	63E	2.792699	2.792699	AFA	0.00899999	0.00899999
12840	4502	CER	SPR	STK	HIGBEE, E. EDWIN AND KRISTINE H.	6/6/1945	SW	NE	27	02S	63E	1.626517	1.626517	AFA	0.002	0.002
12879	---	CAN	OSW	STK	THORLEY, ROBERT A.	4/11/1949	SE	SE	8	01S	66E	13.441782	13.441782	AFA	0.1	0.1
12920	---	CAN	SPR	STK	ERCANBRACK, BRYON A.	---	NW	NE	27	02S	63E	0	0	AFA	0.015	0.015
14732	4712	CER	STR	STK	JONES, H. WENDELL JONES, LEHI M. JONES, WM.L.	12/24/1952	NW	SW	17	02S	66E	3.98957	3.98957	AFA	0	0
18756	5059	CER	UG	STK	DELMUE, ALBERT HOLLINGER, SAMUEL A. LYTLE, ROY E. PARKS DIVISION-NEVADA	4/26/1960	NW	NE	24	01N	64E	10.833217	10.833217	AFA	0.015	0.015
21868	---	WDR	UG	IRD	BARNETT, CORA A.	---	NW	NW	21	03S	64E	0	0	---	5.35	0
21869	---	WDR	UG	IRD	STEINER, WAUNITA	---	NW	SW	28	03S	64E	0	0	---	5.35	0
21870	---	WDR	UG	IRD	BURGESS, CAROLYN	---	NW	NW	16	03S	64E	0	0	---	5.35	0



**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 4 of 8)



App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD TwN	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
22345	---	DEN	UG	IRD	HARRIS, JOYCE C.	12/1/1964	SE	SE	27	03S	64E	0	0	---	5.4	5.4
27924	---	CAN	SPR	STK	SUMMA CORPORATION	11/29/1973	NW	---	31	07S	65E	14.331763	14.331763	AFA	0.02	0.02
34573	---	CAN	UG	MM	FOLTA, WILLIAM D.	11/7/1977	NE	NE	4	03N	65E	79.637955	0	AFA	0.11	0
35077	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	NE	---	3	03N	65E	0	0	---	0	0
35081	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	S2	---	16	04N	65E	10.096681	10.096681	AFA	0.25	0.25
35082	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	SW	SW	16	04N	65E	0	0	---	0	0
35083	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	NE	---	22	04N	65E	0	0	---	0	0
35084	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	NW	---	22	04N	65E	0	0	---	0	0
35085	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	SW	---	22	04N	65E	0	0	---	0	0
35086	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	SE	---	22	04N	65E	0	0	---	0	0
35089	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	N2	---	26	04N	65E	0	0	---	0	0
35090	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	N2	---	26	04N	65E	0	0	---	0	0
35091	---	CAN	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	SE	NE	35	04N	65E	0	0	---	0	0
35095	---	CAN	RES	STK	LYTLE, GORDON DELMUE, FRANK IMPERIAL FARMS LAND AND CATTLE CO. LYTLE, KENNETH	3/9/1978	NE	---	1	01N	64E	0	0	---	0	0
35096	---	CAN	UG	STK	DELMUE, FRANK LYTLE, KENNETH IMPERIAL FARMS LAND AND CATTLE CO. LYTLE, GORDON	3/9/1978	---	---	4	02N	64E	0	0	---	0	0
35097	---	CAN	RES	STK	LYTLE, KENNETH DELMUE, FRANK IMPERIAL FARMS LAND AND CATTLE CO. LYTLE, GORDON	3/9/1978	SW	---	11	02N	64E	0	0	---	0	0
35098	---	CAN	RES	STK	LYTLE, KENNETH LYTLE, GORDON IMPERIAL FARMS LAND AND CATTLE CO. DELMUE, FRANK	3/9/1978	NW	---	30	02N	65E	0	0	---	0	0
35099	---	CAN	UG	STK	DELMUE, FRANK IMPERIAL FARMS LAND AND CATTLE CO. LYTLE, GORDON LYTLE, KENNETH	3/9/1978	---	---	20	03N	64E	0	0	---	0	0
35100	---	CAN	UG	STK	LYTLE, KENNETH DELMUE, FRANK LYTLE, GORDON IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	---	---	21	03N	65E	0	0	---	0	0
35101	---	CAN	SPR	STK	LYTLE, KENNETH LYTLE, GORDON DELMUE, FRANK IMPERIAL FARMS LAND AND CATTLE CO.	3/9/1978	---	---	5	04N	65E	0	0	---	0	0
35102	---	CAN	SPR	STK	LYTLE, GORDON IMPERIAL FARMS LAND AND CATTLE CO. DELMUE, FRANK LYTLE, KENNETH	3/9/1978	SE	NE	35	04N	65E	0	0	---	0	0
35120	---	CAN	SPR	STK	STEWART, ROBERT	3/15/1978	SE	SE	10	05N	65E	0	0	---	0	0
35127	---	CAN	SPR	STK	STEWART, ROBERT	3/15/1978	SW	---	14	05N	65E	1.350316	1.350316	AFA	0.25	0.25
35128	---	CAN	SPR	STK	STEWART, ROBERT	3/15/1978	SW	---	15	05N	65E	1.350316	1.350316	AFA	0.25	0.25

**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 5 of 8)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
35129	---	CAN	SPR	STK	STEWARD, ROBERT	3/15/1978	SE	---	16	05N	65E	1.350316	1.350316	AFA	0.25	0.25
35130	---	CAN	OSW	STK	STEWARD, ROBERT	3/15/1978	N2	---	21	05N	65E	1.350316	1.350316	AFA	0.25	0.25
35131	---	CAN	SPR	STK	STEWARD, ROBERT	3/15/1978	SE	---	22	05N	65E	1.350316	1.350316	AFA	0.25	0.25
35328	---	CAN	SPR	STK	STEWARD, ROBERT	4/24/1978	---	---	21	06N	65E	0	0	---	0.25	0.25
35334	---	CAN	RES	STK	IMPERIAL FARMS LAND AND CATTLE CO.   STEWARD, ROBERT	4/26/1978	---	---	35	06N	64E	11.416308	11.416308	AFA	0	0
35336	---	CAN	RES	STK	IMPERIAL FARMS LAND AND CATTLE CO.	4/26/1978	---	---	12	06N	64E	15.835524	15.835524	AFA	0	0
35696	10175	CER	RES	STK	GEYSER RANCH, LLC	8/7/1978	SW	SE	26	05N	65E	4.91024	4.91024	AFA	0.007	0.007
35761	10204	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	NW	NW	26	04N	65E	3.253034	3.253034	AFA	0.005	0.005
35762	10205	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	SE	SE	22	04N	65E	3.253034	3.253034	AFA	0.005	0.005
35763	10206	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	SE	NE	22	04N	65E	3.253034	3.253034	AFA	0.005	0.005
35764	10207	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	NE	SE	22	04N	65E	3.253034	3.253034	AFA	0.005	0.005
35766	10208	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	SE	NW	26	04N	65E	10.096681	10.096681	AFA	0.014	0.014
35767	10209	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	NW	SE	26	04N	65E	4.848862	4.848862	AFA	0.007	0.007
35768	10210	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	SE	NE	35	04N	65E	3.253034	3.253034	AFA	0.005	0.005
35769	10186	CER	RES	STK	GEYSER RANCH, LLC	8/18/1978	NE	SW	1	01N	64E	3.253034	3.253034	AFA	0.005	0.005
35770	10869	CER	UG	STK	GEYSER RANCH, LLC	8/18/1978	NE	SW	4	02N	64E	3.191656	3.191656	AFA	0.004	0.004
35771	10211	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	SW	NW	11	02N	64E	3.253034	3.253034	AFA	0.005	0.005
35772	10187	CER	RES	STK	GEYSER RANCH, LLC	8/18/1978	SW	SE	19	02N	65E	3.253034	3.253034	AFA	0.005	0.005
35773	10870	CER	UG	STK	GEYSER RANCH, LLC	8/18/1978	NW	SE	20	03N	64E	3.191656	3.191656	AFA	0.004	0.004
35774	10871	CER	UG	STK	GEYSER RANCH, LLC	8/18/1978	SE	NW	21	03N	65E	3.191656	3.191656	AFA	0.004	0.004
35775	10212	CER	SPR	STK	GEYSER RANCH, LLC	8/18/1978	SE	SE	5	04N	65E	10.096681	10.096681	AFA	0.014	0.014
35843	10288	CER	SPR	STK	STEWARD, ROBERT	9/6/1978	NE	NW	21	05N	65E	1.166182	1.166182	AFA	0.002	0.002
35844	10289	CER	SPR	STK	STEWARD, ROBERT	9/6/1978	SW	NE	10	05N	65E	1.350316	1.350316	AFA	0.002	0.002
35849	---	WDR	RES	STK	GEYSER RANCH LIMITED PARTNERSHIP	9/6/1978	SW	NE	35	06N	64E	11.416308	11.416308	AFA	0.25	0.25
35851	10215	CER	RES	STK	GEYSER RANCH, LLC	9/6/1978	SW	SE	12	06N	64E	4.050948	4.050948	AFA	0.006	0.006
35951	10217	CER	SPR	STK	GEYSER RANCH, LLC	10/3/1978	SE	SE	9	04N	65E	3.222345	3.222345	AFA	0.004	0.004
35952	10218	CER	SPR	STK	GEYSER RANCH, LLC	10/3/1978	SE	NW	16	04N	65E	3.222345	3.222345	AFA	0.004	0.004
35954	10220	CER	SPR	STK	GEYSER RANCH, LLC	10/3/1978	SW	NW	15	04N	65E	3.222345	3.222345	AFA	0.004	0.004
36178	---	CAN	SPR	STK	GEYSER RANCH LIMITED PARTNERSHIP	11/20/1978	NW	---	12	04N	65E	4.848862	4.848862	AFA	0.25	0.25
36179	10222	CER	SPR	STK	GEYSER RANCH, LLC	11/20/1978	NE	NE	18	05N	64E	5.800221	5.800221	AFA	0.008	0.008
36180	10223	CER	SPR	STK	GEYSER RANCH, LLC	11/20/1978	SE	SE	26	04N	65E	4.848862	4.848862	AFA	0.007	0.007
36183	10295	CER	SPR	STK	STEWARD, ROBERT	11/20/1978	SW	SE	23	05N	65E	1.350316	1.350316	AFA	0.002	0.002
36334	---	CAN	SPR	STK	CARTER, DEAN	1/10/1908	NW	NW	33	01S	63E	3.222345	3.222345	AFA	0.004	0.004
40433	---	WDR	UG	QM	MX	1/30/1980	NE	SW	12	03S	64E	3808.934546	3808.934546	AFA	5.5	5.5
41732	---	WDR	UG	QM	U.S. GOVERNMENT	7/14/1980	NW	SW	6	06N	64E	0	0	---	1	1

**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 6 of 8)



App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
41733	---	WDR	UG	QM	MX	7/14/1980	SW	NE	6	05N	65E	0	0	---	1	1
41734	---	WDR	UG	QM	U.S. GOVERNMENT	7/14/1980	SE	SW	7	04N	64E	577	577	AFA	1	1
45588	---	DEN	UG	IRD	MEADOW VALLEY LAND & CATTLE CO.	4/26/1982	NE	SW	12	03S	64E	1280	1280	AFA	5	5
51776	13590	CER	SPR	STK	HATCH, ROGER	1/20/1988	SE	NW	22	01N	65E	0.92067	0.92067	AFA	0.006	0.006
52103	13775	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	5/6/1920	NW	SW	22	02S	63E	6.506068	6.506068	AFA	0.00899999	0.00899999
52104	13776	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/1/1896	NE	SW	21	03S	65E	0.460335	0.460335	AFA	0.001	0.001
52105	13777	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/10/1908	SE	NW	21	03S	65E	2.178919	2.178919	AFA	0.003	0.003
52106	13778	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	3/21/1918	NE	NW	28	03S	65E	1.442383	1.442383	AFA	0.002	0.002
52107	13779	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/1/1880	NW	NW	16	04S	65E	1.442383	1.442383	AFA	0.002	0.002
52108	13780	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/10/1908	NW	SW	29	04S	65E	9.421523	9.421523	AFA	0.013	0.013
52109	13781	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/10/1908	SE	SE	25	04S	64E	6.506068	6.506068	AFA	0.00899999	0.00899999
52110	---	WDR	SPR	STK	H.H. LAND AND CATTLE COMPANY HUNT, JAY	11/12/1917	SE	SW	31	04S	65E	1.074115	1.074115	AFA	0.001	0.001
52111	---	WDR	SPR	STK	HUNT, JAY H.H. LAND AND CATTLE COMPANY	11/12/1917	SE	SE	31	04S	65E	2.178919	2.178919	AFA	0.003	0.003
53989	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SW	SE	30	02S	64E	4344	4344	AFA	6	6
53990	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	SE	NE	8	02S	65E	7240	7240	AFA	10	10
60179	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	SW	NW	5	04S	64E	0	0	---	27627	27627
60180	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	SE	SE	6	04S	64E	0	0	---	27627	27627
60181	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	NW	SE	7	04S	64E	0	0	---	27627	27627
60182	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	NW	NW	8	04S	64E	0	0	---	27627	27627
60189	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	SW	NW	5	04S	64E	0	0	---	27627	27627
60190	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	SE	SE	6	04S	64E	0	0	---	0	0
60191	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	NW	NW	25	04S	63E	0	0	---	27627	27627
60192	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	NW	SE	7	04S	64E	0	0	---	27627	27627
60193	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	NW	NW	8	04S	64E	0	0	---	27627	27627
64668	---	ABR	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	NE	SW	20	01S	65E	1009	0	AFA	3	0
64669	---	DEN	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	NE	SW	33	05N	64E	5120	5120	AFA	10	10
69878	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	SE	SE	6	04S	64E	0	0	AFA	27627	27627
69879	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	SE	SW	13	04S	63E	0	0	AFA	27627	27627

**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 7 of 8)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
69880	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	NW	NW	18	04S	64E	0	0	AFA	27627	27627
69883	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	SW	NW	5	04S	64E	0	0	AFA	27627	27627
69884	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	NW	NW	8	04S	64E	0	0	AFA	27627	27627
69885	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	NW	SE	7	04S	64E	0	0	AFA	27627	27627
69886	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	SE	SE	6	04S	64E	0	0	AFA	27627	27627
69887	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	SW	NW	5	04S	64E	0	0	AFA	27627	27627
69888	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	NW	SE	7	04S	64E	0	0	AFA	27627	27627
69889	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	NW	NW	8	04S	64E	0	0	AFA	27627	27627
69890	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	SE	SW	13	04S	63E	0	0	AFA	27627	27627
69891	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	NW	NW	18	04S	64E	0	0	AFA	27627	27627
77722	---	PER	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	12/11/1998	SE	SW	5	01S	65E	504.5	504.5	AFA	1.5	1.5
77723	---	PER	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	12/11/1998	LT1	---	5	01S	65E	504.5	504.5	AFA	1.5	1.5
77810	---	WDR	UG	CON	ENERGY DEPARTMENT-US	1/20/2008	NE	NW	17	02S	66E	398	398	AFA	1	1
77811	---	WDR	UG	CON	ENERGY DEPARTMENT-US	1/20/2008	SW	SE	12	02S	65E	398	398	AFA	1	1
77812	---	WDR	UG	CON	ENERGY DEPARTMENT-US	1/20/2008	SE	NW	29	01S	65E	398	398	AFA	1	1
77813	---	WDR	UG	CON	ENERGY DEPARTMENT-US	1/20/2008	NW	NE	20	01S	64E	398	398	AFA	1	1
77814	---	WDR	UG	CON	ENERGY DEPARTMENT-US	1/20/2008	SE	NE	35	01N	63E	398	398	AFA	1	1
77815	---	WDR	UG	CON	ENERGY DEPARTMENT-US	1/20/2008	SE	SW	27	01N	63E	398	398	AFA	1	1
78239	---	WDR	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	4/10/2009	LT1	---	5	01S	65E	0	0	AFA	5	5
78240	---	WDR	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	4/10/2009	SE	SW	5	01S	65E	0	0	AFA	5	5
79262	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SE	NE	8	02S	65E	0	0	AFA	10	10
79278	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	SW	SE	30	02S	64E	0	0	AFA	6	6
79362	---	RFP	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	1/29/2010	SE	SW	5	01S	65E	0	0	AFA	5	5
79363	---	RFP	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	1/29/2010	LT1	---	5	01S	65E	0	0	AFA	5	5
80558	---	APP	UG	STK	SNWA	2/11/2011	NW	SE	20	03N	64E	0	0	AFA	0.0267	0.0267
80560	---	APP	UG	STK	SNWA	2/11/2011	SE	NW	21	03N	65E	0	0	AFA	0.0267	0.0267
80565	---	APP	SPR	STK	SNWA	2/11/2011	NE	NE	18	05N	64E	0	0	AFA	0.0095	0.0095
80648	---	APP	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY	12/11/1998	SE	NE	5	01S	65E	0	0	AFA	1.5	1.5
80649	---	APP	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY	12/11/1998	SE	NE	5	01S	65E	0	0	AFA	1.5	1.5
R04778	---	RES	SPR	OTH	BLM	4/17/1926	NE	SE	8	06S	65E	1.288938	1.288938	AFA	0.002	0.002

**Table A-3**  
**Dry Lake Valley Water-Right Information as Downloaded from NDWR**  
 (Page 8 of 8)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
R05989	---	RES	SPR	OTH	BLM	4/17/1926	NW	SE	10	04S	65E	0.214823	0.214823	AFA	0	0
R09410	---	RES	SPR	STK	BLM	3/23/2004	SE	SE	5	04N	65E	0	0	AFA	0.0015	0.0015
R09411	---	RES	SPR	STK	BLM	3/23/2004	SE	NW	30	04N	65E	0	0	AFA	0.0015	0.0015
V01027	---	VST	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS TENNILLE, GEORGE	1/1/1880	NW	NW	16	04N	65E	15.191055	7.948451	AFA	0.021	0.011
V01134	---	VST	SPR	STK	LYTTLE, EDWIN	1/1/1893	NW	SW	31	02N	66E	3.928192	3.928192	AFA	0.025	0.025
V01135	---	VST	SPR	STK	LYTTLE, EDWIN	1/1/1885	NE	SE	36	02N	65E	2.792699	2.792699	AFA	0.033	0.033
V01250	---	VST	SPR	STK	DELMUE, JOSEPH LYTTLE, EDWIN	10/1/1893	SE	SE	24	02N	65E	1.381005	1.381005	AFA	0.013	0.013
V01265	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	12/31/1883	SW	---	28	01N	63E	2.240297	2.240297	AFA	0.05	0.05
V01267	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	12/31/1883	SW	NE	21	01N	63E	6.720891	6.720891	AFA	0.1	0.1
V01268	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	12/21/1904	SW	SE	13	02N	63E	9.2067	9.2067	AFA	0.013	0.013
V01287	---	VST	SPR	STK	GEYSER RANCH LIMITED PARTNERSHIP	12/31/1904	SW	NW	15	04N	65E	5.616087	5.616087	AFA	0.013	0.013
V01288	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	2/24/1914	SE	NW	16	05N	65E	0	0	AFA	0.013	0.013
V01289	---	VST	SPR	STK	GEYSER RANCH, LLC	12/31/1904	SE	SW	3	04N	65E	5.616087	5.616087	AFA	0.013	0.013
V01290	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	---	NW	SW	15	05N	65E	4.480594	4.480594	AFA	0.1	0.1
V01294	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	---	SW	SW	10	05N	65E	4.480594	4.480594	AFA	0.075	0.075
V01295	---	VST	SPR	IRR	LLOYD, ARTHUR M. & LYNN LYTTLE	---	NE	SE	32	05N	65E	60	60	AFA	0.25	0.25
V01296	---	VST	SPR	IRR	GEYSER RANCH LIMITED PARTNERSHIP	1/1/1880	NE	NE	8	04N	65E	12	12	AFA	0	0
V01297	---	VST	SPR	IRR	GEYSER RANCH LIMITED PARTNERSHIP	1/1/1880	SE	SW	30	04N	65E	1.6	1.6	AFA	0	0
V01299	---	VST	SPR	STK	GEYSER RANCH, LLC	12/31/1904	SW	NW	29	04N	65E	4.480594	4.480594	AFA	0.013	0.013
V01300	---	VST	SPR	STK	GEYSER RANCH, LLC	1/1/1905	SW	NW	33	04N	65E	0	0	AFA	0.013	0.013
V01301	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	---	NE	NE	18	05N	64E	3.37579	3.37579	AFA	0.038	0.038
V01302	---	VST	SPR	STK	ADAMS-MCGILL COMPANY	---	SE	NE	33	04N	65E	4.480594	4.480594	AFA	0.125	0.125
V01459	---	VST	SPR	STK	WILLIAMS, ALEX WARREN WILLIAMS, THOMAS LARRY	12/31/1901	SW	SE	33	02S	66E	3.37579	3.37579	AFA	0.125	0.125
V01549	---	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY	1/1/1896	NW	NE	24	03S	65E	0.460335	0	AFS	0.028	0
V01787	---	VST	SPR	STK	MACKIE, ALEX J.	---	SW	NE	33	02S	66E	6.720891	6.720891	AFA	0.025	0.025
V02350	---	VST	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/1/1917	NE	NE	3	04S	65E	1.135493	1.135493	AFA	0.017	0.017
V02351	---	VST	SPR	STK	CULVERWELL, CHAS.	1/1/1918	SE	SW	14	04S	65E	1.350316	1.350316	AFA	0.017	0.017
V03839	---	VST	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	1/1/1890	SW	NW	6	02N	65E	2.025474	2.025474	AFA	0.004	0.004
V03840	---	VST	SPR	STK	IMPERIAL FARMS LAND AND CATTLE CO.	1/1/1890	SW	SW	30	03N	65E	2.025474	2.025474	AFA	0.004	0.004
V04697	---	VST	SPR	STK	HATCH, ROGER	1/1/1984	NW	NW	35	01N	65E	12.306289	12.306289	AFA	0.05	0.05
V06519	---	VST	SPR	STK	VIDLER WATER COMAPNY	1/1/1905	NW	NW	35	01N	65E	0	0	AFA	0.05	0.05



**Table A-4**  
**Delamar Valley Water-Right Information as Downloaded from NDWR**  
 (Page 1 of 4)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
1532	---	CAN	SPR	IRR	EDWARDS, JNO. L. EDWARDS, W.H. LEE, A.V.	11/26/1909	---	---	---	04S	64E	0	0	---	0	0
3270	269	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY	2/15/1915	SE	SE	6	05S	65E	20.162673	0	AFA	0.05	0
3271	1923	CER	SPR	STK	PACE, SID PACE, W.B. RICHARDS, J.W.	2/15/1915	NE	NE	1	06S	62E	8.961188	8.961188	AFA	0.012	0.012
3475	427	CER	SPR	IRR	LDS	6/30/1915	SE	SW	17	06S	65E	60	25.15	AFA	0.12	0.037
3476	---	CAN	SPR	STK	MATHEWS, WILLIAM JR.	6/30/1915	NE	NE	16	05S	63E	0	0	---	0.025	0.025
3879	1090	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	4/10/1916	SE	SE	30	03S	63E	0	0	AFA	0.00899999	0.00899999
4462	3186	CER	RES	STK	CORP PRESIDING BISHOP CHURCH JC LDS	6/8/1917	NW	NE	24	05S	63E	18.014443	18.014443	AFA	0.025	0.025
4620	727	CER	SPR	STK	GARDNER RANCH CO.	10/8/1917	NE	SE	33	06S	64E	0.705847	0.705847	AFA	0.001	0.001
4621	728	CER	SPR	STK	DUFFIN, PRESS W. SR. DUFFIN JR., PRESS W. DUFFIN, MAME R. DUFFIN, THOMAS J.	10/8/1917	---	---	2	05S	64E	2.178919	2.178919	AFA	0.003	0.003
4622	729	CER	SPR	STK	GARDNER RANCH COMPANY	10/8/1917	---	---	---	05S	63E	0.552402	0.552402	AFA	0.002	0.002
4628	---	CAN	SPR	STK	CONWAY, J.H. JONES, J.L.	10/10/1917	SE	SE	29	03S	63E	0	0	---	0.025	0.025
4632	704	CER	SPR	STK	NEVADA ROCK AND SAND CORPORATION	10/13/1917	SE	SW	24	05S	62E	2.178919	2.117540969	AFA	0.003	0.003
4644	---	CAN	SPR	STK	JEFFCOTT, VERNON	10/17/1917	SW	SW	31	05S	65E	0	0	---	1	1
4680	---	DEN	SPR	STK	RICHARD, A.J. THORNE, W.F. JONES, J.	11/8/1917	SE	SE	15	07S	64E	0	0	---	0.1	0.1
4683	---	DEN	SPR	STK	THORNE, W.F. RICHARDS, A.J. JONES, J.	11/8/1917	SE	SE	15	07S	64E	0	0	---	0.1	0.1
4693	730	CER	SPR	STK	DUFFIN, PRESS W. JR. DUFFIN, PRESS W. SR. DUFFIN, THOMAS J. DUFFIN, MAINE R.	11/12/1917	SW	SW	32	05S	65E	7.97914	7.97914	AFA	0.011	0.011
4695	731	CER	SPR	STK	GARDNER RANCH COMPANY	11/12/1917	SW	SW	32	05S	65E	0	0	---	0.011	0.011
4753	---	DEN	SPR	STK	HENRIE AND THIRIOT	12/3/1917	---	---	34	04S	63E	0	0	---	0.5	0.5
4894	---	PER	SPR	DOM	SAWYER, TILLIE B.	2/7/1918	---	---	---	05S	64E	0	0	AFA	0.025	0.025
4898	---	CAN	SPR	IRR	DUFFIN, TOM DUFFIN, PRESS DUFFIN, PRESS R. DUFFIN, MAMIE RYAN	2/11/1918	NW	SW	2	05S	63E	0	0	---	1.6	1.6
4902	---	CAN	SPR	STK	BURT, L.L. DENTON, L.C. DENTON, F.H.	2/13/1918	---	---	---	05S	64E	0	0	---	0.025	0.025
4903	---	CAN	SPR	STK	DENTON, F.H. DENTON, L.C. BURT, L.L.	2/13/1917	---	---	---	---	---	0	0	---	0.025	0.025
4904	---	CAN	SPR	STK	DENTON, L.C. BURT, L.L. DENTON, F.H.	2/13/1917	---	---	---	05S	64E	0	0	---	0.025	0.025
4950	---	CAN	SPR	IRR	HORN, CYRUS	3/6/1918	SE	SE	15	07S	64E	80	80	AFS	0.2	0.2
4973	735	CER	SPR	STK	GARDNER RANCH CO.	3/21/1918	---	---	---	05S	63E	1.135493	1.135493	AFA	0.002	0.002
5013	---	CAN	RES	STK	RICHARD, J.W.	4/22/1918	SW	SW	2	08S	62E	9.973925	9.973925	AFA	0	0
5092	---	CAN	OSW	STK	ADAMS, JOHN A.	---	---	---	---	07S	63E	10	10	AFA	0	0
5301	736	CER	RES	STK	DUFFIN, PRESS W. SR. DUFFIN, THOMAS J. DUFFIN, PRESS W. JR. DUFFIN, MAME R.	10/25/1918	NE	SE	16	05S	64E	10.004614	10.004614	AFA	0.014	0.014
5316	581	CER	RES	STK	CORP PRESIDING BISHOP CHURCH JC LDS CARTER, DONA CULVERWELL, CHARLES	11/20/1918	NE	NW	31	04S	64E	15.682079	15.682079	AFS	0	0
5317	---	WDR	RES	STK	HENRIE, JAMES THIRIOT, G.W.	11/20/1918	SE	SE	36	04S	63E	0	0	---	0.025	0.025
5318	582	CER	RES	STK	CORP PRESIDING BISHOP CHURCH JC LDS HENRIE, S.E.	11/20/1918	SE	SW	26	04S	63E	3.98957	3.98957	AFS	0.01	0.01
5344	---	CAN	RES	STK	ADAMS, JOHN A.	12/26/1918	---	---	16	05S	64E	9.973925	9.973925	AFA	0	0
5782	1005	CER	SPR	STK	DUFFINS, PRESS W. JR. DUFFINS, PRESS W. SR. DUFFINS, MAMIE R. DUFFINS, THOMAS J.	9/29/1919	NE	NW	7	05S	64E	9.053255	9.053255	AFA	0.012	0.012



**Table A-4**  
**Delamar Valley Water-Right Information as Downloaded from NDWR**  
 (Page 2 of 4)



App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
5783	1006	CER	SPR	STK	DUFFINS, MAMIE R. DUFFINS, PRESS W. JR. DUFFINS, THOMAS J. DUFFINS, PRESS W. SR.	9/29/1919	NE	NW	7	05S	64E	10.863906	10.863906	AFA	0.015	0.015
6113	---	DEN	SPR	STK	NORRIS, A.H.	5/12/1920	NE	SE	7	05S	64E	0	0	---	1	1
6201	---	WDR	UG	STK	FOREMASTER, J.F. FOREMASTER, J.P. CUTLER, WARREN	7/12/1920	NE	SE	33	05S	64E	0	0	---	0.1	0
6202	---	DEN	UG	STK	FOREMASTER, J.P. CUTLER, WARREN FOREMASTER, J.F.	7/12/1920	---	---	---	05S	63E	0	0	---	0.1	0
6576	1500	CER	RES	STK	NEVADA ROCK AND SAND CORPORATION	10/13/1921	SW	NW	21	04S	63E	4.971618	4.971618	AFA	0.014	0.014
6885	1225	CER	RES	STK	L D S	4/28/1923	SE	NW	7	07S	63E	9.973925	9.973925	AFA	0	0
6886	1226	CER	RES	STK	LDS	4/28/1923	NE	SE	33	07S	63E	9.973925	9.973925	AFA	0	0
6887	---	WDR	RES	STK	CONAWAY, JOHN H. RYAN, JAMES	4/28/1923	SE	SW	22	07S	64E	9.973925	9.973925	AFA	0	0
6888	---	WDR	RES	STK	CONAWAY, JOHN H. RYAN, JAMES	4/28/1923	SE	NE	28	07S	63E	0	0	---	0	0
7287	---	CAN	SPR	DOM	STOWELL, G.W. FARLING, JOHN W.	1/14/1925	---	---	---	05S	65E	0	0	---	0	0
8800	---	CAN	RES	STK	RYAN, JAMES CONWAY, JOHN	12/28/1928	SE	SE	8	06S	63E	0.982048	0.982048	AFA	0.001	0.001
8801	---	CAN	RES	STK	RYAN, JAMES CONWAY, JOHN	12/28/1929	SW	SE	33	06S	63E	0	0	---	0.001	0.001
8921	1700	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY	5/24/1929	SW	SW	20	05S	64E	1.135493	0	AFA	0.002	0
9285	---	DEN	SPR	MM	JONES, C.R.	6/28/1930	SW	SW	32	05S	65E	0	0	---	11	11
9286	---	DEN	SPR	MM	JONES, C.R.	6/28/1930	SE	NE	13	06S	65E	0	0	---	0.1	0.1
9287	---	DEN	SPR	MM	JONES, C.R.	6/28/1930	SE	NW	13	06S	64E	0	0	---	0.2	0.2
9288	---	DEN	SPR	MM	JONES, C.R.	6/28/1930	SE	SW	24	06S	64E	0	0	---	0.1	0.1
9289	---	DEN	OSW	MM	JONES, C.R.	6/28/1930	SW	SW	31	05S	65E	0	0	---	0.55	0.55
9659	2109	CER	OSW	STK	LDS	5/12/1933	NW	NW	12	06S	63E	5.984355	5.984355	AFA	0.00899999	0.00899999
9713	2423	CER	SPR	MM	LDS	6/30/1915	SW	NE	17	06S	65E	25	25	AFA	0.05	0.05
9793	---	DEN	OSW	STK	ADAMS, W.B.	8/27/1934	SW	NW	10	06S	63E	9.973925	9.973925	AFS	0	0
9794	---	DEN	RES	STK	ADAMS, W.B.	8/27/1934	NE	NE	7	07S	63E	9.973925	9.973925	AFS	0	0
9834	---	WDR	UG	MM	CALIENTE CYANIDING COMPANY	1/28/1935	SE	SW	5	06S	65E	0	0	---	0.1	0
10069	---	DEN	OSW	STK	RYAN, JAMES JONES, WM. JONES, E.L.	1/7/1937	SE	NW	13	04S	63E	0	0	---	0.027	0.027
10088	2622	CER	SPR	STK	NEVADA ROCK AND SAND CORPORATION	2/10/1937	NE	NE	1	06S	62E	2.240297	2.240297	AFA	0.003	0.003
10189	2403	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	12/3/1937	SE	NE	3	05S	64E	18.10651	18.10651	AFA	0.025	0.025
10440	2720	CER	RES	STK	LDS	11/15/1939	SE	SW	20	07S	64E	2.792699	2.792699	AFA	0.003	0.003
10551	2595	CER	OSW	STK	CORP PRESIDING BISHOP CHURCH JC LDS	8/21/1940	NE	NW	24	04S	64E	0	2.240297	AFA	0.00313	0.003
10627	2615	CER	SPR	STK	THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS	2/21/1941	NW	NE	17	08S	64E	7.41	7.41	AFA	0.01	0.01
10629	2596	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	2/24/1941	NW	SW	20	06S	65E	4.327149	4.327149	AFA	0.006	0.006
10637	---	DEN	LAK	STK	ADAMS, W.B.	3/24/1941	NE	SE	24	07S	62E	39.987767	39.987767	AFS	0	0
10638	---	DEN	OSW	STK	ADAMS, W.B.	3/24/1941	SE	SE	9	06S	63E	39.987767	39.987767	AFS	0.055	0.055
10654	2633	CER	OSW	STK	LDS	4/28/1941	NE	SW	16	07S	63E	5.002307	5.002307	AFA	0.007	0.007
10659	2637	CER	RES	STK	LDS	5/10/1941	SE	NE	17	07S	63E	9.973925	9.973925	AFA	0	0
10736	2668	CER	RES	STK	LDS	10/2/1941	NE	NW	35	04S	63E	3.98957	3.98957	AFA	0.005	0.005
10789	2722	CER	OSW	STK	LDS	3/4/1942	SE	NE	26	06S	63E	8.961188	8.961188	AFA	0.012	0.012
10887	---	CAN	SPR	STK	STEWART, C.D. STEWART, D.L. STEWART, G.L.	1/26/1942	SE	NE	13	06S	64E	0	0	---	0.025	0.025

**Table A-4**  
**Delamar Valley Water-Right Information as Downloaded from NDWR**  
 (Page 3 of 4)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
10888	---	CAN	SPR	STK	STEWART, G.L. STEWART, D.L. STEWART, C.D.	10/26/1942	SE	SW	13	06S	64E	0	0	---	0.025	0.025
10889	---	CAN	SPR	STK	HORN, AGNES	10/26/1942	SE	NW	13	06S	64E	0	0	---	0.025	0.025
10896	---	CAN	SPR	STK	CONAWAY, JOHN H. DUFFIN, MAMIE R. DUFFIN, THOMAS J. DUFFIN, P.W. DUFFIN, P.W. JR.	12/3/1942	SE	SE	9	07S	64E	0	0	---	0.025	0.025
11167	3073	CER	SPR	STK	LDS	9/14/1944	SE	SE	9	07S	64E	2.178919	2.178919	AFA	0.003	0.003
11377	---	DEN	SPR	STK	CONAWAY, JOHN H.	10/1/1945	SE	NW	17	06S	65E	2.178919	2.178919	AFA	0.011	0.011
11378	4047	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	10/1/1945	NW	SE	19	06S	65E	1.442383	1.442383	AFA	0.002	0.002
11387	---	WDR	SPR	STK	CONAWAY, JOHN H.	10/13/1945	NW	SW	20	06S	65E	24.612578	24.612578	AFA	0.034	0.034
11525	3356	CER	SPR	STK	CHURCH OF J. CHRIST LATTER DAY SAINT	3/26/1946	NW	SW	17	08S	64E	2.240297	2.240297	AFA	0.003	0.003
11705	---	CAN	UG	STK	STEWART, G.L. STEWART, C.D. STEWART, D.L.	6/30/1915	SE	SW	13	06S	64E	0	0	---	0.04	0.04
12388	4085	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY LDS	6/30/1915	SE	SW	17	06S	65E	9.85	0	AFS	0.033	0
22073	6683	ABR	UG	STK	LDS	6/23/1964	SE	SE	12	07S	64E	7.242604	0	AFA	0.01	0
22847	---	CAN	UG	IRD	CLEMMER, LOTTIE L.	11/8/1965	SW	SE	25	04S	63E	1600	1600	AFA	5.4	5.4
22848	---	CAN	UG	IRD	CLEMMER, JAMES R.	11/8/1965	SE	SE	25	04S	63E	1600	1600	AFA	5.4	5.4
22858	---	CAN	UG	IRD	HARRISON, BERTHA E.	11/22/1965	SW	SE	24	04S	63E	5	5	AFA	5.4	5.4
22859	---	CAN	UG	IRD	HARRISON, EDNA M.	11/22/1965	SE	SE	23	04S	63E	5	5	AFA	5.4	5.4
22872	---	CAN	UG	IRR	HAFEN, HERSHEL	11/26/1965	NW	SW	14	05S	69E	0	0	---	3.4	3.4
40434	---	WDR	UG	QM	MX	1/30/1980	NE	SE	12	06S	63E	0	0	---	2.5	0
45589	---	DEN	UG	IRD	MEADOW VALLEY LAND & CATTLE CO.	4/26/1982	NE	SE	12	06S	63E	0	0	---	5	5
50905	---	CAN	UG	MM	MT. HEAGAN DEVELOPMENT, INC.	5/6/1987	NE	SE	12	06S	63E	0	0	AFA	0	0
51259	12369	CER	SPR	STK	LDS	9/2/1987	SE	SW	17	06S	65E	7.150537	7.150537	AFA	0.017	0.017
51260	12370	CER	SPR	STK	LDS	6/30/1915	SE	SW	17	06S	65E	7.518805	7.518805	AFA	0.017	0.017
51261	12371	CER	UG	STK	LDS	6/23/1964	SE	SE	12	07S	64E	7.242604	7.242604	AFA	0.01	0.01
52112	13782	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	1/1/1880	SW	NW	2	05S	64E	5.800221	5.800221	AFA	0.008	0.008
52113	14737	CER	SPR	STK	H.H. LAND AND CATTLE COMPANY	2/12/1996	SE	SE	6	05S	65E	5.646776	5.646776	AFA	0.008	0.008
52114	14738	CER	SPR	STK	LDS	2/12/1996	NE	NE	18	05S	65E	20.163	2.389	AFA	0.003	0.003
52115	14739	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	2/12/1996	NE	SW	20	05S	65E	1.135493	1.135493	AFA	0.002	0.002
52116	---	WDR	SPR	STK	H.H. LAND AND CATTLE COMPANY	10/1/1945	SE	NW	17	06S	65E	1.442383	1.442383	AFA	0.002	0.002
52117	---	CAN	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	9/23/1991	SE	NW	17	06S	65E	19.548893	19.548893	AFA	0.027	0.027
52118	14740	CER	SPR	STK	CORP PRESIDING BISHOP CHURCH JC LDS	9/23/1991	NW	NE	17	06S	65E	0.337579	0.337579	AFA	0.001	0.001
52366	---	DEN	SPR	STK	H.H. LAND AND CATTLE COMPANY	12/3/1937	SW	NW	2	05S	64E	18.10651	18.10651	AFA	0.025	0.025
53991	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	SE	4	05S	63E	2493	2493	AFA	6	6
53992	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	10/17/1989	NE	NE	15	06S	64E	2493	2493	AFA	10	10
54144	---	DEN	UG	MM	DELAMAR MINERALS COMPANY	11/6/1989	NE	SE	12	06S	63E	0	0	---	0.2	0.2
60183	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	SE	SW	13	04S	63E	0	0	---	27627	27627
60184	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	NW	NW	18	04S	63E	0	0	---	27627	27627
60185	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	SW	SE	24	04S	63E	0	0	---	27627	27627
60186	---	DEN	UG	MUN	SPENCER, ROBERT WALLACE	7/1/1994	NW	NW	25	04S	63E	0	0	---	27627	27627
60187	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	NW	NW	18	04S	64E	0	0	---	27627	27627

**Table A-4**  
**Delamar Valley Water-Right Information as Downloaded from NDWR**  
 (Page 4 of 4)

App.	Cert.	Status	Source	Use Code	Owner	Priority Date	POD Q	POD QQ	POD Sec	POD Twn	POD Rng	Annual Duty	Duty Balance	Unit	Diversion Rate	Diversion Balance
60188	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	SW	SE	24	04S	63E	0	0	---	27627	27627
60194	---	DEN	UG	PWR	SPENCER, ROBERT WALLACE	7/1/1994	SE	SW	13	04S	63E	0	0	---	27627	27627
64678	---	DEN	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	SE	SE	30	05S	64E	5120	5120	AFA	10	10
64679	---	DEN	UG	IRR	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY, INC.	12/11/1998	NW	SW	24	07S	63E	5120	5120	AFA	10	10
69881	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	SW	SE	24	04S	63E	0	0	AFA	27627	27627
69882	---	DEN	UG	PWR	JACOB, BEVERLY JOAN	4/18/2003	NW	NW	25	04S	63E	0	0	AFA	27627	27627
69892	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	SW	SE	24	04S	63E	0	0	AFA	27627	27627
69893	---	DEN	UG	MUN	JACOB, BEVERLY JOAN	4/18/2003	NW	NW	25	04S	63E	0	0	AFA	27627	27627
79263	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	SE	4	05S	63E	0	0	AFA	6	6
79264	---	RFP	UG	MUN	SOUTHERN NEVADA WATER AUTHORITY	1/28/2010	NE	NE	15	06S	64E	0	0	AFA	10	10
79370	---	RFP	UG	IND	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	1/29/2010	NE	NW	26	06S	63E	0	0	AFA	5	5
79371	---	RFP	UG	IND	LINCOLN COUNTY WATER DISTRICT VIDLER WATER COMPANY INC	1/29/2010	NE	SE	10	07S	63E	0	0	AFA	5	5
R04339	---	RES	SPR	OTH	BLM	4/17/1926	SW	NW	3	05S	64E	0	0	AFA	0	0
V01022A01	---	VST	SPR	STK	LDS, PRESIDING BISHOP	1/1/1900	SE	---	36	05S	64E	0	0	AFA	0	0
V01022A02	---	VST	SPR	STK	---	1/1/1900	SE	---	36	06S	64E	0	0	AFA	0	0
V01022A03	---	VST	SPR	STK	DUFFIN, PRESS W ET ALL	1/1/1900	SW	---	31	06S	65E	0	0	AFA	0	0.0625
V01022A04	---	VST	SPR	STK	LDS, PRESIDING BISHOP LONGHORN CATTLE CO BALLOW, CARL SCHLARMAN R, BALLOW R	1/1/1900	SW	---	33	06S	65E	0	0	AFA	0	0.0125
V01022A05	---	VST	SPR	STK	LDS, PRESIDING BISHOP	1/1/1900	SE	---	33	05S	65E	0	0	AFA	0	0.025
V01022A06	---	VST	SPR	STK	LDS, PRESIDING BISHOP	1/1/1900	---	---	---	---	---	0	0	AFA	0	0
V01398	---	ABR	SPR	STK	H.H. LAND AND CATTLE COMPANY	1/1/1898	NW	SE	11	05S	64E	10.12737	0	AFA	0.025	0
V01399	---	VST	SPR	STK	HENRIE, JAMES JR.	12/31/1897	SE	SE	6	05S	65E	0	0	AFA	0.025	0.025
V01400	---	VST	SPR	STK	DUFFIN, MAMIE RYAN DUFFIN, PRESS DUFFIN, PRESS R. DUFFIN, TOM	1/1/1900	SE	NE	3	05S	64E	0	0	AFA	0.025	0.025
V01418	---	VST	SPR	STK	HENRIE, JAMES	12/31/1904	SW	SW	34	05S	62E	0	0	AFA	0.025	0.025
V01419	---	VST	SPR	STK	MACKIE, A.J.	1/1/1890	NW	SW	20	05S	65E	0	0	AFA	0.025	0.025
V01420	---	VST	SPR	STK	HENRIE, JAMES	12/31/1904	SW	NW	27	05S	62E	0	0	AFA	0.025	0.025
V01449	---	VST	SPR	STK	NEVADA ROCK AND SAND CORPORATION	12/31/1904	SW	SW	25	03S	62E	0	0	---	0.1	0.1
V01520	---	VST	SPR	STK	GARDNER RANCH CO	4/1/1900	SE	SE	9	07S	64E	0	0	AFA	0	0
V01550	---	VST	SPR	STK	DUFFIN, TOM HIKO LAND AND CATTLE CO. DUFFIN, MAMIE RYAN	1/1/1903	SE	SE	15	07S	64E	0.122756	0.122756	AFA	0.025	0.025
V01598	---	VST	SPR	STK	LINCOLN LAND AND LIVESTOCK CO.	1/1/1890	SW	SE	1	06S	64E	0	0	---	0.025	0.025
V01654	---	VST	SPR	STK	DUFFIN, MAME R. DUFFIN, PRESS W. SR. DUFFIN, PROSS W. JR. DUFFIN, THOMAS J.	1/1/1900	SE	SW	36	04S	63E	0.675158	0.675158	AFA	0.025	0.025
V01822	---	VST	SPR	STK	HORN, C.A.	12/31/1892	SW	NE	17	06S	65E	1.687895	1.687895	AFA	0.05	0.05



**References**

NDWR, see Nevada Division of Water Resources.

Nevada Division of Water Resources, 2011, Hydrographic Abstracts Database [Internet], [accessed May 30, 2011], available from [http://water.nv.gov/waterRights/permitdb/permitdb\\_disclamier.cfm](http://water.nv.gov/waterRights/permitdb/permitdb_disclamier.cfm).



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## **Appendix B**

### **Water-Right Points of Diversion Attributes and Applicability for Model Analysis**



## ***B.1.0 INTRODUCTION***

This appendix contains the results of the initial qualitative analysis performed for existing water rights as described in [Section 6.0](#). The fields and codes in these tables are described as follows:

- App. - Application Number.
- Status - Status of the Application. These have been queried to only included existing and reserved water rights.
  - CER - Certificate
  - PER - Permit
  - RES - Reserved
  - VST - Vested Right
- Source- Source of the water.
  - LAK - Lake
  - OSW - Other Surface Water
  - RES - Reservoir
  - SPR - Spring
  - STR - Stream
  - UG - Underground
- Owner of Record - Owner name.
- SNWA Owned - Yes or No field for if the owner is SNWA. If the field contains a Yes the water right is removed from further analysis.
- Junior Priority Date - Yes or No field for if the water right has a priority date after October 17, 1989. If the field contains a Yes the water right is removed from further analysis.
- Geographic Location - Geographic location based upon the location of the POD upon visual inspection in a GIS system. If the field contains Mountain Block the water right is removed from further analysis.
- Included in Quantitative Analysis - Yes or No field for if the water right is included within the quantitative analysis.



**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 1 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
802	CER	SPR	Olsen, Gasten	No	No	Alluvial Fan	Yes
811	CER	LAK	SNWA	Yes	---	---	No
813	CER	STR	SNWA	Yes	---	---	No
920	CER	STR	SNWA	Yes	---	---	No
957	CER	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) & George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Alluvial Fan	Yes
983	CER	STR	Pilot Knob Gold Mining & Milling Co.	No	No	Alluvial Fan	Yes
1052	CER	STR	Baal, John Michael Jr.	No	No	Alluvial Fan	Yes
1159	CER	STR	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
1520	CER	STR	Olsen, Casten	No	No	Alluvial Fan	Yes
1616	CER	SPR	Keegan, C J Olsen, Casten	No	No	Mountain Block	No
1724	CER	SPR	Corp. of Church of LDS	No	No	Mountain Block	No
1900	CER	SPR	George Eldridge & Son, Inc.	No	No	Mountain Block	No
1901	CER	SPR	George Eldridge & Son, Inc.	No	No	Mountain Block	No
1922	CER	SPR	Farrel, Franklin Jr.	No	No	Mountain Block	No
2005	CER	STR	SNWA	Yes	---	---	No
2108	CER	SPR	Production Credit Corporation	No	No	Mountain Block	No
2261	CER	SPR	Kolchek, Alex	No	No	Mountain Block	No
2486	CER	SPR	Pony Express Mining and Milling McMillin Trust	No	No	Mountain Block	No
2710	CER	SPR	Pony Express Mining and Milling McMillin Trust	No	No	Mountain Block	No
2745	CER	SPR	Adams Mcgill Company	No	No	Valley Floor	Yes
2852	CER	STR	LDS	No	No	Alluvial Fan	Yes
3186	CER	STR	Corp. of Church of LDS	No	No	Valley Floor	Yes
3203	CER	SPR	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
3383	CER	STR	Andrae, Arthur & Audrae	No	No	Alluvial Fan	Yes
3433	CER	STR	Bundy, Clarence A. Bundy, M. Josephine	No	No	Alluvial Fan/ Valley Floor	Yes
3646	CER	SPR	Doutre, James	No	No	Mountain Block	No
3793	CER	SPR	Rogers, G.W. Rogers, H.T.	No	No	Mountain Block	No
3865	CER	STR	SNWA	Yes	---	---	No
3926	CER	SPR	Rogers, G.W. Rogers, H.T.	No	No	Mountain Block	No
3927	CER	SPR	Corp. of Church of LDS	No	No	Mountain Block	No
3973	CER	SPR	Rogers, G. W. Rogers,H.T.	No	No	Valley Floor	Yes
4041	CER	STR	SNWA	Yes	---	---	No
4042	CER	STR	SNWA	Yes	---	---	No
4043	CER	STR	SNWA	Yes	---	---	No
4171	CER	SPR	Robison Brothers	No	No	Valley Floor	Yes
4418	CER	STR	SNWA	Yes	---	---	No
4951	CER	STR	Bundy, Clarence A. & Josephine	No	No	Alluvial Fan	Yes
5028	CER	SPR	Corp. of Church of LDS	No	No	Mountain Block	No

**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 2 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
5143	CER	STR	Dolan, Philip J. Gibeaut, F.A. Huff, Clark Murray Sheep Co. SNWA	Yes	---	---	No
5247	PER	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
5308	CER	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
5499	CER	STR	Lester, Virginia Bowen Ostlund, Robert E. White, Mary MacClaren Coghlan	No	No	Mountain Block	No
5546	CER	SPR	Kaiser, Katherine A. Kaiser, Robert G.	No	No	Mountain Block	No
5563	CER	OSW	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
5571	CER	SPR	Nevada Land & Resource Co LLC	No	No	Alluvial Fan	Yes
5691	CER	STR	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
5713	CER	SPR	Rogers, G.W. Rogers H.T.	No	No	Mountain Block	No
5923	CER	STR	George Eldridge & Son, Inc.	No	No	Mountain Block	No
6074	CER	SPR	Yelland, Louis A.	No	No	Mountain Block	No
6075	CER	SPR	George Eldridge & Son, Inc.	No	No	Mountain Block	No
6290	CER	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
6360	PER	SPR	Doutre, Steve	No	No	Mountain Block	No
6503	CER	SPR	Production Credit Corporation	No	No	Mountain Block	No
6632	CER	UG	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
6754	CER	SPR	Cazier, James	No	No	Alluvial Fan/ Valley Floor	Yes
6808	CER	SPR	Nevada Land & Resource Co LLC	No	No	Mountain Block	No
6834	CER	STR	SNWA	Yes	---	---	No
7097	CER	STR	Bews, Harry	No	No	Mountain Block	No
7161	CER	SPR	Murray Sheep Co.	No	No	Mountain Block	No
7419	CER	SPR	George S. Robinson & Sons	No	No	Mountain Block	No
7446	CER	UG	Production Credit Corp. of Berkeley	No	No	Valley Floor	Yes
7497	CER	UG	SNWA	Yes	---	---	No
7700	CER	SPR	Robison Bros.	No	No	Mountain Block	No
7701	CER	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
7724	CER	STR	Marriott, Henry Nicholson, Henry C.	No	No	Mountain Block	No
7725	CER	STR	Marriott, Henry Nicholson, Henry C.	No	No	Mountain Block	No
7847	CER	STR	Ely Calumet Mining Corporation	No	No	Mountain Block	No
8074	CER	UG	CL Cattle Company LLC	No	No	Valley Floor	Yes
8075	CER	UG	Adams McGill Company	No	No	Valley Floor	Yes
8076	CER	UG	CL Cattle Company LLC	No	No	Valley Floor	Yes
8077	CER	UG	Robison, Doyle C. Robison, James F.	No	No	Valley Floor	Yes
8104	CER	STR	Nevada Land & Resource Co LLC	No	No	Alluvial Fan	Yes
8393	CER	STR	Corp. of Church of LDS	No	No	Valley Floor	Yes



**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 3 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
8396	CER	STR	Ely Calumet Mining Corporation	No	No	Mountain Block	No
8525	CER	SPR	SNWA	Yes	---	---	No
8542	CER	UG	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
8547	CER	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
8701	CER	UG	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
8713	CER	UG	Swallow, George N. Swallow, Richard M.	No	No	Valley Floor	Yes
8721	CER	SPR	Corp. of Church of LDS	No	No	Valley Floor	Yes
8804	CER	STR	Baal, John Michael Jr.	No	No	Mountain Block	No
9435	CER	UG	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
10487	CER	STR	Corp. of Church of LDS	No	No	Valley Floor	Yes
10510	CER	SPR	Francis, David Walker, Frank	No	No	Mountain Block	No
10703	CER	STR	SNWA	Yes	---	---	No
10710	CER	STR	SNWA	Yes	---	---	No
10766	CER	STR	SNWA	Yes	---	---	No
10801	CER	STR	Moriah Ranches Inc	No	No	Valley Floor	Yes
10843	CER	STR	SNWA	Yes	---	---	No
10921	CER	SPR	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
10993	CER	SPR	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
11311	CER	UG	Intermountain Ranches. Ltd	No	No	Alluvial Fan/ Valley Floor	Yes
11313	CER	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
11314	CER	UG	Intermountain Ranches, Ltd	No	No	Alluvial Fan	Yes
11354	CER	UG	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Alluvial Fan	Yes
11355	CER	UG	Henriod, Eugene A.	No	No	Alluvial Fan/ Valley Floor	Yes
12467	CER	UG	Minerva Scheelite Mining Co.	No	No	Alluvial Fan	Yes
12571	CER	SPR	David J. Eldridge David J. Eldridge & Helen Eldridge Rogers, H.T.	No	No	Mountain Block	No
13457	CER	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
13652	CER	SPR	Berger, Alfred R. Berger, Treva L.	No	No	Mountain Block	No
15812	CER	STR	SNWA	Yes	---	---	No
16890	CER	UG	Pierce, L.L. Pierce, Rachel	No	No	Alluvial Fan	Yes
17017	CER	STR	Baal, John Michael Jr.	No	No	Mountain Block	No
17163	CER	STR	SNWA	Yes	---	---	No
18043	CER	UG	CL Cattle Company LLC	No	No	Valley Floor	Yes
18044	CER	UG	CL Cattle Company LLC	No	No	Valley Floor	Yes
18045	CER	UG	CL Cattle Company LLC	No	No	Valley Floor	Yes
18183	CER	SPR	Huntington, Glen	No	No	Mountain Block	No
18524	CER	UG	SNWA	Yes	---	---	No

**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 4 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
18525	CER	UG	SNWA	Yes	---	---	No
18828	CER	UG	SNWA	Yes	---	---	No
18829	CER	UG	SNWA	Yes	---	---	No
18830	CER	UG	SNWA	Yes	---	---	No
18841	CER	UG	Nevada Land & Resource Co LLC	No	No	Valley Floor	Yes
18842	CER	UG	Nevada Land & Resource Co LLC	No	No	Valley Floor	Yes
18843	CER	UG	Nevada Land & Resource Co LLC	No	No	Valley Floor	Yes
19435	CER	RES	Eldridge, Delbert D.	No	No	Alluvial Fan/ Valley Floor	Yes
19436	CER	RES	Eldridge, Delbert D.	No	No	Alluvial Fan/ Valley Floor	Yes
19654	CER	UG	SNWA	Yes	---	---	No
20817	CER	UG	SNWA	Yes	---	---	No
20895	CER	STR	SNWA	Yes	---	---	No
21220	CER	STR	Andrae, Arthur J.	No	No	Alluvial Fan	Yes
21687	CER	STR	Andrae, Arthur J.	No	No	Alluvial Fan	Yes
21688	CER	STR	Andrae, Arthur J.	No	No	Mountain Block	No
21832	CER	SPR	Eldridge, David and Helen	No	No	Mountain Block	No
22545	CER	STR	SNWA	Yes	---	---	No
22645	CER	UG	SNWA	Yes	---	---	No
24260	CER	SPR	Crawford, Glen	No	No	Mountain Block	No
25439	CER	UG	SNWA	Yes	---	---	No
25678	CER	STR	SNWA	Yes	---	---	No
25679	CER	UG	SNWA	Yes	---	---	No
25680	CER	UG	SNWA	Yes	---	---	No
26228	CER	UG	SNWA	Yes	---	---	No
26229	CER	UG	SNWA	Yes	---	---	No
26502	CER	UG	Rasmussen, James B.   SNWA	Yes	---	---	No
26546	CER	UG	SNWA	Yes	---	---	No
26952	CER	UG	SNWA	Yes	---	---	No
26953	CER	UG	SNWA	Yes	---	---	No
27378	CER	UG	SNWA	Yes	---	---	No
27739	CER	STR	SNWA	Yes	---	---	No
27740	CER	STR	SNWA	Yes	---	---	No
27741	CER	STR	SNWA	Yes	---	---	No
27742	CER	STR	SNWA	Yes	---	---	No
27743	CER	STR	SNWA	Yes	---	---	No
27768	CER	UG	Wildlife Dept. Nevada	No	No	Alluvial Fan/ Valley Floor	Yes
27901	CER	STR	SNWA	Yes	---	---	No
27902	CER	SPR	SNWA	Yes	---	---	No
28653	CER	UG	SNWA	Yes	---	---	No
28790	CER	SPR	SNWA	Yes	---	---	No



**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 5 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
28818	CER	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
29162	CER	STR	SNWA	Yes	---	---	No
29219	CER	UG	SNWA Truschke, Marianne	Yes	---	---	No
29220	CER	UG	SNWA Truschke, Marianne	Yes	---	---	No
29221	CER	UG	SNWA Truschke, Marianne	Yes	---	---	No
29371	CER	UG	Golden Eagle Mining, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
29567	CER	UG	Golden Eagle Mining, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
30319	CER	UG	SNWA	Yes	---	---	No
31239	CER	UG	Moyle, Lane	No	No	Alluvial Fan	Yes
34704	PER	STR	SNWA	Yes	---	---	No
34727	CER	UG	SNWA	Yes	---	---	No
38972	CER	UG	SNWA	Yes	---	---	No
39455	CER	UG	SNWA	Yes	---	---	No
39817	PER	UG	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
39818	PER	UG	George Eldridge & Son, Inc.	No	No	Valley Floor	Yes
45287	CER	UG	SNWA	Yes	---	---	No
45496	CER	UG	Okelberry, Ray	No	No	Alluvial Fan/ Valley Floor	Yes
46790	CER	OGW	Huckaley, Lester Vernon	No	No	Mountain Block	No
46973	CER	SPR	Ostlund, Robert E.	No	No	Mountain Block	No
46975	CER	SPR	Ostlund, Robert	No	No	Mountain Block	No
46978	CER	SPR	Ostlund, Robert	No	No	Mountain Block	No
47352	CER	SPR	Salisbury, Fred	No	Yes	---	No
48724	CER	SPR	SNWA	Yes	---	---	No
50772	CER	STR	SNWA	Yes	---	---	No
54204	PER	UG	LDS	No	Yes	---	No
54205	PER	UG	LDS	No	Yes	---	No
55363	PER	SPR	SNWA	Yes	---	---	No
55364	PER	SPR	SNWA	Yes	---	---	No
55365	PER	SPR	SNWA	Yes	---	---	No
56049	PER	UG	George Eldridge & Son, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
56050	CER	UG	George Eldridge & Son, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
56051	PER	UG	George Eldridge & Son, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
56236	CER	SPR	Westland-RE, LLC 63.49% and NW, LLC 36.51%	No	Yes	---	No
58302	PER	UG	Minel, Inc.	No	Yes	---	No
60086	PER	UG	BLM	No	Yes	---	No
60104	CER	UG	SNWA	Yes	---	---	No
63532	PER	UG	SNWA	Yes	---	---	No

**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 6 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
63533	PER	UG	SNWA	Yes	---	---	No
65641	PER	UG	Fava, Paul & Sheila SNWA Russell, Robert & Lolita	No	Yes	---	No
66734	CER	SPR	Fillman, Patrick D. & Kristine K.	No	Yes	---	No
71525	PER	UG	SNWA	Yes	---	---	No
71526	PER	UG	SNWA	Yes	---	---	No
71603	PER	UG	SNWA	Yes	---	---	No
71840	PER	UG	George Eldridge & Son, Inc.	No	No	Alluvial Fan/ Valley Floor	Yes
72643	PER	UG	Gianoli, John C. & Julie A. Gust, J. Terry & Sally L.	No	Yes	---	No
74274	PER	UG	SNWA	Yes	---	---	No
77126	PER	SPR	Paul F. Tilman	No	Yes	---	No
77383	PER	UG	BLM	No	Yes	---	No
77384	PER	UG	BLM	No	Yes	---	No
77583	PER	SPR	The Burke Family Trust	No	Yes	---	No
77714	PER	STR	SNWA	Yes	---	---	No
78107	PER	UG	SNWA	Yes	---	---	No
R05269	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05272	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05273	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05274	RES	SPR	BLM	No	No	Alluvial Fan	Yes
R05276	RES	SPR	BLM	No	No	Mountain Block	No
R05278	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05279	RES	SPR	BLM	No	No	Valley Floor	Yes
R05280	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05281	RES	SPR	BLM	No	No	Mountain Block	No
R05282	RES	SPR	BLM	No	No	Mountain Block	No
R05283	RES	SPR	BLM	No	No	Mountain Block	No
R05284	RES	SPR	BLM	No	No	Mountain Block	No
R05285	RES	SPR	BLM	No	No	Mountain Block	No
R05286	RES	SPR	BLM	No	No	Mountain Block	No
R05287	RES	SPR	BLM	No	No	Mountain Block	No
R05288	RES	SPR	BLM	No	No	Mountain Block	No
R05289	RES	SPR	BLM	No	No	Mountain Block	No
R05290	RES	SPR	BLM	No	No	Mountain Block	No
R05291	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05292	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes





**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 7 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
R05293	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05294	RES	SPR	BLM	No	No	Alluvial Fan/ Valley Floor	Yes
R05295	RES	SPR	BLM	No	No	Mountain Block	No
R09418	RES	SPR	BLM	No	Yes	---	No
V00714	VST	STR	SNWA	Yes	---	---	No
V00767	VST	STR	Starkweather, Mr. Yelland, John	No	No	Mountain Block	No
V00789	VST	STR	Mcgill, Wm.	No	No	Valley Floor	Yes
V00790	VST	STR	LDS	No	No	Alluvial Fan	Yes
V00791	VST	STR	SNWA	Yes	---	---	No
V00802	VST	STR	Hyde, J.A.	No	No	Mountain Block	No
V01023	VST	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
V01024	VST	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
V01026	VST	STR	Swallow, George	No	No	Alluvial Fan	Yes
V01069	VST	STR	BLM Eldridge, George H.	No	No	Alluvial Fan	Yes
V01080	VST	STR	Corp. of Church of LDS	No	No	Mountain Block	No
V01081	VST	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) And George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
V01125	VST	SPR	Tilford, T. B.	No	No	Mountain Block	No
V01176	VST	SPR	Sellas, William	No	No	Alluvial Fan	Yes
V01180	VST	RES	Nevada Land & Resource Co LLC	No	No	Mountain Block	No
V01181	VST	SPR	Nevada Land & Resource Co LLC	No	No	Mountain Block	No
V01194	VST	SPR	Bews, Harry	No	No	Alluvial Fan	Yes
V01195	VST	SPR	Bews, Harry	No	No	Alluvial Fan	Yes
V01213	VST	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
V01214	VST	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
V01215	VST	STR	SNWA	Yes	---	---	No
V01216	VST	STR	SNWA	Yes	---	---	No
V01217	VST	STR	LDS	No	No	Alluvial Fan	Yes
V01218	VST	STR	LDS	No	No	Alluvial Fan/ Valley Floor	Yes
V01219	VST	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
V01614	VST	SPR	Coghlan, Leona West Bowen Bowen, Albert S. Bowen, William Edward Bowen, Hugh W. Bowen Luella Virginia Kent, Virginia Bowen	No	No	Mountain Block	No
V01634	VST	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No

**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 8 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
V01637	VST	SPR	SNWA	Yes	---	---	No
V01648	VST	STR	George Eldridge & Son, Inc.	No	No	Mountain Block	No
V01665	VST	SPR	Carter, A.N. & LaFayette Gubler, Ernst Kerr, D.R. Kirkeby, Albin C. Robison, Lester J. Swallow Bros et al	No	No	Mountain Block	No
V01669	VST	SPR	CL Cattle Company LLC	No	No	Mountain Block	No
V01686	VST	STR	Doutre, James	No	No	Mountain Block	No
V01728	VST	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
V01764	VST	STR	Casier, Elaine E. Casier, James B.	No	No	Alluvial Fan	Yes
V01778	VST	SPR	B Enterprises, Limited Partnership (82.5% Undivided Interest) and George L. Gardner & Laree Gardner (17.5% Undivided Interest)	No	No	Mountain Block	No
V01779	VST	SPR	Henriod, Eugene	No	No	Mountain Block	No
V01781	VST	SPR	Henroid, Eugene	No	No	Mountain Block	No
V01782	VST	SPR	Henriod, Eugene	No	No	Mountain Block	No
V01783	VST	SPR	Albert Rosenlund	No	No	Mountain Block	No
V01969	VST	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
V02077	VST	SPR	Robison, Doyle C.	No	No	Valley Floor	Yes
V02078	VST	STR	Adams Mcgill Company	No	No	Alluvial Fan	Yes
V02222	VST	SPR	Sellas, Gust T.	No	No	Mountain Block	No
V02223	VST	SPR	Sellas, William	No	No	Mountain Block	No
V02286	VST	STR	Clark, Alonzo	No	No	Mountain Block	No
V02305	DEC	STR	SNWA	Yes	---	---	No
V02329	VST	SPR	Nevada Land & Resource Co LLC	No	No	Alluvial Fan	Yes
V02332	DEC	STR	George Eldridge & Son, Inc.	No	No	Alluvial Fan	Yes
V02804	DEC	STR	SNWA	Yes	---	---	No
V02805	DEC	STR	SNWA	Yes	---	---	No
V02807	VST	STR	USFS	No	No	Mountain Block	No
V02808	DEC	STR	USFS	No	No	Mountain Block	No
V02809	DEC	SPR	USFS	No	No	Mountain Block	No
V02817	VST	SPR	LDS	No	No	Valley Floor	Yes
V02818	VST	SPR	LDS	No	No	Valley Floor	Yes
V02819	VST	SPR	LDS	No	No	Valley Floor	Yes
V02820	VST	SPR	LDS	No	No	Valley Floor	Yes
V02821	VST	SPR	LDS	No	No	Valley Floor	Yes
V02822	VST	SPR	LDS	No	No	Valley Floor	Yes
V02823	VST	SPR	LDS	No	No	Valley Floor	Yes
V02824	VST	SPR	LDS	No	No	Alluvial Fan/ Valley Floor	Yes
V02825	VST	SPR	LDS	No	No	Valley Floor	Yes
V02826	VST	SPR	LDS	No	No	Valley Floor	Yes
V02827	VST	SPR	LDS	No	No	Valley Floor	Yes
V02828	VST	SPR	LDS	No	No	Valley Floor	Yes
V02834	VST	STR	USFS	No	No	Mountain Block	No



**Table B-1**  
**Spring Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 9 of 9)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
V02835	VST	STR	USFS	No	No	Mountain Block	No
V02836	VST	STR	USFS	No	No	Mountain Block	No
V02837	VST	SPR	USFS	No	No	Mountain Block	No
V02838	VST	STR	USFS	No	No	Mountain Block	No
V02842	VST	SPR	USFS	No	No	Mountain Block	No
V02851	VST	SPR	SNWA	Yes	---	---	No
V02852	VST	SPR	SNWA	Yes	---	---	No
V02853	VST	SPR	SNWA	Yes	---	---	No
V02854	VST	SPR	SNWA	Yes	---	---	No
V02855	VST	SPR	SNWA	Yes	---	---	No
V02860	VST	STR	SNWA	Yes	---	---	No
V02861	VST	STR	SNWA	Yes	---	---	No
V02915	VST	SPR	SNWA	Yes	---	---	No
V03543	VST	SPR	USFS	No	No	Mountain Block	No
V03549	VST	SPR	USFS	No	No	Mountain Block	No
V03550	VST	SPR	USFS	No	No	Mountain Block	No
V03551	VST	SPR	USFS	No	No	Mountain Block	No
V03554	VST	SPR	USFS	No	No	Mountain Block	No
V03555	VST	SPR	USFS	No	No	Mountain Block	No
V03556	VST	SPR	USFS	No	No	Mountain Block	No
V03557	VST	SPR	USFS	No	No	Mountain Block	No
V03558	VST	SPR	USFS	No	No	Mountain Block	No
V03559	VST	SPR	USFS	No	No	Mountain Block	No
V03560	VST	SPR	USFS	No	No	Mountain Block	No
V03562	VST	SPR	USFS	No	No	Mountain Block	No
V03563	VST	SPR	USFS	No	No	Mountain Block	No
V04722	VST	STR	Pony Express Mining & Milling	No	No	Mountain Block	No
V09643	VST	OSW	George Eldridge & Son, Inc.	No	No	Mountain Block	No
V09665	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09666	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09667	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09668	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09669	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09670	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09671	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09672	VST	SPR	Arthur and Audrae Andrae	No	No	Alluvial Fan/ Valley Floor	Yes
V09818	VST	SPR	Blue Diamond Oil Corporation	No	No	Mountain Block	No

**Table B-2**  
**Cave Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 1 of 2)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
3139	CER	SPR	Carter, Alice	No	No	Mountain Block	No
3142	CER	SPR	Reid, Robert	No	No	Mountain Block	No
4599	CER	STR	Adams, Myron	No	No	Alluvial Fan	Yes
4881	CER	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block/ Alluvial Fan	No
5071	CER	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
5073	CER	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
5747	CER	SPR	Reed, G.M.	No	No	Mountain Block	No
6638	CER	UG	Jensen, Bruce A. Jensen, Pamela G.	No	No	Alluvial Fan	Yes
7397	CER	UG	Jensen, Bruce A. Jensen, Pamela G	No	No	Alluvial Fan	Yes
7485	CER	UG	Kirkeby, Gordon A. Kirkeby, Kaye A. Kirkeby, Mary Hannah	No	No	Mountain Block	No
9001	CER	SPR	Great Western Mining & Development Company	No	No	Mountain Block/ Alluvial Fan	No
9702	CER	SPR	Jensen, Bruce A. and Pamela G.	No	No	Mountain Block	No
9720	CER	SPR	Cave Valley Ranches	No	No	Mountain Block	No
9721	CER	SPR	Cave Valley Ranches	No	No	Mountain Block/ Alluvial Fan	No
13102	CER	SPR	Cave Valley Ranches	No	No	Mountain Block	No
25322	CER	STR	Lewis, Lou Jeanne Lewis, Melanie Lewis, Paul C. Lewis, Richard C. Lewis, Robert C. Lewis, Vivian C.	No	No	Alluvial Fan	Yes
25411	CER	SPR	Lewis, Lou Jeanne Lewis, Melanie Lewis, Paul C. Lewis, Richard C. Lewis, Robert C. Lewis, Vivian C.	No	No	Alluvial Fan	Yes
27814	CER	SPR	Lewis, Lou Jeanne Lewis, Melanie Lewis, Paul C. Lewis, Richard C. Lewis, Robert C. Lewis, Vivian C.	No	No	Alluvial Fan	Yes
66123	CER	UG	Jensen, Bruce A. and Pamela G.	No	Yes	---	No
66125	CER	UG	Jensen, Bruce A. and Pamela G.	No	Yes	---	No
66129	PER	SPR	Jensen, Bruce A. and Pamela G.	No	Yes	---	No
73168	PER	UG	Cave Valley Ranch, LLC	No	Yes	---	No
73169	PER	UG	Cave Valley Ranch, LLC	No	Yes	---	No
73170	PER	UG	Cave Valley Ranch, LLC	No	Yes	---	No
R09414	RES	SPR	BLM	No	Yes	---	No
R09416	RES	SPR	BLM	No	Yes	---	No
R09417	RES	SPR	BLM	No	Yes	---	No
V01416	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01486	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01559	VST	SPR	Cave Valley Ranches	No	No	Mountain Block	No
V01658	VST	SPR	Cave Valley Ranches	No	No	Mountain Block	No
V01659	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V01660	VST	SPR	Cave Valley Ranches	No	No	Mountain Block	No
V01675	VST	SPR	Cave Valley Ranch, LLC	No	No	Alluvial Fan	Yes
V01678	VST	STR	Cave Valley Ranch, LLC	No	No	Alluvial Fan	Yes



**Table B-2**  
**Cave Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 2 of 2)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
V01679	VST	STR	Cave Valley Ranches Inc.	No	No	Mountain Block/ Alluvial Fan	No
V01680	VST	STR	Cave Valley Ranch, LLC	No	No	Alluvial Fan	Yes
V01681	VST	STR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V01696	VST	SPR	Geyser Land & Cattle Co.	No	No	Mountain Block/ Alluvial Fan	No
V01697	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V01698	VST	SPR	Geyser Land & Cattle Co.	No	No	Mountain Block	No
V01699	VST	SPR	Cave Valley Ranches Inc.	No	No	Alluvial Fan	Yes
V01807	VST	STR	Cave Valley Ranch, LLC	No	No	Valley Floor	Yes
V01878	VST	STR	Adams McGill Company	No	No	Mountain Block/ Alluvial Fan	No
V01881	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01882	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01883	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01964	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V01965	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V02075	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V02079	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V02692	VST	SPR	Lewis, Lou Jeanne Lewis, Melanie Lewis, Paul C. Lewis, Richard C. Lewis, Robert C. Lewis, Vivian C.	No	No	Mountain Block/ Alluvial Fan	No
V02693	VST	SPR	Lewis, Lou Jeanne Lewis, Melanie Lewis, Paul C. Lewis, Richard C. Lewis, Robert C. Lewis, Vivian C.	No	No	Alluvial Fan	Yes
V02694	VST	SPR	Lewis, Lou Jeanne Lewis, Melanie Lewis, Paul C. Lewis, Richard C. Lewis, Robert C. Lewis, Vivian C.	No	No	Alluvial Fan	Yes
V09231	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V09232	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V09233	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V09234	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	Yes	---	No
V09235	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V09236	VST	SPR	Jensen, Bruce A. Jensen, Pamela G.	No	No	Mountain Block	No
V09522	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V09523	VST	STR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V09524	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V09525	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V09526	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V09527	VST	SPR	Cave Valley Ranch, LLC	No	No	Mountain Block	No
V09875	VST	SPR	Blue Diamond Oil Corp.	No	No	Mountain Block	No
V09878	VST	SPR	Blue Diamond Oil Corp.	No	No	Mountain Block	No
V09881	VST	SPR	Blue Diamond Oil Corp.	No	No	Mountain Block	No
V09882	VST	SPR	Blue Diamond Oil Corp.	No	No	Mountain Block/ Alluvial Fan	No
V09883	VST	SPR	Blue Diamond Oil Corp.	No	No	Mountain Block	No

**Table B-3**  
**Dry Lake Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 1 of 3)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
780	CER	SPR	Corp Presiding Bishop Church JC LDS Runnin C Ranch Family Partnership	No	No	Mountain Block	No
3368	CER	SPR	Cyphers, Robert M.	No	No	Mountain Block	No
3875	CER	RES	Corp Presiding Bishop Church JC LDS	No	No	Valley Floor	Yes
3876	CER	RES	Corp Presiding Bishop Church JC LDS	No	No	Valley Floor	Yes
3878	CER	RES	Corp Presiding Bishop Church JC LDS	No	No	Valley Floor	Yes
4696	CER	SPR	Corp Presiding Bishop Church JC LDS 50% UDI Culverwell, William 25% UDI Thompson, Raymond 25% UDI	No	No	Mountain Block	No
4697	CER	SPR	Culverwell, William 25% UDI Corp Presiding Bishop Church JC LDS 50% UDI Thompson, Raymond 25% UDI	No	No	Mountain Block	No
4961	CER	SPR	Highbee, Florence S. Highbee, Myron F. Hirschi, Glenwood Hirschi, Lanetta Seegmiller, Adam Seegmiller, Ruth	No	No	Mountain Block	No
5200	CER	STR	West Side Cattle Company	No	No	Mountain Block	No
5356	CER	SPR	Goodman, R.F.	No	No	Mountain Block/ Alluvial Fan	No
5371	CER	RES	Vidler Water Company	No	No	Valley Floor	Yes
5936	CER	UG	Adams McGill Company	No	No	Alluvial Fan/ Valley Floor	Yes
6094	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
6619	CER	SPR	Williams, Alex Warren Williams, Thomas Larry	No	No	Mountain Block	No
6718	CER	UG	Comet Mines Co.	No	No	Mountain Block	No
6803	CER	SPR	Federal Land Bank of Berkely Highbee, Florence Highbee, Myron Seegmiller, Adam Seegmiller, Ruth	No	No	Mountain Block	No
7117	CER	SPR	Robison Brothers	No	No	Mountain Block/ Alluvial Fan	No
7563	CER	SPR	Clark, Douglas Pace, Cora M.	No	No	Mountain Block	No
7564	CER	SPR	Clark, Douglas Pace, Cora M.	No	No	Mountain Block	No
8670	CER	SPR	Geyser Ranch LLC.	No	No	Mountain Block/ Alluvial Fan	No
8698	CER	SPR	Vidler Water Company Whipple Raymond Laird	No	No	Alluvial Fan/ Valley Floor	Yes
9618	CER	OSW	Corp Presiding Bishop Church JC LDS	No	No	Valley Floor	Yes
9660	CER	SPR	Vidler Water Company	No	No	Mountain Block	No
10119	CER	SPR	Vidler Water Company	No	No	Mountain Block	No
10120	CER	SPR	Vidler Water Company	No	No	Mountain Block	No
10747	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
11033	CER	SPR	Bleak, Juanita W. and Wheller, Casey L.	No	No	Mountain Block	No
11118	CER	RES	Vidler Water Company	No	No	Mountain Block	No
12246	CER	SPR	Thorley, Frank	No	No	Mountain Block	No
12247	CER	SPR	Thorley, Frank	No	No	Mountain Block	No
12511	CER	SPR	Higbee, E. Edwin, Kristine H.	No	No	Mountain Block	No



**Table B-3**  
**Dry Lake Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 2 of 3)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
12512	CER	SPR	Higbee, E. Edwin and Kristine H.	No	No	Mountain Block	No
12793	CER	SPR	Higbee, E. Edwin and Kristine H.	No	No	Mountain Block	No
12840	CER	SPR	Higbee, E. Edwin and Kristine H.	No	No	Mountain Block	No
14732	CER	STR	Jones, H. Wendell Jones, Lehi M. Jones, WM.L	No	No	Mountain Block/ Alluvial Fan	No
18756	CER	UG	Delmue, Albert Hollinger, Samuel A. Lytle, Roy E. Parks Division-Nevada	No	No	Valley Floor	Yes
35696	CER	RES	Geyser Ranch, LLC	No	No	Mountain Block	No
35761	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35762	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35763	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35764	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35766	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35767	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35768	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35769	CER	RES	Geyser Ranch, LLC	No	No	Valley Floor	Yes
35770	CER	UG	Geyser Ranch, LLC	No	No	Valley Floor	Yes
35771	CER	SPR	Geyser Ranch, LLC	No	No	Valley Floor	Yes
35772	CER	RES	Geyser Ranch, LLC	No	No	Valley Floor	Yes
35773	CER	UG	Geyser Ranch, LLC	No	No	Valley Floor	Yes
35774	CER	UG	Geyser Ranch, LLC	No	No	Alluvial Fan	Yes
35775	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block/ Alluvial Fan	No
35843	CER	SPR	Steward, Robert	No	No	Mountain Block/ Alluvial Fan	No
35844	CER	SPR	Steward, Robert	No	No	Mountain Block	No
35851	CER	RES	Geyser Ranch, LLC	No	No	Alluvial Fan	Yes
35951	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35952	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
35954	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
36179	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
36180	CER	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
36183	CER	SPR	Steward, Robert	No	No	Mountain Block	No
51776	CER	SPR	Hatch, Roger	No	No	Mountain Block	No
52103	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block/ Alluvial Fan	No
52104	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
52105	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
52106	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
52107	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
52108	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
52109	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
77722	PER	UG	Lincoln County Water District Vidler Water Company Inc.	No	Yes	---	No



**Table B-3**  
**Dry Lake Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 3 of 3)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
77723	PER	UG	Lincoln County Water District Vidler Water Company Inc.	No	Yes	---	No
R04778 <sup>a</sup>	RES	SPR	BLM	No	No	Mountain Block	No
R05989	RES	SPR	BLM	No	No	Mountain Block	No
R09410	RES	SPR	BLM	No	Yes	---	No
R09411	RES	SPR	BLM	No	Yes	---	No
V01027	VST	SPR	Corp Presiding Bishop Church JC LDS Tennille, George	No	No	Mountain Block	No
V01134	VST	SPR	Lyttle, Edwin	No	No	Mountain Block/ Alluvial Fan	No
V01135	VST	SPR	Lyttle, Edwin	No	No	Mountain Block/ Alluvial Fan	No
V01250	VST	SPR	Delmue, Joseph Lyttle, Edwin	No	No	Mountain Block	No
V01265	VST	SPR	Adams McGill Company	No	No	Mountain Block/ Alluvial Fan	No
V01267	VST	SPR	Adams McGill Company	No	No	Mountain Block/ Alluvial Fan	No
V01268	VST	SPR	Adams McGill Company	No	No	Mountain Block/ Alluvial Fan	No
V01287	VST	SPR	Geyser Ranch Limited Partnership	No	No	Mountain Block	No
V01288	VST	SPR	Adams McGill Company	No	No	Mountain Block/ Alluvial Fan	No
V01289	VST	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
V01290	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01294	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01295	VST	SPR	Lloyd, Arthur M. & Lynn Little	No	No	Mountain Block	No
V01296	VST	SPR	Geyser Ranch Limited Partnership	No	No	Mountain Block/ Alluvial Fan	No
V01297	VST	SPR	Geyser Ranch Limited Partnership	No	No	Mountain Block	No
V01299	VST	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
V01300	VST	SPR	Geyser Ranch, LLC	No	No	Mountain Block	No
V01301	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01302	VST	SPR	Adams McGill Company	No	No	Mountain Block	No
V01459	VST	SPR	Williams, Alex Warren Williams, Thomas Larry	No	No	Mountain Block	No
V01787	VST	SPR	Mackie, Alex J.	No	No	Mountain Block	No
V02350	VST	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
V02351	VST	SPR	Culverwell, Chas.	No	No	Mountain Block	No
V03839	VST	SPR	Imperial Farms Land and Cattle Co.	No	No	Alluvial Fan	Yes
V03840	VST	SPR	Imperial Farms Land and Cattle Co.	No	No	Alluvial Fan	Yes
V04697	VST	SPR	Hatch, Roger	No	No	Mountain Block	No
V06519	VST	SPR	Vidler Water Company	No	No	Mountain Block	No

<sup>a</sup>Application number R04778 is located within the mountain block in Delamar Valley.



**Table B-4**  
**Delamar Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 1 of 2)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
3271	CER	SPR	Pace, Sid Pace, W.B. Richards, J.W	No	No	Mountain Block	No
3475	CER	SPR	LDS	No	No	Mountain Block	No
3879	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
4462	CER	RES	Corp Presiding Bishop Church JC LDS	No	No	Valley Floor	No
4620	CER	SPR	Gardner Ranch Co.	No	No	Alluvial Fan	No
4621	CER	SPR	Duffin, Press W. SR. Duffin JR., Press W. Duffin, Mame R. Duffin, Thomas J	No	No	Mountain Block	No
4622	CER	SPR	Gardner Ranch Company	No	No	Mountain Block/ Alluvial Fan	No
4632	CER	SPR	Nevada Rock and Sand Corporation	No	No	Mountain Block	No
4693	CER	SPR	Duffin, Press W. JR Duffin, Press W. SR Duffin, Thomas J. Duffin, Maine R.	No	No	Mountain Block	No
4695	CER	SPR	Gardner Ranch Company	No	No	Mountain Block	No
4894	PER	SPR	Sawyer, Tillie B.	No	No	Alluvial Fan	No
4973	CER	SPR	Gardner Ranch Co.	No	No	Mountain Block/ Alluvial Fan	No
5301	CER	RES	Duffin, Press W. SR. Duffin, Thomas J. Duffin, Press W. JR. Duffin, Mame R.	No	No	Alluvial Fan	No
5316	CER	RES	Corp Presiding Bishop Church JC LDS Carter, Dona Culverwell, Charles	No	No	Alluvial Fan	No
5318	CER	RES	Corp Presiding Bishop Church JC LDS Henrie, S.E.	No	No	Valley Floor	No
5782	CER	SPR	Duffins, Press W. JR. Duffins, Press W. SR. Duffins, Mamie R. Duffins, Thomas J	No	No	Alluvial Fan	No
5783	CER	SPR	Duffins, Mamie R. Duffins, Press W. JR. Duffins, Thomas J. Duffins, Press W. SR.	No	No	Alluvial Fan	No
6576	CER	RES	Nevada Rock and Sand Corporation	No	No	Valley Floor	No
6885	CER	RES	LDS	No	No	Alluvial Fan	No
6886	CER	RES	LDS	No	No	Mountain Block	No
9659	CER	OSW	LDS	No	No	Valley Floor	No
9713	CER	SPR	LDS	No	No	Mountain Block	No
10088	CER	SPR	Nevada Rock and Sand Corporation	No	No	Mountain Block	No
10189	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
10440	CER	RES	LDS	No	No	Mountain Block	No
10551 <sup>a</sup>	CER	OSW	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
10627	CER	SPR	Church JC LDS	No	No	Mountain Block	No
10629	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
10654	CER	OSW	LDS	No	No	Valley Floor	No
10659	CER	RES	LDS	No	No	Valley Floor	No

**Table B-4**  
**Delamar Valley Water-Rights Attributes and Applicability for Model Analysis**  
 (Page 2 of 2)

App.	Status	Source	Owner of Record	SNWA Owned	Junior Priority Date	Geographic Location	Included in Quantitative Analysis
10736	CER	RES	LDS	No	No	Valley Floor	No
10789	CER	OSW	LDS	No	No	Valley Floor	No
11167	CER	SPR	LDS	No	No	Alluvial Fan	No
11378	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
11525	CER	SPR	Church JC LDS	No	No	Mountain Block	No
51259	CER	SPR	LDS	No	No	Mountain Block	No
51260	CER	SPR	LDS	No	No	Mountain Block	No
51261	CER	UG	LDS	No	No	Mountain Block	No
52112	CER	SPR	Corp Presiding Bishop Church JC LDS	No	No	Mountain Block	No
52113	CER	SPR	H.H. Land and Cattle Company	No	Yes	---	No
52114	CER	SPR	LDS	No	Yes	---	No
52115	CER	SPR	Corp Presiding Bishop Church JC LDS	No	Yes	---	No
52118	CER	SPR	Corp Presiding Bishop Church JC LDS	No	Yes	---	No
R04339	RES	SPR	BLM	No	No	Alluvial Fan	No
V01022A01	VST	SPR	LDS, Presiding Bishop	No	No	Mountain Block	No
V01022A02	VST	SPR	---	No	No	Mountain Block	No
V01022A03	VST	SPR	Duffin, Press W. et al.I	No	No	Mountain Block	No
V01022A04	VST	SPR	LDS, Presiding Bishop Longhorn Cattle CO Ballow, Carl Schlarman R, Ballow, R	No	No	Mountain Block	No
V01022A05	VST	SPR	LDS, Presiding Bishop	No	No	Mountain Block	No
V01022A06	VST	SPR	LDS, Presiding Bishop	No	No	---	No
V01399	VST	SPR	Henrie, James Jr.	No	No	Mountain Block	No
V01400	VST	SPR	Duffin, Mamie Ryan Duffin, Press Duffin, Press R. Duffin, Tom	No	No	Mountain Block	No
V01418	VST	SPR	Henrie, James	No	No	Mountain Block	No
V01419	VST	SPR	Mackie, A.J.	No	No	Mountain Block	No
V01420	VST	SPR	Henrie, James	No	No	Mountain Block	No
V01449	VST	SPR	Nevada Rock and Sand Corporation	No	No	Alluvial Fan	No
V01520	VST	SPR	Gardner Ranch Co	No	No	Alluvial Fan	No
V01550	VST	SPR	Duffin, Tom Hiko Land and Cattle Co. Duffin, Mamie Ryan	No	No	Mountain Block	No
V01598	VST	SPR	Lincoln Land and Livestock Co.	No	No	Mountain Block	No
V01654	VST	SPR	Duffin, MameR. Duffin, Press W. SR. Duffin, Press W. JR. Duffin, Thomas J	No	No	Alluvial Fan	No
V01822	VST	SPR	Horn, C.A.	No	No	Mountain Block	No

<sup>a</sup>Application number 10551 is located within the mountain block in Dry Lake Valley.



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**Appendix C**  
**Quantitative Analysis Results**

## **C.1.0 INTRODUCTION**

This appendix contains the quantitative analysis results for both senior existing water rights and environmental areas of interest. [Tables C-1](#) through [C-3](#) include the senior existing water rights that based upon the qualitative analysis were relevant for further analysis using the results of the groundwater flow model simulations. The results of the groundwater flow model simulations were used to determine if, and in what time frame, simulated drawdowns at the senior existing rights would be greater than 50 ft. [Table C-4](#) provides a similar drawdown analysis for environmental areas of interest that based upon the qualitative analysis were relevant for further analysis using the results of the groundwater flow model simulations. [Table C-5](#) provides an analysis of the change in spring flow discharge for those environmental springs of interest that were included within the groundwater flow model as flow observations. The criteria for analysis of the change in spring flow was a simulated reduction in flow of 15 percent or greater.



**Table C-1**  
**Model Simulated Results at Spring Valley Water-Right Locations**  
**Spring Valley Production Begins in Year 2028**

(Page 1 of 3)

App	Source	Geographic Location	Simulated Drawdown Greater than 50 ft for Specified Year				
			2029	2042	2062	2082	2117
802	SPR	Alluvial Fan	No	No	No	No	No
957	SPR	Alluvial Fan	No	No	No	No	No
983	STR	Alluvial Fan	No	No	No	Yes	Yes
1052	STR	Alluvial Fan	No	No	No	No	Yes
1159	STR	Valley Floor	No	No	No	No	No
1520	STR	Alluvial Fan	No	No	No	No	No
2745	SPR	Valley Floor	No	No	No	No	No
2852	STR	Alluvial Fan	No	No	Yes	Yes	Yes
3186	STR	Valley Floor	No	No	No	No	No
3203	SPR	Valley Floor	No	No	No	No	No
3383	STR	Alluvial Fan	No	No	No	No	No
3433	STR	Alluvial Fan/Valley Floor	No	No	No	No	No
3973	SPR	Valley Floor	No	No	No	No	No
4171	SPR	Valley Floor	No	No	No	Yes	Yes
4951	STR	Alluvial Fan	No	No	No	No	No
5247	STR	Alluvial Fan	No	No	No	No	No
5571	SPR	Alluvial Fan	No	No	No	No	No
5691	STR	Valley Floor	No	No	No	No	No
6632	UG	Alluvial Fan	No	No	No	No	No
6754	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
7446	UG	Valley Floor	No	No	Yes	Yes	Yes
8074	UG	Valley Floor	No	No	No	No	No
8075	UG	Valley Floor	No	No	Yes	Yes	Yes
8076	UG	Valley Floor	No	No	No	No	No
8077	UG	Valley Floor	No	No	No	No	Yes
8104	STR	Alluvial Fan	No	No	No	No	No
8393	STR	Valley Floor	No	No	No	No	No
8542	UG	Valley Floor	No	No	No	No	No
8701	UG	Valley Floor	No	No	No	No	No
8713	UG	Valley Floor	No	No	No	No	No
8721 <sup>a</sup>	SPR	Valley Floor	No	No	No	No	No
9435	UG	Valley Floor	No	No	No	No	No
10487	STR	Valley Floor	No	No	No	No	No
10801	STR	Valley Floor	No	No	No	No	No
10921 <sup>a</sup>	SPR	Valley Floor	No	No	No	No	No
10993 <sup>b</sup>	SPR	Valley Floor	No	No	No	No	No
11311	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
11314	UG	Alluvial Fan	No	No	No	No	No
11354	UG	Alluvial Fan	No	No	No	No	No



**Table C-1**  
**Model Simulated Results at Spring Valley Water-Right Locations**  
**Spring Valley Production Begins in Year 2028**  
 (Page 2 of 3)

App	Source	Geographic Location	Simulated Drawdown Greater than 50 ft for Specified Year				
			2029	2042	2062	2082	2117
11355	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
12467	UG	Alluvial Fan	No	No	No	No	No
13457	STR	Alluvial Fan	No	No	No	No	No
16890	UG	Alluvial Fan	No	No	No	No	No
18043	UG	Valley Floor	No	No	No	No	No
18044	UG	Valley Floor	No	No	No	No	No
18045	UG	Valley Floor	No	No	No	No	No
18841	UG	Valley Floor	No	No	No	Yes	Yes
18842	UG	Valley Floor	No	No	No	Yes	Yes
18843	UG	Valley Floor	No	No	No	Yes	Yes
19435	RES	Alluvial Fan/Valley Floor	No	No	No	No	No
19436	RES	Alluvial Fan/Valley Floor	No	No	No	No	No
21220	STR	Alluvial Fan	No	No	No	No	No
21687	STR	Alluvial Fan	No	No	No	No	No
27768	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
28818	STR	Alluvial Fan/Valley Floor	No	No	No	No	No
29371	UG	Alluvial Fan/Valley Floor	No	No	Yes	Yes	Yes
29567	UG	Alluvial Fan/Valley Floor	No	No	Yes	Yes	Yes
31239	UG	Alluvial Fan	No	No	Yes	Yes	Yes
39817	UG	Valley Floor	No	No	No	No	No
39818	UG	Valley Floor	No	No	No	No	No
45496	UG	Alluvial Fan/Valley Floor	No	No	No	Yes	Yes
56049	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
56050	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
56051	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
71840	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
R05269	SPR	Alluvial Fan/Valley Floor	No	No	Yes	Yes	Yes
R05272	SPR	Alluvial Fan/Valley Floor	No	No	Yes	Yes	Yes
R05273	SPR	Alluvial Fan/Valley Floor	No	No	No	Yes	Yes
R05274	SPR	Alluvial Fan	No	No	No	No	Yes
R05278	SPR	Alluvial Fan/Valley Floor	No	No	Yes	Yes	Yes
R05279	SPR	Valley Floor	No	No	No	No	Yes
R05280	SPR	Alluvial Fan/Valley Floor	No	No	No	Yes	Yes
R05291	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
R05292	SPR	Alluvial Fan/Valley Floor	No	No	No	Yes	Yes
R05293	SPR	Alluvial Fan/Valley Floor	No	No	No	No	Yes
R05294	SPR	Alluvial Fan/Valley Floor	No	No	No	Yes	Yes
V00789	STR	Valley Floor	No	No	No	No	No
V00790	STR	Alluvial Fan	No	No	Yes	Yes	Yes



**Table C-1**  
**Model Simulated Results at Spring Valley Water-Right Locations**  
**Spring Valley Production Begins in Year 2028**

(Page 3 of 3)

App	Source	Geographic Location	Simulated Drawdown Greater than 50 ft for Specified Year				
			2029	2042	2062	2082	2117
V01026	STR	Alluvial Fan	No	No	No	No	No
V01069	STR	Alluvial Fan	No	No	No	No	No
V01176	SPR	Alluvial Fan	No	No	No	No	No
V01194	SPR	Alluvial Fan	No	No	No	No	No
V01195	SPR	Alluvial Fan	No	No	No	No	No
V01213	STR	Alluvial Fan	No	No	No	No	No
V01214	STR	Alluvial Fan	No	No	No	No	No
V01217	STR	Alluvial Fan	No	No	Yes	Yes	Yes
V01218	STR	Alluvial Fan/Valley Floor	No	No	No	No	No
V01219	STR	Alluvial Fan	No	No	No	No	No
V01764	STR	Alluvial Fan	No	No	No	No	No
V01969	STR	Alluvial Fan	No	No	No	No	No
V02077	SPR	Valley Floor	No	No	No	Yes	Yes
V02078	STR	Alluvial Fan	No	No	Yes	Yes	Yes
V02329	SPR	Alluvial Fan	No	No	No	No	No
V02332	STR	Alluvial Fan	No	No	No	No	No
V02817	SPR	Valley Floor	No	No	No	No	No
V02818	SPR	Valley Floor	No	No	No	No	No
V02819	SPR	Valley Floor	No	No	No	No	No
V02820	SPR	Valley Floor	No	No	No	No	No
V02821	SPR	Valley Floor	No	No	No	No	Yes
V02822	SPR	Valley Floor	No	No	No	No	No
V02823	SPR	Valley Floor	No	No	No	No	No
V02824	SPR	Alluvial Fan/Valley Floor	No	No	No	No	Yes
V02825	SPR	Valley Floor	No	No	No	No	Yes
V02826	SPR	Valley Floor	No	No	No	No	No
V02827	SPR	Valley Floor	No	No	No	No	No
V02828	SPR	Valley Floor	No	No	No	No	No
V09665	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09666	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09667	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09668	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09669	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09670	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09671	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
V09672	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No

<sup>a</sup>Application Numbers 8721 and 10921 correspond to South Millick Spring. While the drawdowns at this spring never exceed 50 ft, the model simulates a change in flow of greater than 15 percent.

<sup>b</sup>Application Number 10993 corresponds to North Millick Spring. While the drawdowns at this spring never exceed 50 ft, the model simulates a change in flow of greater than 15 percent.

**Table C-2**  
**Model Simulated Results at Cave Valley Water-Right Locations**  
**Cave Valley Production Begins in Year 2020**

App.	Source	Geographic Location	Model Simulated Drawdown Greater than 50 ft for Specified Year				
			2029	2042	2062	2082	2117
4599	STR	Alluvial Fan	No	No	No	No	No
6638	UG	Alluvial Fan	No	No	No	No	No
7397	UG	Alluvial Fan	No	No	No	No	No
25322	STR	Alluvial Fan	No	No	No	No	No
25411	SPR	Alluvial Fan	No	No	No	No	No
27814	SPR	Alluvial Fan	No	No	No	No	No
V01675	SPR	Alluvial Fan	No	No	No	No	No
V01678	STR	Alluvial Fan	No	No	No	No	No
V01680	STR	Alluvial Fan	No	No	No	No	No
V01699	SPR	Alluvial Fan	No	No	No	No	No
V01807	STR	Valley Floor	No	No	No	No	No
V02693	SPR	Alluvial Fan	No	No	No	No	No
V02694	SPR	Alluvial Fan	No	No	No	No	No

**Table C-3**  
**Model Simulated Results at Dry Lake Valley Water-Right Locations**  
**Dry Lake Valley Production Begins in Year 2020**

App.	Source	Geographic Location	Model Simulated Drawdown Greater than 50 ft for Specified Year				
			2029	2042	2062	2082	2117
3875	RES	Valley Floor	No	No	No	No	No
3876	RES	Valley Floor	No	No	No	No	No
3878	RES	Valley Floor	No	No	No	No	No
5371	RES	Valley Floor	No	No	No	No	No
5936	UG	Alluvial Fan/Valley Floor	No	No	No	No	No
8698	SPR	Alluvial Fan/Valley Floor	No	No	No	No	No
9618	OSW	Valley Floor	No	No	No	No	No
18756	UG	Valley Floor	No	No	No	No	No
35769	RES	Valley Floor	No	No	No	No	No
35770	UG	Valley Floor	No	No	No	No	No
35771	SPR	Valley Floor	No	No	No	No	No
35772	RES	Valley Floor	No	No	No	No	No
35773	UG	Valley Floor	No	No	No	No	No
35774	UG	Alluvial Fan	No	No	No	No	No
35851	RES	Alluvial Fan	No	No	No	No	No
V03839	SPR	Alluvial Fan	No	No	No	No	No
V03840	SPR	Alluvial Fan	No	No	No	No	No

**Table C-4**  
**Environmental Areas of Interest Model Simulated Drawdowns**  
 (Page 1 of 2)

Site ID	Name	Hydrographic Area	Site Type	Geographic Location	Model Simulated Drawdown Greater than 50 ft for Specified Year				
					2029	2042	2062	2082	2117
<b>Spring Valley and Vicinity</b>									
1847401	Stonehouse Spring	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
1845501	Willow Spring	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
1847101	Keegan Spring near Piermont, NV	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
1847601	West Spring Valley Complex 1	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
1845702	South Millick Spring	Spring Valley	Spring	Valley Floor	No	No	No	No	No
---	Swamp Cedar North	Spring Valley	Area	Valley Floor	No	No	No	No	Yes
1847701	Unnamed 5 Spring	Spring Valley	Spring	Valley Floor	No	No	No	Yes	Yes
1847301	Rock Spring	Spring Valley	Spring	Mountain Block	---	---	---	---	---
1847001	Four Wheel Drive Spring	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	Yes	Yes	Yes
385613114250401	184 N12 E67 02ACBA1 USBLM (Shoshone Pond Well)	Spring Valley	Flowing Well/Ponds	Alluvial Fan/Valley Floor	No	No	No	No	No
---	Swamp Cedar South	Spring Valley	Area	Alluvial Fan/Valley Floor	No	No	No	No	No
1846201	Swallow Springs	Spring Valley	Spring	Alluvial Fan	No	No	No	No	No
1847201	Minerva Spring	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
1846401	Blind Spring	Spring Valley	Spring	Valley Floor	No	No	No	No	No
1841610	Cleve Creek	Spring Valley	Stream	Mountain Block	---	---	---	---	---
1840704	Kalamazoo Creek	Spring Valley	Stream	Mountain Block	---	---	---	---	---
1842004	Negro Creek	Spring Valley	Stream	Mountain Block	---	---	---	---	---
1842702	Pine and Ridge Creeks	Spring Valley	Stream	Mountain Block	---	---	---	---	---
1843102	Shingle Creek	Spring Valley	Stream	Mountain Block	---	---	---	---	---
1953001	Clay Spring	Snake Valley	Spring	Alluvial Fan	No	No	No	No	No
---	Stateline Springs	Snake Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
---	Unnamed 1 Spring North of Big Springs	Snake Valley	Spring	Alluvial Fan	No	No	No	No	No
1951901	Big Springs	Snake Valley	Spring	Alluvial Fan	No	No	No	No	No
195 N10 E70 34DC	North Little Springs	Snake Valley	Spring	Alluvial Fan	No	No	No	No	No
1951301	Lehman Creek	Snake Valley	Stream	Mountain Block	---	---	---	---	---
1951403	Baker Creek	Snake Valley	Stream	Mountain Block	---	---	---	---	---
1951508	Snake Creek	Snake Valley	Stream	Mountain Block	---	---	---	---	---



**Table C-4**  
**Environmental Areas of Interest Model Simulated Drawdowns**  
 (Page 2 of 2)

Site ID	Name	Hydrographic Area	Site Type	Geographic Location	Model Simulated Drawdown Greater than 50 ft for Specified Year				
					2029	2042	2062	2082	2117
1951902	Big Springs Creek	Snake Valley	Stream	Alluvial Fan/Valley Floor	No	No	No	No	No
1951605	Big Wash	Snake Valley	Stream	Mountain Block	---	---	---	---	---
183 N09 E65 02DA 1	Geyser Creek Spring	Lake Valley	Spring	Mountain Block	---	---	---	---	---
183 N09 E65 23AA 1	Wambolt Springs	Lake Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
<b>Cave, Dry Lake, Delamar Valleys and Vicinity</b>									
1800301	Parker Station Spring	Cave Valley	Spring	Valley Floor	No	No	No	No	No
---	Cave Valley Meadow	Cave Valley	Area	Valley Floor	No	No	No	No	No
1800101	Cave Spring	Cave Valley	Spring	Mountain Block	---	---	---	---	---
1810101	Meloy Spring	Dry Lake Valley	Spring	Mountain Block	---	---	---	---	---
1810401	Coyote Spring	Dry Lake Valley	Spring	Mountain Block	---	---	---	---	---
1820101	Grassy Spring	Delamar Valley	Spring	Mountain Block	---	---	---	---	---
2070901	Preston Big Spring	White River Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2071501	Hardy Springs	White River Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2071101	Moorman Spring	White River Valley	Spring	Valley Floor	No	No	No	No	No
2071401	Butterfield Spring	White River Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2071301	Flag Springs	White River Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2070501	Hot Creek Spring near Sunnyside, NV	White River Valley	Spring	Valley Floor	No	No	No	No	No
2090101	Hiko Spring	Pahrnagat Valley	Spring	Valley Floor	No	No	No	No	No
2090401	Crystal Springs	Pahrnagat Valley	Spring	Valley Floor	No	No	No	No	No
2090501	Ash Springs	Pahrnagat Valley	Spring	Valley Floor	No	No	No	No	No
---	Pahrnagat Ditch	Pahrnagat Valley	Area	Valley Floor	No	No	No	No	No
2090201	Cottonwood Spring	Pahrnagat Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
---	L Spring	Pahrnagat Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2090801	Maynard Spring	Pahrnagat Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2191501	Moapa National Wildlife Refuge Warm Springs West	Muddy River Springs Area	Spring	Valley Floor	No	No	No	No	No

Source: Environmental Areas of Interest identified in Marshall and Luptowitz (2011).

<sup>a</sup>UTM, NAD83, Zone 11N

**Table C-5  
Environmental Areas of Interest  
Model Simulated Changes in Discharge**

Site ID	Name	Hydrographic Area	Site Type	Geographic Location	Model Simulated Discharge Reduction Greater than 15 percent for Specified Year				
					2029	2042	2062	2082	2117
<b>Spring Valley and Vicinity</b>									
1847101	Keegan Spring near Piermont, NV	Spring Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
1845702	South Millick Spring	Spring Valley	Spring	Valley Floor	No	No	Yes	Yes	Yes
1951901	Big Springs	Snake Valley	Spring	Alluvial Fan	No	No	No	No	No
<b>Cave, Dry Lake, Delamar Valleys and Vicinity</b>									
2070901	Preston Big Spring	White River Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2071501	Hardy Springs	White River Valley	Spring	Alluvial Fan/Valley Floor	No	No	No	No	No
2071101	Moorman Spring	White River Valley	Spring	Valley Floor	No	No	No	No	No
2071401	Butterfield Spring	White River Valley	Spring	Alluvial Fan/Valley Floor	No	Yes	Yes	Yes	Yes
2071301	Flag Springs	White River Valley	Spring	Alluvial Fan/Valley Floor	No	Yes	Yes	Yes	Yes
2070501	Hot Creek Spring near Sunnyside, NV	White River Valley	Spring	Valley Floor	No	No	No	No	No
2090101	Hiko Spring	Pahranagat Valley	Spring	Valley Floor	No	No	No	No	No
2090401	Crystal Springs	Pahranagat Valley	Spring	Valley Floor	No	No	No	No	No
2090501	Ash Springs	Pahranagat Valley	Spring	Valley Floor	No	No	No	No	No
2191501	Moapa National Wildlife Refuge Warm Springs West	Muddy River Springs Area	Spring	Valley Floor	No	No	No	No	No

Source: Environmental Areas of Interest identified in Marshall and Luptowitz (2011)

<sup>a</sup>UTM, NAD83, Zone 11N



**References**

Marshall, Z.L., and Luptowitz, L., 2011, Environmental evaluation regarding SNWA applications in Spring, Cave, Dry Lake and Delamar Valleys: Presentation to the Office of the Nevada State Engineer: Southern Nevada Water Authority, Las Vegas, Nevada.

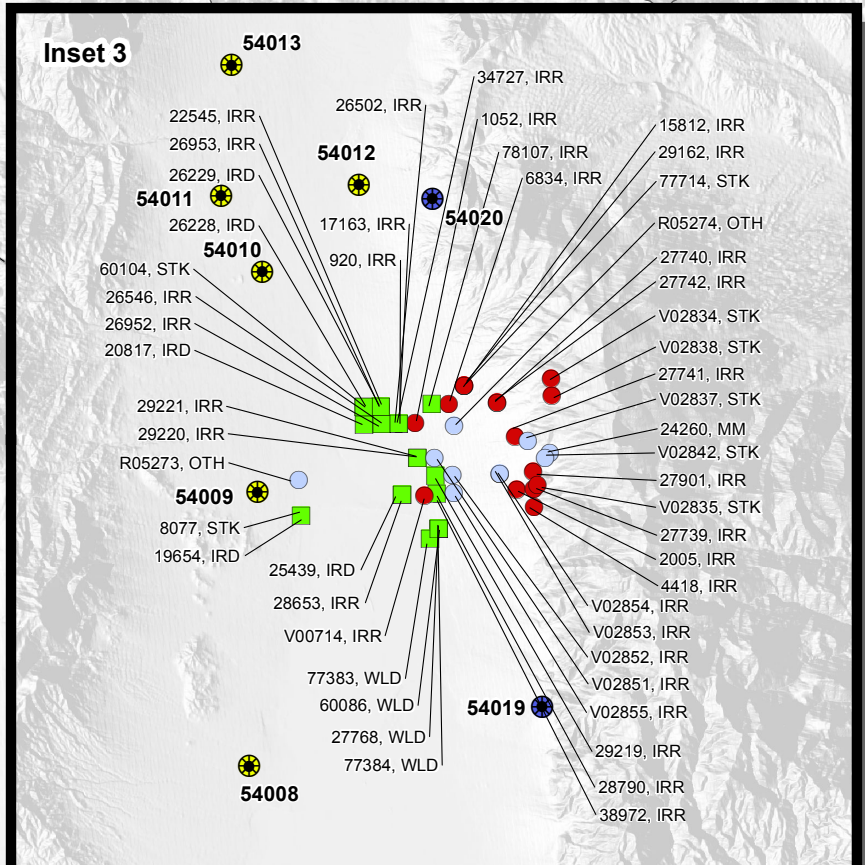
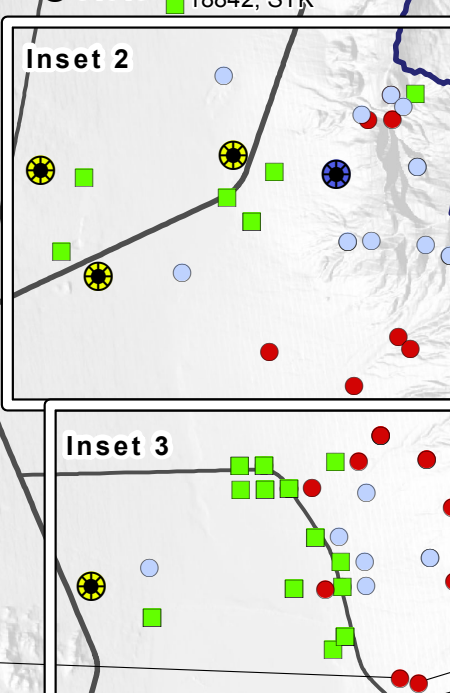
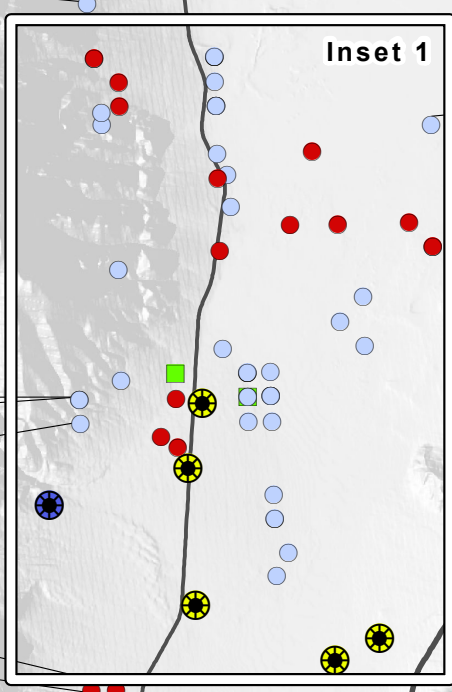
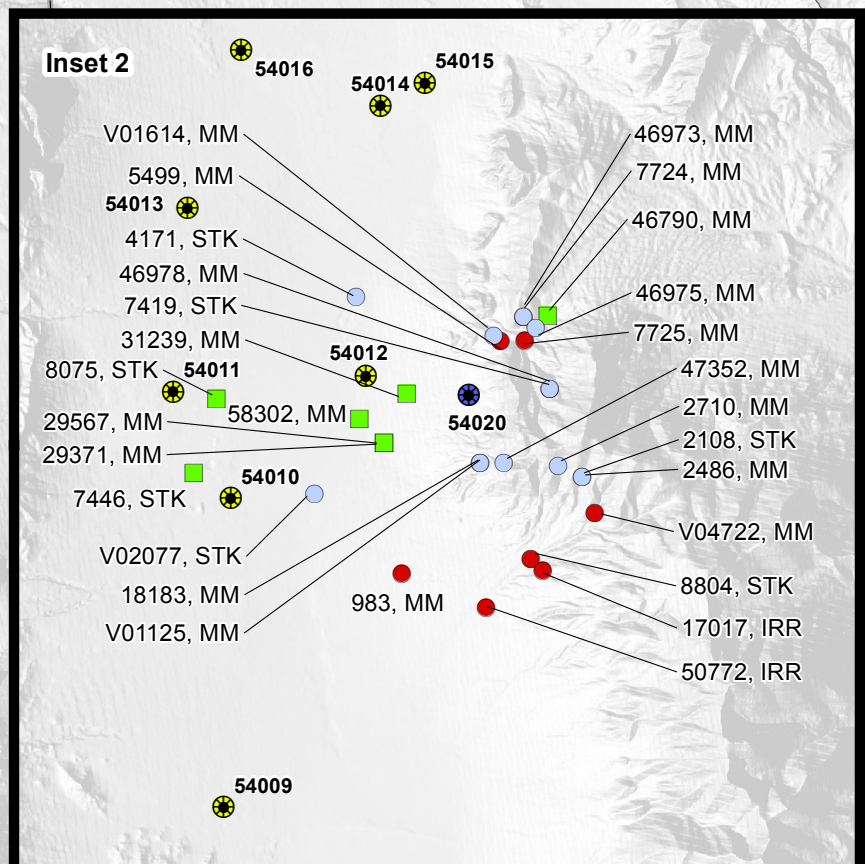
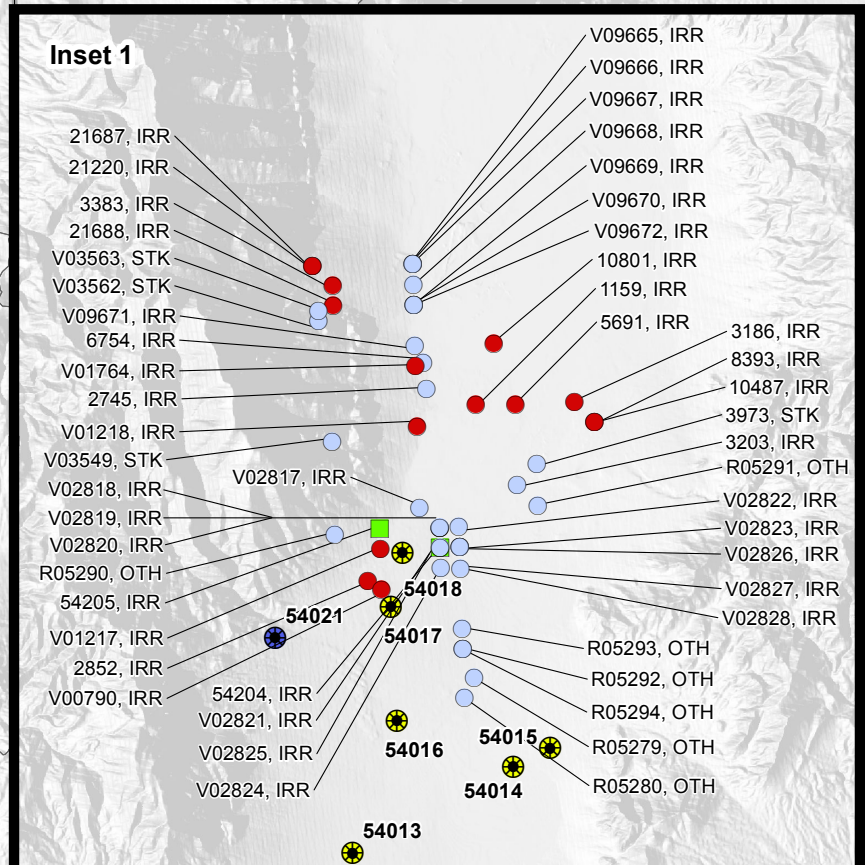
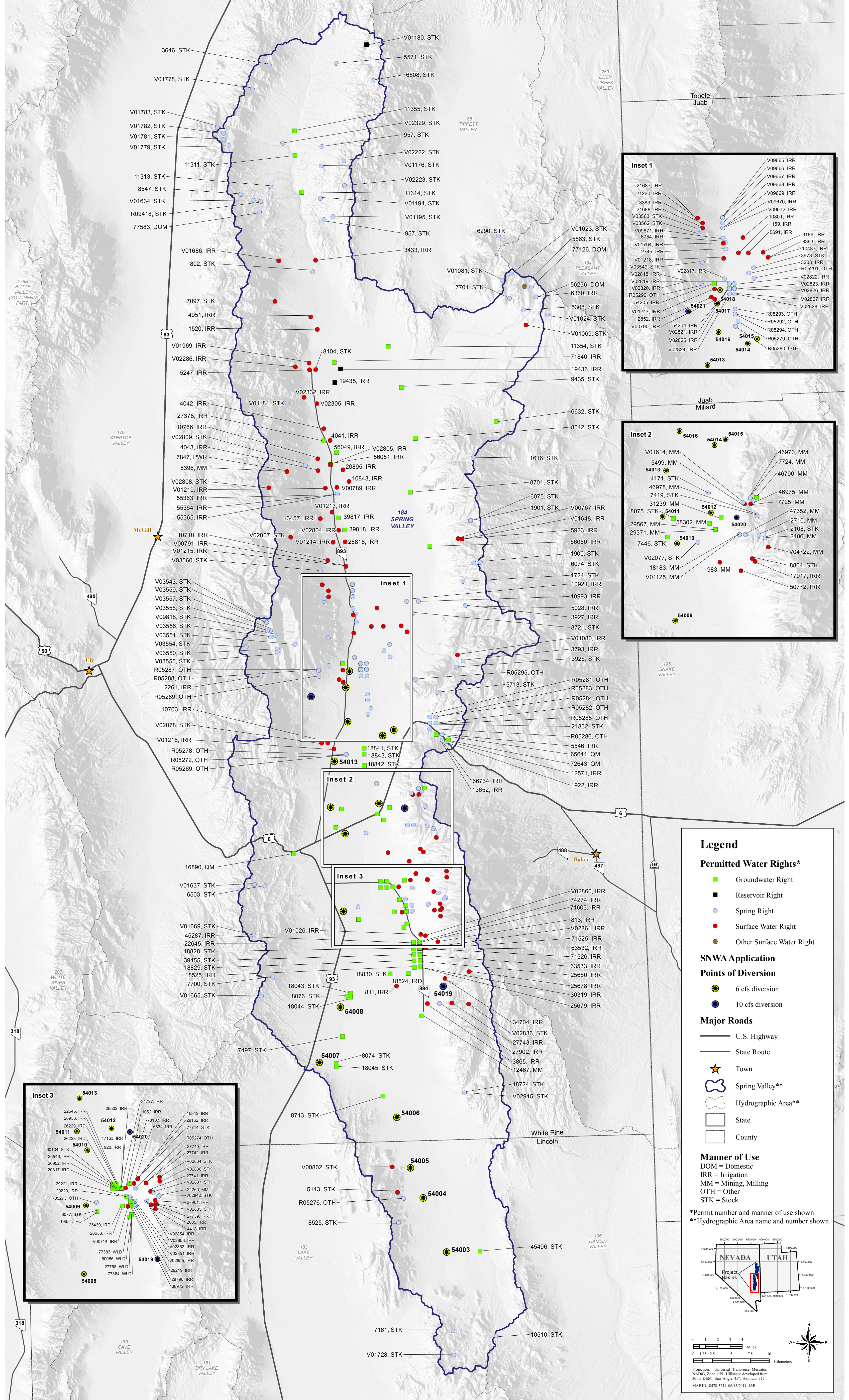




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**Plates**





**Legend**

**Permitted Water Rights\***

- Groundwater Right
- Reservoir Right
- Spring Right
- Surface Water Right
- Other Surface Water Right

**SNWA Application Points of Diversion**

- 6 cfs diversion
- 10 cfs diversion

**Major Roads**

- U.S. Highway
- State Route

**Town**

- Town

**Spring Valley\*\***

- Spring Valley\*\*

**Hydrographic Area\*\***

- Hydrographic Area\*\*

**State**

- State

**County**

- County

**Manner of Use**  
 DOM = Domestic  
 IRR = Irrigation  
 MM = Mining, Milling  
 OTH = Other  
 STK = Stock

\*Permit number and manner of use shown  
 \*\*Hydrographic Area name and number shown

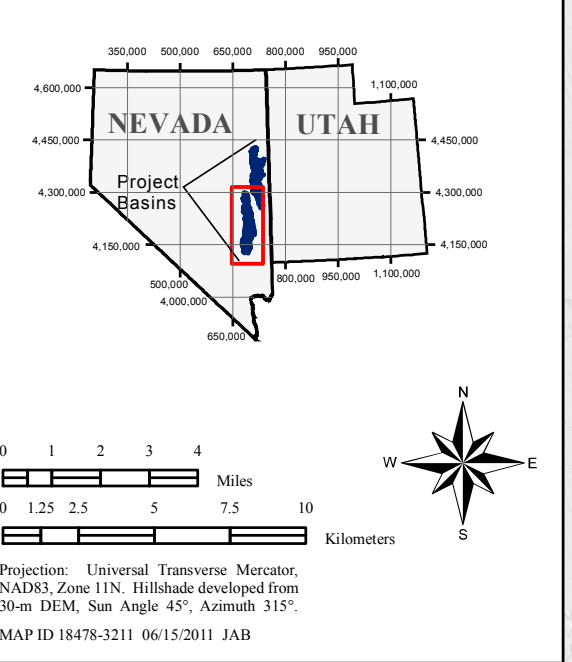


PLATE 1: SPRING VALLEY POINTS OF DIVERSION AND PERMITTED WATER RIGHTS



2029

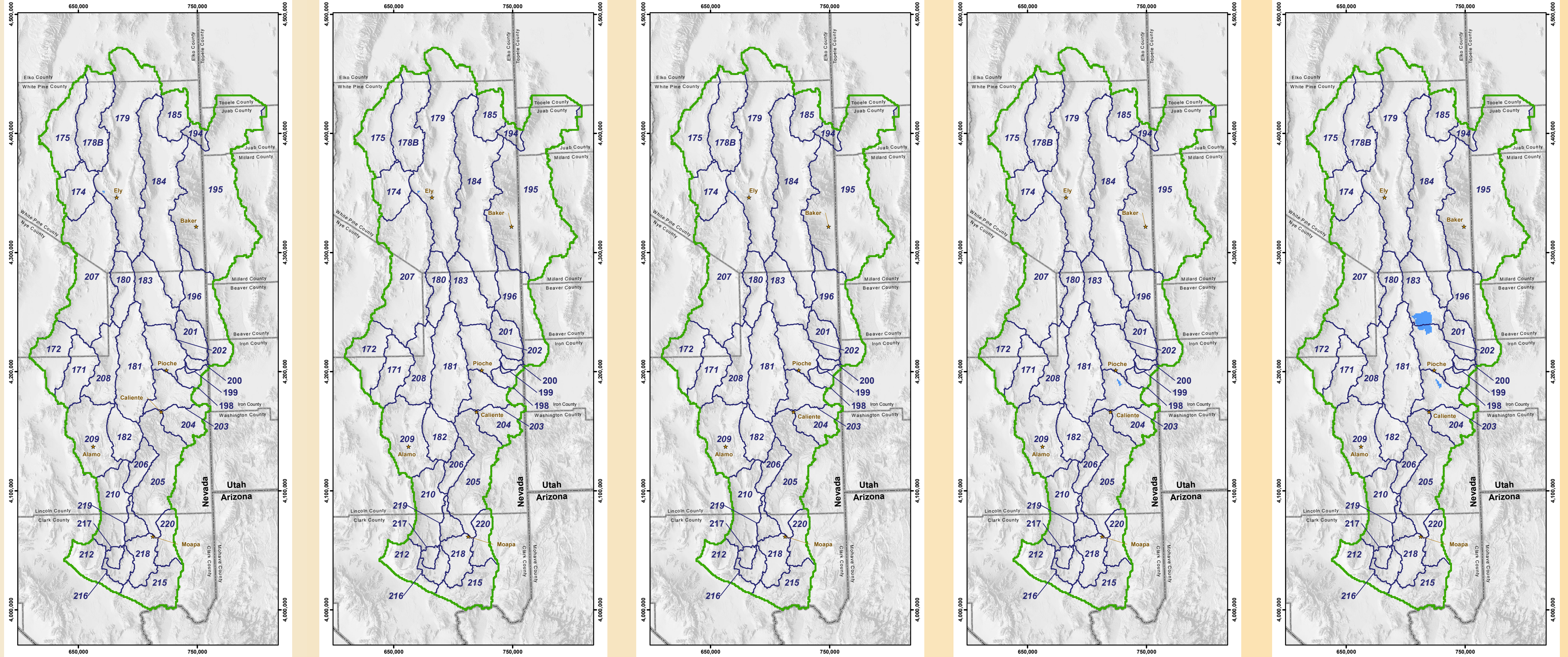
2042

2062

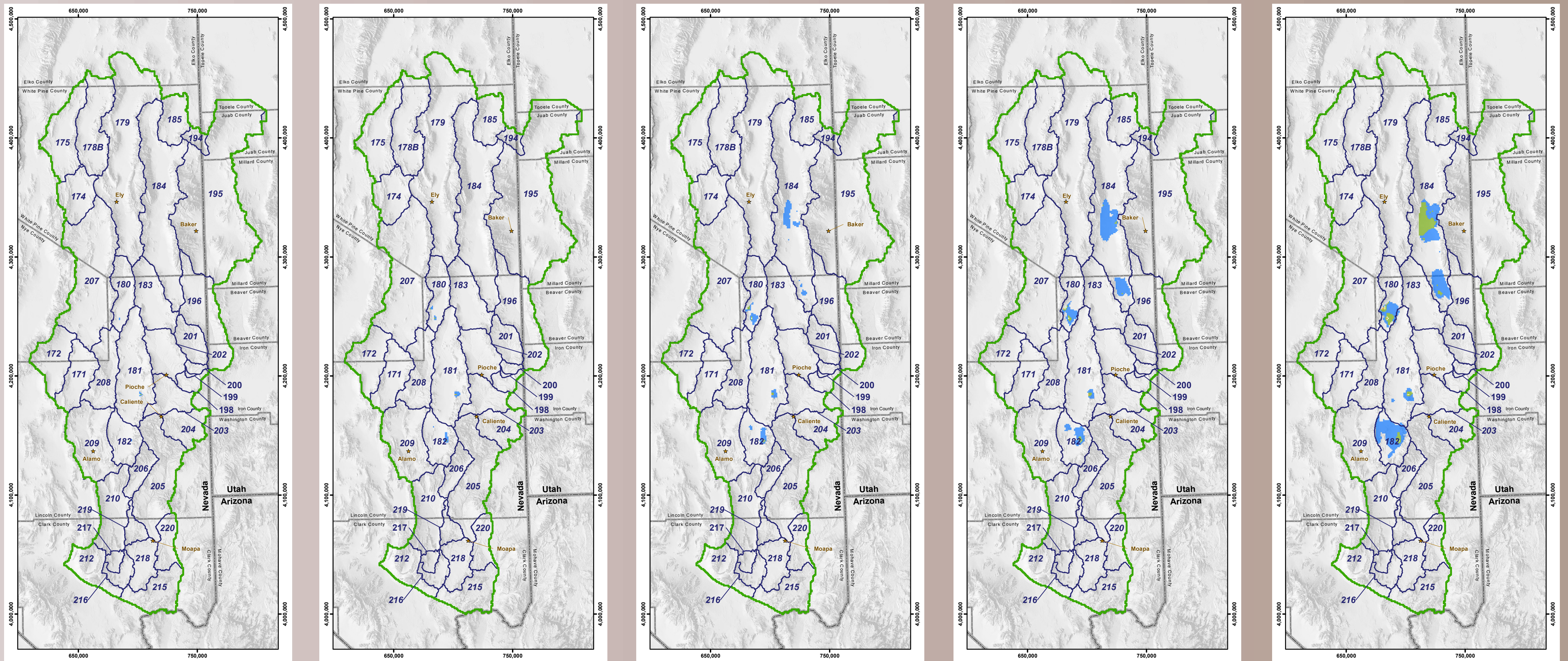
2082

2117

Baseline



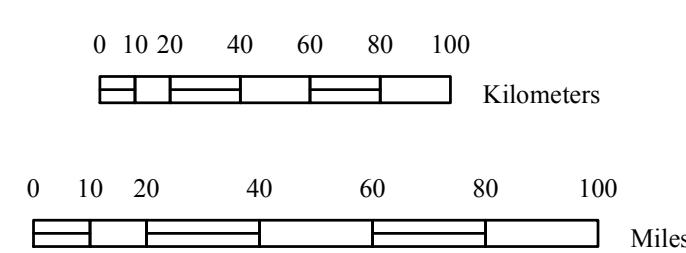
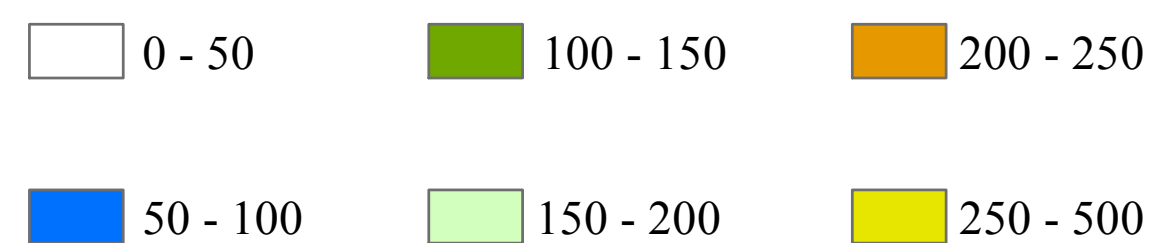
POD



Legend

- ★ Town
  - ☒ State Boundary
  - ☒ CCRP Model Boundary
  - ☒ County Boundary
  - ☒ Hydrographic Area within Model Boundary<sup>2</sup>
- <sup>1</sup> Depicted drawdowns do not include effects of Baseline pumping.
- <sup>2</sup> Hydrographic Area number shown.

Drawdown (feet)



Grid based on Universal Transverse Mercator projection, North American Datum 1983, Zone 11N meters. Hillshade developed from 30-m DEM, Sun Angle 45°, Azimuth 315°.

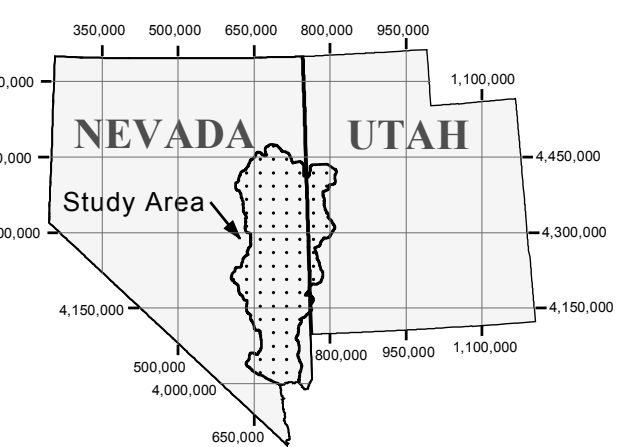


PLATE 2 - SIMULATED DRAWDOWN CONDITIONS FOR THE BASELINE AND POINTS OF DIVERSION MODEL SIMULATIONS