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WATER RESOURCE PLAN

Lincoln County Water District
August, 2014

LINCOLN COUNTY WATER DISTRICT WATER RESOURCE PLAN

August 2014

PREPARED BY:



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I. INTRODUCTION

The Lincoln County Water District (the District), in an effort to implement its mission to “provide, protect and develop the water resources within Lincoln County for the benefit of the citizens and for the economic development of Lincoln County”, commissioned this Water Resource Plan to summarize its potential and current water resources, identify existing water resource demands, identify future water resource demands, and otherwise provide a basis for planning for the future beneficial use of available water resources.

The 2001 Water Plan for Lincoln County, completed by Resource Concepts, Inc., provided a review of water uses existing at the time, existing water systems and their capacities, and projected future water needs. That plan generally outlined the County’s vision for water use and described the resources available within the County. The 2001 plan contemplated a 20-year planning horizon, until the year 2020. This new plan assumes that much of the general baseline data provided in the 2001 plan is still valid, and focuses more specifically on existing and projected water resources, where they are located, and how they may ultimately be put to beneficial use. This plan assumes a buildout horizon date which ranges from the year 2085 well into the 22nd century, depending on the community or development.

Future water needs highlighted in this plan are given for population centers existing and anticipated to exist in the County based on current community boundaries, planned federal land disposals, anticipated community annexations, and development plans currently in process. Population projections and land absorption densities are based on the best currently available data and assumptions, most available online. Water right data was obtained from Nevada’s Division of Water Rights website, water.nv.gov, and constitutes publicly available data. Where water resources are not currently planned or obligated to support residential, commercial, or industrial purposes, it was assumed that agriculture would be the preferred beneficial use.

The District is committed to providing water resources for the benefit of the citizens of Lincoln County in a sustainable and environmentally sound manner. As the District continues to develop, policies and procedures will be implemented to ensure that this important commitment is maintained and that the District’s sustainability objectives are achieved. The District recognizes that its constituent citizens view existing environmental conditions as fundamental to the heritage, livelihood, and future of the County; with that point of view, it is the District’s intent to manage water resources such that adverse effects to the environment do not occur.

With that background, details on the District’s current water portfolio, expected future water demands, and potential opportunities for beneficial use of available water are presented in the following sections.

II. PORTFOLIO & OBLIGATIONS

A. WATER RESOURCES PORTFOLIO

The Lincoln County Water District has approximately 120 total applications and permits for water rights, of which 60 are active or open (the remainder have been withdrawn, abrogated, or denied). Table 1 in Appendix A summarizes the District's currently active applications and permitted water rights, sorted by hydrographic basin, with additional information on the basin, status, point of diversion, and total duty. It also includes an accounting of water rights owned by other parties, including Southern Nevada Water Authority (SNWA) and Coyote Springs Investments (CSI) which are, by agreement (see Appendix C for the Cooperative Agreement Among Lincoln County, the Southern Nevada Water Authority and the Las Vegas Valley Water District), designated for use in Lincoln County. The intent of Table 1 in Appendix A is to quantify and locate water resources which are reasonably expected to be available for use by the District in meeting the County's existing and future demands. Exhibit 1, 1A, and 1B in Appendix B are graphical representations of the data summarized in Table 1.

It should be noted that the data presented in Table 1 is front-page data currently available through Nevada Division of Water Resources' website water.nv.gov. The State's website disclaimer reads, "The information reflected on these pages is derived by interpretations of paper records and is being provided for convenience only. Please refer to the actual water rights records for the details on any water right as such records may differ from the information provided herein." This disclaimer applies to the information given in Table 1. While a cursory check of the data presented on the website was completed, a detailed review of the paper records behind the data was not included in the scope of services contemplated for this plan.

B. CURRENT SPECIFIC OBLIGATIONS

By mission, prior planning, or agreement, the District may provide future water resources to the specific entities listed below:

- **Coyote Springs GID** – The 2010 Culinary Water Capital Improvement Plan completed for Coyote Springs-Lincoln County Consolidated GID specifies that the District will provide water from various sources in Lake, Dry Lake, Delamar, Pahroc, Coal, Garden and Kane Springs Valleys to Coyote Springs in the amount of 23,300 acre-feet annually.
- **Toquop Power Holdings** – Current agreements reserve up to 7,240 acre-feet annually for the power generation facility to be located at Toquop. Ultimately, the District expects to provide 5,000 acre-feet annually to the power generation facility.
- **Toquop Township** – Based on demographic data derived from Title 14 Toquop Township PUD of the Lincoln County Code, the District expects to provide 18,036 acre-feet annually to the Toquop development in southeastern Lincoln County.

Exhibit 2 in Appendix B is an illustration of land holdings in Lincoln County. It highlights the demand points related to the entities listed above as well as existing communities, which represent water demand locations in the County.

III. PROJECTED WATER DEMANDS

A. STUDY AREA

The study area for this plan is Lincoln County generally; its boundaries are shown in Exhibit 1 in Appendix B. The plan also considers the water resource portfolios and demands of the individual communities and water purveyors within the County, as described in the following paragraphs; these entities include Alamo, Caliente, Coyote Springs, Panaca, Pioche, and Toquop Township.

B. DEMOGRAPHICS

Demographic data, including existing populations and expected growth rates, for all communities except Coyote Springs and Toquop Township came from the Nevada State Demographer’s office at nvdemography.org. Demographic information for Coyote Springs was taken from the 2010 Culinary Water Capital Improvement Plan completed for Coyote Springs-Lincoln County Consolidated General Improvement District. Data for Toquop Township was derived from Title 14 Toquop Township PUD of the Lincoln County Code.

Demographic information was used to calculate standard baseline assumptions including population per residential unit, maximum absorption densities in terms of units per acre, and total populations at buildout. These calculations were necessary to project water demands at buildout, and the differing rates at which water demands grow within each community.

For the communities of Pioche, Panaca, Caliente, and Alamo, the buildout community boundaries were assumed to be the existing boundaries plus lands designated for disposal by the Bureau of Land Management; those boundaries were provided by the Lincoln County Planning and Zoning Department.

C. ASSUMED WATER DEMAND

For the purpose of projecting water demand in the various communities, the standard assumption of 1.0 acre-foot annually (AFA) per equivalent residential unit (ERU) was used as the baseline demand. It was also assumed that each community would ultimately implement conservations measures, in which case 0.45 AFA/ERU was used to project demand. This value is common in southwest desert communities currently practicing conservation including tiered rate structures, xeriscape landscaping requirements, regimented watering schedules, etc.

Projected water demands based on demographic data, growth assumptions, normal water use and conservation water use are compared with existing resources for each community in the following sub-sections. In addition, projected demands in each Lincoln County community are illustrated graphically in Exhibit 3 in Appendix B.

D. TOWN OF ALAMO

i. Growth Assumptions

Buildout development conditions for Alamo were projected using a 2% annual population growth rate, an average of 2.69 people per residence, an average absorption rate of 2.5 acres per residence, and residential ERUs constituting 67% of the total ERUs in the buildout community. Table III-A summarizes the assumptions and background data used to calculate the buildout condition and Table III-B shows the water demand for the latest population estimate year and the buildout year.

Table III-A: Alamo Growth Assumptions

Current Municipal Area	718	[ac]
Future Municipal Area	4,517	[ac]
Average Acreage per Residence	2.5	[ac/ERU]
Total ERUs at Buildout	1,807	[ERU]
Residential Population Density	2.69	[ppl/ERU]
Growth Rate	2%	-
Residential % of Total ERU	67%	-
Buildout Population	3,239	[ppl]

It should be noted that while the Alamo town boundary will eventually include approximately 6,917 acres, it was assumed that approximately 2,400 acres will remain open space, in meadow, in the central valley. Thus, the future municipal area was assumed to be 4,517 acres.

Table III-B: Alamo Current and Future Water Use

Year	Population	Residential [ERU]	Commercial & Other [ERU]	Total [ERU]	Water Demand	
					Non-Conservative Use [AFA]	Conservative Use [AFA]
2012	583	217	108	325	325	146
2099	3,239	1,205	602	1,807	1,807	813

ii. Current Water Resources

Alamo Sewer and Water GID presently owns and operates the system that provides culinary water to the residents of Alamo. The GID currently has 2,685 AFA of culinary water rights available. Table III-C summarizes the available water rights first by basin, then by application number. All data pertaining to the water rights were collected from the state water rights website at water.nv.gov.

SECTION III – PROJECTED WATER DEMANDS

Table III-C: Alamo Sewer and Water GID Water Rights Summary

APP #	STATUS	CERT #	BASIN	SOURCE	USE	POINT OF DIVERSION					ANNUAL DUTY
						Qtr-Qtr	Qtr	Sec	Twp	Rng	[AFA]
12898	CERT	4150	209	UG	DOM	SE	SW	5	07S	61E	96.3
30162	PER		209	UG	QM	SE	SW	5	07S	61E	560.1
45908	PER		209	UG	MUN	NE	NW	8	07S	61E	184.8
45909	PER		209	UG	MUN	SW	SW	5	07S	61E	291.2
54514	PER		209	UG	QM	SE	SW	5	07S	61E	560.1
55533	PER		209	UG	MUN	NE	SW	5	07S	61E	217.2
80337	PER		209	UG	QM	NW	NW	8	07S	61E	560.1
81758	PER		209	UG	QM	NW	SW	9	07S	61E	215.5
2,685.3											

iii. Future Demand

Figure III-A shows that, with conservation, Alamo Sewer and Water GID’s demand for water will not exceed its supply of water, and the GID will have a surplus of 1,872 AFA at buildout. Without conservation, Alamo Sewer and Water GID’s demand for water will not exceed its supply of water, and the GID will have a surplus of 878 AFA at buildout.

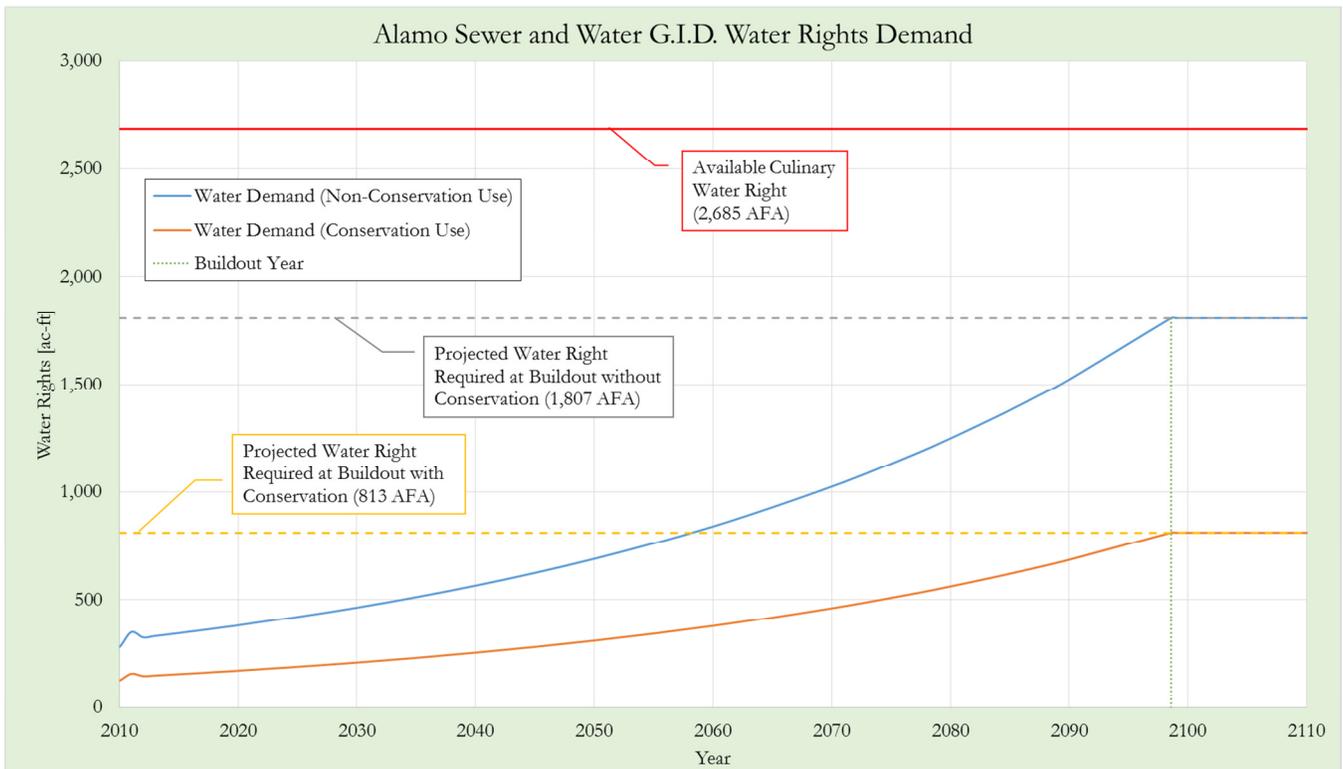


Figure III-A: Alamo Sewer and Water GID Summary of Demand

E. CITY OF CALIENTE

i. Growth Assumptions

The City of Caliente completed a land use plan in December, 2011, entitled Envision Caliente, which provided data including projected land uses, absorption rates, slope analyses, etc., defining how growth would be expected in the community, and providing recommendations to the City on how to manage future growth. This data is the basis for the water demand projections in Caliente. In summary, buildout conditions for Caliente were generated with a 2% annual population growth rate, an average of 2.60 people per residence, an average of 2.5 acres per residence, and residential ERUs comprising 50% of the total ERUs in the community. Table III-D summarizes the assumptions and data used to calculate the buildout condition and Table III-E shows the water demand for the latest population estimate year and the buildout year.

Table III-D: Caliente Growth Assumptions

Current Municipal Area	32,937	[ac]
Future Municipal Area	34,855	[ac]
Average Acreage per Residence	2.5	[ac/ERU]
Total ERUs at Buildout	13,942	[ERU]
Residential Population Density	2.60	[ppl/ERU]
Growth Rate	2%	-
Residential % of Total ERU	50%	-
Buildout Population	18,150	[ppl]

Table III-E: Caliente Current and Future Water Use

Year	Population	Residential [ERU]	Commercial & Other [ERU]	Total [ERU]	Water Demand	
					Non-Conservative Use [AFA]	Conservative Use [AFA]
2012	1,089	418	418	837	837	376
2154	18,150	6,971	6,971	13,942	13,942	6,274

ii. Current Water Resources

The City of Caliente owns and operates a municipal water system, and recently invested in a Culinary Water Capital Improvements Plan, completed in March, 2012. Caliente currently possesses 5,718 AFA of culinary water rights in permitted and certificated status. Table III-F summarizes the available water rights first by basin then by application number. All data pertaining to the water rights were collected from the state water rights website at water.nv.gov. Of note, three water rights (applications 19377, 23933, 25970) share a total combined duty of 2,895 AFA. More information is available online from the state water rights website or in the paper documents behind the website’s front-page information.

SECTION III – PROJECTED WATER DEMANDS

Table III-F: Caliente Water Rights Summary

APP #	STATUS	CERT #	BASIN	SOURCE	USE	POINT OF DIVERSION					ANNUAL DUTY [AFA]
						Qtr-Qtr	Qtr	Sec	Twp	Rng	
11582	CERT	3719	204	UG	DOM	NW	NW	8	04S	67E	56.0
48455	PER		204	UG	DOM	NW	NW	8	04S	67E	11.2
54597	PER		204	UG	QM	SE	NE	8	04S	67E	500.0
10662	CERT	3052	205	UG	MUN	NW	SW	8	04S	67E	405.0
11581	CERT	3720	205	UG	DOM	SW	NW	8	04S	67E	104.0
19377	PER		205	UG	MUN	NE	SE	7	04S	67E	2,895.0*
23933	PER		205	UG	MUN	SW	NW	8	04S	67E	
25970	PER		205	UG	MUN	SW	NW	8	04S	67E	
49892	PER		205	UG	MUN	SW	NE	8	04S	67E	1,086.0
49893	CERT	14323	205	UG	MUN	SW	NE	8	04S	67E	661.0
*Total Combined Duty											5,718.2

iii. Future Demand

Figure III-B illustrates that, with conservation, Caliente’s demand for water will exceed its supply of water rights in the year 2149 and be deficient 556 AFA at buildout. Without conservation, Caliente’s demand for water will exceed its supply of water rights in the year 2109 and be deficient 8,224 AFA at buildout.

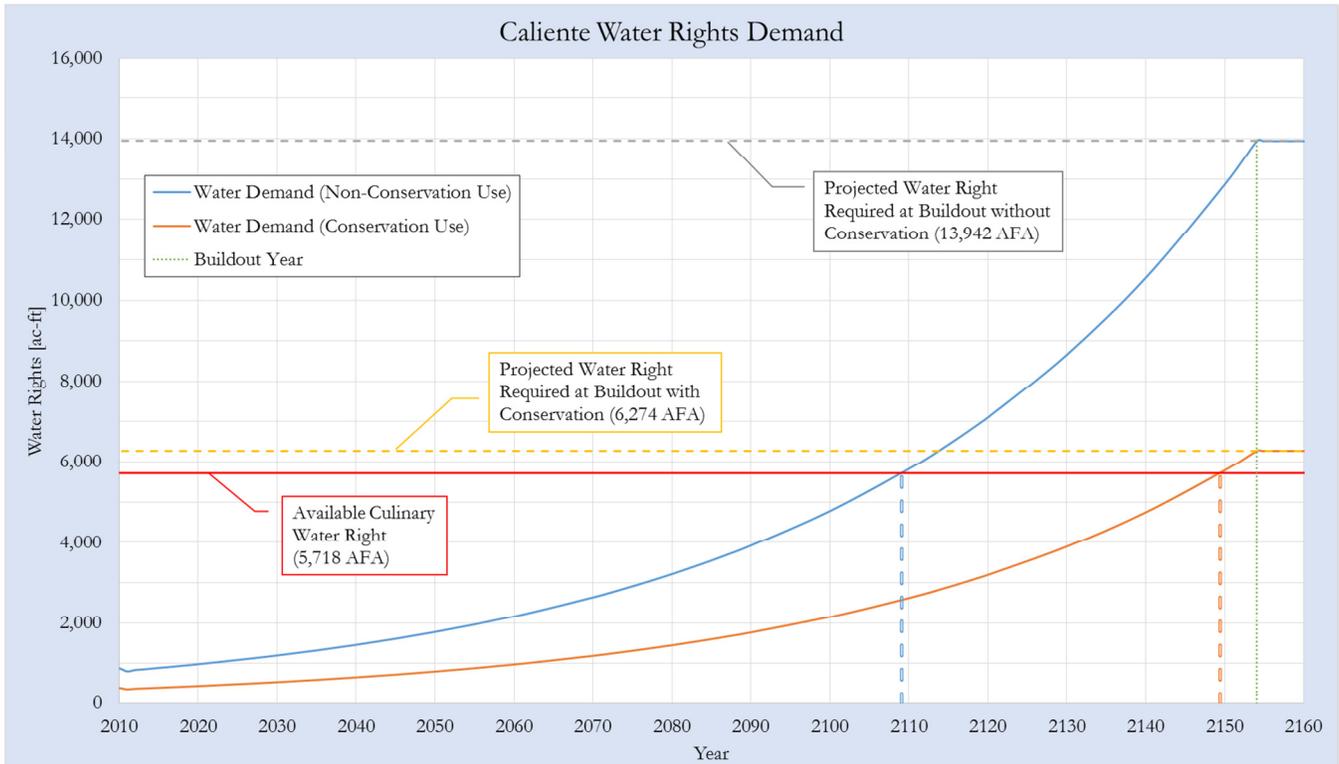


Figure III-B: Caliente Summary of Demand

F. COYOTE SPRINGS

i. Growth Assumptions

Based on data from the Coyote Springs-Lincoln County Consolidated General Improvement District Culinary Water Capital Improvement Plan completed in February, 2010, buildout conditions for Coyote Springs were generated with an 8.5% annual population growth rate, an average of 2.69 people per residence, an average of 0.24 acres per residence, and residential ERUs comprising 67% of the total ERUs. Table III-G and Table III-H summarize the assumptions and data used to calculate the buildout condition. Table III-I shows the water demand for the year when the capital improvements plan was written and the buildout year.

Table III-G: Coyote Springs Water Use Assumptions

Normal Use Water Need	1.0	[AFA/ERU]
Conservation Water Need	0.24	[AFA/ERU]

Table III-H: Coyote Springs Growth Assumptions

Current Municipal Area	22,140	[ac]
Future Municipal Area	22,140	[ac]
Average Acreage per Residence	0.24	[ac/ERU]
Total ERUs at Buildout	91,438	[ERU]
Residential Population Density	2.69	[ppl/ERU]
Growth Rate	8.5%	-
Residential % of Total ERU	67%	-
Buildout Population	163,896	[ppl]

Table III-I: Coyote Springs Current and Future Water Use

Year	Population	Residential [ERU]	Commercial & Other [ERU]	Total [ERU]	Water Demand	
					Non-Conservative Use [AFA]	Conservative Use [AFA]
2010	0	0	0	0	0	0
2085	163,896	60,959	30,479	91,438	91,438	21,945

ii. Current Water Resources

Under current planning scenarios, the Coyote Springs-Lincoln County Consolidated General Improvement District will own and operate the treatment, storage, and distribution systems required to serve the Coyote Springs community. The GID does not have any water rights as an entity, nor is it planning to acquire water rights or source and transmission infrastructure. Current planning scenarios require the District to deliver 22,300 AFA to Coyote Springs through the SNWA’s groundwater development pipeline. It should be noted that, per agreement, the District has acquired the ability to deliver up to 36,000 AFA through the pipeline. Water delivered wholesale by the District to the GID is expected to be derived from permitted water rights in Coal Valley, Garden Valley, Cave Valley, Dry Lake Valley, Delamar Valley, Lake Valley, and Pahroc Valley. Another 1,000 AFA of water rights will be delivered by the District from the Kane Springs Valley well fields.

iii. Future Demand

The reduced conservation water demand of 0.24 AFA/ERU shown in Table III-G for Coyote Springs assumes the implementation of separate culinary water and secondary water systems, with water resource recovery facilities implemented according to the GID’s culinary water, secondary water, and wastewater capital improvements plans, completed in February, 2010. This assumption requires that original water delivered by the District to Coyote Springs will be used for indoor, domestic purposes and that outdoor water will be provided by a secondary water system which recycles indoor, domestic water and re-distributes it for outdoor use.

Figure III-C shows that, with conservation, the GID’s demand for water will not exceed the District’s ability to supply water (in terms of water rights) and there will be a surplus of 1,355 AFA at buildout. Without conservation, at the standard assumed demand of 1.0 AFA/ERU, the GID’s demand for water will exceed the District’s ability to supply water (in terms of water rights) in the year 2068, and the supply will be deficient 68,138 AFA at buildout.

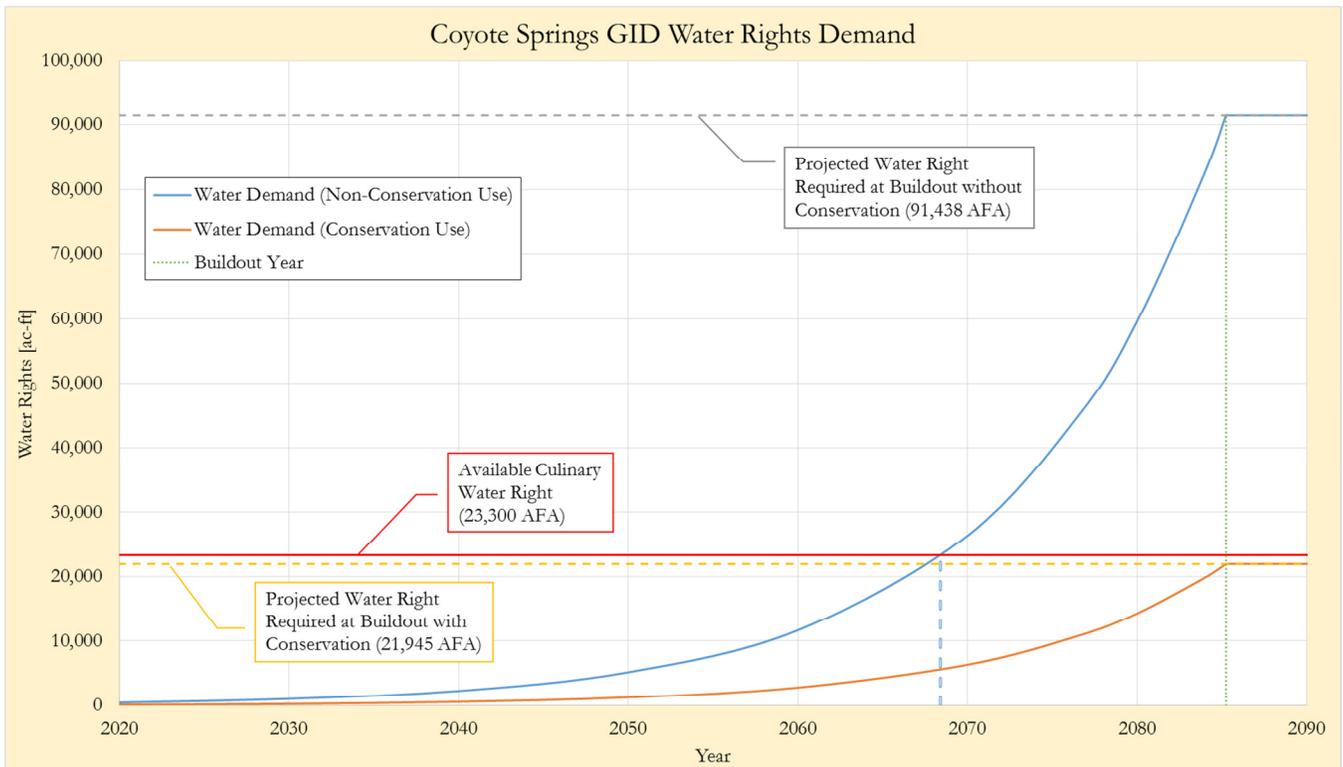


Figure III-C: Coyote Springs GID Summary of Demand

G. TOWN OF PANACA

i. Growth Assumptions

Based on data provided by Lincoln County Planning and Zoning Department, buildout conditions for Panaca were generated with a 2% annual population growth rate, an average of 2.69 people per residence, an average of 2.5 acres per residence, and residential ERUs comprising 80% of the total ERUs. Table III-J summarizes the assumptions and data used to calculate the buildout condition and Table III-K shows the water demand for the latest population estimate year and the buildout year.

Table III-J: Panaca Growth Assumptions

Current Municipal Area	1,052	[ac]
Future Municipal Area	5,560	[ac]
Average Acreage per Residence	2.50	[ac/ERU]
Total ERUs at Buildout	2,224	[ERU]
Residential Population Density	2.69	[ppl/ERU]
Growth Rate	2.0%	-
Residential % of Total ERU	80%	-
Buildout Population	4,783	[ppl]

Table III-K: Panaca Current and Future Water Use

Year	Population	Residential [ERU]	Commercial & Other [ERU]	Total [ERU]	Water Demand	
					Non-Conservative Use [AFA]	Conservative Use [AFA]
2012	832	309	155	387	387	174
2100	4,783	1,779	890	2,224	2,224	1,001

ii. Current Water Resources

Panaca Farmstead Association is the utility entity which provides domestic water to the citizens of Panaca. The Farmstead currently possesses 2,203 AFA of culinary water rights. Table III-L summarizes the available water rights first by basin, then by application number. All data pertaining to the water rights were collected from the state water rights website at water.nv.gov.

Table III-L: Panaca Farmstead Association Water Rights Summary

APP #	STATUS	CERT #	BASIN	SOURCE	USE	POINT OF DIVERSION					ANNUAL DUTY [AFA]
						Qtr-Qtr	Qtr	Sec	Twp	Rng	
16431	CERT	5580	203	UG	MUN	SE	SW	5	02S	68E	724.0
56334	PER		203	UG	MUN	NW	NE	9	02S	68E	724.0
80695	PER		203	UG	MUN	NW	SW	3	02S	68E	392.8
80771	PER		203	UG	MUN	NW	SW	3	02S	68E	362.0
82958	PER		203	UG	MUN	NW	SW	3	02S	68E	0.0
											2,202.7

iii. Future Demand

Figure III-D shows that, with conservation, Panaca Farmstead Association’s demand for water will not exceed its supply of water rights and there will be a surplus of 1,202 AFA at buildout. Without conservation, Panaca Farmstead Association’s demand for water will exceed its supply of water rights in the year 2100 and there will be a deficiency of 21 AFA at buildout.

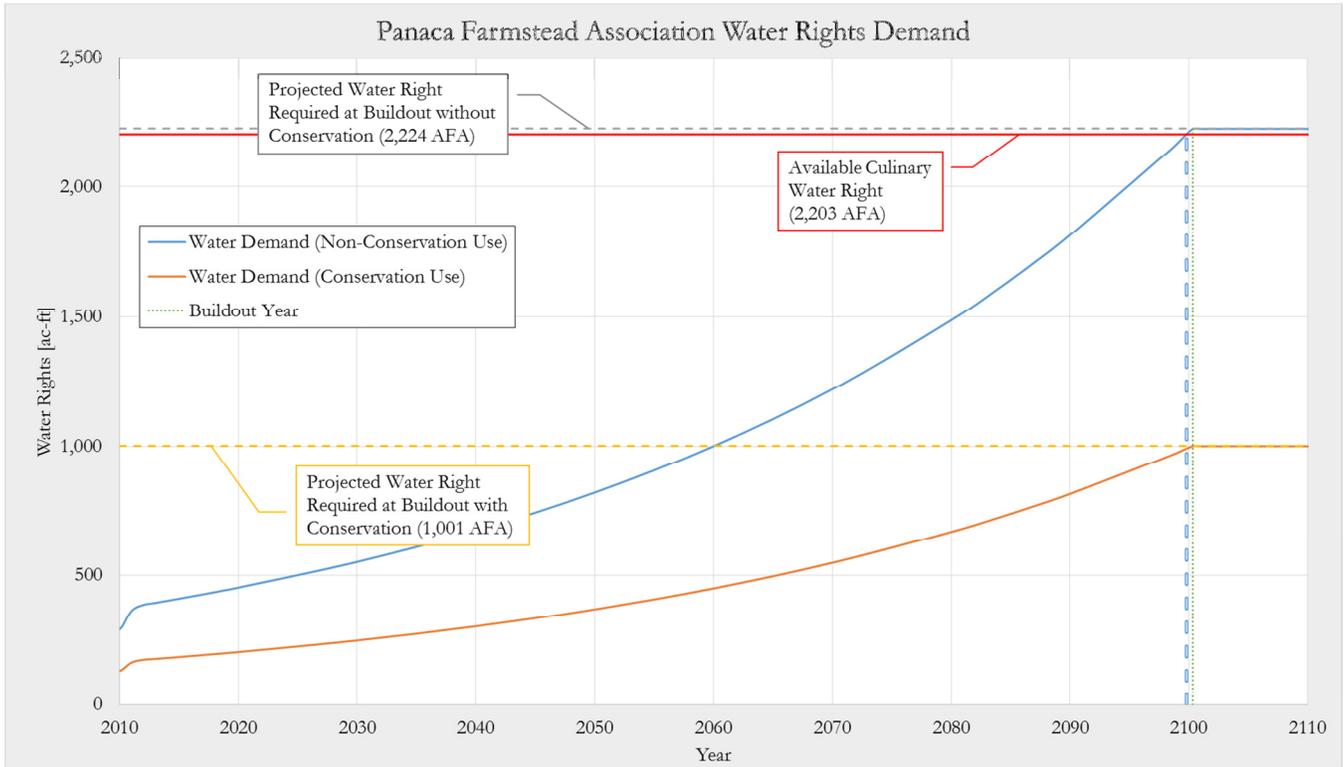


Figure III-D: Panaca Farmstead Association Summary of Demand

H. TOWN OF PIOCHE

i. Growth Assumptions

Based on data provided by Lincoln County Planning and Zoning Department, buildout conditions for Pioche were generated with a 2% annual population growth rate, an average of 2.69 people per residence, an average of 2.5 acres per residence, and residential ERUs amounting to 67% of the total ERUs. Table III-M summarizes the assumptions and data used to calculate the buildout condition and Table III-N shows the water demand for the latest population estimate year and the buildout year.

Table III-M: Pioche Growth Assumptions

Current Municipal Area	3,603	[ac]
Future Municipal Area	12,473	[ac]
Average Acreage per Residence	2.50	[ac/ERU]
Total ERUs at Buildout	4,989	[ERU]
Residential Population Density	2.69	[ppl/ERU]
Growth Rate	2.0%	-
Residential % of Total ERU	67%	-
Buildout Population	8,943	[ppl]

Table III-N: Pioche Current and Future Water Use

Year	Population	Residential [ERU]	Commercial & Other [ERU]	Total [ERU]	Water Demand	
					Non-Conservative Use [AFA]	Conservative Use [AFA]
2012	810	301	151	452	452	203
2133	8,943	3,326	1,663	4,989	4,989	2,245

ii. Current Water Resources

Pioche Public Utilities (PPU) is the Town’s utility arm; PPU currently has 1,424 AFA of culinary water rights available. Table III-O summarizes the available water rights first by basin, then by application number. All data pertaining to the water rights were collected from the state water rights website at water.nv.gov.

Table III-O: Pioche Public Utilities Water Rights Summary

APP #	STATUS	CERT #	BASIN	SOURCE	USE	POINT OF DIVERSION					ANNUAL DUTY [afa]
						Qtr-Qtr	Qtr	Sec	Twp	Rng	
23149	CERT	8026	202	UG	MUN	NE	SE	12	01N	67E	564.7
23150	CERT	8027	202	UG	MUN	SE	SW	12	01N	67E	282.3
50046	CERT	13865	202	UG	MUN	NE	SE	12	01N	67E	192.8
53930	PER		202	UG	MUN	SE	NE	14	01N	67E	304.1
56962	CERT	14540	202	UG	MUN	SE	NE	14	01N	67E	80.0
											1,423.9

iii. Future Demand

Figure III-E shows that, with conservation, Pioche Public Utilities’ demand for water will exceed its supply of water rights in the year 2110 and be deficient 821 AFA at buildout. Without conservation Pioche Public Utilities’ demand for water will exceed its supply of water rights in the year 2070 and be deficient 3,565 AFA at buildout.

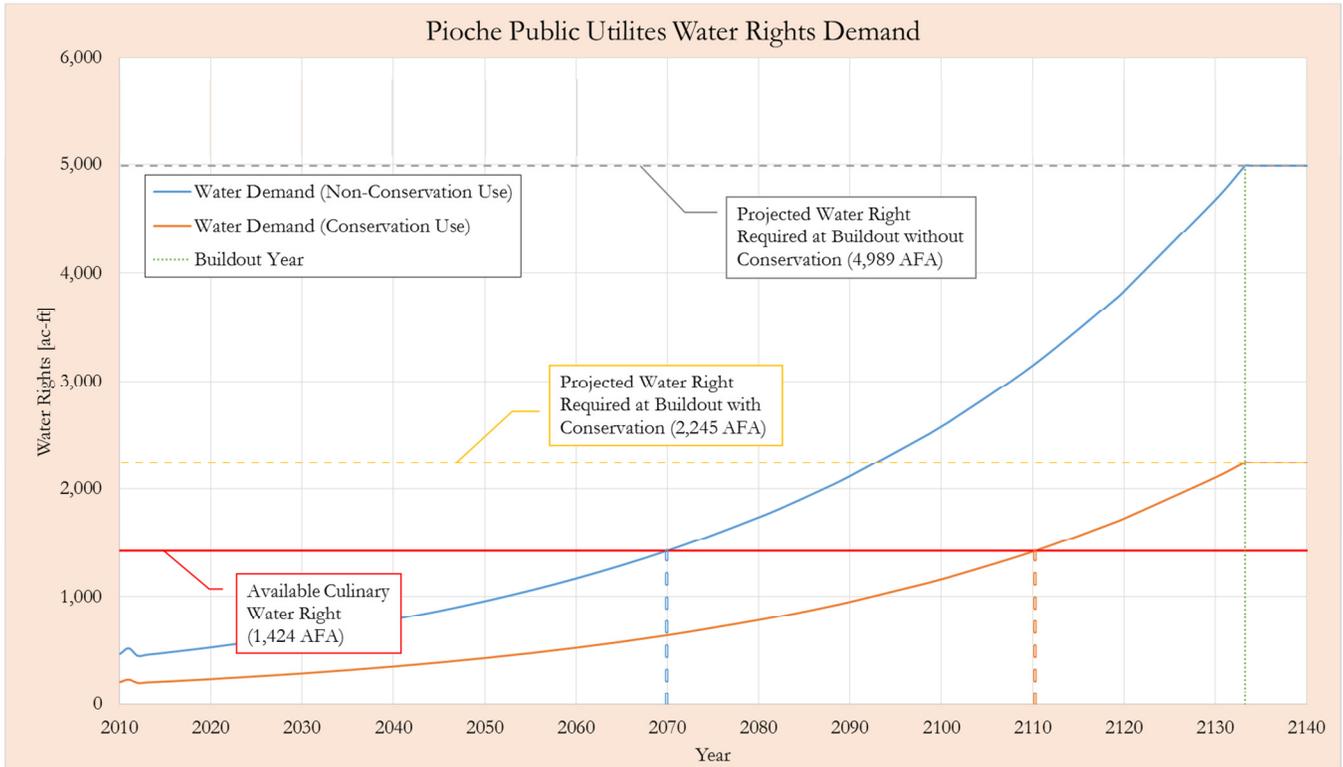


Figure III-E: Pioche Public Utilities Summary of Demand

I. TOQUOP TOWNSHIP

i. Growth Assumptions

Based on data provided by Lincoln County Planning and Zoning Department and information from Title 14 Toquop Township PUD in the Lincoln County Code, buildout conditions for the Toquop development were generated with a 6% annual population growth rate, an average of 2.69 people per residence, an average of 0.30 acres per residence, and residential ERUs assumed to comprise 67% of the total ERUs in the community. Table III-P summarizes the assumptions and data used to calculate the buildout condition and Table III-Q shows the water demand for the latest population estimate year and the buildout year. It was also assumed that homes in the area will be livable starting in the year 2020.

Table III-P: Toquop Growth Assumptions

Current Municipal Area	13,560	[ac]
Future Municipal Area	13,560	[ac]
Average Acreage per Residence	0.30	[ac/ERU]
Total ERUs at Buildout	44,747	[ERU]
Residential Population Density	2.69	[ppl/ERU]
Growth Rate	6.0%	-
Residential % of Total ERU	67%	-
Buildout Population	80,205	[ppl]

Table III-Q: Toquop Current and Future Water Use

Year	Population	Residential [ERU]	Commercial & Other [ERU]	Total [ERU]	Water Demand	
					Non-Conservative Use [AFA]	Conservative Use [AFA]
2020	800	298	149	446	446	201
2099	80,205	29,831	14,916	44,747	44,747	20,136

ii. Current Water Resources

Currently, Bighorn Ranch Land Investors, LLC, holds a permitted water right, Application No. 66932, with a duty balance of 2,100 AFA, which is designated for use in the Toquop development. Table III-R summarizes additional information on that particular water right. Current planning scenarios require the District to provide additional water rights which will be necessary to support growth in the community to buildout. The District will also own and operate the source and transmission infrastructure necessary to produce and deliver water to the community.

Table III-R: Toquop Water Rights Summary

APP #	STATUS	CERT #	BASIN	SOURCE	USE	POINT OF DIVERSION					ANNUAL DUTY [AFA]
						Qtr-Qtr	Qtr	Sec	Twp	Rng	
66932	PER		221	UG	MUN	SW	NW	4	10S	69E	2,100
											2,100.0

iii. Future Demand

Figure III-F shows that, with conservation, Toquop’s demand for water will exceed its supply of water rights in the year 2060 and be deficient 18,036 AFA at buildout. Without conservation Toquop’s demand for water will exceed its supply of water rights in the year 2046 and be deficient 42,647 AFA at buildout. This demand for water is expected to be satisfied by the District’s development of water resources in the Clover, Tule Desert, and Virgin River Valleys.

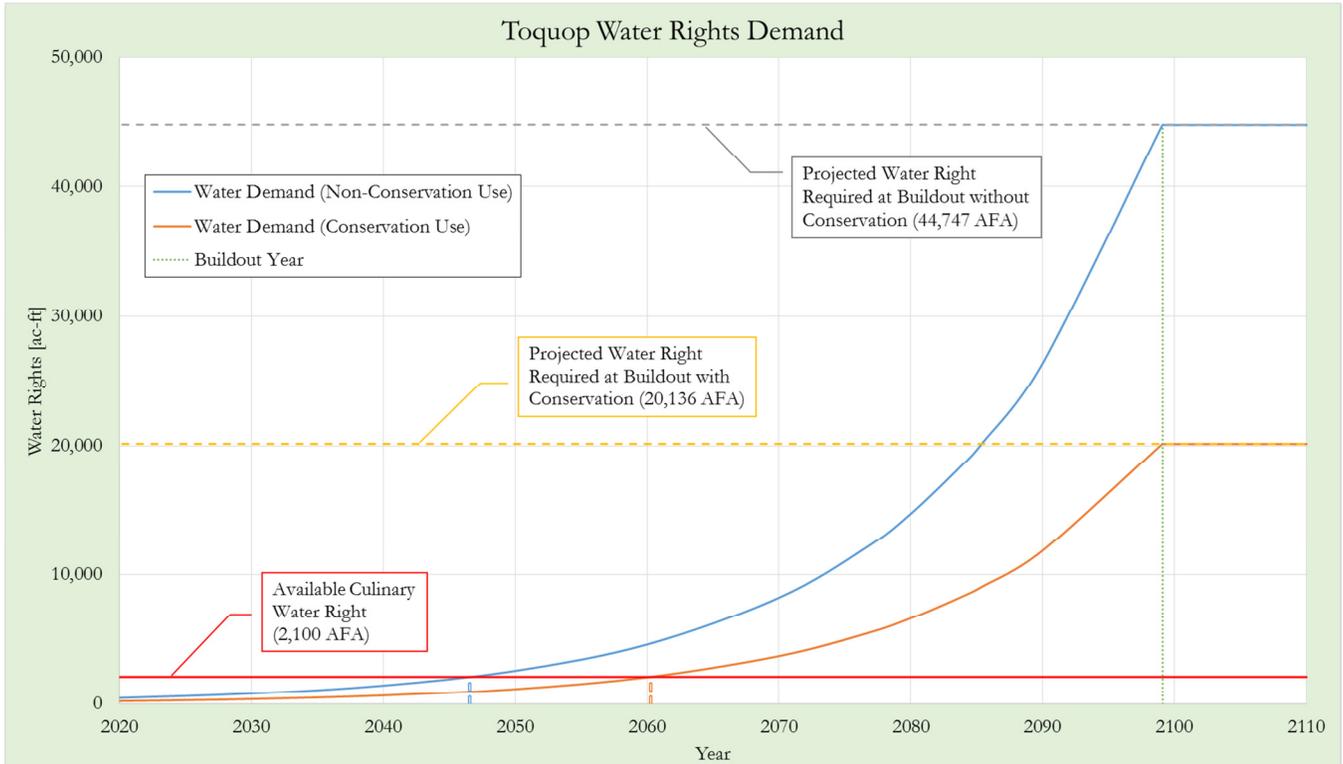


Figure III-F: Toquop Summary of Demand

J. TOQUOP POWER HOLDINGS

Toquop Energy, Inc. has been given a Notice to Proceed by the Bureau of Land Management to follow through with its plan to build a natural gas-fired power plant along the Western Wide Energy Corridor. Whereas water will be required for energy generation processes, Toquop Power Holdings has entered into an agreement with the District to purchase up to 7,240 AFA of water rights, though the expected total demand of the gas-fired power plant is 5,000 AFA when fully operational. It is intended that the demand will be satisfied by groundwater from the Clover, Tule Desert, and Virgin River Valleys.

K. MISCELLANEOUS POPULATION CLUSTERS

Other areas in the County which have measureable population densities are Hiko, Rachel, Ursine, and Mt. Wilson. All of these areas are on private land, but none have pending or planned BLM disposals, and all rely on private wells for water. There is no anticipated growth and no expected demand for future water resources. At this time, the District does not view these population clusters as representing areas of significant future water demand.

L. AGRICULTURE

Analyses undertaken as part of this planning effort have revealed that municipal water demands at buildout within the County will not reach the total amount of water resources (in terms of water rights) possessed by the District; in short, available water rights exceed the municipal demand in the County. This result is consistent with pre-plan expectations.

Early conversations in the planning process determined that excess water which was not “assigned” to serve a future municipal demand should be designated for specific agricultural or industrial use, thereby promoting the District’s mission which includes benefitting the economic development of Lincoln County. Later in the planning process, it was determined that, for planning purposes, all excess water rights would be characterized as agricultural water rights, under the assumption that future updates to this plan could include industrial uses when specific opportunities become available.

Quantifying the future municipal demand for water provided the subsequent ability to calculate and forecast the level of agricultural development that could be supported by excess water rights, or water rights not “assigned” to serve municipal demands. For planning purposes, the crop of alfalfa, commonly grown in the County, was used as the baseline crop, with an annual demand of 4.0 acre-feet of water per acre annually. It was assumed that agriculture would be developed within the basins where the water rights existed, i.e. that water would not be transported across basin boundaries for agricultural development.

Table 2 through Table 5 in Appendix A summarize four possible scenarios for agricultural development, depending on how many of the Districts water rights applications are eventually permitted by the State Engineer; Table 2 assumes that 100% of the applications will be permitted, Table 3 assumes that 75% of the applications will be permitted, Table 4 assumes that 50% of the applications will be permitted, and Table 5 assumes that 25% of the applications will be permitted. It is noted that the District expects and assumes that all applications will be permitted by the State Engineer, and the District will work with the State Engineer to that effect; the range of percentages is provided only to aid in understanding the effect of partial permitting.

Exhibits 4A, 4B, 4C, and 4D in Appendix B illustrate the location and magnitude of potential agricultural development in the various basins under the effects of full and partial permitting of the District’s water rights.

IV. SUSTAINABILITY

As noted previously, the District is committed to providing water resources for the benefit of the citizens of Lincoln County in a sustainable and environmentally sound manner. As the District continues to develop, policies and procedures will be implemented to ensure that this important commitment is maintained and that the District’s sustainability objectives are achieved. The District recognizes that its constituent citizens view environmental conditions as fundamental to the heritage, livelihood, and future of the County; with that point of view, it is the District’s intent to manage water resources in a sustainable manner.

A. CONSERVATION PLANNING

In the future, as the District seeks to maximize economic opportunity for the citizens of Lincoln County through its administration of water resources, certain conservation efforts may be considered which may include:

- Public outreach and education programs,
- Providing credit opportunities for water conservation by users,
- Providing assistance to users in implementing conservation measures,
- Developing water conservation demonstration projects, and
- Implementing secondary water re-use programs and systems.

Future conservation efforts implemented by the District should be goal-oriented, cost-effective and practical in design and implementation. Under this approach, the District should provide leadership in the County in the implementation and dissemination of water conservation practices. Under future conservation plans, the District will be able to delay the onset rate of water demands, delay the need and associated cost of new water supply and infrastructure, and expand economic potential to additional opportunities.

B. ENVIRONMENTAL CONSIDERATIONS

As noted, the District recognizes that its constituent citizens view environmental conditions as fundamental to the heritage, livelihood, and future of the County. Native flora and fauna species, geography, climate, history, and other environmental factors all contribute to the overall quality of life in the County.

Proper management of water resources, including ensuring that water development projects are justified, adequately mitigated, environmentally sound, and consistent with local plans and objectives, provides the best setting for ensuring that existing environmental conditions are maintained or, where necessary, improved.

It is the County’s intent, as it advances the development of water resources in manners consistent with its mission, to coordinate in partnership relationships with local, State, and Federal agencies for the preservation and enhancement of the Lincoln County environment, with all its factors.

V. RECOMMENDATIONS

Based on the thought processes and analyses conducted during development of this plan, and in consideration of the District’s mission to “provide, protect and develop the water resources within Lincoln County for the benefit of the citizens and for the economic development of Lincoln County”, the following recommendations are presented:

- In general, the District should actively invest in and work with partners, local entities and the State Engineer’s office to maximize the permitting of applied-for rights.
- The District should implement and maintain a management procedure that ensures the timely completion of administrative requirements appurtenant to water rights applications and permits.
- The communities of Pioche and Caliente will have water rights shortages at buildout; the District should seek partnering relationships with those communities to provide water rights to those communities when the need develops.
- The communities of Panaca and Alamo will have water rights excesses at buildout; the District should work with and help those communities seek ways to put all water resources to beneficial use.
- The Coyote Springs development constitutes a significant future demand for water resources; the District should devote considerable attention to preparing to provide water to that community.
- The Toquop Township development constitutes a significant future demand for water resources; the District should devote considerable attention to preparing to provide water to that community. In particular, the demand for municipal water will exceed permitted water rights if the State Engineer limits permitted rights to approximately 27% of the applied-for rights; the District should work with local entities and the State Engineer to ensure that adequate rights are available to support the development.
- Consistent with the data illustrated in Exhibits 2 through 5 in Appendix B, the District should seek implementation of agricultural development in the various hydrographic basins where water is available. This effort will include obtaining land for development through federal disposals, desert land entries, or leases. It will also include developing power resources.
- Hiko, Rachel, Ursine (Eagle Valley) and Mt. Wilson all have measurable private land acreages where water needs are met via private wells. While this condition is not expected to change in the near term, there may be a long term need that could be satisfied by the District.
- While prior agreements or public sentiment may prefer providing water from Garden and Coal Valleys to Coyote Springs, a cursory review suggests that it could be more economical to provide water to Coyote Springs from Hamlin and Patterson Valleys. The District may consider reviewing alternatives there. This recommendation is based on the proximity of SNWA’s groundwater development pipeline to Hamlin and Patterson Valleys.

SECTION V – RECOMMENDATIONS

- The District should work with the communities of Pioche, Panaca and Alamo for the development of detailed land use plans which capture development objectives, balance residential vs. commercial and industrial zoning for economic sustainability, and refine population projections. The District should then update water demand projections against available water rights in those communities based on the more detailed land use plans.
- The District should, as needed, update this Water Resource Plan to reflect changes in the status of water rights and potential demands. A typical update frequency is five years, but the frequency may be shortened or extended based on current development conditions.

VI. BIBLIOGRAPHY

Community Data

A Water Plan for Lincoln County, March, 2001, Resource Concepts, Inc.

Envision Caliente, December, 2011, Winston Associates, Inc.

Caliente Culinary Water Capital Improvements Plan, March, 2012, Sunrise Engineering, Inc.

Coyote Springs-Lincoln County Consolidated GID Culinary Water Capital Improvements Plan, February, 2010, Sunrise Engineering, Inc.

Water Rights Data

<http://water.nv.gov/waterrights/>

NV Land Ownership

http://www.blm.gov/nv/st/en/prog/more_programs/geographic_sciences/gis/geospatial_data.html

Demographic Data

<http://nvdemography.org/wp-content/uploads/2013/03/2012-NV-Pop-Estimates.pdf>

<http://nvdemography.org/wp-content/uploads/2011/05/Lincoln.pdf>

<http://nvdemography.org/wp-content/uploads/2012/02/Caliente-city-Lincoln-County.pdf>

Toquop Township Codes

http://www.sterlingcodifiers.com/codebook/index.php?book_id=612

Toquop Energy Data

http://www.blm.gov/nv/st/en/fo/ely_field_office/blm_programs/energy/toquop_energy.html

<http://letstalknevada.com/toquop-lincoln-county-water-deals/>

Energy Corridor Alignments

<http://www.geocommunicator.gov/ARCGIS/REST/services/ROW/MapServer>

<http://www.blm.gov/pgdata/content/wy/en/info/NEPA/documents/hdd/transwest.html>

APPENDIX A

MISCELLANEOUS TABLES

Table 1: LCWD Active Water Rights

App. No.	Owner*	Basin	Basin Name	Status**	Use***	Qtr-Qtr	Qtr	Section	Township	Range	Duty****	Notes
53957	LCWD	171	Coal V.	RFA(P)	MUN	SW	SE	23	02S	59E	4343.82	Permitted duties on this water right will be routed to Coyote Springs GID
53959	LCWD	171	Coal V.	RFA(P)	MUN	SE	SW	6	03S	60E	7239.70	Permitted duties on this water right will be routed to Coyote Springs GID
64672	LCWD	171	Coal V.	RFA(P)	IRR	SW	SW	15	02N	60E	6400.00	This water right will be used locally for irrigation purposes
64673	LCWD	171	Coal V.	RFA(P)	IRR	NE	NW	11	02S	59E	6400.00	This water right will be used locally for irrigation purposes
72944	LCWD	171	Coal V.	RFA(P)	MUN	SW	SW	15	02N	60E	4343.82	Permitted duties on this water right will be routed to Coyote Springs GID
72945	LCWD	171	Coal V.	RFA(P)	MUN	NE	NW	11	02S	59E	4343.82	Permitted duties on this water right will be routed to Coyote Springs GID
53960	LCWD	172	Garden V.	RFA(P)	MUN	NW	NW	30	01S	58E	4343.91	Permitted duties on this water right will be routed to Coyote Springs GID
53963	LCWD	172	Garden V.	RFA(P)	MUN	SE	NW	24	02S	57E	7239.84	Permitted duties on this water right will be routed to Coyote Springs GID
64676	LCWD	172	Garden V.	RFA(P)	IRR	SW	SE	7	02N	58E	7240.00	The application says this will be used locally for irrigation
64677	LCWD	172	Garden V.	RFA(P)	IRR	NE	NW	18	01S	58E	7240.00	The application says this will be used locally for irrigation
64670	LCWD	180	Cave V.	RFA(P)	IRR	SE	NE	8	05N	63E	5210.00	LCWD expects no water from this application; if any is received, it'll be routed to Coyote Springs GID
64671	LCWD	180	Cave V.	RFA(P)	IRR	NE	SE	9	08N	64E	5210.00	LCWD expects no water from this application; if any is received, it'll be routed to Coyote Springs GID
80648	LCWD	181	Dry Lake V.	PER	IRR	NE	SE	5	01S	65E	504.50	LCWD was permitted 1,009 AFA in Basin 181
80649	LCWD	181	Dry Lake V.	PER	IRR	NE	SE	5	01S	65E	504.50	LCWD was permitted 1,009 AFA in Basin 181
53989	SNWA	181	Dry Lake V.	PER	MUN	SE	SW	30	02S	64E	562.50	Lincoln County is receiving 1,500 AFA from SNWA per agreement
53990	SNWA	181	Dry Lake V.	PER	MUN	NE	SE	8	02S	65E	937.50	Lincoln County is receiving 1,500 AFA from SNWA per agreement
53991	SNWA	182	Delamar V.	PER	MUN	SE	NE	4	05S	63E	627.38	By agreement, 1,500 AFA will be routed to Lincoln County by SNWA
53992	SNWA	182	Delamar V.	PER	MUN	NE	NE	15	06S	64E	872.62	By agreement, 1,500 AFA will be routed to Lincoln County by SNWA
?	CSI	183	Lake V.	PER	MUN	SW	SW	18	09N	66E	11300.00	By agreement, 11,300 AFA, owned by CSI or its successors, will be wheeled by LCWD to Coyote Springs GID
64684	LCWD	196	Hamlin V.	RFA(P)	IRR	SE	SE	10	08N	70E	7240.00	The application states this is for use in Hamlin Valley
64685	LCWD	196	Hamlin V.	RFA(P)	IRR	NW	SW	7	09N	70E	7240.00	The application states this is for use in Hamlin Valley
72907	LCWD	196	Hamlin V.	RFA(P)	MUN	SE	SE	10	08N	70E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
72908	LCWD	196	Hamlin V.	RFA(P)	MUN	NW	SW	7	09N	70E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
73323	LCWD	196	Hamlin V.	RFA	MUN	SE	SE	10	08N	70E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
73324	LCWD	196	Hamlin V.	RFA	MUN	NW	SW	7	09N	70E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
54031	LCWD	202	Patterson V.	RFA(P)	MUN	SE	SE	17	02N	67E	4343.84	The application states that water may be served and beneficially used by lawful users within Lincoln, Nye, and White Pine Counties, or within service area of LVVWD
54032	LCWD	202	Patterson V.	RFA(P)	MUN	NW	NE	13	01N	67E	4343.91	The application states that water may be served and beneficially used by lawful users within Lincoln, Nye, and White Pine Counties, or within service area of LVVWD
54033	LCWD	202	Patterson V.	RFA(P)	MUN	SE	NW	20	03N	68E	7239.84	The application states that water may be served and beneficially used by lawful users within Lincoln, Nye, and White Pine Counties, or within service area of LVVWD
54034	LCWD	202	Patterson V.	RFA(P)	MUN	SE	NW	6	01N	69E	7239.72	The application states that water may be served and beneficially used by lawful users within Lincoln, Nye, and White Pine Counties, or within service area of LVVWD
77326	LCWD	202	Patterson V.	RFA	IRR	NE	SW	32	02N	67E	7240.00	This application changes 64686; The application says "APPLIED FOR DIVERSION RATE ONLY, DUTY BASE ON 1280 ACRES @ 4 AF / ACRE"
77327	LCWD	202	Patterson V.	RFA	IRR	NW	SE	24	02N	66E	7240.00	This application changes 64686; The application says "APPLIED FOR DIVERSION RATE ONLY, DUTY BASE ON 1280 ACRES @ 4 AF / ACRE"
67964	LCWD	204	Clover V.	RFA(P)	MUN	SW	SE	2	06S	68E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
67965	LCWD	204	Clover V.	RFA(P)	MUN	NE	SW	6	06S	69E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
67966	LCWD	204	Clover V.	RFA(P)	MUN	NE	SW	11	06S	69E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
67967	LCWD	204	Clover V.	RFA(P)	MUN	NE	NE	3	06S	70E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
79358	LCWD	204	Clover V.	RFA(P)	MUN	NE	NE	3	06S	70E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
79359	LCWD	204	Clover V.	RFA(P)	MUN	NE	SW	11	06S	69E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
79360	LCWD	204	Clover V.	RFA(P)	MUN	NE	SW	6	06S	69E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
79361	LCWD	204	Clover V.	RFA(P)	MUN	SW	SE	2	06S	68E	3620.00	The application states that this water is to be used in southeastern Lincoln County, generally
74147	LCWD	206	Kane Springs V.	RFA(P)	MUN	SW	SE	25	08S	65E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
74148	LCWD	206	Kane Springs V.	RFA(P)	MUN	SE	SW	31	09S	65E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
74149	LCWD	206	Kane Springs V.	RFA(P)	MUN	SE	SW	6	11S	64E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
74150	LCWD	206	Kane Springs V.	RFA(P)	MUN	SE	SW	11	09S	65E	4344.00	The application states that the place of use is the Coyote Springs Valley Hydrographic Basin (210)
54043	LCWD	208	Pahroc V.	RFA(P)	MUN	NE	SE	35	03N	62E	4344.00	This water right is intended to serve Coyote Springs
54044	LCWD	208	Pahroc V.	RFA(P)	MUN	SW	NE	19	02N	63E	4344.00	This water right is intended to serve Coyote Springs
54045	LCWD	208	Pahroc V.	RFA(P)	MUN	SE	NW	14	01N	62E	7240.00	This water right is intended to serve Coyote Springs
54046	LCWD	208	Pahroc V.	RFA(P)	MUN	NW	SE	29	01S	62E	7240.00	This water right is intended to serve Coyote Springs
54047	LCWD	208	Pahroc V.	RFA(P)	MUN	NW	SW	33	02S	61E	7240.00	This water right is intended to serve Coyote Springs
54048	LCWD	208	Pahroc V.	RFA(P)	MUN	SE	NE	22	02N	62E	7240.00	This water right is intended to serve Coyote Springs
54049	LCWD	208	Pahroc V.	RFA(P)	MUN	NE	NE	8	02S	62E	7240.00	This water right is intended to serve Coyote Springs
71724	LCWD	208	Pahroc V.	RFA(P)	MUN	NE	SE	2	02N	62E	7240.00	This application changes 64690; this application is designated for use in the Coyote Springs Valley
71725	LCWD	208	Pahroc V.	RFA(P)	MUN	SE	SE	31	01S	62E	7240.00	This application changes 64691; this application is designated for use in the Coyote Springs Valley
73331	LCWD	208	Pahroc V.	RFA	MUN	NE	SE	2	02N	62E	4344.00	This application changes 72948; this application is designated for use in Lincoln County
73332	LCWD	208	Pahroc V.	RFA	MUN	SE	SE	31	01S	62E	4344.00	This application changes 72949; this application is designated for use in Lincoln County
76285	LCWD	221	Tule Desert	RFA(P)	MUN	SE	SW	6	10S	69E	3620.00	This application is for use in the Toquop area
76286	LCWD	221	Tule Desert	RFA(P)	MUN	SW	NW	2	09S	69E	3620.00	This application is for use in the Toquop area
76287	LCWD	221	Tule Desert	RFA(P)	MUN	NW	SE	27	09S	68E	3620.00	This application is for use in the Toquop area
76288	LCWD	221	Tule Desert	RFA(P)	MUN	SW	SW	1	08S	69E	3620.00	This application is for use in the Toquop area
76289	LCWD	221	Tule Desert	RFA(P)	MUN	NE	NW	31	10S	69E	3620.00	This application is for use in the Toquop area
76290	LCWD	221	Tule Desert	RFA(P)	MUN	NW	NE	29	09S	69E	3620.00	This application is for use in the Toquop area
83001	LCWD	221	Tule Desert	PER	MUN	SE	SW	6	10S	69E	7240.00	The application states "THIS PERMIT IS INITIALLY LIMITED TO 2,900 ACRE-FEET ANNUALLY", but may be increased to 7240 if monitoring shows available water
64694	LCWD	222	Virgin River V.	RFA(P)	MUN	SE	NE	17	11S	69E	7240.00	The application states that this water is to be used for development within the southeast area of Lincoln County
64695	LCWD	222	Virgin River V.	RFA(P)	MUN	NE	SE	32	12S	71E	7240.00	The application states that this water is to be used for development within the southeast area of Lincoln County
79356	LCWD	222	Virgin River V.	RFA(P)	MUN	SE	NE	17	11S	69E	7240.00	The application states that the water is to be used for the future growth and development of the LCCRDA property in the southeast area of Lincoln County
79357	LCWD	222	Virgin River V.	RFA(P)	MUN	NE	SE	32	12S	71E	7240.00	The application states that the water is to be used for the future growth and development of the LCCRDA property in the southeast area of Lincoln County

*Owner → LCWD = Lincoln County Water District (with Vidler Water Company on various water rights), CSI = Coyote Springs Investments (or successors), SNWA = Southern Nevada Water Authority

**Status → RFA = Ready for Action, RFA(P) = Ready for Action (Protested), PER = Permitted

***Use → MUN = Municipal, IRR = Irrigation

****Duty → The annual duty shown is the permitted duty or the application duty, in that order of priority.

Table 2: Agricultural Demands with 100% Approval of Pending Applications.

Basin Name	Basin Number	Application Duty [AFA]	Assumed Permit Duty [AFA]	Primary Place of Use [POU]*	Water to Municipal Use [AFA]	Water To Agricultural Use [AFA]	Irrigated Acres of Alfalfa**	No. of 125-Acre Alfalfa Pivots	No. of 640-Acre Surveyed Sections
Coal Valley	171	33,071.16	33,071.16	Coyote Springs	1,000.00	32,071.16	8,018	64.1	16.0
Garden Valley	172	26,063.75	26,063.75	Coyote Springs	1,000.00	25,063.75	6,266	50.1	12.5
Cave Valley	180	10,420.00	10,420.00	Coyote Springs	0.00	10,420.00	2,605	20.8	5.2
Dry Lake Valley	181	2,509.00	2,509.00	Coyote Springs	2,509.00	0.00	0	0.0	0.0
Delamar Valley	182	1,500.00	1,500.00	Coyote Springs	1,500.00	0.00	0	0.0	0.0
Lake Valley	183	11,300.00	11,300.00	Coyote Springs	11,300.00	0.00	0	0.0	0.0
Hamlin Valley	196	31,856.00	31,856.00	Local Agriculture	0.00	31,856.00	7,964	63.7	15.9
Patterson Valley	202	37,647.31	37,647.31	Pioche	821.00	36,826.31	9,207	73.7	18.4
Clover Valley	204	28,960.00	28,960.00	Toquop/Caliente	7,864.00	21,096.00	5,274	42.2	10.5
Kane Springs Valley	206	17,376.00	17,376.00	Coyote Springs	1,000.00	16,376.00	4,094	32.8	8.2
Pahroc Valley	208	68,056.00	68,056.00	Coyote Springs	5,000.00	63,056.00	15,764	126.1	31.5
Tule Desert	221	28,960.00	28,960.00	Toquop	7,864.00	21,096.00	5,274	42.2	10.5
Virgin River Valley	222	28,960.00	28,960.00	Toquop	7,864.00	21,096.00	5,274	42.2	10.5
TOTALS	~	326,679.22	326,679.22	~	47,722.00	278,957.22	69,739	557.9	139.5

*The primary place of use is assumed to be the municipal or industrial location so designated; permitted rights in excess of the baseline municipal or industrial use are assumed to be used for local agriculture, the initial crop assumed to be alfalfa.

**This calculation assumes a demand of 4.0 acre-feet of water per acre of alfalfa grown annually.

Table 3: Agricultural Demands with 75% Approval of Pending Applications.

Basin Name	Basin Number	Application Duty [AFA]	Assumed Permit Duty [AFA]	Primary Place of Use [POU]*	Water to Municipal Use [AFA]	Water To Agricultural Use [AFA]	Irrigated Acres of Alfalfa**	No. of 125-Acre Alfalfa Pivots	No. of 640-Acre Surveyed Sections
Coal Valley	171	33,071.16	24,803.37	Coyote Springs	1,000.00	23,803.37	5,951	47.6	11.9
Garden Valley	172	26,063.75	19,547.81	Coyote Springs	1,000.00	18,547.81	4,637	37.1	9.3
Cave Valley	180	10,420.00	7,815.00	Coyote Springs	0.00	7,815.00	1,954	15.6	3.9
Dry Lake Valley	181	2,509.00	2,509.00	Coyote Springs	2,509.00	0.00	0	0.0	0.0
Delamar Valley	182	1,500.00	1,500.00	Coyote Springs	1,500.00	0.00	0	0.0	0.0
Lake Valley	183	11,300.00	11,300.00	Coyote Springs	11,300.00	0.00	0	0.0	0.0
Hamlin Valley	196	31,856.00	23,892.00	Local Agriculture	0.00	23,892.00	5,973	47.8	11.9
Patterson Valley	202	37,647.31	28,235.48	Pioche	821.00	27,414.48	6,854	54.8	13.7
Clover Valley	204	28,960.00	21,720.00	Toquop/Caliente	7,864.00	13,856.00	3,464	27.7	6.9
Kane Springs Valley	206	17,376.00	13,032.00	Coyote Springs	1,000.00	12,032.00	3,008	24.1	6.0
Pahroc Valley	208	68,056.00	51,042.00	Coyote Springs	5,000.00	46,042.00	11,511	92.1	23.0
Tule Desert	221	28,960.00	21,720.00	Toquop	7,864.00	13,856.00	3,464	27.7	6.9
Virgin River Valley	222	28,960.00	21,720.00	Toquop	7,864.00	13,856.00	3,464	27.7	6.9
TOTALS	~	326,679.22	248,836.66	~	47,722.00	201,114.66	50,279	402.2	100.6

*The primary place of use is assumed to be the municipal or industrial location so designated; permitted rights in excess of the baseline municipal or industrial use are assumed to be used for local agriculture, the initial crop assumed to be alfalfa.

**This calculation assumes a demand of 4.0 acre-feet of water per acre of alfalfa grown annually.

Table 4: Agricultural Demands with 50% Approval of Pending Applications.

Basin Name	Basin Number	Application Duty [AFA]	Assumed Permit Duty [AFA]	Primary Place of Use [POU]*	Water to Municipal Use [AFA]	Water To Agricultural Use [AFA]	Irrigated Acres of Alfalfa**	No. of 125-Acre Alfalfa Pivots	No. of 640-Acre Surveyed Sections
Coal Valley	171	33,071.16	16,535.58	Coyote Springs	1,000.00	15,535.58	3,884	31.1	7.8
Garden Valley	172	26,063.75	13,031.87	Coyote Springs	1,000.00	12,031.87	3,008	24.1	6.0
Cave Valley	180	10,420.00	5,210.00	Coyote Springs	0.00	5,210.00	1,303	10.4	2.6
Dry Lake Valley	181	2,509.00	2,509.00	Coyote Springs	2,509.00	0.00	0	0.0	0.0
Delamar Valley	182	1,500.00	1,500.00	Coyote Springs	1,500.00	0.00	0	0.0	0.0
Lake Valley	183	11,300.00	11,300.00	Coyote Springs	11,300.00	0.00	0	0.0	0.0
Hamlin Valley	196	31,856.00	15,928.00	Local Agriculture	0.00	15,928.00	3,982	31.9	8.0
Patterson Valley	202	37,647.31	18,823.66	Pioche	821.00	18,002.66	4,501	36.0	9.0
Clover Valley	204	28,960.00	14,480.00	Toquop/Caliente	7,864.00	6,616.00	1,654	13.2	3.3
Kane Springs Valley	206	17,376.00	8,688.00	Coyote Springs	1,000.00	7,688.00	1,922	15.4	3.8
Pahroc Valley	208	68,056.00	34,028.00	Coyote Springs	5,000.00	29,028.00	7,257	58.1	14.5
Tule Desert	221	28,960.00	14,480.00	Toquop	7,864.00	6,616.00	1,654	13.2	3.3
Virgin River Valley	222	28,960.00	14,480.00	Toquop	7864.00	6616.00	1654	13.2	3.3
TOTALS	~	326,679.22	170,994.11	~	47,722.00	123,272.11	30,818	246.5	61.6

*The primary place of use is assumed to be the municipal or industrial location so designated; permitted rights in excess of the baseline municipal or industrial use are assumed to be used for local agriculture, the initial crop assumed to be alfalfa.

**This calculation assumes a demand of 4.0 acre-feet of water per acre of alfalfa grown annually.

Table 5: Agricultural Demands with 25% Approval of Pending Applications.

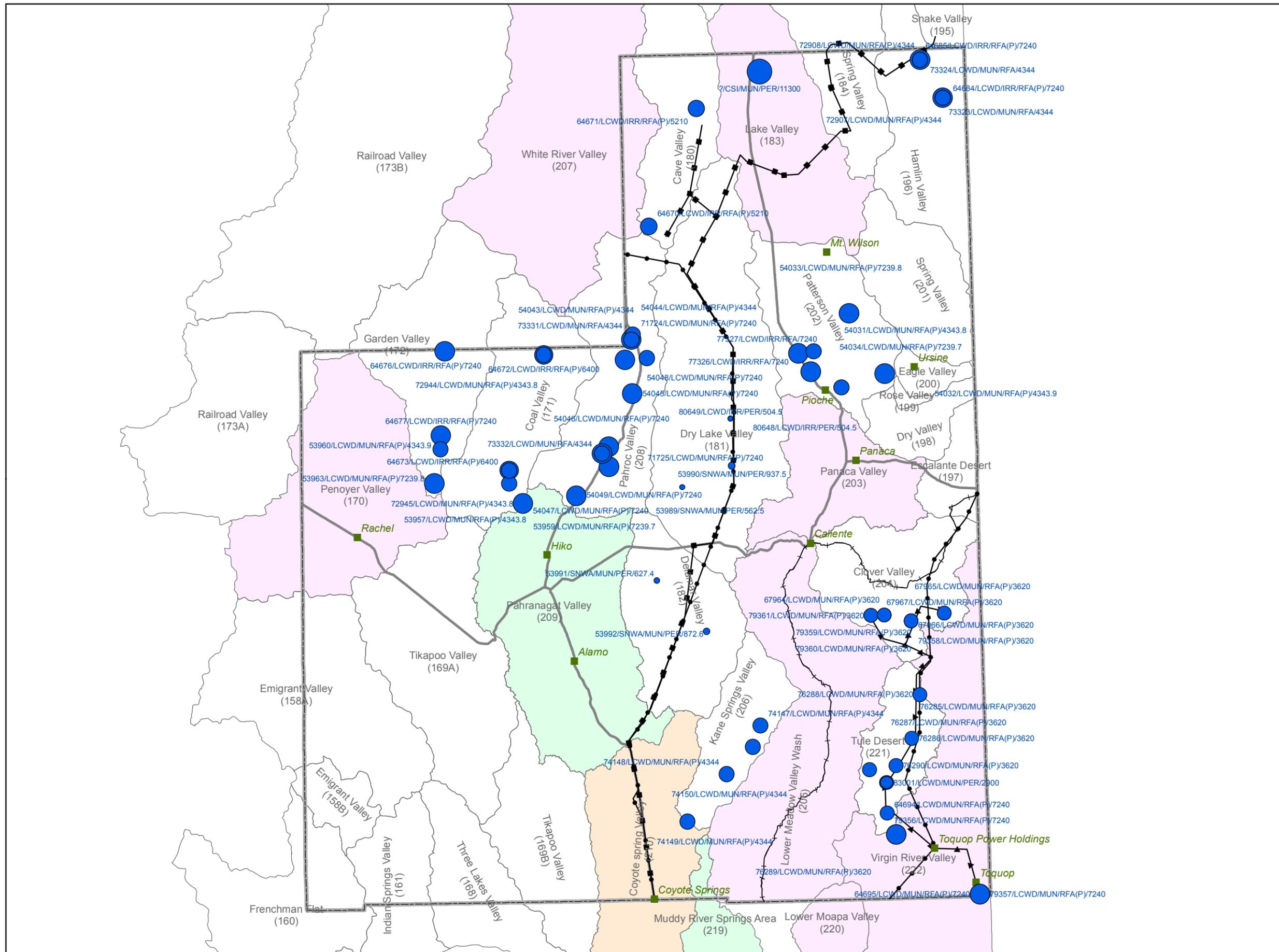
Basin Name	Basin Number	Application Duty [AFA]	Assumed Permit Duty [AFA]	Primary Place of Use [POU]*	Water to Municipal Use [AFA]	Water To Agricultural Use [AFA]	Irrigated Acres of Alfalfa**	No. of 125-Acre Alfalfa Pivots	No. of 640-Acre Sections in Pivots
Coal Valley	171	33,071.16	8,267.79	Coyote Springs	1,000.00	7,267.79	1,817	14.5	3.6
Garden Valley	172	26,063.75	6,515.94	Coyote Springs	1,000.00	5,515.94	1,379	11.0	2.8
Cave Valley	180	10,420.00	2,605.00	Coyote Springs	0.00	2,605.00	651	5.2	1.3
Dry Lake Valley	181	2,509.00	2,509.00	Coyote Springs	2,509.00	0.00	0	0.0	0.0
Delamar Valley	182	1,500.00	1,500.00	Coyote Springs	1,500.00	0.00	0	0.0	0.0
Lake Valley	183	11,300.00	11,300.00	Coyote Springs	11,300.00	0.00	0	0.0	0.0
Hamlin Valley	196	31,856.00	7,964.00	Local Agriculture	0.00	7,964.00	1,991	15.9	4.0
Patterson Valley	202	37,647.31	9,411.83	Pioche	821.00	8,590.83	2,148	17.2	4.3
Clover Valley	204	28,960.00	7,240.00	Toquop/Caliente	7,240.00	0.00	0	0.0	0.0
Kane Springs Valley	206	17,376.00	4,344.00	Coyote Springs	1,000.00	3,344.00	836	6.7	1.7
Pahroc Valley	208	68,056.00	17,014.00	Coyote Springs	5,000.00	12,014.00	3,004	24.0	6.0
Tule Desert	221	28,960.00	7,240.00	Toquop	7,240.00	0.00	0	0.0	0.0
Virgin River Valley	222	28,960.00	7,240.00	Toquop	7240.00	0.00	0	0.0	0.0
TOTALS	~	326,679.22	93,151.55	~	45,850.00	47,301.55	11,825	94.6	23.7

*The primary place of use is assumed to be the municipal or industrial location so designated; permitted rights in excess of the baseline municipal or industrial use are assumed to be used for local agriculture, the initial crop assumed to be alfalfa.

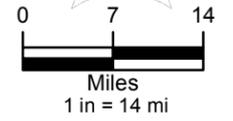
**This calculation assumes a demand of 4.0 acre-feet of water per acre of alfalfa grown annually.

APPENDIX B

MISCELLANEOUS FIGURES



MAP LEGEND



Basin Status

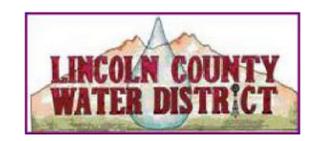
- Open
- Designated
- Preferred Use
- Preferred Use - Irrigation Denied

Application Water Rights (ac-ft)

- 1,000
- 2,500
- 5,000
- 10,000

- Towns & Cities
- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- County Boundary

Label Format:
Application/Owner/Use/Status/Duty

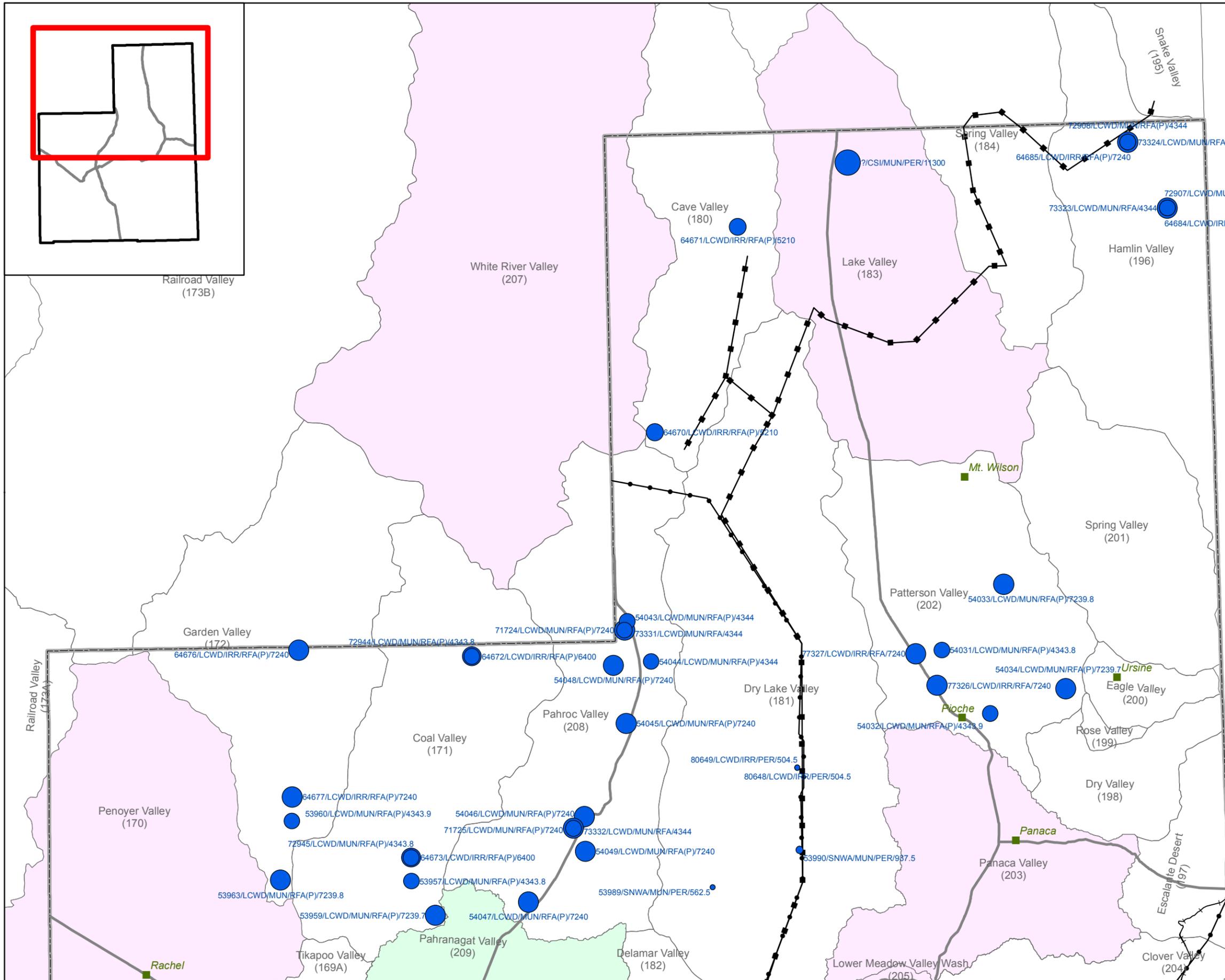
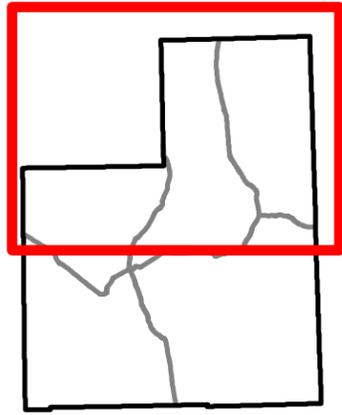


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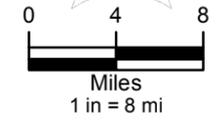
LINCOLN COUNTY WATER DISTRICT
WATER RESOURCE PLAN
WATER RIGHTS - APPLICATION DUTY

DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP

EX 1



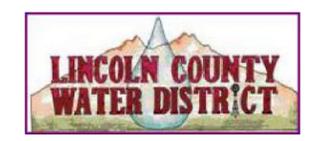
MAP LEGEND



- Basin Status**
- Open
 - Designated
 - Preferred Use
 - Preferred Use - Irrigation Denied

- Application Water Rights (ac-ft)**
- 1,000
 - 2,500
 - 5,000
 - 10,000
 - Towns & Cities
 - SNWA Pipeline
 - Toquop Pipeline
 - Power Lines
 - Railroads
 - Highways
 - County Boundary

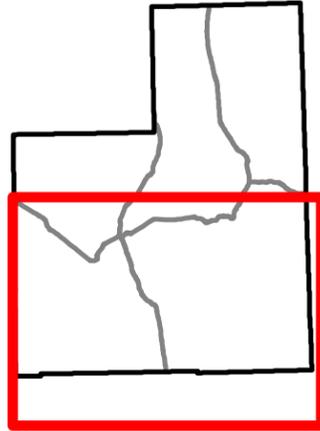
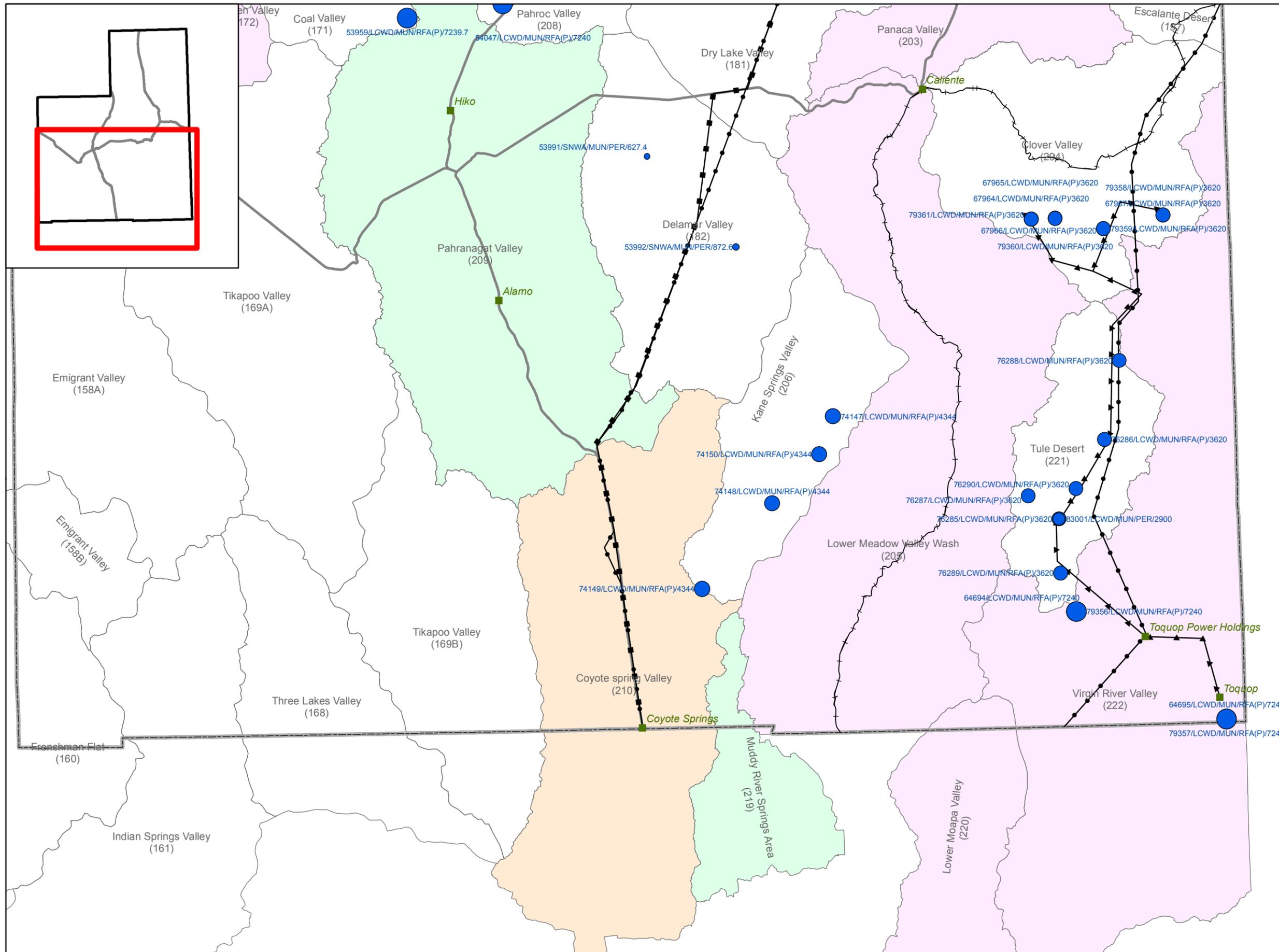
Label Format:
Application/Owner/Use/Status/Duty



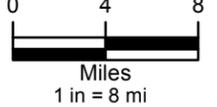
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LINCOLN COUNTY WATER DISTRICT
WATER RESOURCE PLAN
WATER RIGHTS - APPLICATION DUTY

DESIGNED	DRAWN	CHECKED	SHEET NO.	
04723	KCS	KCS	JKP	EX 1A



MAP LEGEND



Basin Status

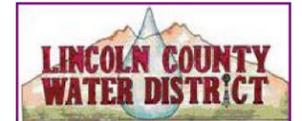
- Open
- Designated
- Preferred Use
- Preferred Use - Irrigation Denied

Application Water Rights (ac-ft)

- 1,000
- 2,500
- 5,000
- 10,000

- Towns & Cities
- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- County Boundary

Label Format:
Application/Owner/Use/Status/Duty

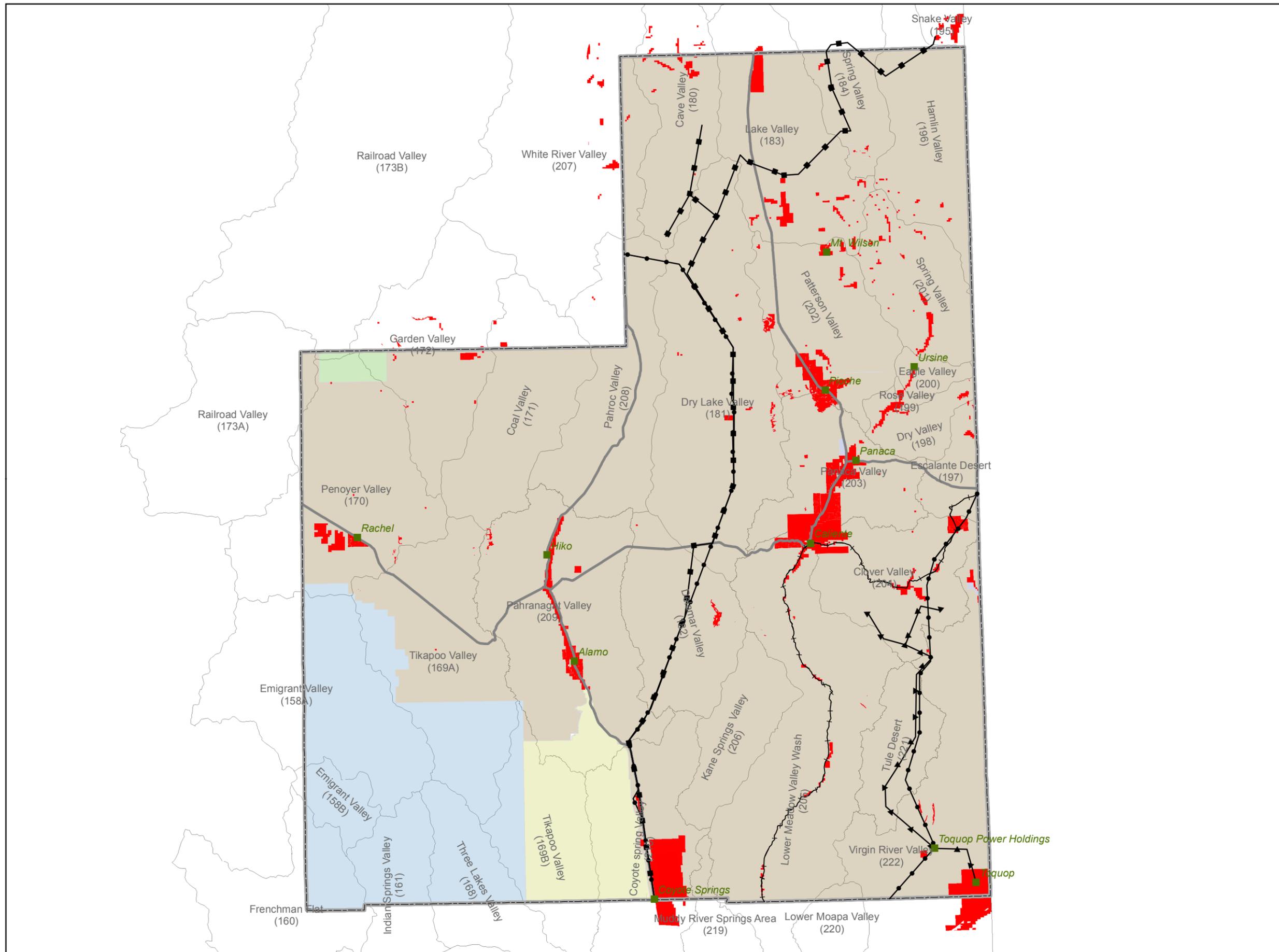


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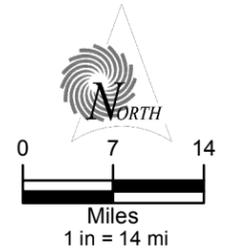
LINCOLN COUNTY WATER DISTRICT
WATER RESOURCE PLAN
WATER RIGHTS - APPLICATION DUTY

DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP

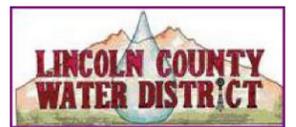
EX 1B



MAP LEGEND



- Towns and Cities
- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- County Boundary
- Private
- Land Owners**
- Bureau of Land Management
- Department of Defense
- Fish and Wildlife Service
- Forest Service
- Nevada State

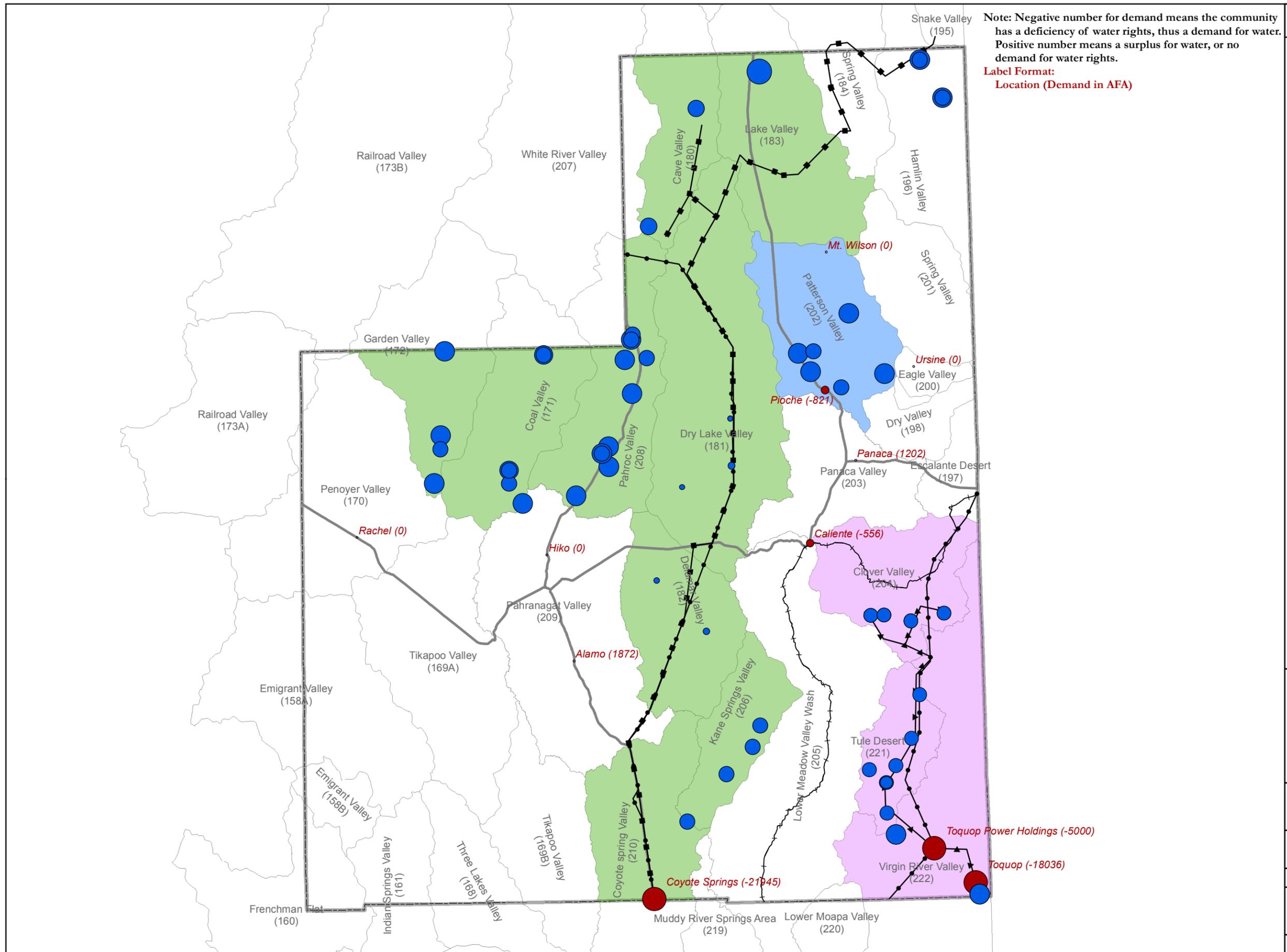


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LINCOLN COUNTY WATER DISTRICT

**WATER RESOURCE PLAN
 PRIVATE HOLDING MAP**

REV. NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP	EX 2



MAP LEGEND

Municipal Demands (ac-ft)

- 0 - 1872
- 1000 - 0
- 2500 - -1000
- 5000 - -2500
- 21945 - -5000

Application Water Rights (ac-ft)

- 1,000
- 2,500
- 5,000
- 10,000

- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- Pioche Source Area
- Caliente & Toquop Source Area
- Coyote Springs Source Area
- County Boundary

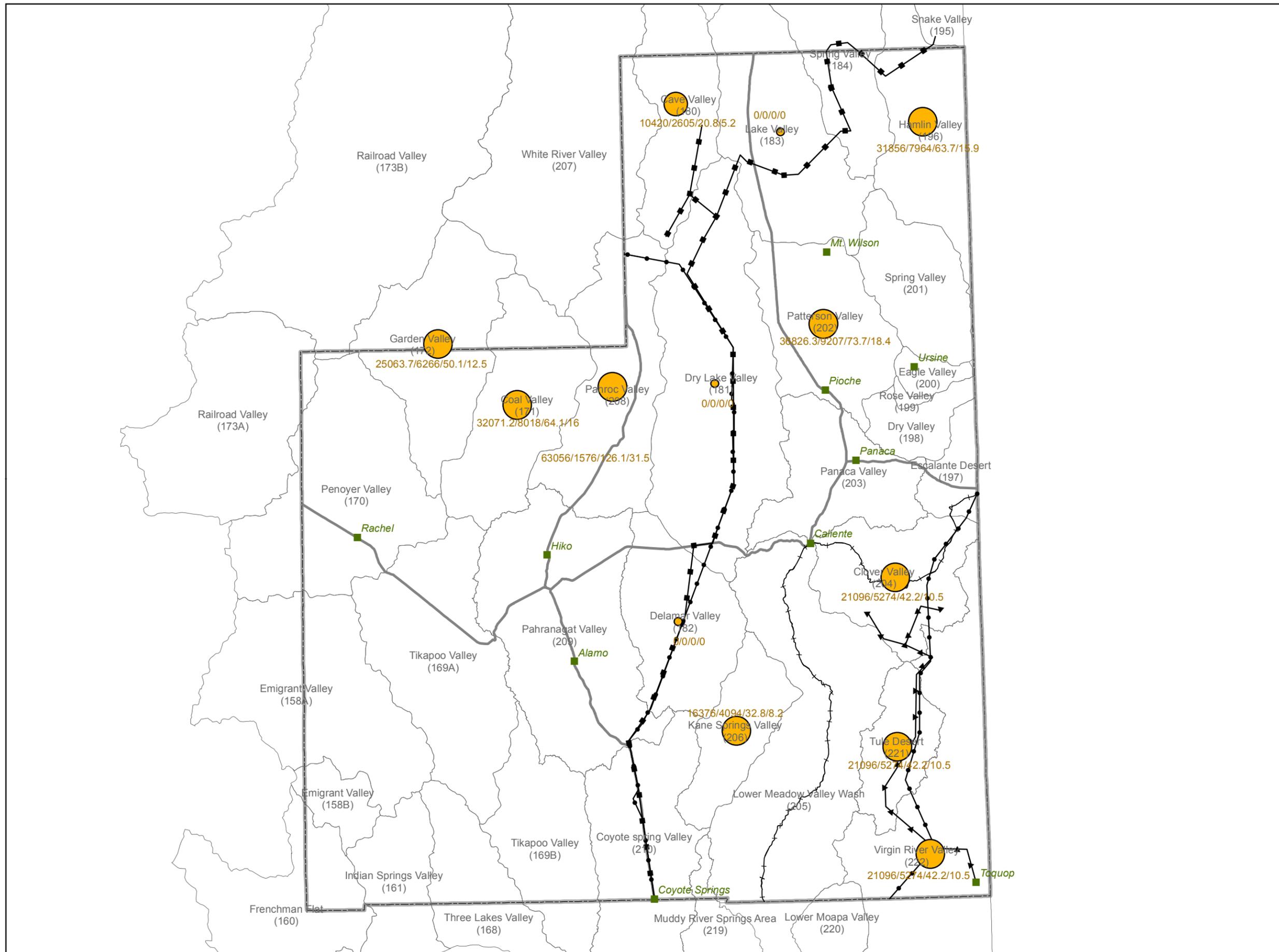
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LINCOLN COUNTY WATER DISTRICT

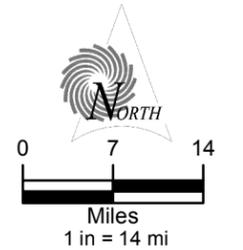
MUNICIPAL DEMAND SOURCE AREAS

DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP

EX 3



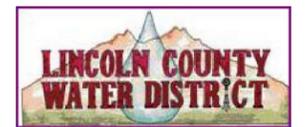
MAP LEGEND



Agricultural Demands (ac-ft)

- 0
- 1 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 63,056
- Towns & Cities
- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- County Boundary

Label Format:
 Duty/Alfalfa Acreage/125-ac Pivots/Sections

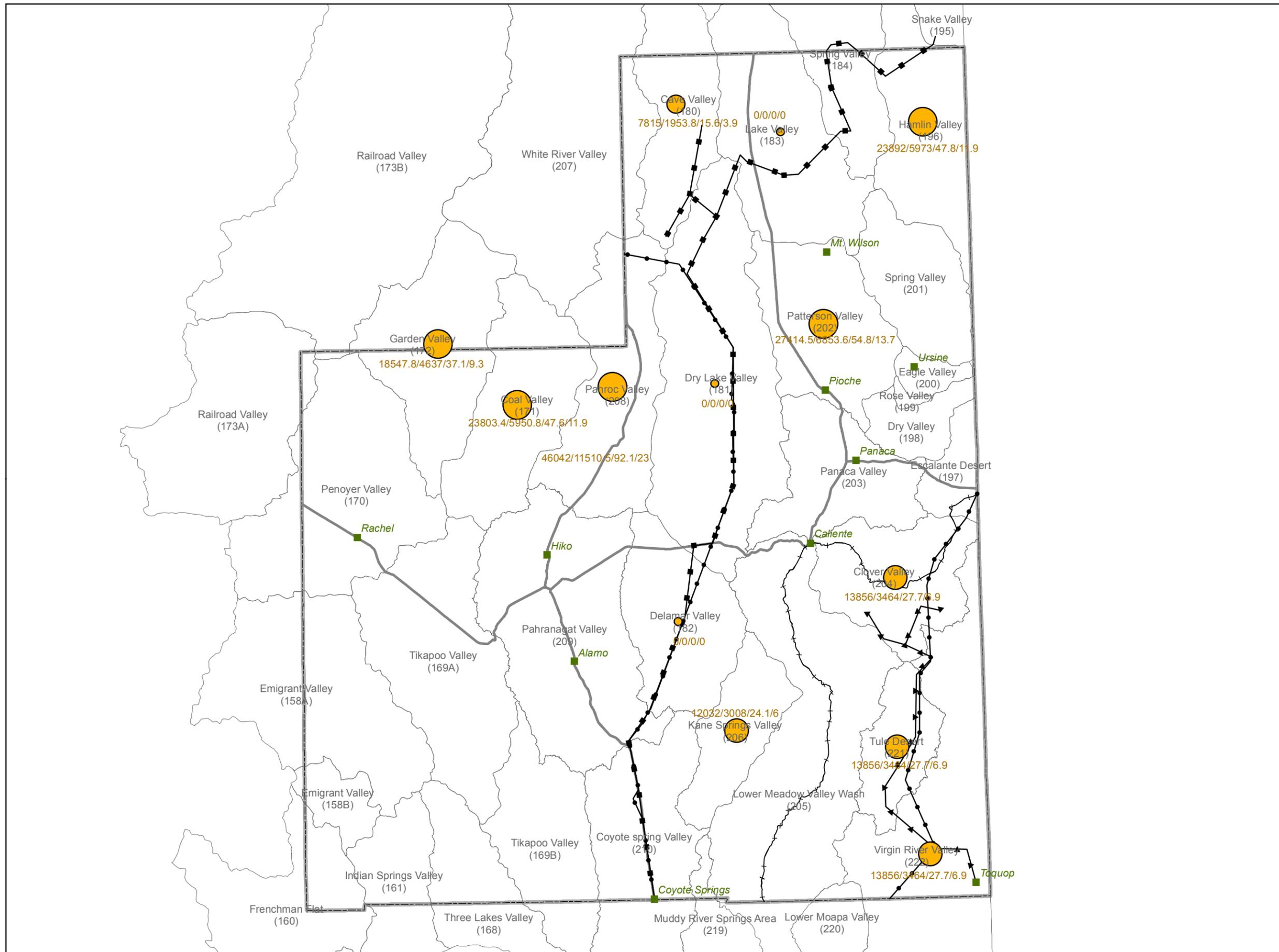


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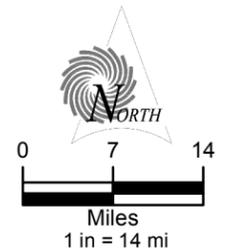
LINCOLN COUNTY WATER DISTRICT

AGRICULTURAL DEMANDS
 ASSUMED 100% APPROVAL OF
 PENDING APPLICATIONS

REV. NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP	EX 4A



MAP LEGEND

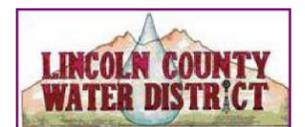


Agricultural Demands (ac-ft)

- 0
- 1 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 46,042

- Towns & Cities
- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- County Boundary

Label Format:
 Duty/Alfalfa Acreage/125-ac Pivots/Sections

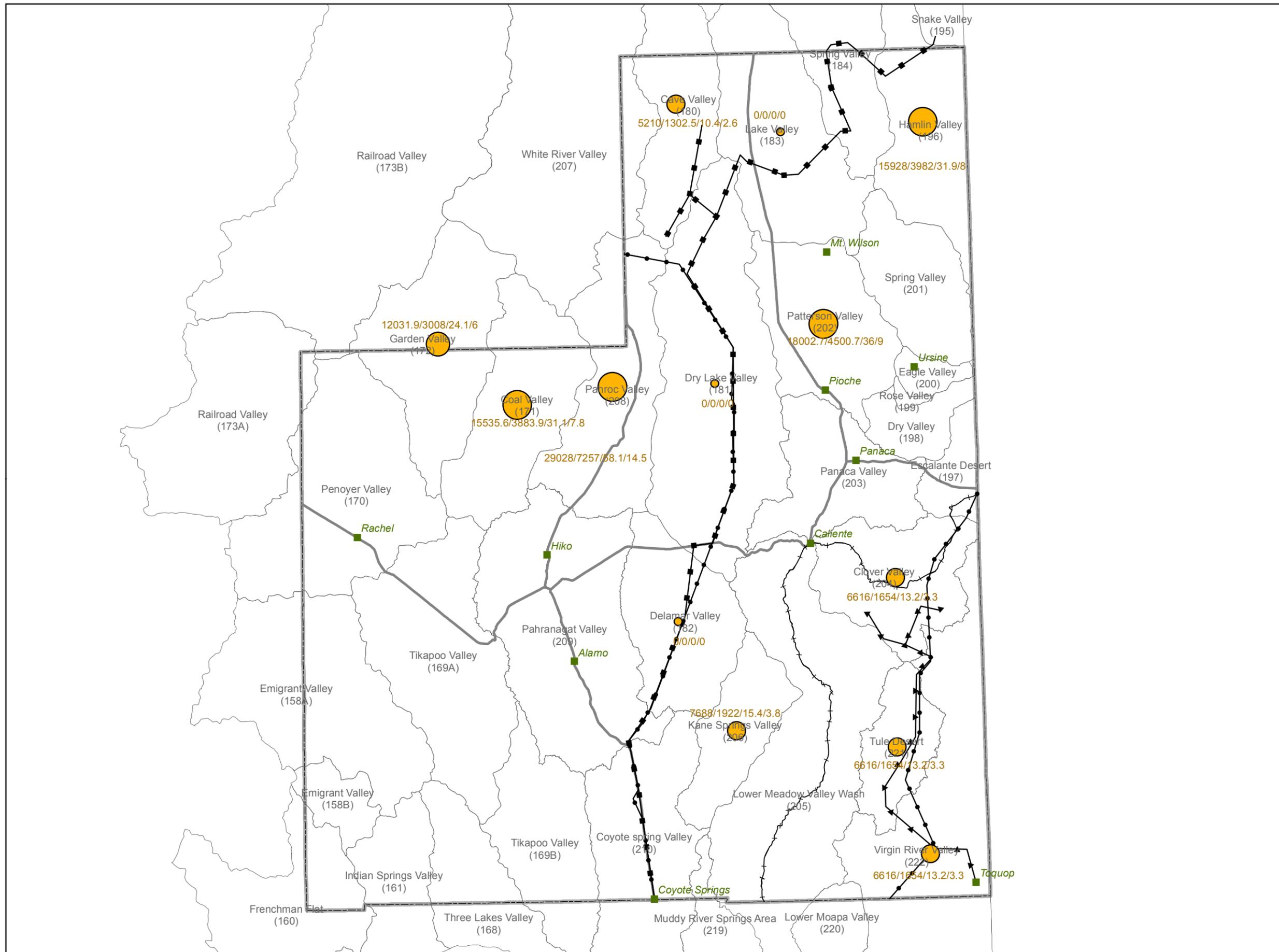


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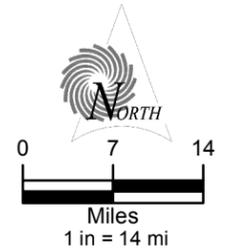
LINCOLN COUNTY WATER DISTRICT

AGRICULTURAL DEMANDS
 ASSUMED 75% APPROVAL OF
 PENDING APPLICATIONS

REV. NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP	EX 4B



MAP LEGEND

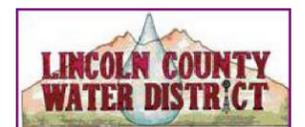


Agricultural Demands (ac-ft)

- 0
- 1 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 29,028

- Towns & Cities
- SNWA Pipeline
- Toquop Pipeline
- Power Lines
- Railroads
- Highways
- County Boundary

Label Format:
 Duty/Alfalfa Acreage/125-ac Pivots/Sections



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LINCOLN COUNTY WATER DISTRICT

AGRICULTURAL DEMANDS
 ASSUMED 50% APPROVAL OF
 PENDING APPLICATIONS

REV. NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
04723	KCS	KCS	JKP	EX 4C

APPENDIX C

AGREEMENT AMONG LINCOLN COUNTY, SOUTHERN NEVADA WATER AUTHORITY, AND LAS VEGAS VALLEY WATER DISTRICT

BOARD OF DIRECTORS

AGENDA ITEM

February 20, 2003

MRT

20 FEB 03

Authorized Signature

Date

<p>Subject: Cooperative Agreement</p>	<p>Director's Backup</p>
<p>Petitioner: Kay Brothers, Deputy General Manager, Engineering/Operations</p>	
<p>Recommendations: That the Board of Directors approve a cooperative agreement, in substantially the same form as the attached Cooperative Agreement, among Lincoln County, the Las Vegas Valley Water District and the Authority for the allocation and management of certain water rights applications.</p>	

Fiscal Impact:

None by approval of the above recommendation.

Background:

In October 1989, the Las Vegas Valley Water District (District) filed numerous applications (District Applications) to appropriate groundwater in eastern and central Nevada under what became known as the Cooperative Water Project. The October 1989 filings include applications to divert groundwater from hydrographic basins located in whole or in part within Lincoln County. In 1998, Lincoln County filed similar applications (Lincoln Applications) to appropriate groundwater in various hydrographic basins throughout Lincoln County.

The Cooperative Agreement establishes procedures whereby certain applications will be retained and developed by the Authority, withdrawn, or assigned to Lincoln County for use within the County. The agreement also provides that Lincoln County will withdraw all of its protests to pending applications, and the District and the Authority will withdraw protests to certain Lincoln County Applications. Additionally, the agreement establishes a cooperative relationship between Lincoln County, the District and the Authority that will include sharing resources and data during the development of groundwater in eastern and central Nevada.

The office of the general counsel has reviewed and approved the agreement.

Respectfully submitted:



Patricia Mulroy, General Manager
PM:KB:JJE:df
Attachment

AGENDA
ITEM #

15

**COOPERATIVE AGREEMENT AMONG LINCOLN COUNTY, THE
SOUTHERN NEVADA WATER AUTHORITY AND THE LAS VEGAS VALLEY
WATER DISTRICT**

This Cooperative Agreement for the allocation and management of water rights applications and groundwater basins (hereinafter the "Agreement") is entered into this _____ day of _____, 2003 (the "Execution Date") by and among Lincoln County, Nevada, a political subdivision of the State of Nevada created pursuant to NRS §243.210 (hereinafter "Lincoln"); the Las Vegas Valley Water District, a political subdivision of the State of Nevada created pursuant to Chapter 167, Statutes of Nevada 1947, (hereinafter the "District"); and the Southern Nevada Water Authority, a Joint Powers Authority established pursuant to NRS Chapter 277 (hereinafter the "Authority"). For convenience, Lincoln, the District and the Authority are at times herein referred to collectively as "Parties" and individually as "Party".

RECITALS

WHEREAS, in October 1989 the District filed numerous applications to appropriate groundwater in eastern and central Nevada under what the District refers to as the Cooperative Water Project (hereinafter "District Applications" as specifically defined herein); and

WHEREAS, the District Applications include applications to divert groundwater from hydrographic basins located in whole or in part within the geographic boundaries of Lincoln County; and

WHEREAS, Lincoln has filed numerous applications pursuant to its Master Plan to appropriate groundwater in various hydrographic basins throughout Lincoln County (hereinafter "Lincoln Applications" as specifically defined herein); and

WHEREAS, the Parties desire to reach agreement on methods and procedures whereby certain District Applications will either be retained and developed by the District and/or Authority or withdrawn, assigned to Lincoln for use within Lincoln County or portions of any permits granted pursuant to such applications made available for use within the hydrographic basin of origin; and

WHEREAS, Lincoln is willing to withdraw all of its protests to pending District Applications retained by the District and the District and/or Authority are willing to withdraw all protests filed by those entities to Lincoln Applications in all Category Two Basins as defined herein; and

WHEREAS, the Parties acknowledge that this Agreement is reflective of the intent of the Parties and that in the future the Parties may desire to modify and refine this Agreement to accomplish the intent and goals of the Parties given the magnitude and complexity of the issues involved herein; and

WHEREAS, Lincoln understands that the District is a member of and operating agent for the Authority and that in the future any District Applications retained by the District or permits and/or certificates received pursuant to such applications may be transferred by the District to the Authority; and

WHEREAS, the Parties have the authority to enter into this Agreement pursuant to NRS §277.045.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties hereto do agree as follows:

Section 1. Certain Definitions.

- 1.1 Category One Basins. “Category One Basins” shall mean the following hydrographic basins together with the number assigned to such hydrographic basin by the Nevada State Engineer: Tikapoo North (169A); Tikapoo South (169B); Three Lakes North (168); and Three Lakes South (211). The specific District Applications that are currently pending in each Category One Basin are enumerated in Exhibit A. For convenience, each District Application within each Category One Basin is listed together at page 5 of Exhibit A.
- 1.2 Category Two Basins. “Category Two Basins” shall mean the following hydrographic basins together with the number assigned such hydrographic basin by the Nevada State Engineer: Patterson Valley (202); Pahroc Valley (208); Coal Valley (171); Garden Valley (172); and Lake Valley (183). The specific District Applications that are currently pending in each Category Two Basin are enumerated in Exhibit A. For convenience, each District Application within each Category Two Basin is listed together at page 5 of Exhibit A. The specific Lincoln Applications that are pending in Category Two Basins are enumerated in Exhibit B.
- 1.3 Category Three Basins. “Category Three Basins” shall mean the following hydrographic basins together with the number assigned to such hydrographic basin by the Nevada State Engineer: Delamar Valley (182); Dry Lake Valley (181); Cave Valley (180); and Spring Valley (184). The specific District Applications that are currently pending in each Category Three Basin are enumerated in Exhibit A. For convenience, each District Application within each Category Three Basin is listed together at page 6 of Exhibit A. The specific Lincoln Applications that are pending in Category Three Basins are enumerated in Exhibit B.
- 1.4 District Applications. “District Applications” shall mean those applications to appropriate groundwater filed by the District as are enumerated in Exhibit A of this Agreement.

- 1.5 Lincoln Applications. “Lincoln Applications” shall mean those applications to appropriate groundwater filed by Lincoln and Vidler Water Company as are enumerated in Exhibit B of this Agreement.
- 1.6 Protest. “Protest” shall mean any action or notice filed pursuant to NRS §533.365(1) for the purpose of protesting or opposing the issuance of a permit to appropriate or divert the waters of the State of Nevada.
- 1.7 Point of Diversion. “Point of Diversion” shall mean the specific location of a proposed withdrawal, appropriation or diversion of groundwater as identified on individual District Applications and Lincoln Applications.
- 1.8 Dedicated Quantity. “Dedicated Quantity” shall mean the quantity of water, comprised exclusively of the Initial Cap and the Secondary Cap as defined herein, assigned by the District and/or Authority to Lincoln from permits and/or certificates issued to the District and/or Authority from all District Applications located within all Category Three Basins. “Dedicated Quantity” specifically excludes any portion of any permits and/or certificates issued to the District and/or Authority from all District Applications with a Point of Diversion outside of the geographical boundaries of Lincoln County including, specifically, any District Applications located in that portion of Spring Valley lying within the geographical boundaries of White Pine County.
- 1.8.1 Initial Cap. “Initial Cap” shall mean an amount not to exceed 3,000 acre-feet from the combined total of all permits and/or certificates granted to the District and/or Authority from all Category Three Basins.
- 1.8.2 Secondary Cap. “Secondary Cap” shall mean that in the event the State Engineer ultimately grants to the District and/or Authority permits and/or certificates that have a total combined duty of 30,000 acre-feet in Delamar, Dry Lake and/or Cave Valleys from District Applications with a Point of Diversion within those three hydrographic basins, then the District and/or Authority will assign to Lincoln fifteen percent (15%) of any additional permits and/or certificates granted to the District and/or Authority by the State Engineer above the total combined duty of 30,000 acre-feet in Delamar, Dry Lake and/or Cave Valleys from District Applications with a Point of Diversion within those three hydrographic basins. “Secondary Cap” specifically excludes any percentage of any permit and/or certificate granted to the District and/or Authority in Spring Valley in excess of the Initial Cap.
- 1.9 Use for a Term of Years. “Use for a Term of Years” shall mean the application of groundwater to a beneficial use for a definite term. Such uses shall not include residential, commercial, industrial or manufacturing development.

- 1.10 Basin of Origin. “Basin of Origin” shall mean the hydrographic basin in which the proposed Point of Diversion is located.
- 1.11 Water Service: “Water Service” shall mean a connection through which any water is obtained or provided, for all purposes permissible under law, including but not limited to: commercial uses, residential uses, industrial uses, fire protection uses and construction uses.

Section 2. Category One Basins.

- 2.1 Ownership. The Parties agree that the District and/or Authority shall retain all right, title and interest in any and all District Applications located within any Category One Basin. Furthermore, the District and/or Authority shall be the sole owner of any and all permits and/or certificates to appropriate and/or divert groundwater from any Category One Basin that may be issued by the Nevada State Engineer pursuant to such District Applications, together with all rights, title and interest associated therewith.
- 2.2 Withdrawal of Protests. Lincoln hereby expressly agrees, within 60 days of the Execution Date, to unconditionally withdraw any and all Protests on file with the Nevada State Engineer concerning any District Applications located within any Category One Basin. Such withdrawal shall include a waiver to any claim that any quantity of water should be reserved for use within the Basin of Origin pursuant to NRS §533.370(4)(d). Furthermore, Lincoln agrees that it will not Protest any application to change the place or type of use filed by the District and/or Authority for any such Category One Basin permit or certificate retained by the District and/or Authority. Lincoln specifically retains its junior priority Lincoln Applications within Category One Basins. The Parties agree that if, in the future, the State Engineer determines that sufficient quantities of water exist and the appropriation and/or diversion of such water will not impact any applications, permits or certificates held by the District and/or Authority, then the District and/or Authority will withdraw their respective Protests to Lincoln’s junior priority Lincoln Applications located within the relevant Category One Basin.
- 2.3 Non-Interference. Lincoln agrees that it will not take any action, nor support others in taking any action, to oppose or protest the District and/or Authority’s efforts to receive groundwater permits pursuant to the District Applications located within in any Category One Basin retained by either the District or Authority under this Agreement.
- 2.4 Uses Within Category One Basins. The Parties agree that the District and/or Authority shall in no event be obligated under the terms of this Agreement to provide any groundwater to any party for any use within any of the Category One Basins.

Section 3. Category Two Basins.

- 3.1 Ownership. Subject to the deed restrictions enumerated in paragraph 6.2 of this Agreement, the District agrees to transfer to Lincoln all right, title and interest in any and all District Applications located within any Category Two Basin except as specified in paragraph 3.2 of this Agreement. Furthermore, Lincoln shall have the exclusive right to any and all permits and/or certificates to appropriate and/or divert groundwater from any Category Two Basin that may be issued by the Nevada State Engineer pursuant to any District Application together with all rights, title and interest associated therewith or as to any Lincoln Applications located within any Category Two Basin. The District specifically agrees to take all steps necessary to transfer the ownership of all District Applications located within any Category Two Basin to Lincoln within 60 days of the Execution Date.
- 3.2 Withdrawal of Certain Applications. The District agrees, within 60 days of the Execution Date, to withdraw all District Applications located within any Category Two Basin with a Point of Diversion within the geographical boundaries of Nye County, Nevada. A list of the specific applications that are subject to the terms of this paragraph is contained in Exhibit A.
- 3.3 Withdrawal of Protests. The District and Authority hereby expressly agree, within 60 days of the Execution Date, to unconditionally withdraw any and all Protests on file with the Nevada State Engineer concerning any Lincoln Applications located within any Category Two Basin. Furthermore, the District and Authority agree that neither entity will Protest any application to change the place or type of use filed by Lincoln if such change application concerns any District Application assigned to Lincoln under this Agreement, any Lincoln Applications located within any Category Two Basin or any permit and/or certificate granted pursuant thereto, provided, however, that the District and/or Authority shall be entitled to file a Protest or other appropriate legal action to specifically enforce the deed restrictions enumerated at paragraph 6.2 of this Agreement.
- 3.4 Non-Interference. The District and the Authority agree that neither of those entities will take any action, nor support others in taking any action, to oppose or protest Lincoln's efforts to receive groundwater permits pursuant to the District Applications transferred pursuant to paragraph 3.1 of this Agreement or the Lincoln Applications located within any Category Two Basin.
- 3.5 Clover and Kane Springs Valleys. Although any Lincoln Applications located within either Clover Valley (assigned hydrographic basin No. 204 by the State Engineer) and Kane Springs Valley (assigned basin No. 206 by the State Engineer) are not otherwise subject to this Agreement, in regard to these basins the District and/or Authority agree as follows:

- 3.5.1 Clover Valley. The District and Authority hereby expressly agree, within 60 days of the Execution Date, to unconditionally withdraw any and all Protests on file with the Nevada State Engineer concerning any Lincoln Application located within Clover Valley. Furthermore, the District and Authority agree that neither entity will Protest any application to change the place or type of use filed by Lincoln if such change application concerns any Lincoln Application located within Clover Valley or any permit and/or certificate granted pursuant thereto. Further, the District and the Authority agree that neither of those entities will take any action, nor support others in taking any action, to oppose or protest Lincoln's efforts to receive groundwater permits pursuant any Lincoln Application to divert groundwater from Clover Valley.
- 3.5.2 Kane Springs Valley. The District and Authority hereby expressly agree that if either entity acquires, by conveyance or otherwise, a Protest to any Lincoln Application located within Kane Springs Valley, that the District and/or Authority shall withdrawal such Protest within 60 days of such acquisition. Furthermore, the District and Authority agree that neither entity will Protest any application to change the place or type of use filed by Lincoln if such change application concerns any Lincoln Application located within Kane Springs Valley or any permit and/or certificate granted pursuant thereto. Except as expressly provided in this paragraph 3.5.2 of this Agreement, the District and the Authority agree that neither of those entities will take any action, nor support others in taking any action, to oppose or protest Lincoln's efforts to receive groundwater permits pursuant to any Lincoln Application to divert groundwater from Kane Springs Valley. Notwithstanding anything to the contrary contained in this paragraph 3.5.2, the District and Authority shall have the right to communicate to the State Engineer, whether during any public comment period during a hearing on the matter or otherwise, any concerns the District and/or Authority may have regarding potential impacts to senior water rights as a result of granting any applications to appropriate groundwater or to change the point of diversion of existing groundwater permits and/or certificates in Kane Springs Valley.

Section 4. Category Three Basins.

- 4.1 Ownership. Subject to the provisions of section 4.3 of this Agreement, the Parties agree that the District and/or Authority shall retain all right, title and interest in any and all District Applications located within any Category Three Basin. Furthermore, the District and/or Authority shall be the sole owner of any and all permits and/or certificates to appropriate and/or divert groundwater from any Category Three Basin that may be issued by the Nevada State Engineer pursuant to any District Application together with all rights, title and interest associated therewith.

4.2 Withdrawal of Protests. Lincoln hereby expressly agrees, within 60 days of the Execution Date, to unconditionally withdraw any and all Protests on file with the Nevada State Engineer concerning District Applications located within any Category Three Basin. Such withdrawal shall include a waiver to any claim that any quantity of water should be reserved for use within the Basin of Origin pursuant to NRS §533.370(4)(d). Furthermore, Lincoln agrees that it will not Protest any application to change the place or type of use filed by the District and/or Authority if such change application concerns any District Application retained by the District and/or Authority or any permit and/or certificate granted pursuant thereto. Lincoln specifically retains its junior priority Lincoln Applications within Category Three Basins. The Parties agree that if, in the future, the State Engineer determines that sufficient quantities of water exist and the appropriation and/or diversion of such water will not impact any applications, permits or certificates held by the District and/or Authority, then the District and/or Authority will withdraw their respective Protests to Lincoln's junior priority Lincoln Applications located within the relevant Category Three Basin.

4.3 Lincoln's Use of Category Three Basin Water. Subject to the limitations set forth in paragraphs 4.3.1 through 4.3.2.4, inclusive, of this Agreement, the District and Authority agree to make portions of any permits and/or certificates to appropriate, divert and use groundwater that may be issued by the Nevada State Engineer pursuant to any District Applications located within any Category Three Basin, excluding that portion of Spring Valley within the geographical boundaries of White Pine County, available for use within either Lincoln County generally or the relevant Basin of Origin specifically on the following basis:

4.3.1 Dedicated Quantity. Subject to paragraphs 4.3.1.1 through 4.3.1.4, inclusive, of this Agreement, upon written request by Lincoln, the District and/or Authority agree to assign to Lincoln such portions of any permit and/or certificate issued to either the District or Authority pursuant to any District Application located within any Category Three Basin, excluding that portion of Spring Valley within the geographical boundaries of White Pine County, as are requested by Lincoln. Further, the District and/or Authority shall request that the State Engineer act upon any District Application located within any Category Three Basin, excluding that portion of Spring Valley within the geographical boundaries of White Pine County, at the request of Lincoln.

4.3.1.1 Initial Cap. Notwithstanding anything to the contrary contained in this Agreement and except as expressly provided in paragraph 4.3.1.2 of this Agreement, Lincoln shall in no event be entitled to have the District and/or Authority assign any portion of any permit and/or certificate representing a quantity of water in excess of the Initial Cap.

- 4.3.1.2 Secondary Cap. If, as an expressly required condition precedent to the operation of this paragraph 4.3.1.2, the State Engineer grants the District and/or Authority permits and/or certificates to appropriate and divert 30,000 acre-feet of groundwater from District Applications located within Delamar, Dry Lake and Cave Valleys, but not District Applications located within Spring Valley, then Lincoln shall have a right to have fifteen percent (15%) of any permits and/or certificates above 30,000 acre-feet granted to the District and/or Authority from District Applications located within Delamar, Dry Lake and Cave Valleys, but not Spring Valley, assigned to Lincoln in accordance with paragraph 4.3.1 of this Agreement.
- 4.3.1.3 Point of Diversion of Dedicated Quantity. The Parties expressly agree that in no event shall the District and/or Authority be obligated under the terms of this Agreement to assign any portion of the Dedicated Quantity from any particular Category Three Basin in excess of the following amounts: one thousand five hundred (1,500) acre-feet from Delamar Valley; one thousand five hundred (1,500) acre-feet from Dry lake Valley; one thousand five hundred (1,500) acre-feet from Cave Valley; and three thousand (3,000) acre-feet from Spring Valley. These quantified limits on per basin assignments shall apply to both the Initial Cap and to any assignments of permits and/or certificates under the Secondary Cap.
- 4.3.1.4 Lincoln's Obligation to Basin of Origin. Lincoln specifically agrees to make available any and all groundwater required by the State Engineer pursuant to NRS §533.370(4)(d) or otherwise necessary to meet the development needs of the Basin of Origin for all Category Three Basins exclusively from the Dedicated Quantity assigned to Lincoln under paragraph 4.3.1 of this Agreement. Except as provided in section 4.3.2 of this Agreement, the District and/or Authority not be required under the terms of this Agreement to provide or otherwise make available any quantity of water from any permit and/or certificate issued to either the District or Authority pursuant to any District Application located within any Category Three Basin.
- 4.3.2 Use for a Term of Years. At their sole discretion and subject to paragraphs 4.3.3 and 4.3.4 of this Agreement, the District and/or Authority agree to lease for a Use for a Term of Years to Lincoln or to such third

party as Lincoln designates (“Lessee”), without cost, such portion of any permit and/or certificates to appropriate, divert and use groundwater that may be issued by the Nevada State Engineer pursuant to any District Applications located within any Category Three Basin. Notwithstanding anything to the contrary contained in this Agreement, neither the District nor the Authority shall be obligated to lease or otherwise make available any portion of any permits and/or certificates issued to the District and/or Authority from any District Application with a Point of Diversion outside of the geographical boundaries of Lincoln County, including, specifically, any District Application with a point of diversion in Spring Valley, assigned hydrographic basin No. 184. The place of use for any Use for a Term of Years shall specifically be confined to the Basin of Origin wherein such Use for a Term of Years is to occur.

- 4.3.2.1 Initial Duration of Lease. The initial duration of any lease entered into by the District or Authority pursuant to paragraph 4.3.2 of this Agreement will be 15 years. Further, such lease will expressly state that the continued right to use any percentage of the leased water that is not placed to the beneficial use identified in the lease for 4 consecutive years during the initial duration of the lease will be forfeited by the Lessee at the District and/or Authority’s option.

- 4.3.2.2 Extension of Lease. Following the expiration of the 15-year term discussed in paragraph 4.3.2.1 of this Agreement, the lease shall automatically renew for a one-year term on a year-to-year basis. However, if the District and/or Authority provide the Lessee with written notice by December 1st of any calendar year then the lease shall automatically terminate at the end of the next following calendar year.

- 4.2.2.3 New Lease Cap. The Parties agree and acknowledge that neither the District nor the Authority shall have any obligation to enter into any new leases under this Agreement after January 1, 2015.

- 4.3.2.4 Termination of Lease. Notwithstanding anything to the contrary contained in this Agreement, the Parties expressly agree and acknowledge that the District or Authority shall be entitled to terminate any lease entered into pursuant to this Agreement for any or no reason on January 1, 2030. Further, should the District or Authority allow any lease to extend beyond January 1, 2030, such extension shall in no way abrogate, waive or otherwise limit the right of the District or Authority to terminate such lease at any time and for any or no reason after January 1, 2030.

4.3.3 Limitation on Interbasin and Intercounty Transfers. As to the transfer of any groundwater either assigned or made available by the District and/or Authority under paragraphs 4.3.1 and 4.3.2 of this Agreement, the Parties hereto do agree as follows:

4.3.3.1 Dedicated Quantity. It is expressly agreed by the Parties that no permit and/or certificate, either in whole or in part, assigned to Lincoln under paragraph 4.3.1 of this Agreement shall be transferred outside of the geographic boundaries of Lincoln County. This restriction shall be recorded as a deed restriction in accordance with paragraph 6.2 of this Agreement.

4.3.3.2 Use for a Term of Years. It is expressly agreed by the Parties that no water made available for a Use for a Term of Years by either the District or the Authority within any Category Three Basin will be transferred, transported or otherwise conveyed outside of the Basin of Origin. Any lease executed pursuant to paragraphs 4.3 through 4.3.2.4, inclusive, of this Agreement shall contain an express prohibition against any interbasin transfer of the leased water.

4.4 Non-Interference. Lincoln agrees that it will not take any action, nor support others in taking any action, to oppose or protest the District and/or Authority's efforts to receive groundwater permits pursuant to the District Applications located within any Category Three Basin retained by either the District or Authority under this Agreement.

Section 5. Future Reallocation of Water Resources.

5.1 General Policy Recognition. The Parties recognize that the groundwater flow systems are complex and as of the Execution Date are in the early stages of exploration and development. Because of the current lack of empirical data, the Parties recognize the possibility that situations may arise where District Application(s) that are the subject of this Agreement are denied by the Nevada State Engineer on the basis that the entire groundwater flow system is fully appropriated or upon the basis that granting of rights in one basin would adversely affect existing rights in another basin.

5.2 Good Faith Negotiation. In the event of such a denial by the State Engineer, the Parties agree to negotiate in good faith to reallocate the quantity of water permitted and/or certificated under any District Application, but not any Lincoln Application, to each Party in Category Two and Category Three Basins according to the following concept:

If one Party has permits and/or certificates granted pursuant to any District Application(s) in Basin A and another Party has a District Application(s) in Basin B denied solely on the basis of the permits and/or certificates granted in Basin A, the Parties will negotiate in good faith to determine what quantity of water the Parties believe should be reallocated to Basin B. Once the Parties have reached such an accord, the Parties shall jointly petition the Nevada State Engineer to grant the mutually agreed upon quantity of permits in Basin B (in the name of the Party whose District Application(s) was denied) in exchange for a corresponding renunciation of an equal quantity of permits in Basin A. In the event the Nevada State Engineer denies such joint petition, the Party with permits and/or certificates in Basin A will be obligated to assign to the Party whose District Application(s) was denied in Basin B a quantity of the permit and/or certificate in Basin A equivalent to the previously negotiated amount. The Party with the original District Application(s) in Basin A would have no obligation to transport or assist another Party in transporting any water from Basin A to Basin B via pipeline or otherwise.

Article 6. Agreement Regarding Transcounty Water Service and Conveyance.

- 6.1 Service Within Lincoln County. The District and the Authority hereby agree that neither of those two entities will provide Water Service within the geographic boundaries of Lincoln County or make available any water from any Category One or Category Three Basin to any person to provide Water Service in Lincoln County unless requested in writing to do so by Lincoln.
- 6.2 Service Within Clark County. Lincoln hereby agrees not to provide Water Service within the geographic boundaries of Clark County or make available any water from any District Applications within any Category Two or Category Three Basin to any person to provide Water Service in Clark County unless requested in writing to do so by the District, the Authority, the Moapa Valley Water District or the Virgin Valley Water District. Furthermore, Lincoln expressly agrees that upon the assignment or other method of conveyance of any District Application to Lincoln by the District and/or Authority that the deed accomplishing such a conveyance will contain an express restriction limiting the place of use of such District Application and any permit, certificate or other form of water right granted pursuant to such District Application to within the geographic boundaries of Lincoln County. The Parties specifically agree and acknowledge that the District and/or Authority shall have the right to enforce the covenants contained in this paragraph 6.2 through an action for specific performance.

Section 7. Place of Use of District and Authority Water.

- 7.1 Waiver of Rights. Lincoln hereby agrees and acknowledges that the District and Authority intend to and in the future will transport any water granted to the District and/or Authority by the Nevada State Engineer pursuant to any District

Applications to Clark County in general and the Las Vegas urban area in particular unless such water is otherwise assigned in accordance with paragraph 4.3.1 of this Agreement.

Furthermore, Lincoln does hereby expressly waive any legal right it may have to protest or in any manner complain of an interbasin transfer or transcounty transfer of any groundwater or right to divert groundwater owned in whole or in part by the District or Authority, in law or in equity, including its right to invoke priority NRS 534.080(3), their right to invoke NRS 534.110(6) and their right to invoke what is commonly known as the Basin of Origin statute, NRS 533.370(4).

Section 8. Cooperation.

8.1 Data Sharing and Cooperation. The Parties agree that the full understanding of the water resources in Category One, Two and Three Basins will require many years of study and development and that it is important to freely share the information derived from the water resource development envisioned herein and to cooperate in the development of groundwater models and other regional data that can allow for the full development of such water resources, including, but not necessarily limited to, the following:

8.1.1 The District, Authority and Lincoln will have access to all monitoring and investigative data and information resulting from each respective Party's development of District and Lincoln Applications.

8.1.2 The District and Authority agree to give Lincoln reasonable access, based upon the availability of District and Authority staff time and resources, to their White River and Meadow Valley Flow Systems Groundwater Model for the purpose of running data for Lincoln within the model.

8.1.3 Lincoln agrees to reimburse the District and/or Authority for costs or expenses associated with running data for Lincoln or the expansion of the model development when required.

8.2 Infrastructure. The Parties recognize that the development of substantial conveyance infrastructure will be necessary to transport, deliver and treat the water resources that are the subject of this Agreement. Thus, the Parties agree that in the event any Party plans to construct any such water conveyance infrastructure that that Party shall give the other Parties notice of such plans. After receiving such notice, the Parties will meet to determine whether opportunities for cooperation between the Parties in constructing the infrastructure exist.

8.2.1 Capital Costs Based On Capacity Rights. If the Parties decide to cooperate in constructing any water conveyance infrastructure under paragraph 8.2 of this Agreement, then each Party's respective capital

obligation shall be based upon the percentage of conveyance capacity to which each Party is determined to have a right.

8.2.2 Operation, Maintenance and Replacement Costs based Upon Actual Use. If the Parties cooperate in constructing any water conveyance infrastructure under paragraphs 8.2 and 8.2.1 of this Agreement, then each Party's respective costs to operate, maintain and replace wells, pumps, pipelines, electrical lines and other appurtenances will be borne by each Party in proportion to its respective water usage within the infrastructure.

8.3 Withdraw of Other Protests. In addition to its commitment under paragraphs 2.2 and 4.2 of this Agreement, Lincoln specifically agrees to withdraw, within 60 days of the Execution Date, any and all other protests to any District Application as enumerated at Exhibit A of this Agreement.

8.4 Future Filings. The District and Authority agree that they will not file any additional applications to appropriate groundwater within Lincoln County other than as set forth in Exhibit A without first providing the Lincoln County Board of County Commissioners with thirty days written notice of intent prior to the filing of such additional applications.

8.5 Cooperation Resolving Third Party Protests to District Applications. The Parties recognize that numerous third parties have filed Protests to all of the District Applications. The Parties agree to work cooperatively to resolve each of these Protests in a coordinated manner.

Section 9. Authority of the Nevada State Engineer

9.1 Acknowledgement of Authority. The Parties understand the authority of the Nevada State Engineer's office in dealing with all issues involving water within the State of Nevada and agree that nothing contained in this Agreement is intended to nor shall be construed as attempting to abrogate such authority in any manner.

9.2 Mitigation. The Parties hereto agree and acknowledge that the State Engineer has the authority to require the Parties to take such actions as are necessary to mitigate any impacts resulting from the diversion of groundwater. Moreover, the Parties agree that any reductions in water use will be conducted pursuant to any order issued by the State Engineer notwithstanding anything to the contrary contained in this Agreement. If the State Engineer orders any specific mitigation, that mitigation will be conducted specifically as ordered.

Section 10. Notices

If to Lincoln County: County Manager
Lincoln County
P.O. Box 685
Pioche, NV 89403

Copy: District Attorney
Lincoln County
P.O. Box 60
Pioche, NV 89403

If to District: General Manager
Las Vegas Valley Water District
1001 S. Valley View Blvd.
Las Vegas, NV 89153

Copy: General Counsel
Las Vegas Valley Water District
1001 S. Valley View Blvd.
Las Vegas, NV 89153

If to Authority: General Manager
Southern Nevada Water Authority
1001 S. Valley View Blvd.
Las Vegas, NV 89153

Copy: General Counsel
Southern Nevada Water Authority
1001 S. Valley View Blvd.
Las Vegas, NV 89153

Section 11. Miscellaneous

- 11.1 Applicable Law. The laws of the State of Nevada shall govern the validity, construction, performance and effect of this Agreement.
- 11.2 Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the Parties hereto and their respective successors and assigns.
- 11.3 No Waiver of Rights. The failure to enforce or delay in enforcement of any provision of this Agreement by a Party hereto or the failure of any Party to exercise any right hereunder shall in no way be construed to be a waiver of such

provision or right (or of any provision or right of a similar or dissimilar nature) unless such Party expressly waives such provision or right in writing.

- 11.4 Cost of Litigation. In the event any action is commenced by any Party against another Party in connection herewith (including any action to lift a stay or other bankruptcy proceeding), the unsuccessful Party shall pay the costs and expenses, including reasonable attorneys' fees of the prevailing party as determined by the court.
- 11.5 Integration. The Parties hereto agree that this Agreement represents the final and complete understanding and Agreement of the Parties with respect to the subject matter hereof. Moreover, this final, written Agreement supercedes all previous conversations, negotiations and representations of the Parties and in no event shall any claim be brought by any Party other than in accordance with this written Agreement. No additional or modification of this Agreement shall be binding unless executed in writing by the Parties hereto.
- 11.6 Time of the Essence. Time is of the essence in the performance of the Parties' respective obligations set forth in this Agreement and all the terms, provisions, covenants and conditions therein.
- 11.7 Counterparts as Originals. This Agreement may be executed in any number of counterparts, each of which when executed and delivered shall be an original, but all such counterparts shall constitute one and the same Agreement. Any signature page of this Agreement may be detached from any counterpart without impairing the legal effect of any signature thereon, and may be attached to another counterpart, identical in form thereto, but having attached to it one or more additional signature pages.
- 11.8 Recordation. A copy of this Agreement shall be lodged with the Nevada State Engineer and duly recorded with both the Clark County and Lincoln County Recorder's Office.
- 11.9 No Third Party Beneficiaries. No third party not a signatory to this Agreement shall be a beneficiary to its provisions or otherwise entitled to enforce any provision contained herein.
- 11.10 Severability. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable. The remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement, unless the illegal, invalid, or unenforceable provision vitiates the overall purpose, intent, of either Party or a material part of the consideration bargained for by either Party.
- 11.11 Termination. This Agreement shall automatically terminate thirty (30) years from the Execution Date.

11.12 Attorney General Opinion 2002-15. The District and Authority agree that neither entity will oppose any efforts by Lincoln, whether administrative or legal, to specifically withdraw Attorney General Opinion No. 2002-15. Furthermore, neither the District nor the Authority will appear pursuant to NRS 43.130 in Case No. CV 1041002 in the Seventh Judicial District Court or to otherwise take any action to oppose Lincoln's action to judicially confirm the agreements that are the subject of the above referenced action.

11.14 Limited Remedies. In the event that any Party is in default under this Agreement, then any other Party may, at that Party's option, pursue only the following remedies:

- (i) to waive such default; or
- (ii) to demand specific performance of the defaulting Party pursuant to this Agreement.

IN WITNESS WHEREOF, each of the Parties has executed this Agreement on the date and year written below.

LINCOLN COUNTY

Tim Perkins, Chairman

Attest:

Corrine Hogan, Lincoln County Clerk

Approved as to Legality:

Phillip H. Dunleavy, District Attorney

SOUTHERN NEVADA WATER AUTHORITY

Amanda Cyphers, Chair

Attest:

Patricia Mulroy, Secretary

Approved as to Legality



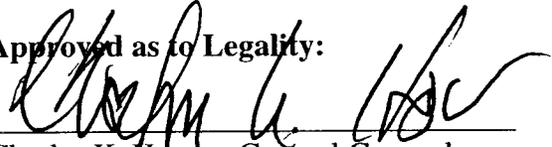
John J. Entsminger, Deputy Counsel

LAS VEGAS VALLEY WATER DISTRICT

Myrna Williams, President

Attest:

Patricia Mulroy, Secretary

Approved as to Legality:


Charles K. Hauser, General Counsel

"Exhibit A"

Las Vegas Valley Water District				
Applications Associated with the Cooperative Water Project				
Application Number	Parcel Number	Valley Name	Agency	Fee
53984	156	Hot Creek Valley	WDR	10.00
54060	168	Three Lakes Valley (North)	RFP	6.00
54061	168	Three Lakes Valley (North)	RFP	10.00
54068	168	Three Lakes Valley (North)	RFP	6.00
54069	168	Three Lakes Valley (North)	RFP	10.00
53947	169A	Tikapoo Valley (North)	RFP	6.00
53948	169A	Tikapoo Valley (North)	RFP	10.00
53949	169A	Tikapoo Valley (North)	RFP	10.00
53950	169B	Tikapoo Valley (South)	RFP	6.00
53951	169B	Tikapoo Valley (South)	RFP	10.00
53952	169B	Tikapoo Valley (South)	RFP	10.00
53953	170	Penoyer Valley	WDR	6.00
53954	170	Penoyer Valley	WDR	10.00
53955	170	Penoyer Valley	WDR	10.00
53956	171	Coal Valley	RFP	6.00
53957	171	Coal Valley	RFP	6.00
53958	171	Coal Valley	RFP	10.00
53959	171	Coal Valley	RFP	10.00
53960	172	Garden Valley	RFP	6.00
53961	172	Garden Valley	RFP	6.00
53962	172	Garden Valley	RFP	6.00
53963	172	Garden Valley	RFP	10.00
53964	172	Garden Valley	RFP	10.00
53981	173A	Railroad Valley (South)	RFP	6.00
53982	173A	Railroad Valley (South)	RFP	6.00
53983	173A	Railroad Valley (South)	RFP	10.00
53965	173B	Railroad Valley (North)	RFP	6.00
53966	173B	Railroad Valley (North)	RFP	6.00
53967	173B	Railroad Valley (North)	RFP	6.00
53968	173B	Railroad Valley (North)	RFP	6.00
53969	173B	Railroad Valley (North)	RFP	6.00
53970	173B	Railroad Valley (North)	RFP	6.00
53971	173B	Railroad Valley (North)	RFP	6.00
53972	173B	Railroad Valley (North)	RFP	6.00
53973	173B	Railroad Valley (North)	RFP	6.00
53974	173B	Railroad Valley (North)	RFP	6.00
53975	173B	Railroad Valley (North)	RFP	10.00
53976	173B	Railroad Valley (North)	RFP	10.00
53977	173B	Railroad Valley (North)	RFP	10.00
53978	173B	Railroad Valley (North)	RFP	10.00
53979	173B	Railroad Valley (North)	RFP	10.00
53980	173B	Railroad Valley (North)	RFP	10.00
53985	173B	Railroad Valley (North)	RFP	6.00
53986	173B	Railroad Valley (North)	RFP	6.00
54067	173B	Railroad Valley (North)	WDR	10.00
53998	174	Jakes Valley	WDR	6.00
53999	174	Jakes Valley	WDR	6.00

"Exhibit A"

Las Vegas Valley Water District				
Applications Associated with the Cooperative Water Project				
54000	174	Jakes Valley	WDR	6.00
54001	174	Jakes Valley	WDR	10.00
54002	174	Jakes Valley	WDR	10.00
53987	180	Cave Valley	RFP	6.00
53988	180	Cave Valley	RFP	10.00
53989	181	Dry Lake Valley	RFP	6.00
53990	181	Dry Lake Valley	RFP	10.00
53991	182	Delamar Valley	RFP	6.00
53992	182	Delamar Valley	RFP	10.00
53993	183	Lake Valley	RFP	6.00
53994	183	Lake Valley	WDR	6.00
53995	183	Lake Valley	WDR	6.00
53996	183	Lake Valley	RFP	10.00
53997	183	Lake Valley	WDR	10.00
54003	184	Spring Valley	RFP	6.00
54004	184	Spring Valley	RFP	6.00
54005	184	Spring Valley	RFP	6.00
54006	184	Spring Valley	RFP	6.00
54007	184	Spring Valley	RFP	6.00
54008	184	Spring Valley	RFP	6.00
54009	184	Spring Valley	RFP	6.00
54010	184	Spring Valley	RFP	6.00
54011	184	Spring Valley	RFP	6.00
54012	184	Spring Valley	RFP	6.00
54013	184	Spring Valley	RFP	6.00
54014	184	Spring Valley	RFP	6.00
54015	184	Spring Valley	RFP	6.00
54016	184	Spring Valley	RFP	6.00
54017	184	Spring Valley	RFP	6.00
54018	184	Spring Valley	RFP	6.00
54019	184	Spring Valley	RFP	10.00
54020	184	Spring Valley	RFP	10.00
54021	184	Spring Valley	RFP	10.00
54022	195	Snake Valley	RFP	6.00
54023	195	Snake Valley	RFP	6.00
54024	195	Snake Valley	RFP	6.00
54025	195	Snake Valley	RFP	6.00
54026	195	Snake Valley	RFP	10.00
54027	195	Snake Valley	RFP	10.00
54028	195	Snake Valley	RFP	10.00
54029	195	Snake Valley	RFP	10.00
54030	195	Snake Valley	RFP	6.00
54031	202	Patterson Valley	RFP	6.00
54032	202	Patterson Valley	RFP	6.00
54033	202	Patterson Valley	RFP	10.00
54034	202	Patterson Valley	RFP	10.00
54035	205	Lower Meadow Valley Wash	WDR	6.00

"Exhibit A"

Las Vegas Valley Water District				
Applications Associated with the Cooperative Water Project				
54105	205	Lower Meadow Valley Wash	WDR	10.00
54038	207	White River Valley	WDR	6.00
54039	207	White River Valley	WDR	6.00
54040	207	White River Valley	WDR	6.00
54041	207	White River Valley	WDR	10.00
54042	207	White River Valley	WDR	10.00
54043	208	Pahroc Valley	RFP	6.00
54044	208	Pahroc Valley	RFP	6.00
54045	208	Pahroc Valley	RFP	10.00
54046	208	Pahroc Valley	RFP	10.00
54047	208	Pahroc Valley	RFP	10.00
54048	208	Pahroc Valley	RFP	10.00
54049	208	Pahroc Valley	RFP	10.00
54050	209	Pahrnagat Valley	WDR	6.00
54051	209	Pahrnagat Valley	WDR	6.00
54052	209	Pahrnagat Valley	WDR	6.00
54053	209	Pahrnagat Valley	WDR	10.00
54054	209	Pahrnagat Valley	WDR	10.00
54055	210	Coyote Springs Valley	OB	6.00
54056	210	Coyote Springs Valley	OB	6.00
54057	210	Coyote Springs Valley	OB	6.00
54058	210	Coyote Springs Valley	OB	10.00
54059	210	Coyote Springs Valley	OB	10.00
54062	211	Three Lakes Valley (South)	RFP	6.00
54063	211	Three Lakes Valley (South)	RFP	6.00
54064	211	Three Lakes Valley (South)	RFP	10.00
54065	211	Three Lakes Valley (South)	RFP	10.00
54066	211	Three Lakes Valley (South)	RFP	10.00
54106	211	Three Lakes Valley (South)	RFP	10.00
54070	212	Las Vegas Valley	RFP	10.00
54071	212	Las Vegas Valley	RFP	10.00
54072	212	Las Vegas Valley	RFP	10.00
54037	215	Black Mountains Area	WDR	10.00
54073	216	Garnet Valley	PER	10.00
54074	217	Hidden Valley (North)	PER	10.00
54075	218	California Wash	PER	10.00
54076	218	California Wash	PER	10.00
54036	220	Lower Moapa Valley	WDR	10.00
54078	222	Virgin River Valley	RFP	6.00
54079	222	Virgin River Valley	RFP	6.00
54080	222	Virgin River Valley	RFP	6.00
54081	222	Virgin River Valley	RFP	6.00
54082	222	Virgin River Valley	RFP	6.00
54083	222	Virgin River Valley	RFP	6.00
54084	222	Virgin River Valley	RFP	6.00
54085	222	Virgin River Valley	RFP	6.00
54086	222	Virgin River Valley	RFP	6.00

"Exhibit A"

Las Vegas Valley Water District				
Applications Associated with the Cooperative Water Project				
54087	222	Virgin River Valley	RFP	6.00
54088	222	Virgin River Valley	RFP	6.00
54089	222	Virgin River Valley	RFP	6.00
54090	222	Virgin River Valley	RFP	6.00
54091	222	Virgin River Valley	RFP	6.00
54092	222	Virgin River Valley	RFP	6.00
WDR = Withdrawn				
RFP = Ready for Action with Protests filed against it				
OB = Held in Abeyance by NV State Engineer				
PER=Permit				

"Exhibit A"

Category One Basins				
54060	168	Three Lakes Valley (North)	RFP	6.00
54061	168	Three Lakes Valley (North)	RFP	10.00
54068	168	Three Lakes Valley (North)	RFP	6.00
54069	168	Three Lakes Valley (North)	RFP	10.00
53947	169A	Tikapoo Valley (North)	RFP	6.00
53948	169A	Tikapoo Valley (North)	RFP	10.00
53949	169A	Tikapoo Valley (North)	RFP	10.00
53950	169B	Tikapoo Valley (South)	RFP	6.00
53951	169B	Tikapoo Valley (South)	RFP	10.00
53952	169B	Tikapoo Valley (South)	RFP	10.00
54062	211	Three Lakes Valley (South)	RFP	6.00
54063	211	Three Lakes Valley (South)	RFP	6.00
54064	211	Three Lakes Valley (South)	RFP	10.00
54065	211	Three Lakes Valley (South)	RFP	10.00
54066	211	Three Lakes Valley (South)	RFP	10.00
54106	211	Three Lakes Valley (South)	RFP	10.00
Category Two Basins				
53956	171	Coal Valley	RFP	6.00
53957	171	Coal Valley	RFP	6.00
53958	171	Coal Valley	RFP	10.00
53959	171	Coal Valley	RFP	10.00
53960	172	Garden Valley	RFP	6.00
53961	172	Garden Valley	RFP	6.00
53962	172	Garden Valley	RFP	6.00
53963	172	Garden Valley	RFP	10.00
53964	172	Garden Valley	RFP	10.00
53993	183	Lake Valley	RFP	6.00
53994	183	Lake Valley	WDR	6.00
53995	183	Lake Valley	WDR	6.00
53996	183	Lake Valley	RFP	10.00
53997	183	Lake Valley	WDR	10.00
54031	202	Patterson Valley	RFP	6.00
54032	202	Patterson Valley	RFP	6.00
54033	202	Patterson Valley	RFP	10.00
54034	202	Patterson Valley	RFP	10.00
54043	208	Pahroc Valley	RFP	6.00
54044	208	Pahroc Valley	RFP	6.00
54045	208	Pahroc Valley	RFP	10.00
54046	208	Pahroc Valley	RFP	10.00
54047	208	Pahroc Valley	RFP	10.00
54048	208	Pahroc Valley	RFP	10.00
54049	208	Pahroc Valley	RFP	10.00

"Exhibit A"

Category Three Basins				
53987	180	Cave Valley	RFP	6.00
53988	180	Cave Valley	RFP	10.00
53989	181	Dry Lake Valley	RFP	6.00
53990	181	Dry Lake Valley	RFP	10.00
53991	182	Delamar Valley	RFP	6.00
53992	182	Delamar Valley	RFP	10.00
54003	184	Spring Valley	RFP	6.00
54004	184	Spring Valley	RFP	6.00
54005	184	Spring Valley	RFP	6.00
54006	184	Spring Valley	RFP	6.00
54007	184	Spring Valley	RFP	6.00
54008	184	Spring Valley	RFP	6.00
54009	184	Spring Valley	RFP	6.00
54010	184	Spring Valley	RFP	6.00
54011	184	Spring Valley	RFP	6.00
54012	184	Spring Valley	RFP	6.00
54013	184	Spring Valley	RFP	6.00
54014	184	Spring Valley	RFP	6.00
54015	184	Spring Valley	RFP	6.00
54016	184	Spring Valley	RFP	6.00
54017	184	Spring Valley	RFP	6.00
54018	184	Spring Valley	RFP	6.00
54019	184	Spring Valley	RFP	10.00
54020	184	Spring Valley	RFP	10.00
54021	184	Spring Valley	RFP	10.00

Exhibit "B"

APP	File Date	Stat	CO	Basin	Basin Name	Src	QQ	QTR	SEC	TWN	RNG	Use	Div Rt (CFS)	Duty (AFA)
64668	12/11/1998	RFP	LI	181	Dry Lake Valley	UG	SW	NE	20	T01S	R65E	IRR	10.000000	6400.00
64669	12/11/1998	RFP	LI	181	Dry Lake Valley	UG	SW	NE	33	T05N	R64E	IRR	10.000000	5120.00
64670	12/11/1998	RFP	LI	180	Cave Valley	UG	SE	NE	08	T05N	R63E	IRR	10.000000	5120.00
64671	12/11/1998	RFP	LI	180	Cave Valley	UG	SE	NE	09	T08S	R63E	IRR	10.000000	6400.00
64672	12/11/1998	RFP	LI	171	Coal Valley	UG	SW	SW	15	T02N	R60E	IRR	10.000000	5120.00
64673	12/11/1998	RFP	LI	171	Coal Valley	UG	NE	NW	11	T02S	R59E	IRR	10.000000	6400.00
64674	12/11/1998	RFP	LI	169A	Tikapoo Valley	UG	NW	NW	16	T05S	R57E	IRR	10.000000	6400.00
64675	12/11/1998	RFP	LI	169A	Tikapoo Valley	UG	NE	SE	09	T07S	R58E	IRR	10.000000	6400.00
64676	12/11/1998	RFP	LI	172	Garden Valley	UG	SW	SE	07	T02N	R58E	IRR	10.000000	5120.00
64677	12/11/1998	RFP	LI	172	Garden Valley	UG	NE	NW	18	T01S	R58E	IRR	10.000000	6400.00
64678	12/11/1998	RFP	LI	182	Delamar Valley	UG	SE	SE	30	T05S	R64E	IRR	10.000000	6400.00
64679	12/11/1998	RFP	LI	182	Delamar Valley	UG	SW	NW	24	T07S	R63E	IRR	10.000000	6400.00
64680	12/11/1998	RFP	LI	183	Lake Valley	UG	NE	SW	17	T08N	R66E	IRR	10.000000	5120.00
64681	12/11/1998	RFP	LI	183	Lake Valley	UG	NE	NW	23	T05N	R66E	IRR	10.000000	5120.00
64682	12/11/1998	RFP	LI	184	Spring Valley	UG	SE	NE	09	T08N	R68E	IRR	10.000000	5120.00
64683	12/11/1998	RFP	LI	184	Spring Valley	UG	NE	SW	03	T09N	R68E	IRR	10.000000	5120.00
64686	12/11/1998	RFP	LI	202	Patterson Valley	UG	SE	SE	05	T02N	R67E	IRR	10.000000	5120.00
64687	12/11/1998	RFP	LI	202	Patterson Valley	UG	NW	NE	11	T04N	R66E	IRR	10.000000	5120.00
64688	12/11/1998	RFP	LI	206	Kane Springs Valley	UG	SW	SE	25	T08S	R65E	IRR	10.000000	6400.00
64689	12/11/1998	RFP	LI	206	Kane Springs Valley	UG	SE	SW	31	T09S	R65E	IRR	10.000000	6400.00
64690	12/11/1998	RFP	LI	208	Pahroc Valley	UG	NE	SE	02	T02N	R62E	IRR	10.000000	5120.00
64691	12/11/1998	RFP	LI	208	Pahroc Valley	UG	SE	SE	31	T01S	R62E	IRR	10.000000	6400.00
67964	8/31/2001	RFP	LI	204	Clover Valley	UG	SW	SE	02	T06S	R68E	MUN	5.000000	3620.00
67965	8/31/2001	RFP	LI	204	Clover Valley	UG	NE	SE	06	T06S	R69E	MUN	5.000000	3620.00
67966	8/31/2001	RFP	LI	204	Clover Valley	UG	SE	SW	11	T06S	R69E	MUN	5.000000	3620.00
67967	8/31/2001	RFP	LI	204	Clover Valley	UG	NW	NE	03	T06S	R70E	MUN	5.000000	3620.00