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APPENDICES

Appendix A.....	Population Data, Prelim. Environmental Assess, Geology & Fault Maps
Appendix B.....	Well Logs, Water Rights Inventory
Appendix C.....	Water Quality Data, NDEP Documents
Appendix D.....	City Fire Code, IFC App. B-Fire Flows, App. C-Hydrant Spacing
Appendix E	Existing Rates, Financial Information
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EXECUTIVE SUMMARY

This Preliminary Engineering Report (PER) has been prepared for the City of Carlin (City) to address system deficiencies within the City's water utility. This PER describes the existing water system and its deficiencies and makes recommendations for improvements. The projects presented in Section 5 of this report include only improvements associated with the City's existing infrastructure. All improvements necessary to serve future growth will be funded by development funds, and not grant or loan funding.

The areas of concern in the water system generally include aged water mains, fire protection capacity, leakage, and water main looping. At this time, the City is only considering improvements to the distribution system. The projects proposed in this PER include replacement of transmission mains which connect the water storage tanks to the system and replacement of the oldest water mains located in the southern portion of the City.

The PER is required by the United States Department of Agriculture (USDA), Rural Development (RD) as a precursor to obtaining grants or loans from their agency as well as the State of Nevada. This PER follows the general guidelines set forth in the USDA Rural Utility Service (RUS) Bulletin 1780-2, "Preliminary Engineering Reports for the Water and Waste Disposal Program".

1.0 PROJECT PLANNING

1.1 GENERAL INFORMATION AND LOCATION

The City of Carlin is located on the western border of Elko County, Nevada. The Humboldt River flows on the south end of town. Two of the Humboldt's tributaries, Maggie and Susie Creek, run through the City of Carlin. Natural boundaries include Pine Mountain to the south, Mary's Mountain to the west, and Grindstone Mountain to the east. A location map is shown in Figure 1. A USGS map is provided in Figure 2.

With the western expansion of the United States, a small military camp was established in what is now southwestern Elko County when William Passmore Carlin was stationed there in 1858 under the direction of Colonel Albert Sidney Johnston during the Mormon War. The area did not see much additional development until approximately 1868 when Chinese railroad workers had been sent ahead to the area by the Central Pacific Railroad supervisor to prepare the land. In keeping with their agricultural background, some planted vegetables near the Humboldt River so in the early days the site was called "Chinese Gardens". The Central Pacific reached the Chinese Gardens site in December of 1868 and was selected as the eastern terminus of Humboldt division of the Central Pacific Railroad. A town site was laid out to provide support to the railroad and named "Carlin" after William Passmore Carlin.

The population of Carlin in 1871 was approximately 800. Carlin had a post office and a library furnished by the railroad. By 1884, a roundhouse, machine shop, four stores, one hotel, two saloons, two restaurants, two blacksmith shops, one telegraph office, one express office, one jail were establishments that comprised the town. By 1918, Carlin's population had dropped to 400 and there was little civic improvement. There were very few trees and few flowers or gardens. The few gardens and flowers that there were, had to be watered by a bucket from private wells. By 1923 Carlin began to revitalize when electrical generation and distribution was provided in the town. The present water and sanitary sewer systems were installed in the 1930's under the Federal Works Project Administration with labor mostly by the residents of Carlin. In the early 1950's steam engines began to be replaced by diesel engines which led to the piecemeal dismantling of the railroad support facilities. The railroad significantly reduced operations in Carlin by 1993.

As railroad operations reduced, mining activity began to increase in early 1960s with Carlin Gold. Other gold mines were discovered in the area on what is now known as the Carlin Trend with significant mining efforts beginning in the late 1980's all the way through present day.

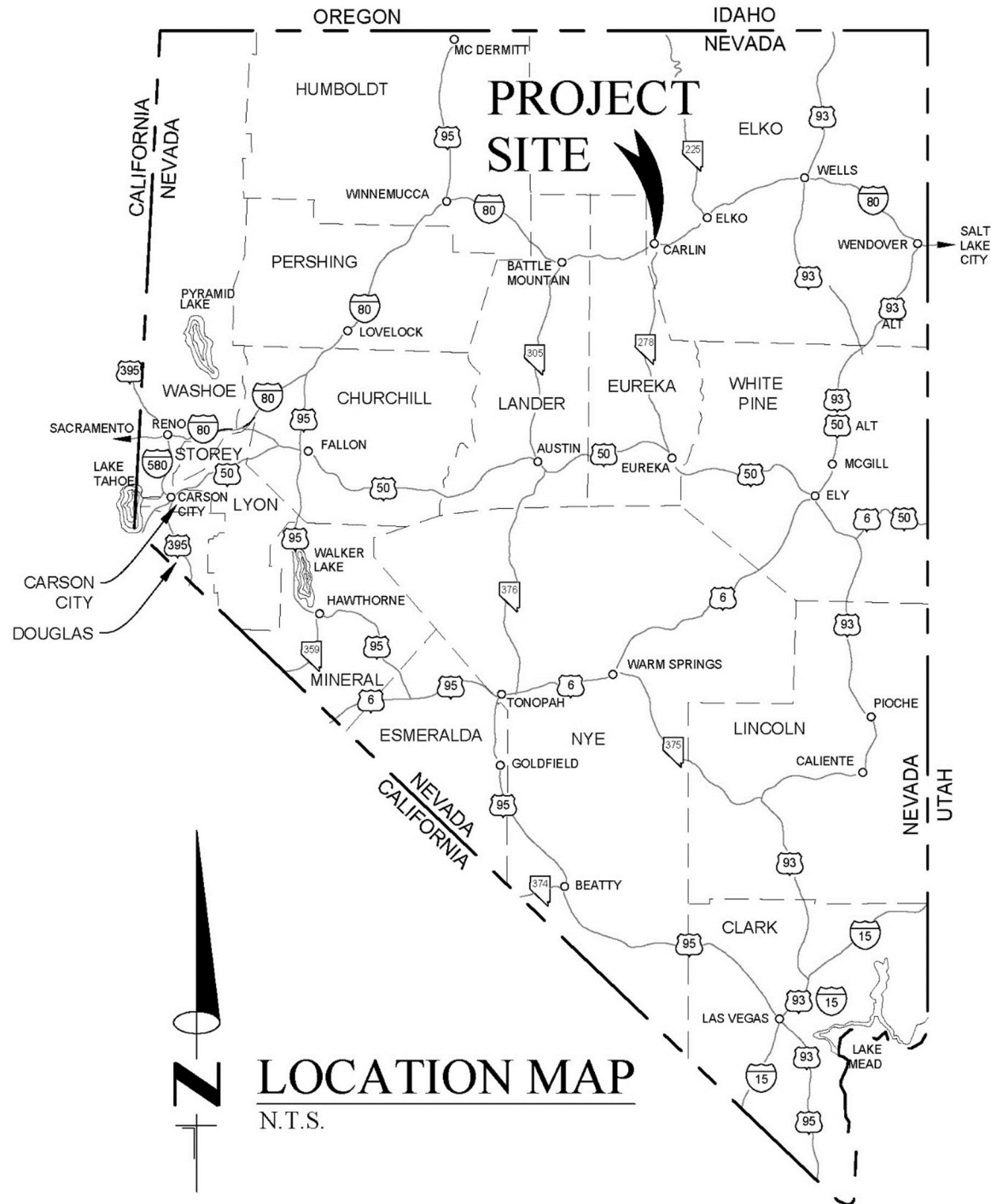


Figure 1: Location Map

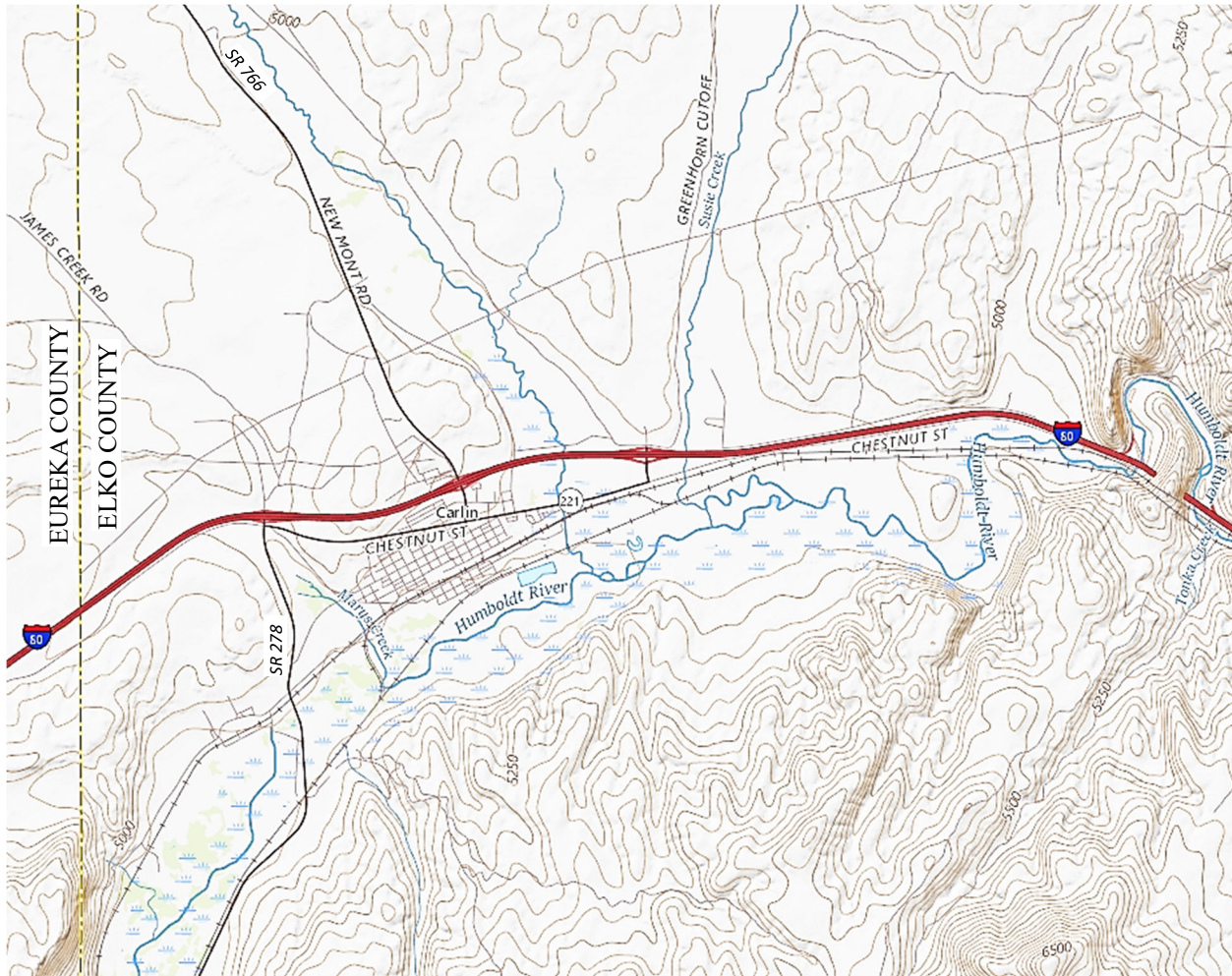


Figure 2: USGS Map

1.2 ENVIRONMENTAL RESOURCES PRESENT

This section provides a brief overview of environmental resources in the area. Proposed improvements are largely or entirely within existing rights-of-way or on City-owned land, and minimal environmental impacts are anticipated. Attached in Appendix A is the preliminary environmental assessment for the project.

1.2.1 Geologic Setting

Geologic maps indicate the Carlin area mostly lies on alluvial deposits placed by the river and creek flows. The Quaternary period deposits consist of unconsolidated gravels, sand, silt, and clays. The water table in the project area can be found as shallow as 10-feet deep in some areas. The north hills of Carlin consist of tuffaceous sedimentary rocks of the late Eocene to late Miocene period. The City of Carlin lies in a seismic design category C. Known fault lines have been mapped around the Carlin area with the nearest fault at approximately two miles southeast of the City. Refer to Appendix A for Geologic and Fault Maps.

1.2.2 Water Quality

There are no known impacts to water quality in or around the project area as a result of construction activities. Placement of BMPs during construction will minimize storm water pollution. The Nevada

Division of Environmental Protection (NDEP) may require a storm water permit depending on the area of land disturbed.

1.2.3 Climate

The average annual precipitation for the area is 12.09 inches. Table 1 lists the average rainfall and average temperature by month.

Temperatures in the area are characterized by large diurnal temperature variations that average 20 to 30 degrees. The average annual high and low temperatures are 57 degrees and 37 degrees Fahrenheit, respectively. Typically, temperature extremes can be in the negatives during the winter and in the just above 100-degees during the summer. The average growing season is 115 days per year.

Table 1: Average Rainfall and Temperature

Month	Average Rainfall (inches)	Average Temperature (Max/Min) °F
January	1.13	34.4/19.6
February	0.95	38.3/22.6
March	1.23	44.5/26.5
April	1.09	51.6/31.3
May	1.26	62.0/39.9
June	1.10	72.7/49.1
July	0.41	83.1/58.2
August	0.46	82.8/58.2
September	0.96	72.1/48.1
October	0.94	59.2/38.0
November	1.13	43.3/27.1
December	1.43	34.9/19.7
Annual Totals	12.09	56.6/36.5

Data from Desert Research Institute for Carlin Newmont Mine

1.2.4 General Land Use

Land in the City service boundary includes residential, commercial, light industrial, agricultural and public uses. The rural/agricultural residents on the south end of town are served by City water but are too low to be served by the gravity sanitary sewer system and use septic systems. The City limits extend out into undeveloped sections of land that are currently not zoned. The mostly undeveloped area of the within the City limits totals approximately 9 square miles. Approximately 2 square miles is well-developed.

1.2.5 Floodplains

The flood zones for Carlin have been mapped by the Federal Emergency Management Agency (FEMA) and have been designated by the following panel numbers: 32007C5984E, 32007C5985E, 32007C6001E, 32007C6002E, 32007C6003E and 32007C6004E. Areas immediately adjacent to the Humboldt River and tributary creeks are in Zone A, AE, and X. Most developed portions of the City lie outside the flood zones. Some underground water mains are in flood zones. For reference, the following flood hazard zone designations are provided:

Zone AE and A1-A30: Zones AE and A1-A30 are the flood insurance rate zones corresponding to the 100-year floodplains, determined by detailed methods in the Flood Insurance Study. In most instances, base flood elevations derived from the detailed hydraulic analysis are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zones B, C, and X: Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

The FEMA FIRM maps for the Carlin area were issued in September 2013. The FEMA designated flood zone impacts the south side of the City as shown in panel 32007C6003E and 32007C6004E. The flood zone associated with Mary's Creek impacts the west side of town including the water spring collection system as designated in panel 32007C5984E.

1.2.6 Flooding History

Historically, the Humboldt River flooding typically occurs during winter months. Winter flooding is generally caused by heavy rains on top of extensive amounts of snow.

There are two significant storm events recorded in the Carlin area. The first occurred in February of 1910, the largest flood of record for the entire Humboldt River and its associated tributaries. The Humboldt River crested at 15,000 cfs and both Maggie and Susie Creeks flooded. The gauged depth of the Humboldt River is 17 feet southwest of Carlin. Many roads, bridges and railways in the region were ruined. Another occurred in February of 1962. Maggie Creek gauged at 2,440 cfs and portions of railyards and lower residential areas flooded. During this event the Humboldt River gauge southwest of Carlin measured a depth of 9.28 feet. In May 1984 the Humboldt River gauge measured the depth of the flooding event at 10.2 feet. In February of 2017 the depth of the flood event measured at 9.7 feet. Observations of this recent event in 2017 indicated that the river surface reached the base of the southside of the wastewater treatment facility.

1.2.7 Transportation

Water mains that need replacement are generally in existing street rights-of-way. Traffic control devices will be necessary to route traffic around construction zones during main replacements. Minor traffic delays can be expected during construction. State Route 766, which supports several mine sites, is the only significant highway that could be impacted by construction zones for utilities. Other Nevada Department of Transportation (NDOT) roads that contain City water and sanitary sewer mains include Interstate Highway 80 (I-80) and State Route 221 (Chestnut St.). Existing and future utilities that cross I-80 are completed by boring under the freeway so that traffic is not impacted.

1.2.8 Noise

Typical construction noise should be anticipated. Construction will take place only during normal working hours.

1.2.9 Environmental Resources

Table 2 presents a list of environmental resources present in the project area.

Table 2: Environmental Resources

Resource	Type of Information	Comments
General Land Use	Zoning, land use classifications	Refer to subsections listed above.
Important Farmland, Prime Rangeland and Forest Land	Soil surveys	Does not apply. No impact is anticipated.
Formally Classified Lands	Monuments, landmarks, wild and scenic rivers, wilderness areas, state of national parks, reservations, recreation areas	No former classified lands to impact.
Floodplains	Flood insurance maps, soil surveys	Refer to subsections listed above.
Wetlands	Soil surveys, National Wetland Inventory Maps, and Section 404 issues	No wetlands are located within the project area.
Cultural Resources	Historical and archaeological sites, visually sensitive areas.	Refer to subsections listed above.
Biological Resources	Threatened and endangered species, critical habitats, species of special concern	Refer to subsections listed above.
Water Quality	Discharge Permits, Water Appropriation Permits, Sole Source Aquifers	Refer to subsections listed above.
Coastal Resources	Coastal barrier resource maps, coastal zone management planning documents	Does not apply.
Socio-Economic/Environmental Justice	Economic data, location of minority and low-income populations.	No impact is anticipated.
Air Quality	State Implementation Plan	No impact is anticipated.
Transportation	Airports, highway safety, navigation hazards	Refer to subsections listed above.
Noise	Noise levels and restrictions	Refer to subsections listed above.
Hazardous Material and Waste	Bureau of Waste Management	No materials are known to exist.

1.3 POPULATION TRENDS

1.3.1 Base Population

According to the 2010 U.S. Census, there are 2,368 people living in the City. The average household size is 2.56 persons. The Census lists the total housing units at 1,043 with 882 of those homes being occupied. The U.S. Census and the Nevada State Demographer do not provide unique population estimates for the City. This report will use the City's population values listed in the Census as the population of the City. More information can be found in Appendix A.

1.3.2 Historical Growth and Future Growth Rate

The Nevada State Demographer has published historical population estimates for the City from 2000 through 2016. According to the Nevada State Demographers Population Estimates of Nevada Counties, Cities, and Towns from 2000 to 2016, the City's population has fluctuated resulting in a net increase of 12 percent. These values are presented in Table 3 and plotted in Figure 3.

Table 3: Population Estimates July 2000 to July 2016

Year	City of Carlin Population	Percent Change
2000	2,395	
2001	2,215	-7.5%
2002	2,074	-6.4%
2003	2,045	-1.4%
2004	2,240	9.6%
2005	2,261	1.0%
2006	2,281	0.9%
2007	2,295	0.6%
2008	2,322	1.2%
2009	2,345	1.0%
2010	2,370	1.1%
2011	2,376	0.3%
2012	2,376	0.0%
2013	2,851	20.0%
2014	2,731	-4.2%
2015	2,727	-0.1%
2016	2,684	-1.6%

From Nevada State Demographer, Appendix A

Population estimates are available for Elko County for the 20-year planning period of 2014 through 2033 and have been used to project the future populations. Growth rates were developed by the Nevada State Demographer's Office in October of 2014. The City population has been estimated to grow at the same rate as Elko County. Population projections are illustrated in Figure 3.

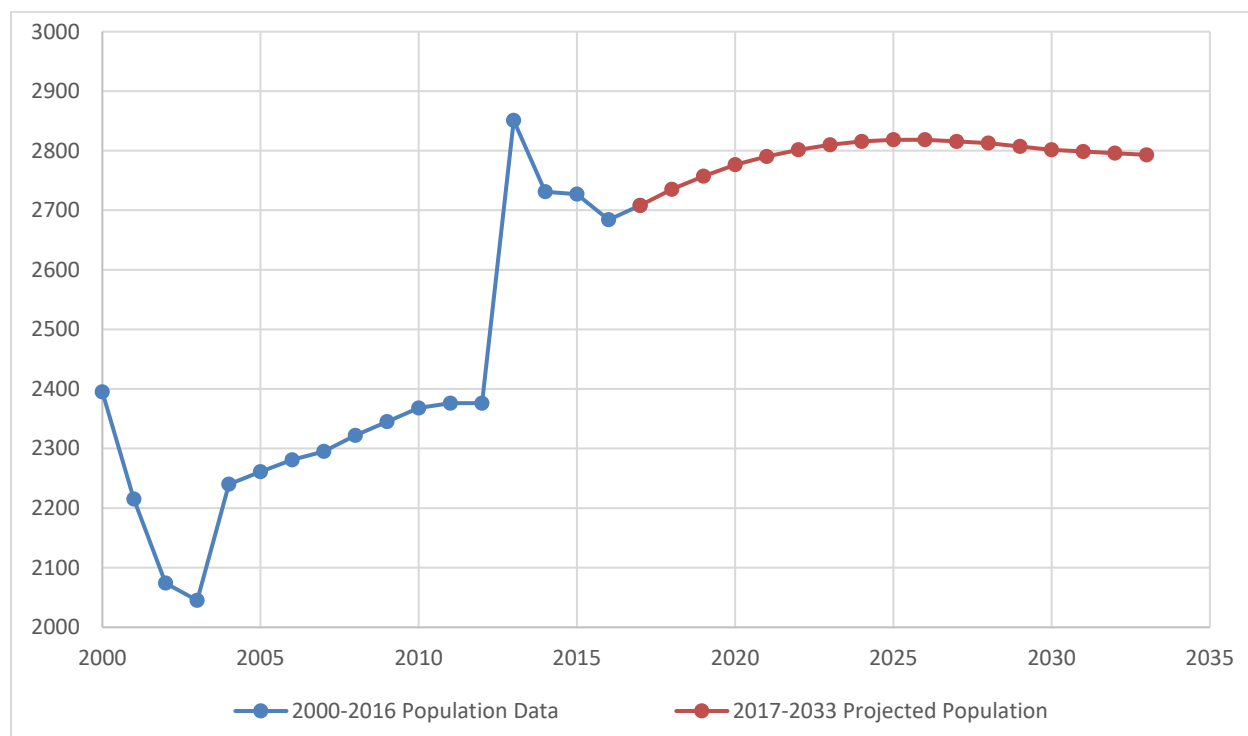


Figure 3: Historical and Future Population Trend

1.3.3 Median Household Income

Per the *2013-2017 American Community Survey 5-Year Estimate*, the median household income (MHI) for the City of Carlin is \$74,148. Per the same source, the State of Nevada MHI is \$55,434. The ratio of the City's current MHI to the State MHI does not classify the community as disadvantaged or low-income which limits some funding opportunities for the City. The City can conduct an independent income survey to evaluate whether or not the \$74,148 is accurate and representative of its community.

1.4 COMMUNITY ENGAGEMENT

The Carlin City Council meets the second and fourth Wednesday of every month. The City engages the public for comment on projects that impact the City. The discussions at the council meetings on projects covers items ranging from benefits to the community, construction impacts, finances, and public input. The city manager and public works director are normally present to receive public and council input on projects and to direct the project engineer.

City of Carlin residents and businesses have had the opportunity to discuss the PER and proposed improvement projects at three separate City Council meetings. The first was on February 22, 2017 when the contract was approved to commence work on the water and sewer system PERs in addition to a road master plan. The second meeting was on February 13th, 2019 when the council acted on a loan with USDA for the wastewater system, although the overall improvement needs of the City were discussed. Most recently, Farr West Engineering presented information to the council and public regarding the two highest priority improvement projects determined by this PER with a specific focus on future rate impacts as a result of these projects. This meeting was held on November 13, 2019 and included attendance from NDEP's Office of Financial Assistance to provide guidance on future funding programs and requirements. The water system projects discussed were the Replacement of Transmission Mains and Replacement of the Southern Distribution System, which are described in detail throughout this document. The City Council

and residents understand the need for these projects and made specific action at the meeting to pursue funding and begin the initial phases of enterprise fund creation for both the water and sewer systems. Approved minutes for each of these meetings can be found on the City's website.

2.0 EXISTING FACILITIES – WATER SYSTEM

2.1 OVERVIEW OF EXISTING FACILITIES

The public water system for the City of Carlin is owned and operated by the City and serves approximately 800 connections. The system can be divided into five primary components: supply, storage, distribution system, system operations, and management. The supply system includes two (2) springs and a well; the storage system has three water storage tanks and a storage reservoir; and the distribution system includes over 25 miles of pipe and two (2) booster pump stations. The age of the infrastructure ranges from the 1930's to 2018. Each of these components are evaluated in this section of the PER with a summary of their condition provided in Table 4. Figure 4 shows the location of the well and spring(s) relative to the city distribution system. Figure 5 presents an existing schematic and hydraulic profile for the City's systems.

Table 4: Condition of Existing Facilities

System Component	Condition
Supply	Good
Storage	Fair (Routine Maintenance Required)
Distribution System	Deficient (Water Losses, Fire Flow, Operating Pressure, Pipe Condition, Backflow Protection)
System Operation and Control	Good
Management	Good

2.2 RECENT PROJECTS AND IMPROVEMENTS

Over the last several years various construction projects have occurred. Table 5 provides dates and a brief description of work done for these projects.

Table 5: Water System Project History

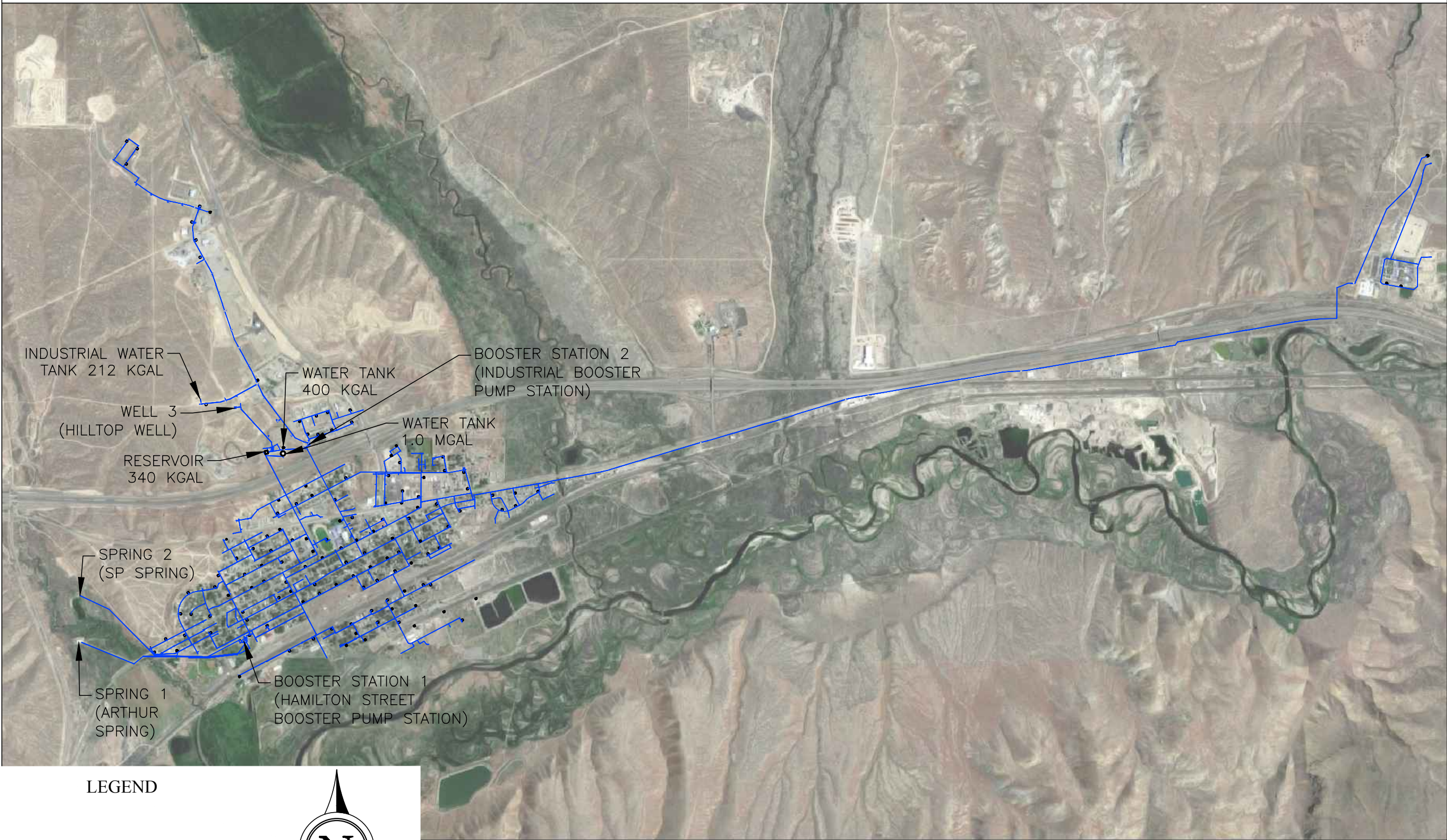
Year	Description of Work Done
2008	Water line extension from industrial park to Equestrian center.
2008	Removal of gas chlorination systems at Well and Main pump house and install T-Chlor system.
2009	Covered reservoir building replacement.
2013	Water line extension on Chestnut Street (north side) from Tenth Street to Eighth Street.
2016	New telemetry installed
2018	Recoating of 1.0Mgal tank
2021	Spring 1 (Arthur Spring) outlet repairs. The City is also currently pursuing replacement of the transmission line from Spring 1

2.3 WATER SUPPLY

Currently, the source of potable water for the City system is groundwater drawn by Spring 1 (primary source) and Well 3. Spring 2 has not been utilized as a water source for more than five years and is not actively connected to the water distribution system. In general, the water supply system is in good condition and has been able to reliably meet water quality and quantity requirements over the study period of this PER. A copy of the well log and pumping records are provided in Appendix B.

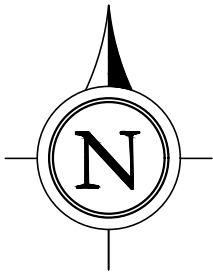
2.3.1 Water Quality

Water quality at the Spring 1 and Well 3 sources has a history of being compliant and is not a significant concern at this time. The only water treatment provided by the City is disinfection by way of sodium hypochlorite addition for both the spring and well. This process occurs at two separate locations: at the Hamilton booster pump station for Spring 1 and at the well house for Well 3. Approximately two 55-gallon drums of chlorine are consumed every month during the winter, and two every three weeks during the summer, with the well and spring consuming chlorine at approximately the same rate (per City personnel). It is recommended that the City monitor the effect of sodium hypochlorite dosing rates to Total Haloacetic Acid (HAA5) test results to ensure compliance in the future. There is not currently any indication that additional water treatment will be required in the near future.



LEGEND

— EXISTING WATER MAINS

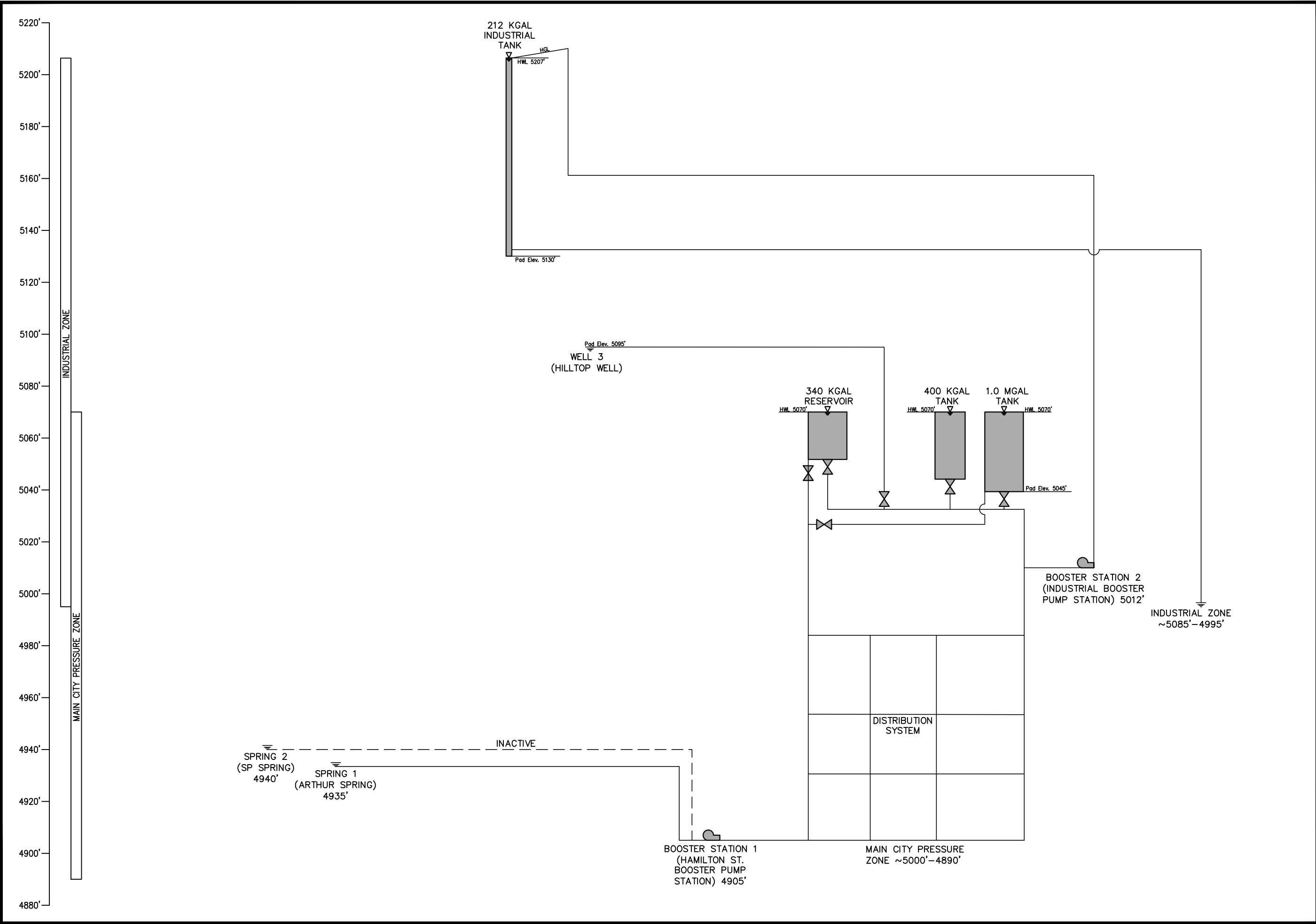


JOB NO.: 352.1169
DESIGN: CJM
DRAWN: KRW
CHECKED: DLP
DATE: MARCH 2018

FARR WEST
ENGINEERING
421 COURT STREET
ELKO, NEVADA 89801
PHONE: (775) 738-2121
FAX: (775) 738-7955

CITY OF CARLIN
EXISTING WATER SYSTEM INFRASTRUCTURE
ELKO COUNTY NEVADA

FIGURE
4



JOB NO.: 352.1169

DESIGN: CJM

DRAWN: CJM

CHECKED: DLP

DATE: MARCH 2018

FARR WEST

ENGINEERING

421 COURT STREET

ELKO, NEVADA 89801

PHONE: (775) 738-2121

FAX: (775) 738-7955

CITY OF CARLIN

EXISTING WATER SYSTEM

SCHEMATIC AND HYDRAULIC PROFILE

NEVADA

ELKO COUNTY

FIGURE

5

Table 6 is a summary of water quality data from the City's 2019 Consumer Confidence Report. The City water system is identified as Water System No. NV0000014. Additional water quality data gathered from the Nevada Bureau of Safe Drinking Water (BSDW) Information System (BSDWIS) database is provided in Appendix C. The database also contains a history of all water quality monitoring on file with the BSDW including violations of EPA's drinking water regulations. As detailed in Section 2.8, the City water system has had four (4) water quality violations in the past twenty-five years with all of them appearing to be acute instances and the system has been brought into compliance since the violation.

Table 6: 2019 Consumer Confidence Report Summary

Contaminant	Level Detected	Unit of Measurement	Maximum Contaminant Level (MCL)
Disinfection Byproducts			
Haloacetic Acids (HAA5)	25	ug/L	60
Total Trihalomethanes (TTHMs)	45	ug/L	80
Inorganic Chemicals			
Arsenic	8	ppb	10
Asbestos	<2	mfl	7
Barium	0.14	mg/L	2
Chromium	3	ppb	100
Copper	0.16	mg/L	1.3
Fluoride	0.5	mg/L	2
Lead	2	ppb	15
NO3 (Nitrate)	0.59	mg/L	10
Secondary Contaminants			
Chloride	20	mg/L	400
Magnesium	17	mg/L	150
Manganese	0.006	mg/L	0.1
pH	8.19	mg/L	8.5
Sodium	35	mg/L	200
Sulfate	57	mg/L	500
Total Dissolved Solids (TDS)	360	mg/L	1,000
Radionuclides			
Alpha Particles	9.40	pCi/L	15
Beta Particles and Photon Emitters	11.2	pCi/L	5
Radium 226	0.501	pCi/L	5
Radium 228	1.66	pCi/L	5
Uranium	8	µg/L	30

2.3.2 Water Rights

Table 7 contains a summary of all water right permits filed in the name of "City of Carlin" and shown as "Carlin - City" on the Nevada Division of Water Resources (NDWR) database. The City currently has an adequate volume of water rights to meet current and near-term future demands. Following the table are a set of recommendations and best practices to maintain and protect the City of Carlin's water rights.

Table 7: City of Carlin Water Rights Permits

App. No.	Status	Cert. No.	Priority Date	Source	Type of Use	Description	Diversion Rate(CFS)	Annual Duty (AFA)
Maggie Creek Area Basin No. 051								
31193	PER		3/18/1977	EFF	STO	Waste Effluent	1.500	1,085.955
31193-S01	CER	14197	3/18/1977	EFF	IRR	Waste Effluent	1.500	120.76
51981*	PER		4/4/1988	UG	MUN		2.000	735.308
70714	PER		1/5/2004	UG	MUN	Mine Int. Center	0.100	4.603
Mary's Creek Area Basin No. 052								
50434	CER	15550	12/19/1986	SPR	MUN	Arthur Spring	0.144	35.2
50437	PER		7/25/1961	SPR	MUN	Arthur Spring	1.000	
68232	PER		3/19/1956	SPR	MUN	Arthur Spring	3.000	
50439	CER	15551	1/1/1870	SPR	MUN	S.P. Spring	0.770	557.457
50436*	PER		9/7/1934	UG	MUN		0.890	644.346
52266*	PER		9/9/1933	UG	MUN	Hilltop Well	0.560	405.432
57712*	PER		4/4/1988	UG	MUN		2.000	735.308

TCD of Permit Nos. 50436, 51981, 52266, 57712 = 342.07 MGA (1,049.774 AFA). This TCD applies to water rights in both hydrographic basins.

1. Maintain all permitted point of diversion locations for potential future well sites. Permitting water rights closer to the Humboldt River will be increasingly difficult as surface water/groundwater interaction is scrutinized. Permit Nos. 50436 and 52266 carry priority dates in the early 1930's, which is very senior for a groundwater right. Maintaining these senior permits should be a priority for the City.
2. Develop infrastructure to maximize permitted diversion from Arthur Spring (hereafter Spring 1) and SP Spring (hereafter Spring 2). Using water from these sources, even to manage outside irrigation needs, if necessary, may reduce pumpage of groundwater resources. This in turn will reduce potential impact on waters from the Humboldt River from groundwater pumpage. By maximizing use of surface water flows, wells are pumped less. Flows which return to the Humboldt River, either after irrigation activities or high spring discharge, may be used in the future to show that the City is managing potential impacts to river flows by well pumpage.
3. Maintain and expand secondary water use infrastructure to provide additional water for outside uses to reduce demand on potable water system. Any usage of secondary effluent for ball fields, parks, landscaping, etc., can result in cost savings and other benefits to the City. Reduced well pumpage has multiple benefits, including cost savings by reducing the amount of treated water and demonstrating conservation efforts to downstream users.
4. Dedicate staff hours to track water right application filing to review and recommend protest filing, if appropriate. Water right applications are published in the local newspaper for four consecutive weeks, followed by a 30-day protest period. Review of an application will show if the application is a new appropriation, its proximity to existing water rights, proposed diversions in volume and

flow, and proposed project. New appropriations in particular should be scrutinized for potential impact to City water rights.

5. Permit No. 70714 supports the mining interpretive center. If this well becomes active, a Proof of Completion of Works should be filed with NDWR. Monthly meter readings should be tracked to manage Proof of Beneficial Use due dates to maintain this water right until the full volume of water is used at the site.
6. Manage water right due dates for filing Proof of Completion of Work (POC) and/or Proof of Beneficial Use (PBU) to maintain good standing of water right permits. Current due dates to maintain are as follows:
 - a. Permit No. 51918 – POC and PBU due April 11, 2018
 - b. Permit No. 57712 – POC and PBU due April 11, 2018
 - c. Permit No. 50437 – PBU due April 11, 2018
 - d. Permit No. 50436 – PBU due April 11, 2018
 - e. Permit No. 52266 – PBU due April 11, 2018
 - f. Permit No. 68232 – PBU due June 20, 2018
 - g. Permit No. 70714 – POC and PBU due June 24, 2018
7. Farr West recommends future budget allocated to develop a water resource plan to prepare the City for administrative changes to groundwater management in Maggie Creek Area and Mary Creek Area (Hydrographic Basin Nos. 51 and 52, respectively). Conjunctive use regulation and administrative changes are expected to place additional pressure on municipalities along the Humboldt River to manage groundwater pumpage. Developing water right permitting options and strategies will be helpful to allocating budget for future infrastructure projects.

2.4 WATER STORAGE

Storage for the City water system is contained in three steel tanks and one reservoir. The 0.34 million-gallon (MG) reservoir and two of the steel tanks, 1.0 MG and 0.4 MG, are located south of Poplar Drive, overlooking I-80. The third tank with a storage capacity of 0.22 MG is located northwest of the primary storage location and is mainly used for industrial/commercial purposes. The most recent tank inspection for all three tanks was performed in 2015 by Liquid Engineering Corporation.

Water storage was originally provided by the 1.0 MG riveted steel tank, originally manufactured for the railroad before the First World War, and subsequently relocated and repurposed to store drinking water in 1938. At some point a roof and roof support structure were retrofitted onto the tank. This tank was refurbished, and the interior recoated in October 2017- February 2018. The tank shell is in good condition, but the steel roof supports and steel floor plate exhibit considerable effects of corrosion. The floor has been patched approximately 500 times using a variety of steel plate types and welds over the years, in addition to continuous welding along all riveted seams in the wall and floors. Some of the angle irons supporting the roof have rusted through. The tank's rivets also likely contain lead, although these rivets are separated from potable water by way of an air gap or epoxy coating and routine compliance testing/monitoring has not indicated elevated lead concentrations in nearly twenty years. With the recent recoating of the tank, the tank is in fair condition and the usable life should be an additional 10 to 20 years.

The 0.4 MG welded steel tank is a more recent tank and the roof structure is likely original, though its steel floor has been extensively patched. It is being recoated in 2018. Overall, this tank is in acceptable condition. It is immediately north of the 1.0 MG tank.

The 0.34 MG reservoir is a concrete-lined rectangular prism. It is covered by a steel building and lies uphill approximately 300 feet to the west of two larger tanks, such that its surface elevation is similar to that of the two tanks. This facility has been identified as having deficiencies in prior sanitary surveys, however all items have been resolved to date.

The 0.22 MG water tank is a bolted steel structure which lies approximately 2,000 feet uphill to the northwest from the other three storage structures. This tank is very tall relative to its diameter, approximately 22 ft diameter by 80 ft tall. The height of the tank allows for increased static pressures to the area (i.e., industrial pressure zone) the tank serves. It has the longest remaining service life of the three tanks and is generally in good condition but showed signs of leakage from the wall/floor seam during the 2015 inspection and some of the bolts exhibited staining or corrosion. City staff inspects this tank seasonally and tightens bolts as needed to reduce leakage.

Figure 4 shows the locations of the existing water system facilities including the pipes, wells, pumps, and water storage tanks.

2.5 PRESSURE ZONES

The City water system operates across two pressure zones, the lower pressure zone and the industrial pressure zone. The lower pressure zone is supplied by two tanks (1.0 MG and 0.4 MG) and the reservoir (0.34 MG) and is the portion of the system south of the I-80. A booster station located a few hundred feet downhill to the east of the 1.0 MG tank includes two 7.5 hp pumps (one on standby) to transport water to the high zone tank (0.22 MG). An additional 60 HP pump is on standby for fire demand to the industrial zone. The existing system pressures are delineated in Figure 6.

The areas served by each pressure zone are compliant with Nevada Administrative Code (NAC) 445A.6672 with the exception of a portion of the lower pressure zone. The part of town lying north of Bush Street and south of I-80 sits as little as 50 vertical feet lower than the elevation of the base of the 1.0M gallon water tank. City personnel have also recorded pressures as low as 32 psi in this area in the past. NAC445A.6672 requires a minimum of 40 psi during maximum day demand (MDD) and a minimum of 30 psi during peak hour demand (PHD). Therefore, water pressures in certain parts of the distribution system which lie near to the water tanks may be deficient from both an operational and compliance perspective.

2.6 DISTRIBUTION SYSTEM

The water distribution system consists of CI, ACP, ductile iron (DI), HDPE, PVC, galvanized steel, copper, and steel pipes, ranging from 1-inch to 16-inch diameter. The original construction of the distribution dates to the 1930's and possibly late 1800's for some small segments. In general, the oldest pipes lie south of the railroad tracks, with progressively newer pipes radiating outwards and toward the north and west. In some locations, such as along Fir Street near the gas station, two or more water mains run in parallel along the same route.

A 12-inch and a 14-inch steel pipe each run under I-80 to transmit water from the booster pump station to storage structures to the distribution system. These pipes have significantly corroded since their construction in the late 1930's and have failed on several occasions. Tapping into the 12-inch pipe has become a safety hazard because its reduced wall thickness has raised the probability of a blowout. Two additional transmission mains connect the booster pump station to the two springs, Spring 1 (active) and Spring 2 (inactive). These lines are approximately 10-inch in diameter, are a mix of steel pipe and ACP, and the main from Spring 1 is known to be deficient.

Overall, the system is well looped; however, there are several locations within the service area which are served by dead end mains, including some which do not have a hydrant or valve for flushing. Several areas were considered for additional loops. Table 8 below itemizes the total length of various pipe sizes within

the distribution system and Table 9 details the estimated length of each type of material. Figures 7 and 8 presents the pipe materials and sizes for the existing water distribution system.

Table 8: Approximate Length of Pipe by Size

Diam. (in)	Length (ft)	Length (mi)
2"	4,907	0.93
4"	1,749	0.33
6"	25,948	4.91
8"	37,661	7.13
10"	13,973	2.65
12"	46,459	8.80
14"	1,050	0.20
16"	1,051	0.20
Total	132,798	25.15

Table 9: Approximate Length of Pipe by Material

Material	Length (ft)	Length (mi)
DIP	350	0.07
AC	7,380	1.40
C900	20,558	3.89
CI	8,353	1.58
COPPER	1,234	0.23
GALV	963	0.18
PVC	35,755	6.77
STL	3,550	0.67
Unlisted	55,883	10.58
Total	134,026	25.38

Figure 6
Existing System Pressures

Legend

Junction PRESSURE

- less than 10.00
- 10.00 ~ 20.00
- 20.00 ~ 30.00
- 30.00 ~ 40.00
- greater than 40.00

N



1" = 1,000'

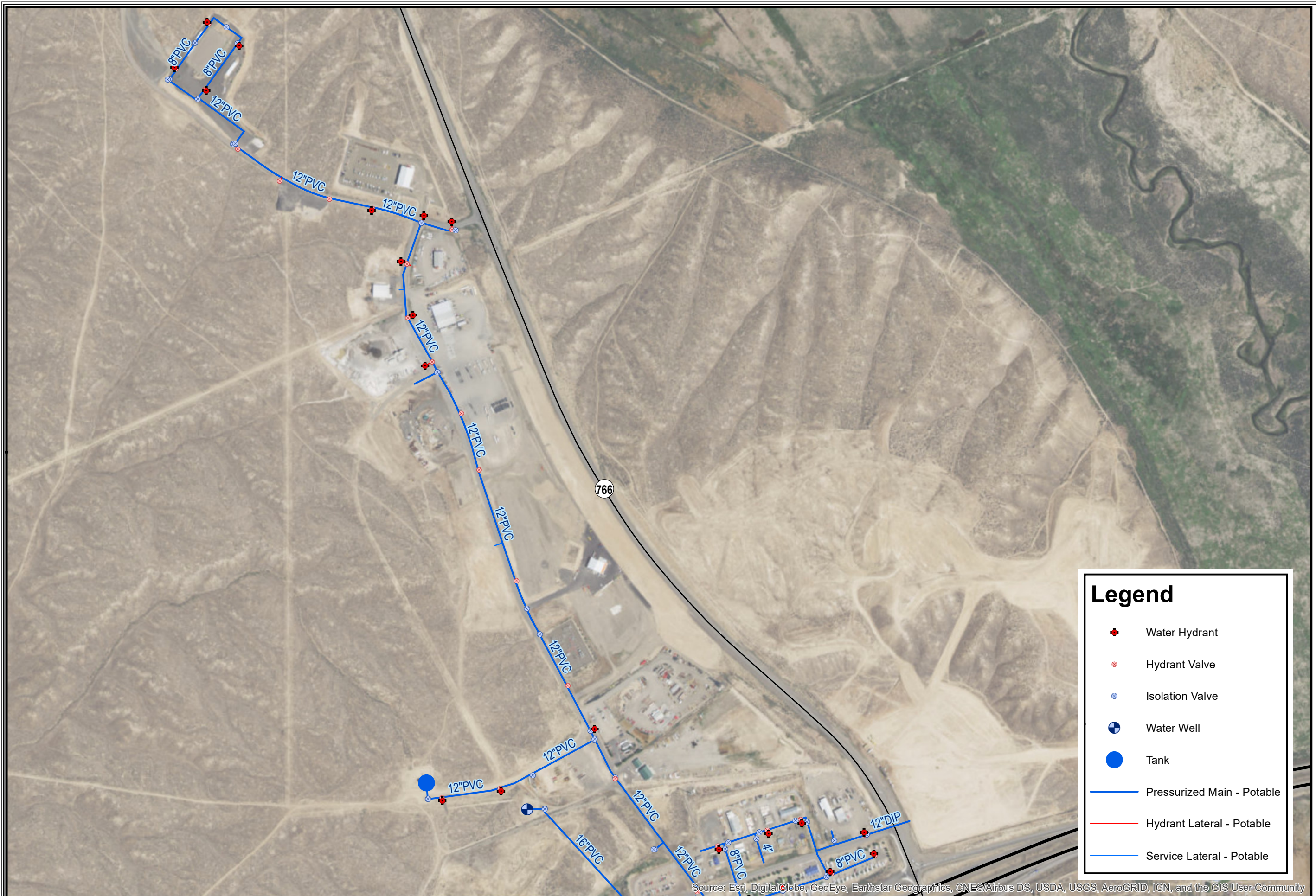
The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Figure 7
City of Carlin Water

Figure 8
City of Carlin Water



Legend

- Water Hydrant
- Hydrant Valve
- Isolation Valve
- Water Well
- Tank
- Pressurized Main - Potable
- Hydrant Lateral - Potable
- Service Lateral - Potable



The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

From an operational perspective the distribution system is the most problematic component of the water system. The condition of the existing water distribution system necessitates frequent repairs of leaking or otherwise damaged water mains and other components. The City experiences several line breaks per year. These repairs are currently taken care of on an as-needed basis; however, the city has not kept detailed records. The Public Works Department estimated that approximately \$20,000 is spent each year on materials to repair the water system. Records of the staff time to repair leaks, break, and other issues are not maintained. Table 10 provides a summary of system repairs for the past five fiscal years.

Table 10: Water System Repairs

Year	System Component	Location	Material Costs
2018-2019	Water Main Break	Spring water supply at Hamilton and B Street	\$6,184
	Water Main Leak	Ally at Fifth and Main	
	Lateral / Service Valve Leak	10 locations throughout Southside	
	Lateral / Service Valve Leak	10 locations throughout Northside	
2017-2018	Water Main Break	Spring water supply at Hamilton and B Street	\$20,000
	Water Main Break	Main line at First and Cedar Street	
	Lateral / Service Valve Leak	5 locations throughout Southside	
	Lateral / Service Valve Leak	10 locations throughout Northside	
	Pump Impellers	Replace 2 impellers at main pump house	
2016-2017	Water Main Break	Spring water supply at Hamilton and B Street	\$20,000
	Water Main Break	Main line at East Chestnut and 282	
	Meter Pit Leak	Two replacements	
	Lateral / Service Valve Leak	4 locations throughout Southside	
	Lateral / Service Valve Leak	6 locations throughout Northside	
	Pump Impellers	Replace 2 impellers at main pump house	
2015-2016	Water Main Break	Main line at Chestnut and Eighth	\$20,000
	Water Main Valve Leak	Main line at First and Cedar Street	
	Lateral / Service Valve Leak	10 locations throughout Southside	
	Lateral / Service Valve Leak	5 locations throughout Northside	
2014-2015	Water Main Break	Main line at Chestnut and Eighth	\$20,000
	Water Main Break	Main line at Eleventh and Cedar Street	
	Water Main Break	Main line at Ally and South Fifth Street	
	Lateral / Service Valve Leak	5 locations throughout Southside	
	Lateral / Service Valve Leak	4 locations throughout Northside	

Testing of existing hydrants in the City system and projecting fire flow rates at a residual pressure of 20 psi results in a range from 590 gallons per minute (gpm) to 5,000 gpm. The lower flows in the system are primarily the result of small 4 or 6-inch diameter mains that serve portions of the distribution system and low static pressures at the top end of the lower pressure zone. Section 7.3.1 of the Carlin City Code indicates that the City has adopted the latest edition of the International Fire Code (IFC). Based on the IFC, residential structures in the City will require a flow of 1,000 gpm during a fire-fighting scenario. Moreover, the IFC recommends hydrants be spaced at not more than 500 feet apart when fire flow requirements are below 1,750 gpm. Fire flow requirements are attached in Appendix D. The Carlin Volunteer Fire Department also requires new hydrants to be spaced within 500 feet of structures based on the length of hose carried by their trucks. It is typical for a water system to space fire hydrants at 500 feet in populated areas and 1,000 feet in un-populated areas. Most, but not all, City fire hydrants are spaced to be less than 500 feet apart. Many hydrants are served by under sized pipes and have 2 ½-inch ports which do not allow

direct connection of modern fire hoses. These inadequate hydrants are believed to all be located on sections of older pipe.

2.7 SYSTEM OPERATION & CONTROL

The City has invested significant resources into the supervisory command and data acquisition (SCADA) system and the distribution system is equipped with high quality SCADA infrastructure. The SCADA system was completely overhauled in 2016, with some small ongoing improvements. The water and sewer systems are capable of being monitored and controlled via remote locations. Available online are domestic well water level, pump rates, discharge pressures and tank level information. At present no changes are needed to the SCADA system.

2.8 COMPLIANCE

2.8.1 Water System Violations

Farr West retrieved water system water quality violations for the City of Carlin water system from the NDEP website. Table 11 summarizes the four monitoring violations over the past twenty-five years.

Table 11: Water System Violation History

Date	Period	Constituent	Violation Type	Violation Result
02/07/2019	01/01/2018 – 12/31/2018	TOTAL HALOACETIC ACIDS (HAA5)	Monitoring, Routing (DBP), Major	Compliance achieved 11/14/2019
02/09/2011	02/01/2011 – 02/28/2011	COLIFORM (TCR)	Monitoring (TCR), Monthly	Compliance achieved 03/23/2011
08/28/2008	07/01/2008 – 07/31/2008	COLIFORM (TCR)	Monitoring (TCR), Monthly	Compliance achieved 08/28/2008
07/03/2001	01/01/1998 – 12/31/2000	LEAD & COPPER RULE	Follow-Up or Routine Tap M/R (LCR)	Compliance achieved 02/09/2005

2.8.2 Sanitary Survey

The most recent Sanitary Survey performed by NDEP was conducted on June 20, 2018. A total of seven deficiencies were identified, and NDEP staff provided comments regarding actions for compliance. The

deficiencies found are listed in Table 12. According to the City and the NDWIS website all deficiencies have been resolved.

Table 12: Water System Deficiencies

Facility	Category	Description	Comments
DS01 DISTRIBUTION SYSTEM	Distribution System	Cross Connections: The Distribution system must be protected from potential cross connections by using proper backflow control devices. NAC 445A.67185; 2	Backflow devices must be installed on all connections of concern and an inventory of backflow protection devices must be prepared with a method for tracking and ensuring that all devices are tested annually. Refer to NAC 445A.66655 for the appropriate backflow protection.
ST01 COVERED RES STORAGE TANK 340K	Finished Water Storage	Contamination Protection: The storage facility must be maintained to prevent pollution and contamination by way of leaks and openings (prevent entrance of rain, surface water, dust, birds, insects, and other animals). NAC 445A.6708.4 and 445A.67095; 2	The facility appears to be tight but there is a large blanket of insulation hanging down from the ceiling. This must be repaired so that it doesn't fall into the reservoir.
ST04 INDUSTRIAL STORAGE TANK 212K	Finished Water Storage	Contamination Protection: The storage facility must be maintained to prevent pollution and contamination by way of leaks and openings (prevent entrance of rain, surface water, dust, birds, insects, and other animals). NAC 445A.6708.4 and 445A.67095; 2	The tank is showing evidence of growth around some of the joints. The bots should be tightened, and plans made to rehab the tank in the next few years. Be sure to obtain BSDW Engineering approval before moving forward with a tank rehabilitation.

Facility	Category	Description	Comments
	Systems	Inspection and Maintenance Schedule; Water system facilities (i.e., storage tanks, pumps, PRVs,...) must have a regular inspection and maintenance schedule. NAC 445A.6667; 18	You MUST include in your inspection and maintenance schedule a routine inspection of the tank and spring outflows. The channels must be maintained in such a way that water moves quickly away from the source of the outflow. Provide BSDW with your standard operating procedure to implement this requirement.
	Systems	Cross Connection Control Plan; Systems must have and implement a current written cross-connection control program. NAC 445A.67185; 26	The city of Carlin does not have a formal cross-connection control plan that addresses the need for backflow and backsiphonage protection throughout the system. This plan must be prepared to address service connections, high-hazard connections, and other system vulnerabilities. It must be submitted and approved by the BSDW Engineering Branch with implementation to begin within 30 days of BSDW approval. Implementation will include additions as required to municipal code to require compliance from all public water system service connections.
	Operator Compliance	Certified Operator Compliance Duties: The system must ensure that the certified operator is performing compliance duties. NAC445A.6267/445A.6275; 3	Per information submitted to the BSDW, Kirk Peterson is the Operator in Responsible Charge of the Carlin Utilities Public Water System. During this inspection, Ken Mallory represented the water system and was able to address all aspects of the operation, including his comment that he is at the public water system weekly. Please provide BSDW with a confirmation of which employee of SPB Utility Services is actually the operator in responsible charge. Also describe how that person ensures that losses of pressure, maintenance and repair issues, and other day-to-day occurrences are handled when the operator is not regularly on site.

Facility	Category	Description	Comments
	Monitoring	Total Coliform Site Sampling Plan: All systems must have and follow an approved site sample plan for Total Coliform Rule (TCR) monitoring. NAC 445A.4525 and 40 CFR 141.21(a) and 40 CFR 141.851 through 861 (Subpart Y); 12	Per Revised Total Coliform Rule regulations, the Coliform Sampling Plan was reviewed by all parties. It was determined that the current sampling points and sampling frequency are representative of the distribution system and reflective of the average population. No changes were made.
SP02 SPRING	Source	SRC SP Overflow, Discharge and Drainpipes; Spring discharge and overflow pipes and other appurtenances must be properly screened, oriented and/or air gapped to daylight. NAC 445A.6696; 37	The channel that accepts the spring outflow is heavily clogged with weeds and the water surface is too close to the pipes for proper airgap protection. There are three pipes coming out of the spring collection area, with the largest one being lower than the other two. The lower part of the pipe opening is below the channel's water level by 3-4 inches. You must determine the origin of that line and if it is connected to potable water. The two lines confirmed to be carrying spring outflow have flapper valves but terminate only a few inches above the water's surface. The receiving channel must be maintained by removing weeds and deepening the channel so that an airgap at least two times the size of the outflow pipe diameter exists at all times.

2.9 SYSTEM CHARACTERISTICS

2.9.1 Existing Metered Water Use

The Carlin water system has only a small number of metered connections on commercial, industrial, and agricultural services. Metered water demand accounts for approximately 5% of the water production total. The meters are from various manufacturers. Table 13 lists the overall monthly meter readings from January 2015 through December 2018.

Table 13: Monthly Metered Use 2015-2017

Month	Metered Totals 2015 (gallons)	Metered Totals 2016 (gallons)	Metered Totals 2017 (gallons)	Month Average
January	1,201,597	579,781	1,146,879	976,086
February	1,277,622	658,484	1,252,731	1,062,946
March	974,244	666,980	682,009	774,411
April	817,165	883,185	827,969	842,773
May	1,218,423	1,077,234	1,803,208	1,366,288
June	1,638,086	1,885,327	1,317,508	1,613,640
July	1,284,848	1,923,199	2,036,409	1,748,152
August	1,379,647	1,725,472	1,375,301	1,493,473
September	1,097,646	1,507,113	1,574,335	1,393,031
October	621,690	1,370,273	1,286,383	1,092,782
November	560,521	1,075,300	1,100,406	912,076
December	824,613	1,697,030	687,518	1,069,720
Average Day	35,332	41,119	41,344	39,267
Maximum Month	1,638,086	1,923,199	2,036,409	1,748,152
Minimum Month	560,521	579,781	682,009	774,411

2.9.2 Existing Water Production

Table 14 presents the annual production numbers from January 2010 through December 2016 and Table 15 presents the monthly production numbers from January 2010 through December 2016. Spring 1 is the primary source for the City's water, and Well 3 is used to supplement Spring 1, especially during the summer months.

Table 14: Annual Water Production Totals January 2010 – December 2016

	2010	2011	2012	2013	2014	2015	2016	Average
Spring 1 Total (gallons)	86,090,000	81,990,000	105,790,000	145,620,000	189,270,000	133,288,000	145,490,000	126,791,143
Well 3 Total (gallons)	35,210,000	44,790,000	132,970,000	85,380,000	93,540,000	91,517,000	91,150,000	82,079,571
Total (gal)	121,300,000	126,780,000	238,760,000	231,000,000	282,810,000	224,805,000	236,640,000	208,870,714
Average Day (gal)	332,329	347,342	654,137	632,877	774,822	615,904	648,329	571,248

Table 15: Monthly Water Production Totals January 2010 – December 2016

	2010 (gallons)	2011 (gallons)	2012 (gallons)	2013 (gallons)	2014 (gallons)	2015 (gallons)	2016 (gallons)	Average (gallons)
January	5,690,000	6,900,000	7,150,000	13,010,000	12,900,000	8,302,000	12,350,000	9,471,714
February	5,830,000	6,410,000	7,050,000	9,240,000	8,300,000	11,977,000	11,600,000	8,629,571
March	5,900,000	5,000,000	7,530,000	9,860,000	41,870,000	14,800,000	10,860,000	13,688,571
April	7,380,000	5,160,000	12,010,000	12,430,000	13,320,000	20,143,000	9,130,000	11,367,571
May	9,390,000	5,020,000	26,390,000	22,190,000	19,380,000	19,250,000	16,380,000	16,857,143
June	16,810,000	17,830,000	41,290,000	31,050,000	36,560,000	35,574,000	34,360,000	30,496,286
July	19,420,000	21,360,000	43,830,000	43,150,000	47,330,000	29,501,000	42,300,000	35,270,143
August	18,910,000	17,960,000	43,000,000	37,090,000	33,140,000	27,575,000	42,590,000	31,466,429
September	9,790,000	14,100,000	19,740,000	16,690,000	31,660,000	26,591,000	26,190,000	20,680,143
October	7,350,000	8,540,000	13,390,000	12,710,000	18,470,000	11,165,000	11,120,000	11,820,714
November	7,470,000	10,500,000	8,610,000	9,910,000	10,260,000	8,052,000	10,360,000	9,308,857
December	7,360,000	8,000,000	8,770,000	13,670,000	9,620,000	11,875,000	9,400,000	9,813,571
Total	121,300,000	126,780,000	238,760,000	231,000,000	282,810,000	224,805,000	236,640,000	208,870,714
Maximum	19,420,000	21,360,000	43,830,000	43,150,000	47,330,000	35,574,000	42,590,000	35,270,143

2.9.2.1 Water Demands and Peaking Factors

System water demands were developed from water production data. The following system demand scenarios were developed for hydraulic modeling analysis:

- Average Day Demand (ADD)
- Maximum Day Demand (MDD)
- MDD + fire
- Peak Hour Demand (PHD)

The ADD value was taken from the production data as 665,300 gallons based on the rounded averages of five years of data from years 2012 to 2016. The average day of the maximum month is 1,526,774 gallons per day based on July 2014 and will be used as MDD. PHD cannot be directly calculated from the data provided but based on similar water systems is estimated to be 4.0 times the ADD, or 2,660,000 gallons per day. Table 16 summarizes the water demands and scaling factors taken from the production data.

Table 16: Existing Water Demands & Factors January 2012 - December 2016

Demand Type & Ratio	Water Demand & Scaling Factors
ADD	665,300 gpd
MDD	1,526,800 gpd
PHD	2,660,000 gpd
PHD / ADD	4.0
MDD / ADD	2.29
PHD / MDD	1.74

2.9.3 Water Loss

Water loss cannot be calculated from the incomplete available metering data, but based on experience with similar water systems, losses for the Carlin water system may be estimated. Table 17 demonstrates observed water losses from water systems with a similar mix of aged pipes in rural Nevada from which metered data was available. Carlin is assumed to fall within this range, with approximately 22.5% of produced water lost to leaks in the mains and distribution system. In general, a water system with water losses under fifteen percent is considered acceptable.

Table 17: Similar City System Unaccounted Water Totals

City	Produced Water Unaccounted For
Yerington (2013)	26%
Hawthorne (2008)	22%
Virginia City (2011)	18%
Carlin (Estimated)	20-25%

Another way to assess potential water losses is looking at the average consumption of water as compared to other communities. The water production data yields an average day demand of 665,300 gpd for a customer base of approximately 840 connections. This equates to an average customer water use of 792 gpd or 0.89 acre-feet annually (afa) which are very high values for the type of homes and businesses which exist in the City. A more common value in Nevada is 0.4 to 0.5 afa for a single-family residence. Analysis of wastewater treatment plant influent data suggests an average daily flow of 380,000 gpd which suggest a system consumptive rate of 43 percent. This value is almost twice the typical rate¹. Using a consumptive rate of 20 percent on top of annual average daily wastewater flows results in an annual SFR water use of 0.63 afa which is much closer to a representative value than the 0.89 afa. In conclusion, there is strong support for assuming that water losses in the City water system are significant.

2.9.4 Future Projected Water Use

Growth projections were presented in Section 1.3. The state demographer does not project the population in Carlin to grow beyond its 2013 level, which is within ten percent of the current population. Future residential, commercial, or industrial connections have the potential to increase water demand; however, the need for additional capacity to accommodate a growing population is not foreseen at this time.

2.9.5 Storage Requirements

For the purpose of this PER, system water storage requirements were calculated for the existing system, with no significant changes in storage requirements foreseen per Section 2.9.4. In Nevada, water storage is regulated by NAC 445A.6674, NAC 445A.66745, NAC 445A.6675, and NAC 445A.66755. The total storage capacity includes operating storage, emergency storage, and fire flow storage. As shown in this section, the storage capacity for the City meets all storage requirements under NAC 445A.6674 to 445A.66755 and the International Fire Code (IFC) under both existing and estimated future demand scenarios.

¹ In the past Farr West has found that consumptive rates range from 20 to 30 percent in communities around the state.

City of Carlin Storage Requirement Based on Existing Production Records

Operational Storage	25% MDD =	381,700	gallons
Emergency Storage	ADD =	665,300	gallons
Fire Demand	1,500 gpm x 2 hrs. =	180,000	gallons
Total Storage Required		1,227,000	gallons
Total Storage Provided		2,202,000	gallons

2.9.6 Hydraulic Model Development

The hydraulic model was developed using two scenarios:

- Existing Condition Model
- Proposed Condition Model

The demands used for the existing condition model are listed in Table 18.

Table 18: Water Demand – 2012 - 2016 Production Data

Scenario	GPD	GPM
ADD	665,300	462
MDD	1,526,800	1,060
PHD	2,660,000	1,847

The scale factors used for the proposed condition model for both systems are listed in Table 19.

Table 19: Existing Water Demand Scale Factors

	Scale Factor
ADD : MDD	2.29
ADD : PHD	4.00
MDD : PHD	1.74

The demand values detailed above were incorporated into the hydraulic model using the Allocator application found in the InfoWater software package. A shapefile of existing customers within the City of Carlin service area was created, with a uniform demand assigned to each customer. The demands were distributed to junction nodes using the Closest Pipe to Closest Junction method. The Allocator imports the demand values found in the shapefile to the nearest pipe, then the nearest junction on that pipe by way of 2-D vector.

2.9.6.1 GIS Development

A system wide utility Geographical Information System (GIS) database was built using several sources of data. Digital record drawings were initially consulted to provide locations, sizes and types of existing water mains, meters, valves, hydrants, etc. and build the initial database. Farr West then performed a survey, locating as many defining features in the area as possible to correctly place them and fill in gaps in the digital record drawings. Where elevation data was unable to be procured, elevation data available in the public domain was used to complete the GIS database. The City provided a GIS database file which included parcel lines, road boundaries, land use information and the most recent aerial photography. All of

the water utility information was compiled into a “Map Book” which was provided to City staff for editing and comment. All revisions that are generated by City staff will be incorporated into the GIS database and the result was a representative data model that can be used by the operations and management staff. This database was imported into the water modeling software package described below.

2.9.6.2 Hydraulic Model Scenarios

Three different scenarios were analyzed for the City water system. They were ADD, MDD, and MDD plus fire flow (MDD+FF). The ADD and MDD scenarios utilized the demands found in the Water Use Summary, Appendix D. The fire flow scenario determined the available fire flow at each hydrant location until a node residual pressure reaches a minimum of 20 psi in the applicable pressure zone. The results of the modeling effort are described below.

2.9.6.3 Hydraulic Model Calibration

The hydraulic model for the City system was calibrated from system wide hydrant flow tests performed between 2003 and 2009. System pipes were divided into 9 groups based on their install year. The Calibration tool in InfoWater was used to determine the appropriate Hazen-Williams C factors for the system pipes. Pipes installed in 1930 were given a C factor of 90; pipes installed in 1960, 1970, 1975, and 1980 were given a C factor of 100; pipes installed in 1990 and 1995 were given a C factor of 120; and all pipes with an unknown install year were given a C factor of 120. It is recommended that the City recalibrate the hydraulic model following any significant improvement projects or after hydrant flow tests are conducted in the future.

2.9.7 NAC 445A.6672 Criteria

Pressures

According to NAC 445A.6672, Item 2, the public water system shall ensure that the residual pressure in the distribution system is:

- At least 20 psi during conditions of fire flow and fire demand experienced during MDD,
- At least 30 psi during PHD, and
- At least 40 psi during MDD.

Furthermore, the zones of pressure in a distribution system must be designed in such a manner that the static pressure at the lowest ground elevation of the zone does not exceed 100 psi.

Velocities

NAC 445A.6672, Item 2, states that high head losses must be avoided by maintaining normal water velocities below 8 feet per second (fps) during all conditions of flow other than fire flow.

Capacity of System

NAC 445A.6672, Item 3, states that if the public water system relies exclusively on water wells as its source of water, it shall ensure that the total capacity of the system is sufficient to meet:

- The MDD, fire flow and fire demand when all facilities of the system are functioning; or
- The ADD, fire flow and fire demand when the most productive well of the system is not functioning, whichever is greater.

In addition, the Engineer must ensure that water projects are completed in such a manner as to meet the actual MDD, PHD, fire flow and fire demand for developments of property in the area of service of the public water system.

By adoption of the IFC, City code minimum fire flow requirements for one and two-family dwellings having a fire area which does not exceed 3,600 square feet (SF) shall be 1,000 gpm for a 1-hour duration (IFC Table B105.1(1) wood-frame construction). Per IFC Table B105.1(2) the minimum fire flow requirements for buildings other than one and two-family dwellings shall be 1,500 gpm (wood-frame construction).

2.9.8 Model Results

A water model of the existing City water system was created in InfoWater using the GIS database and water demands described previously. The model was created to simulate the existing conditions and identify current water system deficiencies. Scenarios were built for ADD, MDD, and MDD plus fire flow.

There are 105 nodes in the City system where the static pressure is below 40 psi during the MDD scenario as shown in Figure 6. Approximately 20 of these nodes are located at or near the tank and reservoir elevations to accommodate the operation of the model and are therefore not a part of the “distribution system.” The remaining nodes in the City system are located at the upper end of the lower pressure zone, just south of Interstate 80 and the industrial area. All other nodes meet the minimum and maximum pressure requirements of NAC 445A.6672.

Currently there are no pipes in the City of Carlin with velocities exceeding 8 feet per second (fps). All system pipes meet the requirements of NAC445A.6672. However, one 12-inch pipe that conveys water from the industrial area to the southern part of the city is approaching 8 fps. This pipe only approaches 8 fps during the PHD scenario.

The City system currently has 147 fire hydrants throughout the system. Based on the results of the hydraulic analysis, 37 of 147 fire hydrants are not able to flow at the IFC minimum of 1,000 gpm. All 37 inadequate hydrants are located throughout the system south of Interstate-80. Two fire hydrants have available fire flows below 500 gpm and are located at the far western end of the system and the end of the 8-inch line to the east of the system. All hydrants north of Interstate-80 in the industrial area have available flows greater than 1,000 gpm. Many of the hydrants in the City can improve flows by increasing water main sizes in specific areas.

2.10 EXISTING FINANCIAL STATUS

The City currently uses a single utility fund to track the financial activities of the water system, the sewer system, landfill operations and streetlight maintenance. The City bills its residents on a monthly basis. The residential billing rate is currently \$78.75 per month which includes water, sewer, landfill, and streetlights. Of this amount, \$32.22 is estimated as funding the water system. For water service, Carlin bills water use for five different customer classes. During 2017, there were 841 water customers – 800 residential and 41 commercial. Water system billing rates and 2017 customer counts are summarized in Table 20.

Table 20: 2017 Water Billing Rates

Water Use Type	Total Customers	Rate
Water - Residential	800	\$ 32.22
Water Flat Rate	1	\$ 10.00
Water - RV	25	\$ 12.89
Water Metered City Limits (for 29k gallons)	11	\$ 32.22
Water Metered Outside City (for 29k gallons)	4	\$ 32.22

Because the water system does not currently operate as an Enterprise Fund, completely accurate financial data does not exist. Looking over certified audits from fiscal year (FY) 2009 through 2018 it appears that

on average water system revenues have been sufficient to cover annual expenses, however three of the five years in the study period ran at a deficit.

Table 21: Estimated Water System Revenues and Expenses

Year	Revenues	Expenses²
2009	\$347,527	\$203,698
2010	\$395,004	\$355,237
2011	\$403,122	\$391,194
2012	\$423,539	\$391,075
2013	\$527,238	\$447,104
2014	\$477,506	\$398,622
2015	\$454,547	\$469,470
2016	\$535,176	\$471,851
2017	\$461,310	\$465,160
2018	\$418,121	\$499,943
2014-18 Average	\$469,332	\$461,009

The City is actively pursuing improvements to how they manage their water and sewer systems from a financial standpoint. The City is currently negotiating a service contract to provide a formal rate study for all of their utility services with the intention of forming separate enterprise funds for both the water utility and sewer utility which will ensure that each system brings in sufficient annual revenues to cover annual expenses in addition to building and maintain adequate reserve balances. It is expected that new user rates will be in place by calendar year 2021. It is also understood that the establishment of individual system funds will be a requirement of any outside funding the City accepts. Finally, it is assumed that construction of the improvements recommended in this PER are likely to result in an increase to user rates. Additional financial information is provided in Appendix E.

² Total includes depreciation.

3.0 NEED FOR PROJECT

3.1 HEALTH AND SAFETY

The previous section of this PER provided an analysis of the existing City water system, its deficiencies, and improvement needs. The general condition of each system component is presented in Table 22

Table 22: Condition of Existing Facilities

System Component	Condition
Supply	Good
Storage	Fair (Routine Maintenance Required)
Distribution System	Deficient (Water Losses, Fire Flow, Operating Pressure, Pipe Condition, Backflow Protection)
System Operation and Control	Good
Management	Good

The distribution system and storage facilities were identified as having deficiencies or being in a condition which could be problematic in the future. Additionally, only the distribution system was found to be deficient from a health and safety standpoint. Distribution system concerns include:

- Significant water losses;
- Failing water mains increase chances of water contamination and limiting of system redundancy;
- Undersized water mains;
- Insufficient water pressure;
- Gaps in fire hydrant coverage; and
- Aging storage facilities.

Currently, the City water system does not have any outstanding violations or compliance orders with a State or federal agency. However, some of the deficiencies do violate current regulations (e.g., minimum pressure). Recommended solutions to these deficiencies are summarized in Section 4.0.

3.2 AGING INFRASTRUCTURE & SYSTEM O&M

Aging water system infrastructure is a significant concern for the City. The major issues are summarized below:

- Transmission Mains - All transmission mains, from both spring sources and those to the storage tanks, have reached the end or their service lives. Failure of these mains creates a potential for a water emergency situation. Additionally, repair activities present a safety hazard to the personnel working on the pipes and increases the likelihood of a more significant failure.
- Old Distribution System - Very old sections (e.g., 1930's) of distribution system piping are likely the cause for high system water losses and the increased potential for future contamination. Also, many aged fire hydrants require adapters for modern fire hoses.
- Source - The Spring 1 intake structure is thoroughly corroded.

- Storage – The useful life of the water storage tanks have been extended through numerous repairs and re-coatings. At some point the tanks will need to be replaced.

The City currently has the equipment and experience to perform the labor for most annual maintenance or repair work that the system requires. It is anticipated that the construction of any improvement project will result in a reduction in Operation and Maintenance (O&M) costs as they relate to time and resources for repair of the outdated water system. Consolidating the various pipe materials which comprise the system will also reduce inventory burdens.

3.3 GROWTH

Upsizing infrastructure improvement projects to account for future growth is not a significant factor or component in the scope of the projects as laid out in this PER. The City experienced significant growth (approximately 2.9 percent exponential) from 2010 through 2015 as a result of mining industry expansion over the same period, and populations have remained steady at the 2015 value. Additionally, over the next ten years, the state demographer projects the population to increase slightly, before possibly plateauing in the subsequent 20 years.

However, an argument can be made for evaluating growth potential at the time of project design. Carlin is near the geographic center of one of the world's significant gold mining districts and in the past the population has often spiked in correlation with the price of gold. Allowances should be made for an additional 125 connections over the next 20 years. The City has also assessed the future development potential of four areas based on the costs to extend City infrastructure into those areas. The four assessed sites are:

- Site 1 – Industrial Park,
- Site 2 – Tomera Ranch Road,
- Site 3 – Carlin Crossing Phase 1, and
- Site 4 – I-80 and State Route 278 Interchange.

A memo assessing the feasibility of each of the four sites is in Appendix F.

4.0 ALTERNATIVES CONSIDERED

Three project alternatives are compared below, including a No Action alternative. The previous sections have identified deficiencies in the water system that need to be addressed to continue to serve the public with clean drinking water. Deficiencies include failing water mains and components, water service failures, lack of individual metering, inadequate fire suppression, aging infrastructure, and improving the financial management of the system. Except for the No Action alternative, the water system improvement alternatives presented in this section correct deficiencies that have been identified for the distribution system.

4.1 ALTERNATIVE 1 – NO ACTION

4.1.1 Description

One option available to the City is to not pursue any improvements to the distribution system and respond to failures on an as-needed basis. The No Action alternative would not identify any water system improvement project on future capital improvement plans and would not set aside specific funding sources for the improvements.

4.1.2 Design Criteria

The design and construction of all alternatives will be subject to the design policies of RUS and 7 CFR 1780.55. All improvements will conform to State of Nevada drinking water standards, meet AWWA and ASTM standards, and will include metering devices on all service connections adjacent to the proposed improvements. Since the No Action alternative proposes no improvement to the water system, the previously stated design criteria will not apply to this alternative.

4.1.3 Environmental Impacts

More specifically, the alternatives will undergo an environmental impact analysis and will minimize impacts to the environment by being primarily constructed in previously disturbed areas. It is not anticipated that any alternative would have a unique, negative direct impact on the surrounding environment or land resources.

4.1.4 Land Requirements

Since the No Action alternative proposes no improvement to the water system, there will not be any land or right of way requirements for this alternative.

4.1.5 Potential Construction Problems

Since the No Action alternative proposes no improvement to the water system, there are not any construction problems anticipated for this alternative. However, it is reasonable to expect that emergency repairs of future infrastructure failures will result in more construction conflicts than projects which have undergone the standard engineering design process.

4.1.6 Sustainability Considerations

The City is frequently forced to perform emergency repairs to the water distribution system and anticipates more frequent and more significant failures in the future. Since the distribution system is already in a state of “failure” and since the No Action alternative proposes no improvement to the water system, this alternative would not improve system sustainability.

4.1.7 Cost Estimate

A class 5 cost estimate per the Association for the Advancement of Cost Engineering International (AACEI) is provided below in Table X for this alternative. By definition, class 5 estimates are based on conceptual designs and unit costs and have a level of accuracy of (-50% to +100%). More accurate cost estimates (i.e., class 3) will be prepared for the proposed project (Section 6.0) and will be updated during the design process for each phase of the project. All project cost estimates reflect materials and methods that comply with the American Iron and Steel requirements.

Since the No Action alternative proposes no improvement to the water system an opinion of probable costs for the improvements has not been prepared. However, it is estimated that future O&M costs will increase by \$50,000 per year to account for “spot” repairs of the distribution system.

4.2 ALTERNATIVE 2 – REPLACE DISTRIBUTION SYSTEM WITH IMPROVEMENTS TO SPRING 2

4.2.1 Description

This project would include replacing approximately 13 miles of water main (12, 10, and 8-inch), install 500 water meters, and replace failing infrastructure at Spring 2. The project would also include more than 300,000 square feet of asphalt paving and replace approximately 250 fire hydrants. In general, this project proposes to replace approximately half of the existing water distribution over an area of about 0.5 square miles. New water mains would be installed via open-trench construction in previously disturbed areas.

The first phase of this project would replace the transmission main between Spring 1 and the Hamilton St. booster pump station. An engineering design for this project has been completed, although the project has not solicited competitive bids, nor has it been constructed.

The second phase of this project alternative includes replacement of two water transmission mains which cross under I-80 and form the only two connections between the water storage tanks and the majority of the city distribution system. Both of the welded steel mains were constructed in the 1930's and have experienced severe corrosion which has rendered them unsafe, prone to leaks, and are difficult to service. The continuous safe operation of these mains is critical because they supply water to 95% of the City. Additionally, since both mains cross under the I-80 freeway and Chestnut Street, which is a frontage road and the primary east-west artery in Carlin, a large leak in these mains could damage the roadways disrupting interstate traffic patterns and emergency services. Finally, the transmission mains do not have any larger diameter casing providing protection from external loads or excavation activities.

Phase 3 would replace the portion of the distribution system that contains the oldest pipes in the system and is also the area with the greatest water pressures. This phase includes all the locations where main replacement requires directional boring under railroad tracks. The portion of town south of the railroad tracks also contains several mains that dead end. The mains south of the railroad tracks will be extended to 10th Street and 4th Street and looped, eliminating or reducing five dead ends. The horizontal bore under the railroad track at 4th Street will be relocated to the road crossing at B Street and connect to an existing 8-inch PVC main there, eliminating a sixth dead end. Looping the water mains will reduce or eliminate dead end mains, which will increase flow to fire hydrants. Dead end mains can also result in stagnant water and locations for microbiological growth.

Phase 4 improvements include replacing existing deficient water mains north of the railroad tracks and to the east of 6th Street. It is also proposed to include isolated segments of pipe and mains farther to the north, including some isolated segments of main farther north and near I-80. Service lines will be replaced to the edge of City right-of-way and meter pits with meters will be installed. This part of the distribution system contains the second oldest pipes in the distribution system.

The final portion (i.e., Phase 5) of the distribution system which is being proposed for replacement are water mains north of the railroad tracks and to the west of 6th Street. Service lines will also be replaced to the edge of City right-of-way and meter pits with meters will be installed.

The transmission main from Spring 2 to the booster pump is also nearing the end of its useful life and is a candidate for replacement. The proposed improvements include 2,000 lf of 12-inch transmission main which would connect to the Spring 1 transmission main just to the west of Willow St. Additionally, the spring outlet and flow gauge would be replaced as well. The need for this project is significantly downgraded due to the fact that the City does not need to rely on Spring 2 water to meet average or peak demands.

4.2.2 Design Criteria

The design and construction of all alternatives will be subject to the design policies of RUS and 7 CFR 1780.55. All improvements will conform to State of Nevada drinking water standards, meet AWWA and ASTM standards, and will include metering devices on all service connections adjacent to the proposed improvements.

4.2.3 Environmental Impacts

The improvements being proposed by this alternative will undergo an environmental impact analysis and will attempt to minimize impacts to the environment by being primarily constructed in previously disturbed areas. This alternative is not anticipated to have any unique, negative, or direct impact on the surrounding environment or land resources. Also, SHPO consultation³ has been initiated, although has not been completed or resolved at the time of writing of this report. It is anticipated that the lead agency (e.g., USDA) will complete the SHPO consultation once a funding application is in place.

4.2.4 Land Requirements

Significant land acquisition or right of way (ROW) requirements are not anticipated for this alternative since the majority of construction will occur in City secured ROW. One exception is that the western-most transmission main is installed under existing residences and will need to be re-routed into City-owned ROW. Additionally, encroachment permitting with NDOT and Union Pacific is anticipated to construct the Storage Tank Transmission Mains and to replace the South Distribution System, respectively. Jack and bore construction methods will be used to install water main across I-80 and Union Pacific ROW.

4.2.5 Potential Construction Problems

Potential construction problems include poor records of underground infrastructure, existing asphalt paving and sidewalks which are in a failed state, and existing water distribution mains which may be in poor condition at the proposed points of connection. Jack and bore construction methods will also be required at multiple locations to comply with encroachment permit terms and conditions. Another known issue is that some distribution and/or transmission mains have been constructed on private property including below structures or homes.

4.2.6 Sustainability Considerations

This project would greatly improve system sustainability by replacing approximately 50 percent of distribution mains with new pipe and bedding materials using contemporary construction methods. Additional benefits would be realized with reduced non-revenue water (i.e., less water lost to leaks or breaks), additional water meters being installed (project will increase metered users from 5% to more than

³ SHPO consultation is not required for phases of the project which are not funded from federal sources and do not require ROW across federal lands.

60%), updated source water facilities, and reduced energy costs by reducing friction losses along distribution and transmission mains due to larger pipe diameters, new materials (i.e., PVC pipe), and increased system looping. Finally, it is expected that the available fire flow at nearly all existing and proposed hydrants would be increased as a result of these improvements.

4.2.7 Opinion of Probable Cost

A class 5 opinion of probable cost per the Association for the Advancement of Cost Engineering International (AACEI) is provided below in Table 23 for this alternative. By definition, class 5 estimates are based on conceptual designs and unit costs and have a level of accuracy of (-50% to +100%). More accurate cost estimates (i.e., class 4) will be prepared for the proposed project (Section 6.0) and will be updated during the design process for each phase of the project. All project cost estimates reflect materials and methods that comply with the American Iron and Steel requirements.

Table 23: Opinion of Probable Cost – Alternative 2

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	22,000	LF	\$ 150	\$ 3,300,000
2	10" C900 PVC Water Main	1,600	LF	\$ 130	\$ 208,000
3	8" C900 PVC Water Main	45,000	LF	\$ 110	\$ 4,950,000
4	Jack & Bore	1,300	LF	\$ 210	\$ 273,000
5	Fire Hydrant Assembly	140	EA	\$ 10,500	\$ 1,470,000
6	Service Meter + Appurtenances	500	EA	\$ 5,200	\$ 2,600,000
7	AC Pavement Patch	334,000	SF	\$ 5.20	\$ 1,736,800
8	Miscellaneous (Mobilization, ROW, Sidewalk)	68,600	LF	\$ 73	\$ 5,007,800
Subtotal:					\$ 19,546,000
Construction Contingency (25%):					\$ 4,926,000
Engineering & Inspection (~25%):					\$ 4,824,000
PROJECT TOTAL:					\$ 29,296,000

Note: some values have been rounded to the nearest \$1,000.

4.3 ALTERNATIVE 3 – REPLACE DISTRIBUTION SYSTEM WITH NEW WATER SOURCES

4.3.1 Description

This project proposes nearly identical improvements to that of Alternative 2 except for constructing a new groundwater well or spring-based headworks facility at an undisclosed location. Because the location of the second water source is unknown it is assumed that a suitable location will be found within a one-mile radius of the distribution system. A water import project or bulk supply from another utility is being considered as unviable at this time.

4.3.2 Design Criteria

The design and construction of all alternatives will be subject to the design policies of RUS and 7 CFR 1780.55. All improvements will conform to State of Nevada drinking water standards, meet AWWA and ASTM standards, and will include metering devices on all service connections adjacent to the proposed improvements.

4.3.3 Environmental Impacts

The improvements being proposed by this alternative will undergo an environmental impact analysis and will attempt to minimize impacts to the environment by being primarily constructed in previously disturbed areas. This alternative is not anticipated to have any unique, negative, or direct impact on the surrounding environment or land resources. Also, SHPO consultation has been initiated, although has not been completed or resolved at the time of writing of this report. It is anticipated that the lead agency (e.g., USDA) will complete the SHPO consultation once a funding application is in place.

4.3.4 Land Requirements

Significant land acquisition or right of way (ROW) requirements are not anticipated for this alternative since the majority of construction will occur in City secured ROW. One exception is that the western-most transmission main is installed under existing residences and will need to be re-routed into City-owned ROW. Additionally, encroachment permitting with NDOT and Union Pacific is anticipated to construct the Storage Tank Transmission Mains and to replace the South Distribution System, respectively. Jack and bore construction methods will be used to install water main across I-80 and Union Pacific ROW.

4.3.5 Potential Construction Problems

Potential construction problems include poor records of underground infrastructure, existing asphalt paving and sidewalks which are in a failed state, and existing water distribution mains which may be in poor condition at the proposed points of connection. Jack and bore construction methods will also be required at multiple locations to comply with encroachment permit terms and conditions. Another known issue is that some distribution and/or transmission mains have been constructed on private property including below structures or homes.

4.3.6 Sustainability Considerations

This project would greatly improve system sustainability by replacing approximately 50 percent of distribution mains with new pipe and bedding materials using contemporary construction methods. Additional benefits would be realized with reduced non-revenue water (i.e., less water lost to leaks or breaks), additional water meters being installed (project will increase metered users from 5% to more than 60%), new source water facilities, and reduced energy costs by reducing friction losses along distribution and transmission mains due to larger pipe diameters, new materials (i.e., PVC pipe), and increased system looping. Finally, it is expected that the available fire flow at nearly all existing and proposed hydrants would be increased as a result of these improvements.

4.3.7 Opinion of Probable Cost

A class 5 opinion of probable cost per the AACEI is provided below in Table 23 for this alternative. By definition, class 5 estimates are based on conceptual designs and unit costs and have a level of accuracy of (-50% to +100%). More accurate cost estimates (i.e., class 4) will be prepared for the proposed project (Section 6.0) and will be updated during the design process for each phase of the project. All project cost estimates reflect materials and methods that comply with the American Iron and Steel requirements.

Table 24: Opinion of Probable Cost – Alternative 3

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	25,000	LF	\$ 150	\$ 3,750,000
2	10" C900 PVC Water Main	1,600	LF	\$ 130	\$ 208,000
3	8" C900 PVC Water Main	45,000	LF	\$ 110	\$ 4,950,000
4	Jack & Bore	1,300	LF	\$ 210	\$ 273,000
5	Fire Hydrant Assembly	140	EA	\$ 10,500	\$ 1,470,000
6	Service Meter + Appurtenances	500	EA	\$ 5,200	\$ 2,600,000
7	AC Pavement Patch	334,000	SF	\$ 5.20	\$ 1,736,800
8	New Water Source (Groundwater Well or Spring)	1	LS	\$ 750,000	\$ 750,000
9	Miscellaneous (Mobilization, ROW, Sidewalk)	71,600	LF	\$ 73	\$ 5,226,800
Subtotal:					\$ 20,965,000
Construction Contingency (25%):					\$ 5,241,000
Preliminary Engineering, Hydro Study, Investigations, Permitting:					\$ 500,000
Engineering & Inspection (~25%):					\$ 5,190,000
PROJECT TOTAL:					\$ 31,896,000

Note: some values have been rounded to the nearest \$1,000.

4.4 PROJECT ALTERNATIVES SUMMARY

Table 25 summarizes the construction costs, professional services costs, estimates of annual O&M cost reductions, and recommended annual depreciation figures for each alternative. It should be noted that estimating the impacts to O&M costs for pipeline projects is extremely uncertain as compared to estimating the cost of operation of a pump station or treatment facility. For this PER, Farr West used financial data to estimate the annual cost of services and supplies for the water system; and then developed a per foot cost of operation for water pipelines. This value was then multiplied to the length of pipe replaced by each project to generate the annual reduction in O&M cost for each alternative. However, it is estimated that the annual depreciation for each alternative will outpace any reduction in O&M costs, therefore eliminating any cost savings (during the useful lifespan of the improvements) to the customer as a result of infrastructure improvements.

Table 25: Water System Project Alternative Cost Summary

Alternative	Hard Capital Cost	Soft Cost	Total Capital Cost	Annual Reduction in O&M Cost	Annual Depreciation ⁱ
1	\$ -	\$ -	\$ -	\$ 50,000	\$ 0
2	\$ 24,472,000	\$ 4,824,000	\$ 29,296,000	\$ (38,000)	\$ 586,000
3	\$ 26,206,000	\$ 5,690,000	\$ 31,895,600	\$ (39,600)	\$ 638,000

i – depreciation period of 50 years.

5.0 SELECTION OF AN ALTERNATIVE

Selection of project alternatives to address the system deficiencies will be based on both life cycle cost and non-monetary factors. Except for Alternative 1, all project alternatives will provide water conservation benefits including energy savings by reducing future system water losses. These efficiencies are represented by a reduction in future system O&M costs. Figure 9 shows the location of the project alternatives.

As discussed in Section 1.4, the citizens of Carlin have been informed of the potential for significant increases to user rates as a result of the proposed improvements. In fact, City staff has requested that the proposed improvements be sub-divided into smaller projects so that the City can phase the financial impacts of these improvements over time. The City is also funding some improvement projects (i.e., Spring 1 Transmission Main) with capital reserves to avoid increases in user rates.

5.1 PROJECT ALTERNATIVES SELECTION

Table 26 summarizes the capital costs, Net Present Value (NPV) of the change to water system O&M costs for each alternative, and the total 30-yr. life cycle cost for each alternative considered. All costs are shown in 2021 dollars, all project alternatives have an approximate useful life of 50 years and will have zero salvage value at the end of this term. All life cycle cost estimates are for a term of 30 years and utilize a real discount rate of -0.9 %. Finally, the only component which project alternatives 2 and 3 contribute to water system short-lived assets⁴ is the addition of 500 water meters. With a useful life of 15 years these water meters increase annual replacement costs by almost 4 times the current estimate.

Table 26: Alternatives Net Present Value

Alternative	Total Capital Cost	Annual Change in O&M Cost	O&M NPV 30 Yrs. @ -0.9% ⁱ	Total NPV
1	\$ -	\$ 50,000	\$ (1,773,541)	\$ (1,773,541)
2	\$ 29,296,000	\$ (38,000)	\$ 1,310,000	\$ (27,986,000)
3	\$ 31,896,000	\$ (39,600)	\$ 1,365,000	\$ (30,531,000)

ii – Real Discount Rate of -0.9% based on Inflation rate of 3.0% and Projected Interest Earned rate of 2.1%.

5.2 NON-MONETARY FACTORS

Non-monetary factors considered for the project alternatives are ease of construction, environmental impacts, ability to be constructed in existing rights of way, disruptions to the public, and the criticality of the infrastructure to system reliability. Table 27 scores each alternative based on these factors. Each alternative is scored with a 4 (best), 3 (good), 2 (satisfactory), or 1 (bad).

Table 27: Non-Monetary Factor Scoring

Alternative	Ease of Construction	Environmental Impacts	Existing ROWs	Public Disruption	Criticality	Total Scoring
1	1	2	4	1	1	9
2	2	3	2	3	4	14
3	2	3	2	3	4	14

⁴ The City water system does have other short-lived assets which will need to undergo an inventory and annual funding analysis prior to the setting of user rates and/or minimum reserve balances.

Although Alternatives 1 and 2 score low in ease of construction (e.g., horizontal boring under I-80 and the railroad) and existing rights of way because new ROW will be required, the benefits provided to the overall utility operation are significant. Due to its performance in the qualitative analysis and a lower capital cost than alternative 3, it is recommended that the City pursue constructing alternative 2.

Legend

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Phase 6
- Existing Water Mains

FARR WEST

ENGINEERING

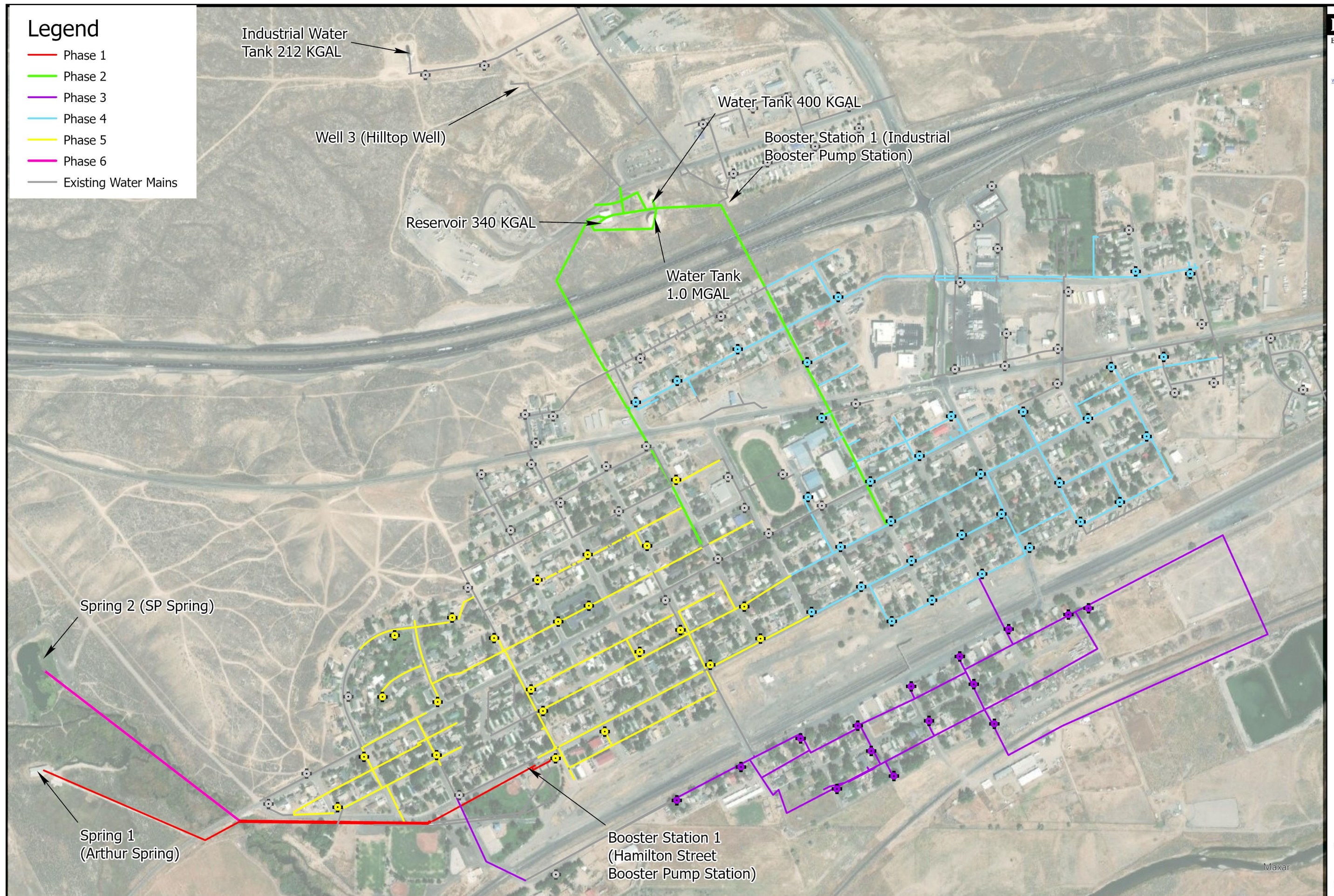
5510 Longley Lane
Reno, NV 89511
(775) 851-4788
www.farrwestengineering.com

City of Carlin
Figure 9: Water System Project Phases



1:53,439

The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.



6.0 PROPOSED PROJECT

It is recommended that the proposed project be split into six phases in order to provide a realistic balance between water system capital reserves, annual user fee revenues and external financing sources. The six phases, their anticipated year of construction and projected funding source are listed in Table 28 below. Upon completion, this project will reduce system water losses, increase energy efficiencies, reduce the likelihood of significant failure, improve the consequence of failure for the transmission mains and will bring the City system into compliance with code requirements (e.g., fire flow in south portion of distribution system). Additionally, all opinions of probable costs presented in this section have been updated to Class 3 (from Class 5) per AACEI and have an accuracy range of -20% to +30%.

Table 28: Proposed Project Phases

Description	Construction Begins	Proposed Funding Source
Phase 1 – Spring 1 Improvements	FY 2022	Reserves
Phase 2 – Storage Tank Transmission Mains	FY 2022	USDA-RD
Phase 3 – South Distribution System	FY 2023	USDA-RD
Phase 4 – Northeast Distribution System	FY 2026	Unknown
Phase 5 – Northwest Distribution System	FY 2031	Unknown
Phase 6 – Spring 2 Improvements	FY 2036	Unknown

6.1 PROJECT – PHASE 1

This project would include replacing 3,500 of transmission main between Spring 1 and the Hamilton St. booster pump station. At the time of writing of this PER, the engineering design for these improvements has been completed, although NDEP-BSDW permitting has not. Per Table 28, the City intends on using water utility capital reserves to fund the construction of these improvements.

Table 29: Opinion of Probable Cost – Phase 1

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	3,510	LF	\$ 150	\$ 526,500
2	12" Gate Valve	2	EA	\$ 5,230	\$ 10,500
3	10" C900 PVC Water Main	40	LF	\$ 130	\$ 5,200
4	AC Pavement Patch	8,190	SF	\$ 5.20	\$ 42,600
5	Air Release Valve Assembly	2	EA	\$ 5,230	\$ 10,500
6	Miscellaneous (Mobilization, ROW, Sidewalk)	3,550	LF	\$ 73	\$ 259,200
Subtotal:					\$ 854,000
Construction Contingency (25%):					\$ 214,000
Construction Management & Inspection (7%):					\$ 75,000
PROJECT TOTAL:					\$ 1,143,000

Note: some values have been rounded to the nearest \$1,000.

6.2 PROJECT – PHASE 2

The second phase of this project alternative includes replacement of two water transmission mains which cross under I-80 and form the only two connections between the water storage tanks and the majority of the city distribution system. The existing transmission mains will be replaced or relocated with 12-inch PVC DR18 pipe. This project will also replace aging water mains near the water storage tanks.

Right-of-way issues are a notable component of this project. This phase of the project will cross NDOT right-of-way in five locations. Permission to access the land will be required, in addition to directional boring at each of these locations. The existing western transmission main from the water storage tanks runs under existing residential property and structures; during the design phase a new route through City right-of-way must be identified and constructed at additional cost.

Table 30: Opinion of Probable Cost – Phase 2

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	8,000	LF	\$ 150	\$ 1,200,000
2	10" C900 PVC Water Main	1,500	LF	\$ 130	\$ 195,000
3	Jack & Bore I-80 & Chestnut	750	LF	\$ 210	\$ 157,500
4	AC Pavement Patch	44,000	SF	\$ 5.20	\$ 228,800
5	Fire Hydrant Assembly	15	EA	\$ 10,500	\$ 158,000
6	12" Gate Valve	20	EA	\$ 5,200	\$ 104,000
7	10" Gate Valve	3	EA	\$ 4,200	\$ 12,600
8	Miscellaneous (Mobilization, ROW, Sidewalk)	9,500	LF	\$ 73	\$ 693,500
Subtotal:					\$ 2,749,000
Construction Contingency (25%):					\$ 687,000
Engineering & Inspection (25%):					\$ 687,000
PROJECT TOTAL:					\$ 4,123,000

Note: some values have been rounded to the nearest \$1,000.

6.3 PROJECT – PHASE 3

Phase 3 would replace the portion of the distribution system that contains the oldest pipes in the system and is also the area with the greatest water pressures. Existing mains will be replaced with 8-inch PVC DR18 pipe. Fire hydrants will also be replaced, and meter pits with meters will be installed at all services. The mains south of the railroad tracks will be extended to 10th Street and 4th Street and looped, eliminating or reducing five dead ends. The horizontal bore under the railroad track at 4th Street will be relocated to the road crossing at B Street and connect to an existing 8-inch PVC main there, eliminating a sixth dead end. Looping the water mains will reduce or eliminate dead end mains, which will increase flow to fire hydrants. Permitting with Union Pacific Railroad will be an additional cost and may take up to a year to complete. As required by the railroad, the mains will be placed inside a casing under the tracks for ease of future maintenance and to provide extra protection for tracks and water mains.

Table 31: Opinion of Probable Cost – Phase 3

Item	Description	Quantity	Unit	Unit Price	Total
1	8" C900 PVC Water Main	12,750	LF	\$ 110	\$ 1,402,500
2	8" Gate Valve	20	EA	\$ 3,100	\$ 62,000
3	Jack & Bore Railroad Tracks	400	LF	\$ 210	\$ 84,000
4	AC Pavement Patch	64,000	SF	\$ 5.20	\$ 332,800
5	Fire Hydrant Assembly	25	EA	\$ 10,500	\$ 262,500
6	Service Meter + Appurtenances	100	EA	\$ 5,200	\$ 520,000
7	Miscellaneous (Mobilization, ROW, Sidewalk)	12,750	LF	\$ 73	\$ 930,800
Subtotal:					\$ 3,595,000
Construction Contingency (25%):					\$ 899,000
Engineering & Inspection (25%):					\$ 899,000
PROJECT TOTAL:					\$ 5,393,000

Note: some values have been rounded to the nearest \$1,000.

6.4 PROJECT – PHASE 4

Phase 4 improvements include replacing existing deficient water mains north of the railroad tracks and to the east of 6th Street. It is also proposed to include isolated segments of pipe and mains farther to the north, including some isolated segments of main near I-80. Service lines will be replaced to the edge of City right-of-way and meter pits with meters will be installed. This part of the distribution system contains the second oldest pipes in the distribution system.

Table 32: Opinion of Probable Cost – Phase 4

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	4,500	LF	\$ 150	\$ 675,000
2	8" C900 PVC Water Main	16,900	LF	\$ 110	\$ 1,859,000
3	12" Gate Valve	10	EA	\$ 5,200	\$ 52,000
4	8" Gate Valve	30	EA	\$ 3,100	\$ 93,000
5	Jack & Bore 10 th St.	100	LF	\$ 210	\$ 21,000
6	AC Pavement Patch	107,000	SF	\$ 5.20	\$ 556,400
7	Fire Hydrant Assembly	30	EA	\$ 10,500	\$ 315,000
8	Service Meter + Appurtenances	200	EA	\$ 5,200	\$ 1,040,000
9	Miscellaneous (Mobilization, ROW, Sidewalk)	21,400	LF	\$ 73	\$ 1,562,200
Subtotal:					\$ 6,174,000
Construction Contingency (25%):					\$ 1,543,000
Engineering & Inspection (25%):					\$ 1,543,000
PROJECT TOTAL:					\$ 9,260,000

Note: some values have been rounded to the nearest \$1,000.

6.5 PROJECT – PHASE 5

The final portion (i.e., Phase 5) of the distribution system which is being proposed for replacement are water mains north of the railroad tracks and to the west of 6th Street. Service lines will also be replaced to the edge of City right-of-way and meter pits with meters will be installed.

Table 33: Opinion of Probable Cost – Phase 5

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	3,000	LF	\$ 150	\$ 450,000
2	8" C900 PVC Water Main	17,000	LF	\$ 110	\$ 1,870,000
3	12" Gate Valve	10	EA	\$ 5,200	\$ 52,000
4	8" Gate Valve	30	EA	\$ 3,100	\$ 93,000
5	AC Pavement Patch	100,000	SF	\$ 5.20	\$ 520,000
6	Fire Hydrant Assembly	40	EA	\$ 10,500	\$ 420,000
7	Service Meter + Appurtenances	200	EA	\$ 5,200	\$ 1,040,000
8	Miscellaneous (Mobilization, ROW, Sidewalk)	20,000	LF	\$ 73	\$ 1,460,000
Subtotal:					\$ 5,905,000
Construction Contingency (25%):					\$ 1,476,000
Engineering & Inspection (25%):					\$ 1,476,000
PROJECT TOTAL:					\$ 8,857,000

Note: some values have been rounded to the nearest \$1,000.

6.6 PROJECT – PHASE 6

The transmission main from Spring 2 to the booster pump is also nearing the end of its useful life and is a candidate for replacement. The proposed improvements include 2,000 lf of 12-inch transmission main which would connect to the Spring 1 transmission main just to the west of Willow St. Additionally, the spring outlet and flow gauge would be replaced as well. The need for this project is significantly downgraded due to the fact that the City does not need to rely on Spring 2 water to meet average or peak demands.

Table 34: Opinion of Probable Cost – Phase 6

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	2,000	LF	\$ 150	\$ 300,000
2	12" Gate Valve	4	EA	\$ 5,200	\$ 20,800
3	Spring Improvements	1	LS	\$ 157,000	\$ 157,000
4	Miscellaneous (Mobilization, ROW, Sidewalk)	2,000	LF	\$ 73	\$ 146,000
Subtotal:					\$ 624,000
Construction Contingency (25%):					\$ 156,000
Engineering & Inspection (25%):					\$ 156,000
PROJECT TOTAL:					\$ 936,000

6.7 PROPOSED PROJECT SCHEDULE

The dates below represent a proposed project timeline. This schedule assumes that phases 2 and 3 will be designed and constructed concurrently and provide estimates of ROW acquisition/permitting durations. These dates are preliminary and will be refined as the funding allocations are secured and the project proceeds.

Item	Duration	Estimated Completion Date
Phase 1		
Solicit for Bids + Award	2 Months	November 2021
Construct Improvements	2 Months	February 2022
Phases 2 and 3		
PER acceptance by USDA and SRF	2 Months	September 2021
Funding Acquisition	5 Months	November 2021
Rate Study ⁵	In Progress	October 2021
Engineering Design	8 – 12 Months	January 2022
Permitting + ROW Acquisition	12 Months	April 2022
Solicit for Bids + Award	2 Months	July 2022
Construct Improvements	12 Months	July 2023
Phases 4 and 5		
Funding Acquisition	6 Months	FY 24/FY 29
Engineering Design	12 Months	FY 25/FY30
Solicit for Bids + Award	2 Months	FY 25/FY30
Construct Improvements	12 Months	FY 26/FY31
Phase 6		
Engineering Design	4 Months	FY 35
Solicit for Bids + Award	2 Months	FY 35
Construct Improvements	3 Months	FY 36

6.8 PERMIT REQUIREMENTS

Public water system projects will primarily be permitted by the NDEP-BSDW. The NDEP Bureau of Water Pollution Control is responsible to permit discharge of highly chlorinated water and other water which is used to disinfect and flush water mains and other infrastructure, which will be the responsibility of the selected contractor to obtain. The NDOT is responsible for permitting water pipes which cross State roadways and the Union Pacific Railroad requires permits for projects which cross or encroach its property and tracks.

6.9 SUSTAINABILITY CONSIDERATIONS

The proposed project in this PER will improve the sustainability of the City's water system by increasing the energy efficiency of the system and reducing the likelihood of failure of the system. Developing and

⁵ Work being completed under separate scope of work from proposed project engineering design.

maintaining a sustainable water system for small water supply utilities like the City is imperative to ensure long-term water availability for the community. Communities also require water of sufficient quality and quantity, reliably delivered at affordable rates, to meet their needs. Characteristics of sustainable water utilities include:

- A commitment to meet service expectations.
- Access to water supplies of sufficient quality and quantity to meet current and future demand.
- A distribution and treatment system that meets customer expectations and regulatory requirements; and
- The technical, institutional, and financial capacity to satisfy public health and safety requirements on a long-term basis.

Replacement of aged and leaking transmission mains and mains within the southern distribution system is expected to reduce overall water production requirements by approximately 5 to 10 percent. In addition to reducing pump run times, the project will also reduce the brake horsepower requirements for pumping. The water main replacements are proposed to be with PVC pipe which has a smoother wall, and the proposed water mains will have larger diameters than the existing water mains have. Together these will result in lower friction losses and lower energy requirements for the pumps.

6.10 TOTAL PROJECT COST ESTIMATE (ENGINEER'S OPINION OF PROBABLE COST)

Table 35 summarizes the construction and non-construction costs of the Proposed Project.

Table 35: Total Project Cost Estimate

Item	Description	Quantity	Unit	Unit Price	Total
1	12" C900 PVC Water Main	21,010	LF	\$ 150	\$ 3,151,500
2	10" C900 PVC Water Main	1,540	LF	\$ 130	\$ 200,200
3	8" C900 PVC Water Main	46,650	LF	\$ 110	\$ 5,131,500
4	12" Gate Valve	46	EA	\$ 5,230	\$ 240,600
5	10" Gate Valve	3	EA	\$ 4,200	\$ 12,600
6	8" Gate Valve	80	EA	\$ 3,100	\$ 248,000
7	Air Release Valve Assembly	2	EA	\$ 5,230	\$ 10,500
8	Fire Hydrant Assembly	110	EA	\$ 10,500	\$ 1,155,000
9	Service Meter + Appurtenances	500	EA	\$ 5,200	\$ 2,600,000
10	Jack & Bore	1,250	LF	\$ 210	\$ 262,500
11	AC Pavement Patch	323,190	SF	\$ 5.20	\$ 1,680,600
12	Spring Headworks Improvements	1	LS	\$ 157,000	\$ 157,000
13	Miscellaneous (Mobilization, ROW, Sidewalk)	69,200	LF	\$ 73	\$ 5,051,600
Construction Subtotal:					\$ 19,902,000
Construction Contingency (20%):					\$ 3,980,000
Land and Rights of Way:					\$ 25,000
Legal and Bond Counsel:					\$ 40,000
Interim Interest:					\$ 1,190,000
Permitting:					\$ 25,000
Engineering:					\$ 2,000,000
Bid Assistance + Construction Management:					\$ 1,400,000
Resident Inspection:					\$ 1,400,000
Construction Total:					\$ 23,882,000
Non-Construction Total:					\$ 6,080,000
PROJECT TOTAL:					\$ 29,962,000

Note: some values have been rounded to the nearest \$1,000.

6.11 FINANCIAL IMPACT ANALYSIS

As discussed in Section 2.10, the City has very limited financial data available for the water system. This section will attempt to estimate the financial capacity of the water system; however, a more detailed analysis will be provided as part of the rate study which is anticipated to conclude in September 2021. In July of 2020 the City created a water system enterprise fund to more accurately track water system revenues and expenses. This fund receives revenues primarily from user rates or charges and will need to maintain restricted reserves for debt coverage (i.e., bond reserve) and a capital replacement reserve account (i.e., short lived assets).

6.11.1 System Expenses

Table 36 provides a five-year (i.e., 2014-2018) summary of water system budgets and expenses incurred. From this data it appears that the cost of operation of the water system is approximately \$440,000.

Table 36: Detailed Operational Budgets

Item	5-Yr. Avg.		2018	
	Budget	Actual	Budget	Actual
Salaries	\$ 170,872	\$ 152,448	\$ 181,970	\$ 173,529
Physicals	\$ 400	\$ -	\$ -	\$ -
Benefits	\$ 84,325	\$ 80,695	\$ 90,000	\$ 72,556
Equipment Repairs	\$ 20,000		\$ 20,000	
Telephone	\$ 3,000		\$ 3,000	
Travel/Training	\$ 2,000		\$ 2,000	
Uniforms	\$ 1,620		\$ 1,800	
Office	\$ 3,700		\$ 4,000	
Materials/Supplies	\$ 35,000	\$ 64,784	\$ 35,000	\$ 86,223
Capital Outlay/Unknown Services and Supplies	\$ 152,400	\$ 120,784	\$ 377,000	\$ 104,157
Depreciation	\$ -	\$ 42,298	\$ -	\$ 63,478
Total Expenses ⁶ =	\$ 473,317	\$ 440,879	\$ 714,770	\$ 499,943
Revenues	\$ 412,816	\$ 469,332	\$ 365,040	\$ 418,121
Difference =	\$ (60,501)	\$ 8,323	\$ (349,730)	\$ (81,822)

6.11.2 System Revenues

The City water system is funded from a user fee that is currently combined with sewer service, landfill operation and streetlight operations. It is estimated that the current residential user fee is \$32.22 per month. Total water system revenues fluctuated between \$418,121 (2018) and \$535,176 (2016) over the five-year study period and in most years were sufficient to cover water system expenses.

6.11.3 Future Debt Service

At almost \$30 million dollars total, it is anticipated that the City will need assistance financing the proposed improvement projects presented in this PER. With a current MHI of \$74,148, the City may not qualify for grant funding, principal forgiveness programs and may not qualify for lower interest rates as a result of this condition.

At the October 14, 2020 city council meeting it was determined that the City would pursue external financing for phases 2 and 3 of the proposed project detailed previously. The estimated annual payment on a 40-yr, \$4.1 million dollar loan (i.e., Phase 2) at 2.125 percent interest is approximately \$154,000. The estimated annual payment on a 40-yr, \$5.4 million dollar loan (i.e., Phase 3) at 2.125 percent interest is approximately \$200,000. Basic allocation of annual debt service for both of these loans across a current customer base of 850 results in an average per user impact of \$35 per month. Additional user rate analysis is provided in Section 6.11.5 below.

6.11.4 Future Reserves

As part of the process of creating the water system enterprise fund, the City will want or be required to create some reserve accounts to either meet funding requirements or to maintain financial best management

⁶ Total includes depreciation.

practices. There are typically two types of reserves used in the operation of a water utility, a restricted reserve and an unrestricted reserve. This section will focus on the minimum requirements for the restricted reserves. Minimum balance goals for unrestricted reserves (e.g., operating reserve, capital reserve) will be recommended as part of the rate study.

6.11.4.1 Bond Reserve

A condition of most funding sources which the City is likely to pursue will be the need to maintain a restricted reserve equal to one year of debt repayments for the term of the loan. Typically, these reserves are funded from user rates and most funding agreements allow for these reserves to be built up over a period of ten years. The annual payment for a 40-yr loan of \$9.5 million dollars at a rate of 2.125 percent would be approximately \$354,000 which would also be the minimum balance for this reserve account after a period of ten years. In order to accrue this total over a period of 10 years, the City would need to generate approximately \$35,000 a year from user rates to fund the reserve which equates to an additional \$3.50 per month per customer.

6.11.4.2 Capital Replacement Reserve

An inventory of the City's short-lived assets⁷ was performed and can be found in Appendix E. It was found that the City maintains approximately \$389,000 in "short lived" capital assets which equates to an annual replacement cost of \$29,000. Following the construction of the proposed project these costs will be increased by \$1.25M or \$83,000 annually. Depending on the source used to fund the improvements, the City will most likely need to fund a restricted reserve account between \$28,505 and \$83,000 annually. At this time, the City will not need to prepare a fiscal sustainability plan to meet funding requirements.

6.11.5 Approximate User Rates

This section attempts to estimate the impact to user rates as a result of the proposed project presented in this PER. Adjusting the annual O&M costs (\$452,567 per year) to account for future inflation and a reduction in annual repair costs (\$8,007) as a result of the improvements, the approximate per user cost of operating and maintain the water system will be \$45.83 per month. Adding in the debt service requirement of \$35 per month (see Section 6.11.3), a reserve contribution of \$6.20 per month, and a depreciation contribution of \$18.66, the approximate water system user fee becomes \$105 per month⁸ for water service only. Additionally, the City is pursuing improvements to its sewer system and its roadways which may place additional financial burden on its customers.

The City understands that this increase in fee is significant and may not be feasible for the community. City leadership is committed to engaging its citizens with each new piece of information that becomes available throughout the funding and rate study process.

⁷ Short lived assets are capital assets with a life expectancy of 15 years or less.

⁸ The detailed rate study that the City is pursuing should be used in place of this estimate once the data/estimates becomes available.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This PER recommends the following:

- The City pursue the engineering design, permitting and construction of new transmission mains from Bush St. and Cedar St. to the storage tanks north of Interstate 80.
- The City pursue the engineering design, permitting and construction of new distribution mains on the most southerly portion of the distribution system.
- The City pursue external funding sources (e.g., SRF, USDA) to provide near term capital to design and construct these improvements.
- The City complete a comprehensive rate study which provides recommended user rates, connection fees, reserve account minimums and other financial considerations which will ensure a sustainable water system from a management perspective.

In addition to the improvement projects identified in this PER, there are other management and utility planning pursuits that would contribute to the long-term sustainability of the water system. Recommendations include:

- Develop a water rights inventory and perform a water rights audit to identify the volume of encumbered water rights.
- Perform a consumptive use analysis. The data developed in this analysis will support future water right dedications and water right permitting/certificates.
- Develop a water system master plan. This plan can build upon much of the information prepared for this PER, but will ultimately provide the City with a 10-yr Capital Improvement Plan (CIP) to help guide future budgeting and operations. This plan could be prepared following the construction of the improvements presented in this PER.
- Prepare a Water Resource Plan (WRP). Currently, Senate Bill 150 requires all governing bodies to develop and maintain a WRP which includes:
 - an evaluation of all current and potential water sources,
 - an analysis of current and future water demands,
 - an analysis of whether the sources identified are sufficient to meet current and future demands, and
 - identification of risks to the long-term sustainability of the water system.

SB 150 also requires that these plans be updated every 10 years. This plan should be completed within 2 years of the Master Plan to ensure that the 10-yr CIP includes any water resource improvements identified in the WRP.

- Develop and maintain a groundwater monitoring program to ensure the quality and quantity of groundwater is available for the foreseeable future.

APPENDIX A

POPULATION DATA
ENVIRONMENTAL DOCUMENTS
GEOLOGY & FAULT MAPS



DP-1

Profile of General Population and Housing Characteristics: 2010

2010 Demographic Profile Data

NOTE: For more information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/dpsf.pdf>.

Geography: Carlin city, Nevada

Subject	Number	Percent
SEX AND AGE		
Total population	2,368	100.0
Under 5 years	178	7.5
5 to 9 years	129	5.4
10 to 14 years	190	8.0
15 to 19 years	184	7.8
20 to 24 years	169	7.1
25 to 29 years	153	6.5
30 to 34 years	177	7.5
35 to 39 years	157	6.6
40 to 44 years	186	7.9
45 to 49 years	229	9.7
50 to 54 years	178	7.5
55 to 59 years	140	5.9
60 to 64 years	107	4.5
65 to 69 years	91	3.8
70 to 74 years	49	2.1
75 to 79 years	34	1.4
80 to 84 years	9	0.4
85 years and over	8	0.3
Median age (years)	35.1	(X)
16 years and over	1,845	77.9
18 years and over	1,772	74.8
21 years and over	1,645	69.5
62 years and over	242	10.2
65 years and over	191	8.1
Male population	1,310	55.3
Under 5 years	96	4.1
5 to 9 years	67	2.8
10 to 14 years	92	3.9
15 to 19 years	94	4.0
20 to 24 years	111	4.7
25 to 29 years	93	3.9
30 to 34 years	102	4.3
35 to 39 years	80	3.4
40 to 44 years	110	4.6
45 to 49 years	127	5.4
50 to 54 years	109	4.6
55 to 59 years	80	3.4
60 to 64 years	53	2.2
65 to 69 years	50	2.1
70 to 74 years	25	1.1
75 to 79 years	15	0.6
80 to 84 years	5	0.2
85 years and over	1	0.0

Subject	Number	Percent
Median age (years)	35.0	(X)
16 years and over	1,041	44.0
18 years and over	1,003	42.4
21 years and over	936	39.5
62 years and over	119	5.0
65 years and over	96	4.1
Female population	1,058	44.7
Under 5 years	82	3.5
5 to 9 years	62	2.6
10 to 14 years	98	4.1
15 to 19 years	90	3.8
20 to 24 years	58	2.4
25 to 29 years	60	2.5
30 to 34 years	75	3.2
35 to 39 years	77	3.3
40 to 44 years	76	3.2
45 to 49 years	102	4.3
50 to 54 years	69	2.9
55 to 59 years	60	2.5
60 to 64 years	54	2.3
65 to 69 years	41	1.7
70 to 74 years	24	1.0
75 to 79 years	19	0.8
80 to 84 years	4	0.2
85 years and over	7	0.3
Median age (years)	35.2	(X)
16 years and over	804	34.0
18 years and over	769	32.5
21 years and over	709	29.9
62 years and over	123	5.2
65 years and over	95	4.0
RACE		
Total population	2,368	100.0
One Race	2,327	98.3
White	2,174	91.8
Black or African American	43	1.8
American Indian and Alaska Native	35	1.5
Asian	14	0.6
Asian Indian	2	0.1
Chinese	3	0.1
Filipino	5	0.2
Japanese	1	0.0
Korean	1	0.0
Vietnamese	0	0.0
Other Asian [1]	2	0.1
Native Hawaiian and Other Pacific Islander	0	0.0
Native Hawaiian	0	0.0
Guamanian or Chamorro	0	0.0
Samoan	0	0.0
Other Pacific Islander [2]	0	0.0
Some Other Race	61	2.6
Two or More Races	41	1.7
White; American Indian and Alaska Native [3]	19	0.8
White; Asian [3]	5	0.2
White; Black or African American [3]	5	0.2
White; Some Other Race [3]	5	0.2
Race alone or in combination with one or more other races: [4]		
White	2,211	93.4
Black or African American	50	2.1
American Indian and Alaska Native	57	2.4

Subject	Number	Percent
Asian	22	0.9
Native Hawaiian and Other Pacific Islander	2	0.1
Some Other Race	69	2.9
HISPANIC OR LATINO		
Total population	2,368	100.0
Hispanic or Latino (of any race)	240	10.1
Mexican	179	7.6
Puerto Rican	4	0.2
Cuban	1	0.0
Other Hispanic or Latino [5]	56	2.4
Not Hispanic or Latino	2,128	89.9
HISPANIC OR LATINO AND RACE		
Total population	2,368	100.0
Hispanic or Latino	240	10.1
White alone	160	6.8
Black or African American alone	2	0.1
American Indian and Alaska Native alone	5	0.2
Asian alone	0	0.0
Native Hawaiian and Other Pacific Islander alone	0	0.0
Some Other Race alone	61	2.6
Two or More Races	12	0.5
Not Hispanic or Latino	2,128	89.9
White alone	2,014	85.1
Black or African American alone	41	1.7
American Indian and Alaska Native alone	30	1.3
Asian alone	14	0.6
Native Hawaiian and Other Pacific Islander alone	0	0.0
Some Other Race alone	0	0.0
Two or More Races	29	1.2
RELATIONSHIP		
Total population	2,368	100.0
In households	2,256	95.3
Householder	882	37.2
Spouse [6]	453	19.1
Child	630	26.6
Own child under 18 years	500	21.1
Other relatives	133	5.6
Under 18 years	68	2.9
65 years and over	8	0.3
Nonrelatives	158	6.7
Under 18 years	25	1.1
65 years and over	4	0.2
Unmarried partner	79	3.3
In group quarters	112	4.7
Institutionalized population	112	4.7
Male	112	4.7
Female	0	0.0
Noninstitutionalized population	0	0.0
Male	0	0.0
Female	0	0.0
HOUSEHOLDS BY TYPE		
Total households	882	100.0
Family households (families) [7]	576	65.3
With own children under 18 years	270	30.6
Husband-wife family	453	51.4
With own children under 18 years	194	22.0
Male householder, no wife present	67	7.6
With own children under 18 years	39	4.4
Female householder, no husband present	56	6.3
With own children under 18 years	37	4.2

Subject	Number	Percent
Nonfamily households [7]	306	34.7
Householder living alone	237	26.9
Male	165	18.7
65 years and over	23	2.6
Female	72	8.2
65 years and over	40	4.5
Households with individuals under 18 years	302	34.2
Households with individuals 65 years and over	152	17.2
Average household size	2.56	(X)
Average family size [7]	3.11	(X)
HOUSING OCCUPANCY		
Total housing units	1,043	100.0
Occupied housing units	882	84.6
Vacant housing units	161	15.4
For rent	82	7.9
Rented, not occupied	2	0.2
For sale only	6	0.6
Sold, not occupied	7	0.7
For seasonal, recreational, or occasional use	27	2.6
All other vacants	37	3.5
Homeowner vacancy rate (percent) [8]	1.0	(X)
Rental vacancy rate (percent) [9]	21.3	(X)
HOUSING TENURE		
Occupied housing units	882	100.0
Owner-occupied housing units	581	65.9
Population in owner-occupied housing units	1,525	(X)
Average household size of owner-occupied units	2.62	(X)
Renter-occupied housing units	301	34.1
Population in renter-occupied housing units	731	(X)
Average household size of renter-occupied units	2.43	(X)

X Not applicable.

[1] Other Asian alone, or two or more Asian categories.

[2] Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

[3] One of the four most commonly reported multiple-race combinations nationwide in Census 2000.

[4] In combination with one or more of the other races listed. The six numbers may add to more than the total population, and the six percentages may add to more than 100 percent because individuals may report more than one race.

[5] This category is composed of people whose origins are from the Dominican Republic, Spain, and Spanish-speaking Central or South American countries. It also includes general origin responses such as "Latino" or "Hispanic."

[6] "Spouse" represents spouse of the householder. It does not reflect all spouses in a household. Responses of "same-sex spouse" were edited during processing to "unmarried partner."

[7] "Family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples. Same-sex couple households are included in the family households category if there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.

[8] The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant "for sale." It is computed by dividing the total number of vacant units "for sale only" by the sum of owner-occupied units, vacant units that are "for sale only," and vacant units that have been sold but not yet occupied; and then multiplying by 100.

[9] The rental vacancy rate is the proportion of the rental inventory that is vacant "for rent." It is computed by dividing the total number of vacant units "for rent" by the sum of the renter-occupied units, vacant units that are "for rent," and vacant units that have been rented but not yet occupied; and then multiplying by 100.

Source: U.S. Census Bureau, 2010 Census.

2017 Population Projections for Nevada's Counties 2017 to 2036
Based On 2016 Estimate: Includes Tesla and Housing Costs as Separate Impact

With Additional Factors: Tesla and Housing Costs	Elko W/ Additional Factors		
	Total Population	Change Previous Year	Percentage Change
2016	53,997		
2017	54,498	500	0.9%
2018	54,890	393	0.7%
2019	55,061	171	0.3%
2020	55,235	174	0.3%
2021	55,407	173	0.3%
2022	55,560	153	0.3%
2023	55,725	164	0.3%
2024	55,926	202	0.4%
2025	56,104	178	0.3%
2026	56,266	161	0.3%
2027	56,457	191	0.3%
2028	56,670	213	0.4%
2029	56,892	222	0.4%
2030	57,106	214	0.4%
2031	57,338	232	0.4%
2032	57,575	237	0.4%
2033	57,835	261	0.5%
2034	58,112	277	0.5%
2035	58,380	268	0.5%
2036	58,648	268	0.5%

DRAFT Without Tesla and Current Housing Costs	Elko		
	Total Population	Change Previous Year	Percentage Change
2016	53,997		
2017	54,364	367	0.7%
2018	54,661	297	0.5%
2019	54,880	219	0.4%
2020	55,071	191	0.3%
2021	55,256	185	0.3%
2022	55,417	160	0.3%
2023	55,584	168	0.3%
2024	55,791	207	0.4%
2025	55,975	184	0.3%
2026	56,146	171	0.3%
2027	56,350	205	0.4%
2028	56,580	230	0.4%
2029	56,820	240	0.4%
2030	57,053	234	0.4%
2031	57,304	250	0.4%
2032	57,559	255	0.4%
2033	57,837	278	0.5%
2034	58,131	294	0.5%
2035	58,414	283	0.5%
2036	58,695	281	0.5%

Esmeralda W/ Additional Factors		
Total Population	Change Previous Year	Percentage Change
964		
958	-6	-0.6%
957	-1	-0.1%
954	-2	-0.2%
957	2	0.2%
962	5	0.5%
967	6	0.6%
973	6	0.6%
978	5	0.5%
982	4	0.4%
984	2	0.2%
990	6	0.6%
996	6	0.6%
999	4	0.4%
1,002	2	0.2%
1,004	2	0.2%
1,005	1	0.1%
1,006	1	0.1%
1,008	1	0.1%
1,009	1	0.1%
1,012	4	0.4%

Esmeralda		
Total Population	Change Previous Year	Percentage Change
964		
956	-8	-0.9%
953	-2	-0.2%
952	-1	-0.1%
956	4	0.4%
960	5	0.5%
966	6	0.6%
972	6	0.6%
977	5	0.5%
980	4	0.4%
983	2	0.2%
989	6	0.6%
993	5	0.5%
998	5	0.5%
1,000	2	0.2%
1,003	2	0.2%
1,003	0	0.0%
1,005	2	0.2%
1,006	1	0.1%
1,008	1	0.1%
1,011	4	0.4%

Governor Certified Population Estimates of Nevada's Counties, Cities and Towns 2000 to 2016

Estimates from NV State Demographer, NV Department of Taxation

	April 1 2000	JULY 1 2000	Percent Change 4/00 - 7/01	Percent Change 7/00 - 7/01	JULY 1 2001	Percent Change 7/01 - 7/02	JULY 1 2002	Percent Change 7/02 - 7/03	JULY 1 2003	Percent Change 7/03 - 7/04
State of Nevada	1,998,257	2,066,831	6.7%	3.2%	2,132,498	3.4%	2,206,022	4.1%	2,296,566	5.0%
Counties										
Cities										
Towns										
Douglas County	41,259	43,101	5.3%	0.8%	43,450	1.8%	44,212	3.1%	45,603	4.8%
Gardnerville	3,377	3,528	14.0%	9.2%	3,851	5.6%	4,065	6.2%	4,316	17.4%
Genoa	235	245	-4.5%	-8.6%	224	1.3%	227	1.0%	229	6.6%
Minden	2,697	2,818	6.1%	1.5%	2,861	-1.1%	2,830	1.4%	2,870	2.6%
Elko County	45,291	50,756	3.0%	-8.1%	46,668	-0.2%	46,577	-1.7%	45,805	1.5%
Carlin	2,161	2,395	2.5%	-7.5%	2,215	-6.4%	2,074	-1.4%	2,045	9.6%
Elko	16,708	18,642	2.3%	-8.3%	17,093	-2.4%	16,690	-2.0%	16,354	4.8%
Wells	1,346	1,563	-11.5%	-23.8%	1,191	16.6%	1,389	-1.1%	1,373	2.4%
West Wendover	4,721	3,867	-2.3%	19.3%	4,614	4.9%	4,839	-2.2%	4,732	2.1%
Jackpot	1,178	1,310	9.3%	-1.7%	1,287	0.1%	1,288	-1.3%	1,271	0.8%
Montello	191	216	-5.1%	-16.3%	181	0.0%	181	0.0%	181	-1.1%
Mountain City	135	150	-2.6%	-12.4%	132	-4.0%	127	-1.6%	125	-1.3%
Esmeralda County	971	1,513	6.9%	-31.4%	1,038	8.4%	1,125	-0.8%	1,116	5.3%
Goldfield	369	574	35.0%	-13.4%	498	-11.9%	438	0.2%	439	3.1%
Silver Peak	148	230	9.8%	-29.6%	162	-20.9%	128	-3.5%	124	2.4%
Eureka County	1,651	1,847	-8.8%	-18.5%	1,506	-8.1%	1,384	2.6%	1,420	4.4%
Crescent Valley	330	369	-9.7%	-19.3%	298	-6.3%	279	7.4%	300	1.4%
Eureka (town)	499	558	-5.8%	-15.8%	470	-7.8%	434	2.9%	446	1.7%
Humboldt County	16,106	18,149	0.4%	-10.9%	16,164	0.9%	16,308	0.9%	16,457	1.4%
Winnemucca	7,174	8,884	-2.4%	-21.2%	7,001	3.3%	7,234	0.6%	7,280	-0.4%

Note: This series represents the estimates as certified by NV's Governor each year. It is not a time series reflecting Census 2010.

Governor Certified Population Estimates of Nevada's Counties, Cities and Towns 2000 to 2016

Estimates from NV State Demographer, NV Department of Taxation

	JULY 1 2004	Percent Change 7/04 - 7/05	JULY 1 2005	Percent Change 7/05 - 7/06	JULY 1 2006	Percent Change 7/06 - 7/07	JULY 1 2007	Percent Change 7/07 - 7/08	JULY 1 2008	Percent Change 7/08 - 7/09
State of Nevada	2,410,768	4.5%	2,518,869	4.1%	2,623,050	3.6%	2,718,337	0.8%	2,738,733	-1.0%
Counties										
Cities										
Towns										
Douglas County	47,803	4.8%	50,108	3.3%	51,770	1.2%	52,386	-0.5%	52,131	-1.4%
Gardnerville	5,067	1.9%	5,165	7.4%	5,550	-2.8%	5,394	0.3%	5,412	-3.0%
Genoa	244	1.4%	248	1.6%	252	0.2%	252	1.3%	255	0.2%
Minden	2,945	1.3%	2,983	8.4%	3,234	0.2%	3,239	0.7%	3,261	-1.0%
Elko County	46,499	2.3%	47,586	1.6%	48,339	4.3%	50,434	0.3%	50,561	1.5%
Carlin	2,240	1.0%	2,261	0.9%	2,281	0.6%	2,295	1.2%	2,322	1.0%
Elko	17,140	4.1%	17,850	1.9%	18,183	1.3%	18,427	0.0%	18,424	0.0%
Wells	1,406	1.2%	1,423	1.9%	1,449	4.0%	1,508	1.1%	1,524	-0.6%
West Wendover	4,830	0.4%	4,848	0.5%	4,871	1.8%	4,958	0.6%	4,990	-0.9%
Jackpot	1,281	-0.6%	1,273	1.6%	1,293	-5.9%	1,217	0.4%	1,222	-3.1%
Montello	179	1.2%	181	-3.7%	175	-5.7%	165	0.4%	165	1.3%
Mountain City	123	-1.8%	121	3.1%	125	3.5%	129	0.9%	130	-7.0%
Esmeralda County	1,176	8.5%	1,276	-1.1%	1,262	-2.1%	1,236	0.3%	1,240	-4.3%
Goldfield	453	-3.3%	438	-1.7%	430	4.2%	448	-7.5%	415	6.4%
Silver Peak	127	-0.9%	126	-7.1%	117	6.9%	125	45.9%	182	-22.7%
Eureka County	1,484	0.1%	1,485	-1.7%	1,460	-0.1%	1,458	6.5%	1,553	0.6%
Crescent Valley	304	2.2%	311	-5.9%	292	-1.2%	289	-2.2%	283	0.2%
Eureka (town)	454	-2.9%	440	-1.7%	433	-0.4%	431	9.6%	473	2.1%
Humboldt County	16,692	3.6%	17,293	2.6%	17,751	1.7%	18,052	-0.2%	18,014	-1.8%
Winnemucca	7,249	2.1%	7,401	3.3%	7,643	0.0%	7,646	0.2%	7,659	-0.9%

Note: This series represents the estimates as certified by NV's Governor each year. It is not a time series reflecting Census 2010.

Governor Certified Population Estimates of Nevada's Counties, Cities and Towns 2000 to 2016

Estimates from NV State Demographer, NV Department of Taxation

	JULY 1 2009	Percent Change 7/09 - 7/10	April 1 2010	JULY 1 2010	Percent Change 4/10 - 7/11	Percent Change 7/10 - 7/11	JULY 1 2011	Percent Change 7/11 - 7/12	JULY 1 2012	Percent Change 7/12 - 7/13
State of Nevada	2,711,206	0.5%	2,700,551	2,724,634	0.8%	-0.1%	2,721,794	1.0%	2,750,217	1.8%
Counties										
Cities										
Towns										
Douglas County	51,390	-4.2%	46,997	49,242	1.4%	-3.2%	47,661	0.7%	48,015	1.0%
Gardnerville	5,250	-5.1%	4,756	4,983	15.0%	9.8%	5,469	0.5%	5,495	0.8%
Genoa	256	-4.7%	233	244	-7.2%	-11.5%	216	1.3%	219	0.6%
Minden	3,229	-0.5%	3,067	3,213	-2.7%	-7.1%	2,984	0.9%	3,010	-0.6%
Elko County	51,325	1.5%	48,818	52,097	2.1%	-4.3%	49,861	3.8%	51,771	3.1%
Carlin	2,345	1.1%	2,368	2,370	0.3%	0.3%	2,376	0.0%	2,376	20.0%
Elko	18,428	2.2%	18,297	18,842	5.0%	1.9%	19,209	6.2%	20,406	2.7%
Wells	1,515	1.1%	1,292	1,531	-9.1%	-23.3%	1,174	9.0%	1,280	2.1%
West Wendover	4,945	1.1%	4,410	4,999	1.4%	-10.6%	4,470	-2.3%	4,367	2.0%
Jackpot	1,184	1.1%	1,103	1,197	-12.7%	-19.5%	963	-5.1%	914	1.0%
Montello	167	1.0%	156	169	-49.3%	-53.3%	79	-23.5%	60	-0.3%
Mountain City	121	0.9%	112	122	-9.3%	-16.4%	102	7.4%	110	-0.7%
Esmeralda County	1,187	-3.5%	783	1,145	5.4%	-27.9%	825	4.3%	860	-0.2%
Goldfield	441	-9.4%	274	400	5.3%	-28.0%	288	-9.9%	259	12.8%
Silver Peak	141	-8.3%	88	129	32.6%	-9.3%	117	9.4%	128	3.4%
Eureka County	1,562	3.0%	1,987	1,609	0.4%	23.9%	1,994	0.8%	2,011	0.7%
Crescent Valley	283	4.5%	366	296	8.3%	33.8%	396	-6.5%	370	0.2%
Eureka (town)	483	3.3%	616	499	-0.8%	22.4%	611	17.3%	717	0.4%
Humboldt County	17,690	3.8%	16,528	18,364	3.7%	-6.7%	17,135	1.5%	17,384	0.4%
Winnemucca	7,593	4.8%	7,396	7,961	6.0%	-1.5%	7,839	2.0%	7,997	2.4%

Note: This series represents the estimates as certified by NV's Governor each year. It is not a time series reflecting Census 2010.

Governor Certified Population Estimates of Nevada's Counties, Cities and Towns 2000 to 2016

Estimates from NV State Demographer, NV Department of Taxation

	JULY 1 2013	Percent Change 7/13 - 7/14	JULY 1 2014	Percent Change 7/14 - 7/15	JULY 1 2015	Percent Change 7/15 - 7/16	JULY 1 2016
State of Nevada	2,800,967	1.5%	2,843,301	1.9%	2,897,584	1.9%	2,953,375
Counties							
Cities							
Towns							
Douglas County	48,478	0.2%	48,553	-0.7%	48,223	0.0%	48,235
Gardnerville	5,541	4.0%	5,760	-0.2%	5,751	0.5%	5,780
Genoa	220	-1.5%	217	-1.1%	215	-0.5%	213
Minden	2,993	2.7%	3,072	0.0%	3,072	1.2%	3,110
Elko County	53,384	0.0%	53,358	0.4%	53,551	0.8%	53,997
Carlin	2,851	-4.2%	2,731	-0.1%	2,727	-1.6%	2,684
Elko	20,958	-0.4%	20,865	-0.7%	20,714	0.0%	20,704
Wells	1,307	8.0%	1,411	-2.8%	1,371	1.3%	1,388
West Wendover	4,453	-0.7%	4,420	1.3%	4,478	-0.1%	4,474
Jackpot	923	-1.8%	907	-1.0%	898	0.0%	897
Montello	60	-6.3%	56	-0.9%	56	11.6%	62
Mountain City	109	-1.6%	107	-7.0%	100	-4.1%	95
Esmeralda County	858	7.9%	926	-0.4%	923	4.5%	964
Goldfield	293	-7.2%	272	-3.7%	262	-0.6%	260
Silver Peak	132	-3.2%	128	4.0%	133	-7.6%	123
Eureka County	2,024	-6.0%	1,903	-2.2%	1,862	5.2%	1,959
Crescent Valley	371	0.8%	374	0.0%	374	-0.5%	372
Eureka (town)	720	-3.9%	691	0.8%	697	5.1%	732
Humboldt County	17,457	-0.4%	17,388	-1.9%	17,057	-1.2%	16,853
Winnemucca	8,185	-1.8%	8,042	-3.0%	7,802	-0.4%	7,772

Note: This series represents the estimates as certified by NV's Governor each year. It is not a time series reflecting Census 2010.

ENVIRONMENTAL DOCUMENTS

CITY OF CARLIN
Environmental Assessment for
Water and Wastewater System Improvements
June 2021



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1.0 PURPOSE AND NEED FOR THE PROJECT

1.1 PROPOSED ACTION(S)

The City of Carlin (Carlin) is proposing all or a portion of the following water and sewer system replacement improvements:

Water System Proposed Project: (Alternative 2)

This project would include replacing approximately 13 miles of water main (12, 10, and 8-inch), install 500 water meters, and replace failing infrastructure at Spring 1. The project would also include more than 300,000 square feet of asphalt paving and replace approximately 250 fire hydrants. In general, this project proposes to replace approximately half of the existing water distribution over an area of about 0.5 square miles. New water mains would be installed via open-trench construction in previously disturbed areas.

The first phase of this project would replace the transmission main between Spring 1 and the lower booster pump station in addition to making improvements to the spring facility itself. An engineering design for this project has been completed, although the project has not been subject to competitive bid nor has it been constructed.

The second phase of this project alternative includes replacement of two water transmission mains which cross under I-80 and form the only two connections between the water storage tanks and the majority of the city distribution system. Both of the welded steel mains were constructed in the 1930's and have experienced severe corrosion which has rendered them unsafe, prone to leaks, and are difficult to service. The continuous safe operation of these mains is critical because they supply water to 95% of the City. Additionally, since both mains cross under the I-80 freeway and Chestnut Street, which is a frontage road and the primary east-west artery in Carlin, a large leak in these mains could damage the roadways disrupting interstate traffic patterns and emergency services. Finally, the transmission mains do not have any larger diameter casing providing protection from external loads or excavation activities.

Phase 3 would replace the portion of the distribution system that contains the oldest pipes in the system and is also the area with the greatest water pressures. This phase includes all the locations where main replacement requires directional boring under railroad tracks. The portion of town south of the railroad tracks also contains several mains that dead end. The mains south of the railroad tracks will be extended to 10th Street and 4th Street and looped, eliminating or reducing five dead ends. The horizontal bore under the railroad track at 4th Street will be relocated to the road crossing at B Street and connect to an existing 8-inch PVC main there, eliminating a sixth dead end. Looping the water mains will reduce or eliminate dead end mains, which will increase flow to fire hydrants. Dead end mains can also result in stagnant water and locations for microbiological growth.

Phase 4 improvements include replacing existing deficient water mains north of the railroad tracks and to the east of 6th Street. It is also proposed to include isolated segments of pipe and mains farther to the north, including some isolated segments of main farther north and near I-80. Service lines will be replaced to the edge of City right-of-way and meter pits with meters will be installed. This part of the distribution system contains the second oldest pipes in the distribution system.

The final portion (i.e., Phase 5) of the distribution system which is being proposed for replacement are water mains north of the railroad tracks and to the west of 6th Street. Service lines will also be replaced to the edge of City right-of-way and meter pits with meters will be installed.

The transmission main from Spring 2 to the booster pump is also nearing the end of its useful life and is a candidate for replacement. The proposed improvements include 2,000 lf of 12-inch transmission main which would connect to the Spring 1 transmission main just to the west of Willow St. Additionally, the

spring outlet and flow gauge would be replaced as well. The need for this project is significantly downgraded due to the fact that the City does not need to rely on Spring 2 water to meet average or peak demands.

Pipeline to be replaced in the proposed water system project are listed in the table below.

WATER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
¾	730	6	29,734
1	2,029	8	40,063
1 ¼	405	10	1,332
1 ½	104	12	26,255
2	3,775	14	663
3	1,113	16	1,055
4	3,022	Unknown	15,063

Legend

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Phase 6
- Existing Water Mains

FARR WEST

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City of Carlin
Figure 1: Proposed Water Improvements



1:53,439

The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Maxar, Microsoft

Sewer System Proposed Project: (Alternative 3)

This project alternative proposes to replace the same system components as alternative 1. However, this alternative would replace all failing sewer collection mains with a cured in place pipe (CIPP) inside of existing pipes as opposed to completely replacing all failing pipes with new materials. This method of construction has many benefits, including:

- reduced unit installation costs,
- smaller quantities of asphalt which needs to be replaced,
- pipe segments replaced with jointless, seamless pipes, and
- reduced traffic control costs.

The primary drawbacks to this method of construction is that it requires a “host” pipeline which does not have significant structural flaws or failures and it will be installed in the exact same location and at the same slope as the original pipe. If there is a need to re-align a section of the collection system that would require open-trench construction. An additional drawback is that the lined pipe can only be cleaned in the future with a water-jetting based device as mechanical cable or “snakes” would damage the liner material.

This alternative also proposes to line the City owned portion of each sewer connection and not replace any piping or install any new cleanouts with the improvements.

Pipeline to be replaced in the proposed sewer system project are listed in the table below.

SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727



1.2 PURPOSE AND NEED FOR THE PROJECT

1.2.1 Health and Safety

The primary water system issues related to health and safety include:

- Hazardous materials (lead joints, asbestos cement, potential lead service connections);
- Undersized water mains;
- Significant water losses;
- Insufficient hydraulic capacity to satisfy fire flow requirements, and
- Potential backflow contamination from leaks in system during low pressure events.

The primary sewer system issues related to health and safety include:

- Insufficient pipe slopes and bury depths;
- Structural and O&M defects throughout the system (holes, obstructions, leaching)
- Root obstruction,
- Lift station at end of useful life, and
- Clay lining failing on sewer lagoons.

1.2.2 Aging infrastructure and System O&M

O&M costs are directly related to the condition of the system. Therefore, all the above-mentioned issues are the cause of rising O&M costs. It is anticipated that the construction of any alternative which does not expand the service area or boundary will result in a reduction in O&M costs as they relate to time and resources to repairs of the outdated water and sewer systems.

The following is a summarized list of water issues related to aging infrastructure:

- Transmission Mains - All transmission mains, from both spring sources and those to the storage tanks, have reached the end or their service lives. Failure of these mains creates a potential for a water emergency situation. Additionally, repair activities present a safety hazard to the personnel working on the pipes and increases the likelihood of a more significant failure.
- Old Distribution System - Very old sections (e.g. 1930's) of distribution system piping are likely the cause for high system water losses and the increased potential for future contamination. Also, many aged fire hydrants require adapters for modern fire hoses.
- Source - The Spring 1 intake structure is thoroughly corroded.

Storage – The useful life of the water storage tanks have been extended through numerous repairs and re-coatings. At some point the tanks will need to be replaced

The following is a summarized list of wastewater issues related to aging infrastructure:

- Aging original section of collection system – reported tree root intrusion. Recent tree root intrusion found in PVC pipe;

- Replacement of the Oak Street Lift Station, Smith and Loveless duplex wet well – dry well sewage pump station including the wet well inlet screen and antiquated flow/totalizing meter;
- Inaccurate flow metering data recordation at the Oak Street Lift Station and treatment effluent pumping;
- I/I, believed to account for a significant percentage of sewage volume, cannot be accurately estimated;
- The approximate 43-year old clay liners of the treatment ponds will only continue to degrade allowing additional seepage; and
- Sludge has not been removed from the treatment ponds since 1988

2.0 PROJECT LOCATION

The City of Carlin is located on the western border of Elko County, Nevada. The Humboldt River flows on the south end of town. Two of the Humboldt's tributaries, Maggie and Susie Creek, run through the City of Carlin. Natural boundaries include Pine Mountain to the south, Mary's Mountain to the west, and Grindstone Mountain to the east. A location map is shown in Figure 3.

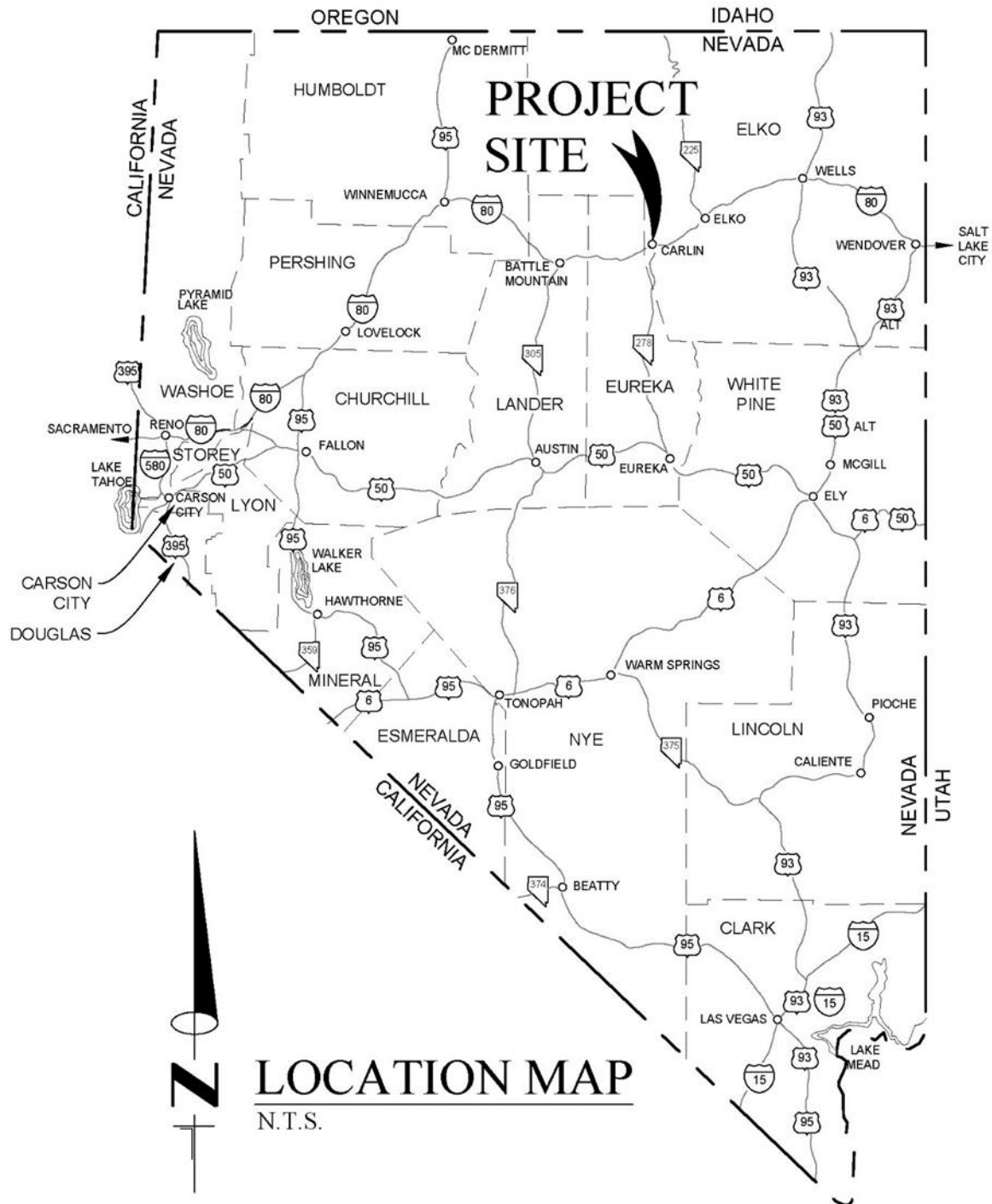


Figure 3 Project Location

3.0 ALTERNATIVES TO PROPOSED ACTION

3.1 DESIGN CRITERIA

It should be noted that the Area of Potential Effect (APE) of this project includes individual elements that will not be implemented simultaneously. All pipe elements will have relatively narrow APE's that will mostly be within or near road shoulders and disturbances will occur within previously developed areas.

3.1.1 Cultural Resources

The only potential impact(s) that could occur because of project elements would be the inadvertent discovery of possible archeological materials. If that occurs, the following protocols would be observed:

- All work will stop immediately in the vicinity of the find,
- the area will be secured and protected,
- the project inspector will be notified,
- SHPO will be notified,
- if human remains are encountered, the City of Carlin Police Department, Commission on Indian Services (CIS), Tribes, and BLM will also be notified,
- no work may resume until SHPO and BLM Archaeology staff are on-site and able to assess the situation and clear the site for continuation of construction activities.

3.1.2 Biological Resources

The Nevada Department of Wildlife and/or the United States Forest Service makes the following recommendations regarding the protection of habitat and wildlife during construction:

- Avoiding vegetation removal activities outside the migratory bird breeding season (passerines: April 15 – July 15; raptors Feb. 1 – Aug). If conducting vegetation disturbance activities during this time, we recommend that a qualified biologist survey for bird breeding behavior within 10 days of the disturbance. If breeding behavior is detected, please apply appropriate non-disturbance buffer or contact NDOW or FWS for further direction,
- avoid impacts to abandoned mines, caves, and roosting and foraging areas,
- work crews take appropriate fire prevention and management measures (e.g. extinguishers, shovels, no smoking, spark arrestors, etc.) to prevent a fire from starting and spreading into adjacent wildlife habitat.
- appropriate weed management plans be developed and implemented to monitor, prevent, and treat weeds from occupying the disturbance area and spreading into adjacent areas. Additionally, we recommend rehabilitating disturbed areas to prevent future weed infestations.
- USFWS recommends: Prevent the spread of invasive species and include measures designed to limit the spread of invasive species facilitated by project activities. Measures may include physical or chemical methods to control or remove invasive species, particularly related to Lahontan Cutthroat Trout.
-

3.1.3 Erosion and Best Management Practices

To prevent erosion during and after construction, best management practices such as the following will be implemented during construction depending upon conditions and need:

- Soils and slopes at the site will be assessed,
- existing vegetation will be preserved wherever possible,
- impervious surfaces will be minimized,
- work to minimize exposed soil areas,
- development of a Storm Water Pollution Prevention Plan,
- salvage, stockpile and reuse topsoil,
- install construction entrances and control dust,
- protect soils with vegetation, mulch, and binders,
- use sediment barriers including fiber rolls and silt fence,
- protecting culvert and ditch inlets and outlets,
- manage trash, materials, and supplies,
- project close-out including removing temporary sediment controls and final site stabilization.

3.1.4 Pressure Requirements

State pressure requirements include the following:

Pressures

According to NAC 445A.6672, Item 2, the public water system shall ensure the residual pressure in the distribution system is:

- At least 20 psi during conditions of fire flow and fire demand experienced during maximum day demand;
- At least 30 psi during peak hour demand; and
- At least 40 psi during maximum day demand.

Furthermore, the zones of pressure in a distribution system must be designed in such a manner that the static pressure at the lowest ground elevation of the zone does not exceed 100 psi.

Velocities

NAC 445A.6672, Item 2 states that high head losses must be avoided by maintaining normal water velocities below 8 feet per second during all conditions of flow other than fire flow.

3.1.5 Projects Involving Collection System Work – WasteWater Collection

As required by NAC 445A.783, item 1, a project that involves collection system work must improve the integrity and performance of the complete waste treatment system. Wastewater systems must also address issues associated with infiltration and blockages as designated in NAC 445A.785.

The antiquated collection system is proposed for replacement to improve the containment of wastewater and reduce the impacts of system leaks. Reducing leaks will reduce infiltration along pipe alignments. Infiltration can also be reduced by improving the lining of the wastewater lagoon treatment facility. The collection system also is impacted by blockages that require regular maintenance.

3.2 WATER SYSTEM ALTERNATIVES CONSIDERED

Alternatives to the proposed project that were considered during the preliminary design phase are described in this section.

3.2.1 Alternative 1: No Action

If no action is taken, the systems will continue to operate as they currently do, including but not limited to the potential for water loss, poor fire flow, low pressures, inefficient use of water resources, wastewater infiltration, and continuing maintenance costs.

3.2.2 Alternative 2: Replace Distribution System with Improvements to Spring 1 and Spring 2

This project would include replacing approximately 13 miles of water main (12, 10, and 8-inch), install 500 water meters, and replace failing infrastructure at Spring 1. The project would also include more than 300,000 square feet of asphalt paving and replace approximately 250 fire hydrants. In general, this project proposes to replace approximately half of the existing water distribution over an area of about 0.5 square miles. New water mains would be installed via open-trench construction in previously disturbed areas.

The first phase of this project would replace the transmission main between Spring 1 and the lower booster pump station in addition to making improvements to the spring facility itself. An engineering design for this project has been completed, although the project has not been subject to competitive bid nor has it been constructed.

The second phase of this project alternative includes replacement of two water transmission mains which cross under I-80 and form the only two connections between the water storage tanks and the majority of the city distribution system. Both of the welded steel mains were constructed in the 1930's and have experienced severe corrosion which has rendered them unsafe, prone to leaks, and are difficult to service. The continuous safe operation of these mains is critical because they supply water to 95% of the City. Additionally, since both mains cross under the I-80 freeway and Chestnut Street, which is a frontage road and the primary east-west artery in Carlin, a large leak in these mains could damage the roadways disrupting interstate traffic patterns and emergency services. Finally, the transmission mains do not have any larger diameter casing providing protection from external loads or excavation activities.

Phase 3 would replace the portion of the distribution system that contains the oldest pipes in the system and is also the area with the greatest water pressures. This phase includes all the locations where main replacement requires directional boring under railroad tracks. The portion of town south of the railroad tracks also contains several mains that dead end. The mains south of the railroad tracks will be extended to 10th Street and 4th Street and looped, eliminating or reducing five dead ends. The horizontal bore under the railroad track at 4th Street will be relocated to the road crossing at B Street and connect to an existing 8-inch PVC main there, eliminating a sixth dead end. Looping the water mains will reduce or eliminate dead end mains, which will increase flow to fire hydrants. Dead end mains can also result in stagnant water and locations for microbiological growth.

Phase 4 improvements include replacing existing deficient water mains north of the railroad tracks and to the east of 6th Street. It is also proposed to include isolated segments of pipe and mains farther to the north, including some isolated segments of main farther north and near I-80. Service lines will be

replaced to the edge of City right-of-way and meter pits with meters will be installed. This part of the distribution system contains the second oldest pipes in the distribution system.

The final portion (i.e., Phase 5) of the distribution system which is being proposed for replacement are water mains north of the railroad tracks and to the west of 6th Street. Service lines will also be replaced to the edge of City right-of-way and meter pits with meters will be installed.

The transmission main from Spring 2 to the booster pump is also nearing the end of its useful life and is a candidate for replacement. The proposed improvements include 2,000 lf of 12-inch transmission main which would connect to the Spring 1 transmission main just to the west of Willow St. Additionally, the spring outlet and flow gauge would be replaced as well. The need for this project is significantly downgraded due to the fact that the City does not need to rely on Spring 2 water to meet average or peak demands.

3.2.3 Alternative 3: Replace Distribution System with New Water Sources

This project proposes nearly identical improvements to that of Alternative 2 except for completely replacing the headworks facility at Spring 1 and constructing a new groundwater well or spring-based headworks facility at an undisclosed location.

3.3 WASTEWATER SYSTEM ALTERNATIVES CONSIDERED

Alternatives to the proposed project that were considered during the preliminary design phase are described in this section.

3.3.1 Alternative 1: No Action

One option available to the City is to not pursue any improvements to the sewer collection systems or treatment facilities and respond to failures on an as-needed basis. The No Action alternative would not identify any sewer system improvement project on future capital improvement plans and would not set aside specific funding sources for the improvements.

3.3.2 Alternative 2: Replace Collection System + Lift Station + WWTP Projects

This project would include sewer system investigations (e.g., sewer video inspection, inflow + infiltration analysis), replacing approximately 8 miles of the sewer collection system (10, 8, and 6-inch), replace the Oak St. lift station, remove sludge and install new monitoring wells at the wastewater treatment ponds. The project would also include more than 200,000 square feet of asphalt paving and replace sewer laterals for 500 current customers. In general, this project proposes to just over half of the existing sewer collection over an area of about 0.5 square miles. For this alternative, all sewer pipe would be installed via open-trench construction in previously disturbed areas

It is assumed that the City would pursue these improvements in phases for two primary reasons. First, the total costs of these improvements are expected to significantly exceed any capital reserves or annual user fee revenues so a funding plan will need to be developed over a number of years. And finally, some additional investigations are needed to confirm the condition of infrastructure as well as to confirm the design capacity of improvements. For example, if the replacement of Priority 1 pipes reduce total system flows by 20 percent it is reasonable to expect that the design capacity of the Oak Street lift station replacement should also be reduced.

3.3.3 Alternative 3: Replace Collection System + Lift Station + WWTP Projects (Trenchless Construction)

This project alternative proposes to replace the same system components as alternative 1. However, this alternative would replace all failing sewer collection mains with a cured in place pipe (CIPP) inside of existing pipes as opposed to completely replacing all failing pipes with new materials. This method of construction has many benefits, including:

- reduced unit installation costs,
- smaller quantities of asphalt which needs to be replaced,
- pipe segments replaced with jointless, seamless pipes, and
- reduced traffic control costs.

The primary drawbacks to this method of construction is that it requires a “host” pipeline which does not have significant structural flaws or failures and it will be installed in the exact same location and at the same slope as the original pipe. If there is a need to re-align a section of the collection system that would require open-trench construction. An additional drawback is that the lined pipe can only be cleaned in the future with a water-jetting based device as mechanical cable or “snakes” would damage the liner material.

This alternative also proposes to line the City owned portion of each sewer connection and not replace any piping or install any new cleanouts with the improvements. It is also assumed that the City would pursue these improvements in phases for the same reasons listed under alternative 2.

3.4 ALTERNATIVE EVALUATION CRITERIA

The following is the criteria used to measure the effectiveness of alternatives. A no-action alternative would not satisfy any of the criteria.

3.4.1 Health and Safety

The condition description in Section 1.2.1 includes items that could cause water and ground water contamination.

3.4.2 System O&M

Both the sewer and water systems are old and have associated increasing O&M costs.

3.4.3 Unaccounted-for Water

The existing older pipes leak resulting in lost water and revenue.

3.5 ALTERNATIVES ELIMINATED FROM DETAILED CONSIDERATION

3.5.1 Water System

Evaluation of Alternative 1 – No Action

If no action is taken, the system would continue to operate as it currently does. This includes all of the problems listed. For this reason, this alternative is unacceptable.

Evaluation of Alternative 3:

Because the location of the second water source is unknown it is assumed that a suitable location will be found within a one-mile radius of the distribution system. A water import project or bulk supply from another utility is being considered as unviable at this time.

3.5.2 Wastewater System

Evaluation of Alternative 1 – No Action

If no action is taken, the system would continue to operate as it currently does. This includes all of the problems listed. For this reason, this alternative is unacceptable.

Evaluation of Alternative 2:

As little information is known on existing utility locations, pursuing Alternative 2 would add the risk of proposed activities conflicting with existing utilities. When compared to other methods of pipe replacement- such as CIPP - the disadvantages of this alternative become more evident. Some of which include more quantities of asphalt required, increased installation costs, and increased traffic control costs. For these reasons, this alternative is eliminated from this study.

4.0 AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES

4.1 LAND USE/IMPORTANT FARMLAND / FORMALLY CLASSIFIED LANDS

4.1.1 Affected Environment

There are some prime farmland soils at the outer edge of the project area. However, proposed project areas that do have prime farmland soils are located adjacent to roads or railroad alignments. Additionally, these areas will not be impacted due to the subsurface nature of the project elements (piping). There are no unique lands, forest lands, national natural landmarks, wilderness areas, national monuments, or national parks or trails located within the proposed project area. There are no wild and scenic rivers in Nevada. See Section 7.0 for maps and NRCS Soils Report.

In summary, the proposed project will not require any change of use for the land involved and the land use required for the project conforms to the existing land use in the area.

4.1.2 Environmental Consequences

No environmental consequences are anticipated.

4.1.3 Mitigation

No mitigation will be required.

4.2 FLOODPLAINS

4.2.1 Affected Environment

The flood zones for Carlin have been mapped by the Federal Emergency Management Agency (FEMA) and have been designated by the following panel numbers: 32007C5984E, 32007C5985E, 32007C6001E, 32007C6002E, 32007C6003E and 32007C6004E. Areas immediately adjacent to the Humboldt River and tributary creeks are in Zone A, AE, and X. Most developed portions of the City lie outside the flood zones. Some underground water and sewer mains are in flood zones. For reference, the following flood hazard zone designations are provided:

Zone AE and A1-A30: Zones AE and A1-A30 are the flood insurance rate zones corresponding to the 100-year floodplains, determined by detailed methods in the Flood Insurance Study. In most instances, base flood elevations derived from the detailed hydraulic analysis are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zones B, C, and X: Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

The FEMA FIRM maps for the Carlin area were issued in September 2013. The FEMA designated flood zone impacts the south side of the City as shown in panel 32007C6003E and 32007C6004E. The flood zone associated with Mary's Creek impacts the west side of town including the water spring collection system as designated in panel 32007C5984E.

See the project area FEMA National Flood Layers in Section 7.0.

4.2.2 Environmental Consequences

No environmental consequences are anticipated. Project elements located in zone AE will be subsurface and will have no effect on the floodplain. Other project element will be in low flood/no flood hazard areas.

4.2.3 Mitigation

No need for mitigation is anticipated.

4.3 WETLANDS

4.3.1 Affected Environment

There are no wetlands within the APE. See the U.S. Fish and Wildlife wetlands maps in Section 7.0.

4.3.2 Environmental Consequences

No environmental consequences are anticipated.

4.3.3 Mitigation

No mitigation will be necessary.

4.4 WATER RESOURCES

4.4.1 Affected Environment

The project will have no effect on surface water or groundwater.

The Nevada Bureau of Safe Drinking Water provided the following comments:

“Based on the information provided by Farr West Engineering regarding this project the BSDW does not anticipate any negative environmental impacts to the existing ground water quality from the construction of the project. Please be aware that all vertical and horizontal separation distances between sewer main/laterals and water main/laterals must be maintained in accordance with the Nevada Administrative Code 445A.6715 to 445A.6718 inclusive, "Design, Construction, Operation and Maintenance of Public Water Systems". If compliance with the required separation distances cannot be achieved or is impracticable, the existing water main/lateral shall be protected as described in these sections of NAC 445A. Please be advised that the water improvements must be approved by the BSDW prior to construction.”

In addition, permits may be needed from the Bureau of Water Pollution Control to ensure water quality standards are met. A list of potential permits is included in the mitigation section.

The Nevada Department of Environmental Protection (NDEP) requires construction storm water permits under the following conditions:

General Stormwater Permits for Construction Sites are required for projects disturbing at least one acre, or that will disturb less than one (1) acre but are part of a larger common plan for development or sale that will ultimately disturb one (1) or more acres. Although less than an acre will be disturbed at any time, the disturbance will be part of a larger common plan for development and thus will require a storm water permit. NDEP requires that plans and specifications for the replacement utilities will need to be submitted to the Bureau of Safe Drinking Water for review and approval prior to construction.

See Section 6.0 for correspondence with the Nevada Division of Environmental Protection Bureau of Safe Drinking Water.

Sole Source Aquifers According to the U.S. EPA, there are no designated sole source aquifers in Nevada. See EPA Fact Sheet in Section 7.0.

4.4.2 Environmental Consequences

No environmental consequences are anticipated.

4.4.3 Mitigation

Some BMP's may be necessary during construction. These may include but are not limited to dust suppression and straw wattles for the temporary effects due to construction and potential storm runoff. To prevent erosion during and after construction, best management practices such as the following will be implemented during construction depending upon conditions and need:

- Soils and slopes at the site will be assessed,
- existing vegetation will be preserved wherever possible,
- impervious surfaces will be minimized,
- work to minimize exposed soil areas,
- development of a Storm Water Pollution Prevention Plan,
- salvage, stockpile and reuse topsoil,
- install construction entrances and control dust,
- protect soils with vegetation, mulch, and binders,
- use sediment barriers including fiber rolls and silt fence,
- protecting culvert and ditch inlets and outlets,
- manage trash, materials, and supplies,
- project close-out including removing temporary sediment controls and final site stabilization.

The project may be subject to BWPC permitting. Permits are required for discharges to surface waters and groundwaters of the State (Nevada Administrative Code NAC 445A.228). BWPC permits include, but are not limited to, the following:

- Stormwater Industrial General Permit
- De Minimis Discharge General Permit
- Pesticide General Permit
- Drainage Well General Permit
- Temporary Permit for Discharges to Groundwater's of the State
- Working in Waters Permit
- Wastewater Discharge Permits
- Underground Injection Control Permits
- Onsite Sewage Disposal System Permits
- Holding Tank Permits

4.5 BIOLOGICAL RESOURCES

4.5.1 Affected Environment

Consultation was done with the Nevada Department of Conservation and Natural Resources, Nevada Natural Heritage Program (NNHP), Nevada Department of Wildlife (NDOW), and the U.S. Fish and

Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) program. All three programs provided species lists and/or protection/avoidance guidance relating to wildlife that might occur within the project area.

Plants and Animals

The NNHP has developed a list of sensitive animals, plants and lichens. The list gives a brief description of the endangered/threatened status of each species. The program provided the following information for the project area:

"We are pleased to provide the information you requested on endangered, threatened, candidate, and/or At Risk plant and animal taxa recorded within or near the City of Carlin Water and Sewer Improvements Project area in Elko County. We searched our database and maps for the following, a 2 kilometer radius around area provided including:

Township 33N Range 52E Sections 26 and 27

*There are no at risk taxa recorded within the given area. However, habitat may be available for: the big-brown bat, *Eptesicus fuscus*, a Nevada Bureau of Land Management (BLM) Sensitive Species, the Columbia spotted frog (Great Basin Population) *Rana luteiventris* pop. 3, a Nevada BLM Sensitive Species; and the pygmy rabbit, *Brachylagus idahoensis*, a Nevada BLM Sensitive Species. The Nevada Department of Wildlife (NDOW) manages, protects, and restores Nevada's wildlife resources and associated habitat. Please contact Bonnie Weller, NDOW GIS biologist (775) 688-1439 to obtain further information regarding wildlife resources within and near your area of interest. Removal or destruction of state protected flora species requires a special permit from Nevada Division of Forestry (NRS 527.270)."*

Lahontan Cutthroat Trout

Consultation with USFWS identified Lahontan Cutthroat Trout within the project area. However, no proposed project work is anticipated to take place within water ways or trout habitat. If any project work is planned for the Lower Maggie Creek Watershed, which is known to include Lahontan Cutthroat Trout, USFWS recommends the conservation measures listed in mitigation.

See Section 7.0 for correspondence with NNHP and Bonnie Weller and Lindsey Lesmeister of NDOW and USFWS.

Weeds

The following summarizes the Nevada Department of Agriculture (NDOA) policy statement regarding noxious weed abatement statutes NRS 555.005-201:

A noxious weed is a plant that has been defined as a pest by law or regulation. In Nevada, if a plant is found to probably be "detrimental or destructive and difficult to control or eradicate" (Nevada Revised

Statute 555.005), the NDOA, with approval of the Board of Agriculture, will designate the plant as a noxious weed.

It is the NDOA's policy to use the "Noxious Weed Tier System" to determine what action is to be taken consistent with existing statutes which include authority for: the promulgation of quarantine, abatement for eradication and/or control; holding and inspecting; establishing weed control districts; and for other regulatory activities. At the time, the NDOA lists a species, it will also give a rating of A, B, or C. These ratings reflect the NDOA's view of the statewide importance of the noxious weed, the likelihood that eradication or control efforts would be successful, and the present distribution of noxious weeds within the state. These lists will be in the Nevada Administrative Code (NAC 555.010).

The following defines the NDOA weed ratings:

"A" Weeds normally limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state

"B" Weeds more widespread throughout the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur

"C" Weeds generally widespread throughout the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer.

Table 3.1 is the NDOA weed list with weeds classified per rating.

Table 3.1 – Weeds occurring in Nevada

	COMMON NAME	SCIENTIFIC NAME
Category A Weeds	African Rue	Peganum harmala
	Austrian fieldcress	Rorippa austriaca
	Austrian peaweed	Sphaerophysa salsula / Swainsona salsula
	Camelthorn	Alhagi camelorum
	Common crupina	Crupina vulgaris
	Dalmation Toadflax	Linaria dalmatica
	Dyer's woad	Isatis tinctoria
	Eurasian water-milfoil	Myriophyllum spicatum
	Giant Reed	Arundo donax
	Giant Salvinia	Salvinia molesta
	Goats rue	Galega officinalis
	Houndstongue	Cynoglossum officinale
	Hydrilla	Hydrilla verticillata
	Iberian Star thistle	Centaurea iberica
	Klamath weed	Hypericum perforatum
	Leafy spurge	Euphorbia esula
	Malta Star thistle	Centaurea melitensis
	Mayweed chamomile	Anthemis cotula
	Mediterranean sage	Salvia aethiopis
	Purple loosestrife	Lythrum salicaria, L.virgatum and their cultivars
	Purple Star thistle	Centaurea calcitrapa
	Rush skeletonweed	Chondrilla juncea
	Sow Thistle	Sonchus arvensis
	Spotted Knapweed	Centaurea masculosa
	Squarrose star thistle	Centaurea virgata Lam. Var. squarrose
	Sulfur cinquefoil	Potentilla recta
	Syrian Bean Caper	Zygophyllum fabago
	Yellow Starthistle	Centaurea solstitialis
	Yellow Toadflax	Linaria vulgaris
Category B Weeds	Carolina Horse-nettle	Solanum carolinense
	Diffuse Knapweed	Centaurea diffusa
	Medusahead	Taeniatherum caput-medusae
	Musk Thistle	Carduus nutans
	Russian Knapweed	Acroptilon repens
	Sahara Mustard	Brassica tournefortii
	Scotch Thistle	Onopordum acanthium

	White Horse-nettle	<i>Solanum elaeagnifolium</i>
Category C Weeds	<u>Black henbane</u>	<i>Hyoscyamus niger</i>
	Canada Thistle	<i>Cirsium arvense</i>
	Green Fountain grass	<i>Pennisetum setaceum</i>
	Hoary cress	<i>Cardaria draba</i>
	Johnson grass	<i>Sorghum halepense</i>
	Perennial pepperweed	<i>Lepidium latifolium</i>
	Poison Hemlock	<i>Conium maculatum</i>
	Puncture vine	<i>Tribulus terrestris</i>
	Salt cedar (tamarisk)	<i>Tamarix</i> spp

4.5.2 Consequences

Although some of the species mentioned in the Natural Heritage Program and/or the NDOW survey may be present within the survey area, the area of potential effect for the project is very narrow, approximately 20 feet wide for the length of the pipeline alignment. Additionally, most of the area has been previously disturbed, including roads, along which a most of the pipelines will be installed.

Regarding weeds, emphasis on development and implementation of best management practices (BMPs) will reduce or eliminate the possibility of environmental consequences.

4.5.3 Mitigation

4.5.3.1 Wildlife

Animals

Lahontan Cutthroat Trout

It is not anticipated that Lahontan Cutthroat Trout will be affected by construction since the construction will take place along existing roadways areas. If any project work occurs in the Lower Maggie Creek Watershed, which is known to include Lahontan Cutthroat Trout, USFWS recommends the following conservation measures:

1. Clean and Maintain Equipment
2. Control Invasive Species

3. Implement Erosion Control Measures
4. Implement Siting Restrictions
5. Implement Wildlife Passage Measures
6. Implement a spill protection plan
7. Institute Refueling Restrictions
8. Institute Seasonal Avoidance Measures
9. Restrictions on In-Water Work
10. Restrictions on Off-Road Travel
11. Use appropriate Survey Protocols
12. Use Known Sources of Fill Material

Birds

It is not anticipated that the raptor nests will be affected by construction since the construction will take place within streets and road shoulders however, NDOW has provided the following recommendations relating to the protection of birds that might occur within the project area:

“We recommend avoiding vegetation removal activities outside the migratory bird breeding season (passerines: April 15 – July 15; raptors Feb. 1 – Aug). If conducting vegetation disturbance activities during this time, we recommend that a qualified biologist survey for bird breeding behavior within 10 days of the disturbance. If breeding behavior is detected, please apply appropriate non-disturbance buffer or contact NDOW or FWS for further direction.”

Greater Sage-Grouse

According to NDOW, there is no known greater sage-grouse habitat in the vicinity of the project area.

Big Game

Occupied elk, mule deer, and pronghorn antelope distributions exist within portions of the project area and four-mile buffer area. No known occupied bighorn sheep distribution exists in the vicinity of the project area.

The project will move relatively slow and the equipment used is very slow moving. It is anticipated that the noise associated with the construction should provide sufficient warning to big game in the area. Additionally, most of the project will occur within the City where there is little or no wildlife habitat.

Weeds

Some mitigation may be required to prevent the spread of invasive weeds during and after construction of the proposed project. Mitigation may include the creation of a weed prevention plan to be implemented by the contractor. The plan should include provisions like the following:

- Identify and flag all noxious and invasive weed populations present in the project area,
- Treat or contain any weed populations that may be impacted or disturbed by construction activity,
- Provide training to construction workers and equipment operators on the identification of weeds to be avoided,
- Certify that all construction material sources are weed-free,
- Minimize ground disturbance and vegetation removal as much as possible and practical,
- Re-vegetate or otherwise prevent the establishment of weeds in all areas of the job site.

4.6 HISTORIC AND CULTURAL PROPERTIES

4.6.1 Affected Environment

Consultation with SHPO was initiated under Section 106 of the National Historic Preservation Act of 1966 (NHPA) for the City of Carlin Water and Sewer Improvements Project. The SHPO checked NVCRIS on behalf of NDEP, records show that no portions of the APE have been inventoried, and no archeological sites have been documented within the APE. THE SHPO does not recommend any additional archeological inventory for this undertaking due to low potential for significant archeological sites within the APE.

The SHPO requests that NDEP indicate whether the water system shall be evaluated for National Register of Historical Places (NRHP) eligibility. If the water and sewer systems have a significant alteration that might render them not eligible for NRHP listing, a description of the alterations and statement regarding the integrity of the systems must be submitted.

The SHPO notes that consultation with Native American Tribes that are affected, the general public and other potentially interested groups has not been submitted. Assistance from the lead agency will be required to complete these consultation in accordance with the NHPA.

Table 3.2 shows National and State Register of Historical Places (NRHP and SRHP) resources in Elko County.

TABLE 3.2 – National and State Listed Historical Sites in Elko County

Resource	Location	NRHP	SRHP
Commercial Hotel	345 4 th St., Elko		X
Henderson Bank Building	404 Railroad St., Elko		X
Ruby Valley Pony Express Station	1515 Idaho St., Elko	X	X
Skelton Hotel	Jiggs Star Route, Jiggs		X
Midas Schoolhouse	Second St., two blks east of Main St., Midas	X	X
Metropolis Dam	10.5 miles north of Wells, NV, Melandco		X
Elko County Courthouse	571 Idaho St., Elko	X	
US Post Office-Elko Main	275 Third, Elko	X	
Lamoille Organization Camp	Rt. Fork of Lamoille Creek, end of FS Rd. 122	X	
Gold Creek Ranger Station	E of Mountain City, Humboldt NF	X	

4.6.2 Environmental Consequences

Of the historical resources listed in the NRHP and SRHP, none of the historic properties are present in the project area. There are approximately 1,122 properties within the area of potential effect (APE) that are 50 of age or older.

See SHPO correspondence in Section 6.0.

4.6.3 Mitigation

It is anticipated that none of the properties are within the APE. Each of the project APEs are narrow and limited to the existing roadways and rights of way and on previously disturbed lands. No mitigation is expected to be required.

However, should an archaeological inventory of the direct APE indicate additional mitigation to protect cultural resources exist, mitigation options will be assessed, which may include but are not limited to archeologist consultation, notification of all state and Federal Agencies involved in the project, and compliance with NRS Chapter 383 in the case of inadvertent discovery of cultural resources.

Potential impact(s) that could occur because of project elements would be the inadvertent discovery of possible archeological materials. If that occurs, the following protocols would be observed:

- All work will stop immediately in the vicinity of the find,
- the area will be secured and protected,
- the project inspector will be notified,
- SHPO will be notified,
- if human remains are encountered, the City of Carlin Police Department, Commission on Indian Services (CIS), Tribes, and BLM will also be notified,
- no work may resume until SHPO and BLM Archaeology staff are on-site and able to assess the situation and clear the site for continuation of construction activities.

4.7 AESTHETICS

4.7.1 Affected Environment

The project will be subsurface, with the exceptions of hydrants. Regarding the subsurface elements, all the project trenches will be backfilled and graded to the existing grade. Additionally, the disturbed areas will be reseeded where needed. It is not anticipated that the project will lasting aesthetic effect since the project area will be returned to the pre-project condition.

4.7.2 Environmental Consequences

No environmental consequences are anticipated for the project.

4.7.3 Mitigation

No environmental consequences are anticipated for the project.

4.8 AIR QUALITY

4.8.1 Affected Environment

The proposed project will disturb approximately 24.0 total acres. Equipment emissions will have temporary effect on air quality during construction. Table 3.4 shows equipment and vehicles that potentially could be used during the project. Note that generally no more than three of these is in operation at the same time. Dust generated by project activity is also expected to be minimal. This is because the amount of soil being disturbed at any time will be approximately less than 1/10 of an acre and will be accompanied by dust suppression activities. The project conforms to the EPA-approved State Implementation Plan (SIP) per the Nevada Department of Conservation and Natural Resources, Division of Environmental Protection.

See Section 6 for correspondence.

Table 3.4 – Examples of equipment to be used on project

1) Loader
2) Mini Excavator
3) 10 Wheel (haul truck)
4) Double Drum Vibratory Roller
5) Motor Grader
7) Fuel Truck

4.8.2 Environmental Consequences

No environmental consequences are anticipated.

4.8.3 Mitigation

Mitigation will include the watering of fugitive dust. If a disturbance of 5 acres or more is anticipated, a surface area disturbance permit from the Bureau of Water Pollution Control may be necessary. Surface disturbance of 5 acres is not anticipated for the proposed project.

See Section 6 for Correspondence with BSDW.

4.9 SOCIO-ECONOMIC IMPACT ASSESSMENT / ENVIRONMENTAL JUSTICE

4.9.1 Affected Environment

The proposed project includes the replacement of existing deteriorated water distribution lines and appurtenances. The project will benefit the entire community and will have no disproportionately high or adverse human health or environmental effects to minority or low-income populations.

The socio-economic make-up of the area will not be affected. No part of the project will require a land use change. With few exceptions, new proposed pipelines will be installed in the alignments of the existing lines or road shoulders. Some new right-of-way's may need to be obtained from private property owners, and/or Nevada Department of Transportation.

4.9.2 Environmental Consequences

No environmental consequences are anticipated.

4.9.3 Mitigation

No mitigation will be required.

4.10 NOISE

4.10.1 Affected Environment

Except for the construction activities none of the alternatives are expected to cause long term noise problems. The only anticipated noise will be related to construction activities.

4.10.2 Environmental Consequences

No environmental consequences are anticipated.

4.10.3 Mitigation

The following practices will be observed during construction:

1. Construction activities will be done during normal working hours between 7:00 am and 5:00 pm.
2. Quieter methods or equipment will be used when possible
3. All equipment will be required to have efficient mufflers
4. Only equipment of necessary size and power will be used
5. All equipment will be properly lubricated and well maintained.

4.11 TRANSPORTATION

4.11.1 Affected Environment

Most of the pipeline will be installed along road shoulders.

4.11.2 Environmental Consequences

No environmental consequences are anticipated.

4.11.3 Mitigation

If the usable roadway is not sufficient to safely accommodate two-way traffic, one-way traffic will be maintained. Work will be conducted in such a manner as to obstruct and inconvenience traffic as little as possible. Existing travel roads and streets adjacent to or within the limits of the improvement will be kept open and in a good, dust free and safe condition for traffic at all times. Work will be performed in a manner to assure full compliance with all applicable Federal, State and local laws and regulations governing safety, health and sanitation. Adequate safeguards, safety devices, and protective equipment will be provided to conform to the MUTCD. Safe, temporary access to business and residence driveways will be provided by temporary intersections, and temporary connections with roads, streets, bikeways, sidewalks, and footpaths.

4.12 HUMAN HEALTH AND SAFETY

4.12.1 Electromagnetic Fields and Interference

4.12.1.1 Affected Environment

There are no electrical elements included in this project

4.12.1.2 Environmental Consequences

No environmental consequences are anticipated.

4.12.1.3 Mitigation

No mitigation will be required.

4.12.2 Environmental Risk Management

4.12.2.1 Affected Environment

The proposed project may include the replacement of non-friable asbestos cement pipe. The pipe will not be removed from the ground during construction however some of the pipe will be exposed to tie into the existing system.

The only hazardous material that will be present in the construction area will be equipment fuel and lubrication.

4.12.2.2 Environmental Consequences

No environmental consequences are anticipated.

4.12.2.3 Mitigation

Any asbestos pipe that needs to be removed from the ground will be disposed of per EPA and OSHA requirements.

4.13 CORRIDOR ANALYSIS

4.13.1 Affected Environment

It is anticipated that most of the proposed pipeline elements of the project will be constructed within existing road alignments. If necessary, some pipe may need to be installed by pipe bursting or directional boring.

4.13.2 Environmental Consequences

No environmental consequences are anticipated.

4.13.3 Mitigation

No mitigation will be necessary.

5.0 CUMMULATIVE EFFECTS

Table 4.1 – Summary of Cumulative Effects

Resource	Past Actions	Present Actions	Proposed Action	Future Actions	Cumulative Effect
Land Use	No change in land use	No change in land use	No change in land use	Slight increase in system size	None anticipated
Floodplains	No effect	No effect	Little or no effect	Slight increase in system size	None anticipated
Wetlands	Not Applicable	Not Applicable	Not Applicable	Slight increase in system size	Not Applicable
Water Resources	No effect on water resources	No effect on water resources	More efficient use of water resources	Slight increase in system size	None anticipated
Coastal Resources	Not Applicable	Not Applicable	Not Applicable	Slight increase in system size	Not Applicable
Biological Resources	No effect	No effect	No anticipated effect	Slight increase in system size	None anticipated
Historic and Cultural Properties	No effect	No effect	No anticipated effect	Slight increase in system size	None anticipated
Aesthetics	No effect	No effect	No anticipated effect	Slight increase in system size	None anticipated
Air Quality	No effect	No effect	Temporary effects	Slight increase in system size	None anticipated
Socio-Econ/Environmental Justice	No effect	No effect	No effect	Slight increase in system size	None anticipated
Miscellaneous (Noise and Transportation)	No effect	No effect	Temporary effects	Slight increase in system size	None anticipated
Human Health and Safety (Electromagnetic, Environmental Risk)	Asbestos pipe used	No Effect	Replace asbestos pipe	Slight increase in system size	None anticipated
Corridor Analysis	Water lines were installed next to roads	No Effect	New pipe installed within existing road alignments	Little or no increase in system size	None anticipated

6.0 SUMMARY OF MITIGATION

Some mitigation may be required for the following:

- Water Resources: BMP's and Permitting
- Wildlife: Weeds/Invasive Species
- Historic and Cultural resources: inadvertent discovery
- Air Quality: Fugitive dust
- Noise
- Transportation

Other than those items listed above, no potentially significant environmental impacts were discovered during the environmental investigation for this project. Therefore, standard construction practices and permitting should be sufficient to protect the affected environment. These practices include halt and notify provisions for the discovery of historic artifacts, limits on hours of operation and noise, air, and traffic abatement procedures.

7.0 COORDINATION, CONSULTATION, AND CORRESPONDENCE

This section includes correspondence from the following State and Federal entities:

- Nevada State Historic Preservation Office
- U.S. Fish and Wildlife Service
- Nevada Division of Environmental Protection, Safe Drinking Water
- Nevada Division of Environmental Protection, Division of Clean Air
- Nevada Division of Environmental Protection, Bureau of Water Pollution Control
- Nevada Natural Heritage Program
- Nevada Dept. of Conservation and Natural Resources, State Engineer
- Nevada Department of Wildlife
- Nevada State Clearing House

Notes:

1. Letters sent to the above agencies included a copy of the project area map and project description.
2. Comments provided by John Nelson of USDA on September 7, 2018 are as follows and incorporated here in as noted below:

Comment 1: p3 (Original document): invasive species prevention is now added to biological resources, see p3 of updated document

Comment 2: p13 (Original document): invasive species conservation measures now included in mitigation See p14 of updated document

Comment 4: p15 (Original document): mitigation for historic properties is now included for unanticipated resources See p17 of updated document

Comment 5: p15 (Original document): Was NVCRIS contacted? See p15-16 of updated document

Comment 6: p65 (Original PER): table for construction mitigation has been added to the PER. See p9-11 for construction related mitigation

NEVADA STATE HISTORIC PRESERVATION OFFICE
Recommended Coversheet for Section 106 Review

If you find this document helpful in preparing a submission document, please include this with your submission. Please type and double clip on the check boxes. Due to limited resources and the requirements of federal regulation, we are unable to accept this application electronically.

I. GENERAL INFORMATION

☒ THIS IS A NEW SUBMITTAL

☐ THIS IS MORE INFORMATION RELATING TO UT# *Click or tap here to enter text.*

- a. Project Name: City of Carlin Sewer and Water System Improvements
- b. Project Address and APN (if available): Various Locations within the City of Carlin
- c. County: Elko
- d. Federal Agency, Contact Name and Mailing Address (*If you do not know the federal agency involved in your project please contact the party requiring you to apply for Section 106 review, not the SHPO, for this information.*). N/A
- e. State Agency (if applicable), Contact Name and Mailing Address: Michelle Stamates, 901 So. Stewart Street, Suite 4001, Carson City 89701
- f. Consultant or Applicant Contact Information (if applicable) *including mailing address.*
Farr West Engineering, 5510 Longley Lane, Reno Ph# 775-853-7265, email: danny@farrwestengineering.com
- g. Exact project location map should be submitted. Please see our website for further mapping information: nvshpo.org/review-compliance/guidelines.html.
 - 1. 7.5' USGS Quad Map Name: Carlin East, Nevada
 - 2. Township: T33N Range: R52E. Section: W ½ Sec 26, Sec 27

II. PROJECT WORK DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Note: Every project has an APE.

- a. Provide a detailed written description of the project (plans, specifications, Environmental Impact Statements (EIS), Environmental Assessments (EA), etc. can be included with the written description): The project includes the replacement of the existing water and sewer piping system within the City of Carlin. All of the piping to be replaced is within existing right-of-ways.
 - b. Provide a localized map indicating the location of the project; road names must be included and legible. **See attached**
 - c. On the above-mentioned map, identify the APE. **See attached**
 - d. Provide a written description of the APE (physical, visual, auditory, and atmospheric), the steps taken to identify the APE, and the justification for the boundaries chosen. Please consider the height of the proposed undertaking when determining this area. The APE was determined by the location of existing piping. The installation of the new pipe will take place within the alignment of the existing pipes.
-

III. GROUND DISTURBING ACTIVITY (INCLUDING EXCAVATION, GRADING, TREE REMOVALS, UTILITY INSTALLATION, CONSTRUCTION, ETC.)

DOES THIS PROJECT INVOLVE GROUND-DISTURBING ACTIVITY? YES ☒ NO ☐ (If no, proceed to section IV.)

- a. Description of width, length and depth of proposed ground disturbing activity (please include all associated disturbances (access roads, laydown areas, etc): Ground disturbance includes trenches approximately 210,134 long x 4 feet wide x 4 feet deep..
- b. Previous land use and disturbances: The previous land use is city streets and residential and commercial structures. Previous disturbances included residential and commercial construction as well as utility and road installation. The proposed project will not change the land use.
- c. Current land use and conditions: Current land uses include city streets, residential and commercial structures.
- d. Does the landowner know of any archaeological resources found on the property?
 - 1. Please describe: No

IV. IDENTIFICATION OF HISTORIC PROPERTIES

- a. List and date all resources (buildings, structures, objects, archaeological sites) 50 years of age or older located in the APE: See attached list.
 - b. List all resources currently listed in the National Register of Historic Places (NRHP) or currently designated under a local preservation ordinance. (If the resource is located within a NRHP-listed or local historic district it is only necessary to identify the district): None found
 - c. List all resources previously determined eligible for NRHP listing (see "Instructions for Application for Section 106 Review" on the SHPO website): None that we are aware of
 - d. Is the APE for the undertaking within the jurisdiction of a Certified Local Government?
 - ☒ Yes – please include evidence of consultation with the Historic Resources Review Board or appropriate staff representative.
 - ☐ No – no further documentation necessary.
 - e. Identify whether or not any previously unevaluated resources in the APE are eligible for NRHP listing.
 - ☒ The identification process included seeking information, as appropriate, from Indian tribes, local governments, the general public, and any individuals or organizations that may have an interest in, or knowledge of, the historic properties in the area (attach documentation).
 - ☐ The identification and evaluation of historic resources was performed by a Secretary of the Interior-qualified professional (attach qualifications).
 - a. Describe the steps taken to identify whether or not the APE contains previously unevaluated NRHP-eligible resources:
 - b. Consulted with Carlin City Manager
 - f. Based on the information contained in "b", please choose one:
 - ☐ Historic Properties Present in the APE
 - ☒ No Historic Properties Present in the APE
 - g. Describe the condition, previous disturbance to, and history of any historic properties located in the APE: N/A
-

V. PHOTOGRAPHS

Note: All photographs should be keyed to a map.

- a. Provide photographs of the project area itself.
 - b. Provide photographs of all resources 50 years of age or older located in the APE. Digital images or clear photocopies are acceptable. **Nearly the entire town is 50 years old. See attached list. It would be impractical for this project to photograph all of the resources that are 50+ years old.**
-

VI. DETERMINATION OF EFFECT

Based on the above information, please choose one.

- ☐ No historic properties affected based on [36 CFR § 800.4(d)(1)], please provide the justification for this determination.
- ☒ No Adverse Effect [36 CFR § 800.5(b)] on historic properties, explain why the criteria of adverse effect, 36 CFR Part 800.5(a)(1), were found not applicable.

No adverse effects are anticipated because the undertaking will not alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The undertaking will disturb streets but will not involve structures. It should be noted that no properties have been identified as qualifying for the National or State registers.

- ☐ Adverse Effect [36 CFR § 800.5(d)(2)] on historic properties, explain why the criteria of adverse effect, [36 CFR Part 800.5(a)(1)], were found applicable.

Please print and mail completed form and any additional information to:

*Nevada State Historic Preservation Office
901 S. Stewart Street, Suite 5004
Carson City, Nevada 89701-5248*



CITY OF CARLIN

151 S. 8th Street

PO Box 787

Carlin, Nevada 89822

775-754-6354

775-754-6912 FAX

www.cityofcarlin.com

To Whom it may Concern,

At this current time the City of Carlin has no concerns about historical structures in the City limits of Carlin.

Sincerely,



David Jones

Carlin, City Manager

(SCHROEDER
MT)



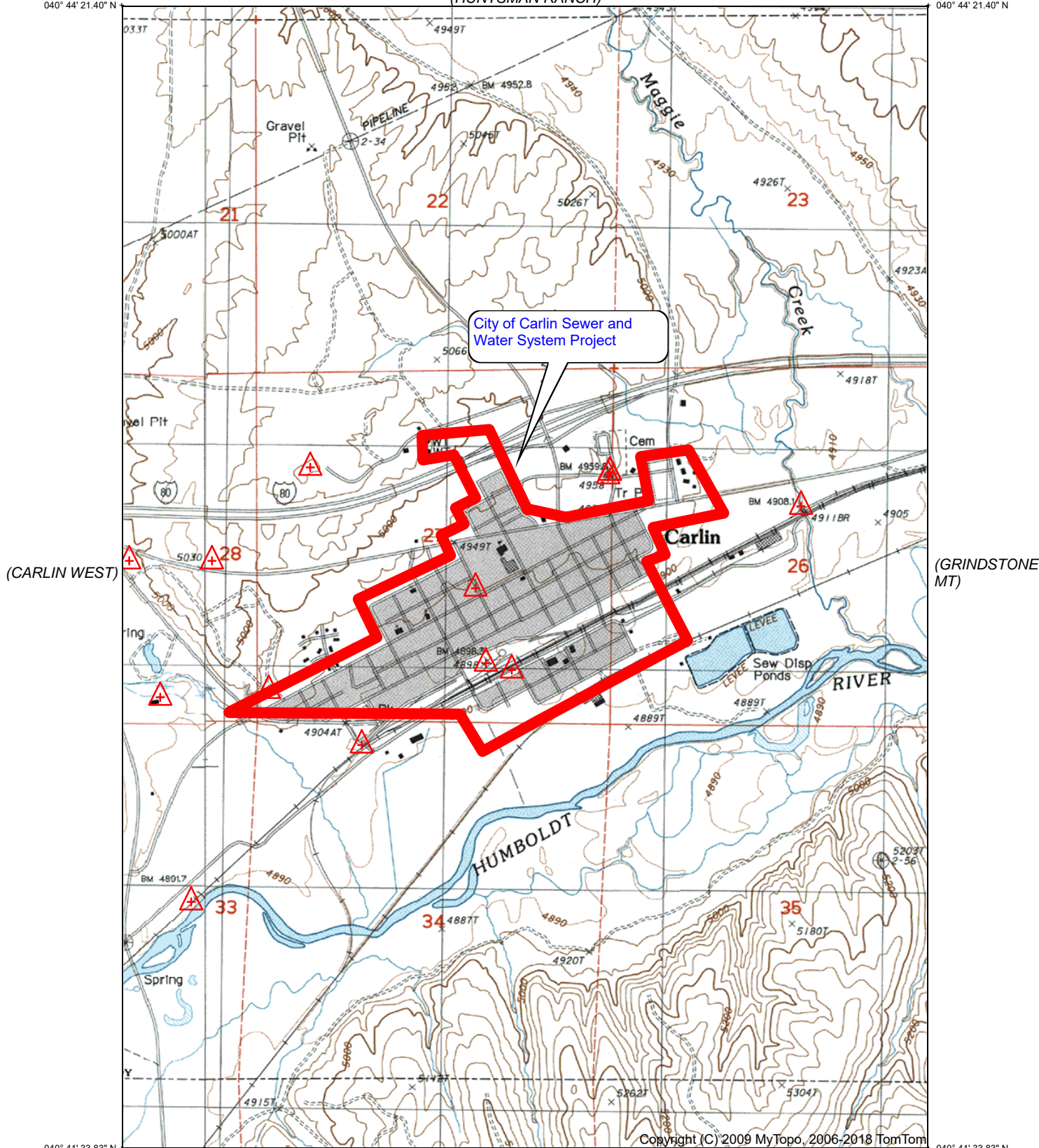
CARLIN EAST QUADRANGLE
NEVADA, NORTH
TOPOGRAPHIC SERIES

(HUNTER)

116° 07' 49.47" W
040° 44' 21.40" N

(HUNTSMAN RANCH)

116° 05' 13.41" W
040° 44' 21.40" N



040° 41' 33.83" N
116° 07' 49.47" W

Copyright (C) 2009 MyTopo, 2006-2018 TomTom
Printed: Mon Jan 29, 2018

040° 41' 33.83" N
116° 05' 13.41" W

(PALISADE)

Produced by MyTopo Terrain Navigator
Topography based on USGS 1:24,000
Maps

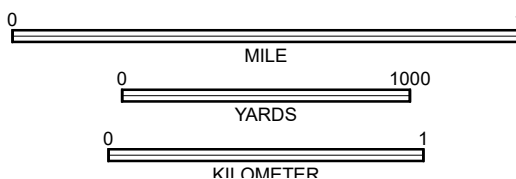
North American 1983 Datum (NAD83)
Transverse Mercator Projection

To place on the predicted North American
1927 move the projection lines 9M S and
77M W

Declination



(RAVENS NEST)
SCALE 1:24000



CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

(BULLION)

CARLIN EAST, NV
1985

Legend

- PS Sewer Pump Station
- Sewer Manhole
- Lateral Cleanout
- Main Line Cleanout

Pipe Type, Diameter, Length

- Forced Main, 3" - 1,754'
- Forced Main, 4" - 797'
- Forced Main, 8" - 4,369'
- Gravity Main, 6" - 7,177'
- Gravity Main, 8" - 53,618'
- Gravity Main, 10" - 8,631'
- Gravity Main, Unknown - 5,556'
- Lateral, 4" - 718'
- Lateral, Unknown - 2,171'

Pipe Ages

- 1930s
- 1960s
- 1980s
- 1990s
- 2008

City of Carlin Sewer System



The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

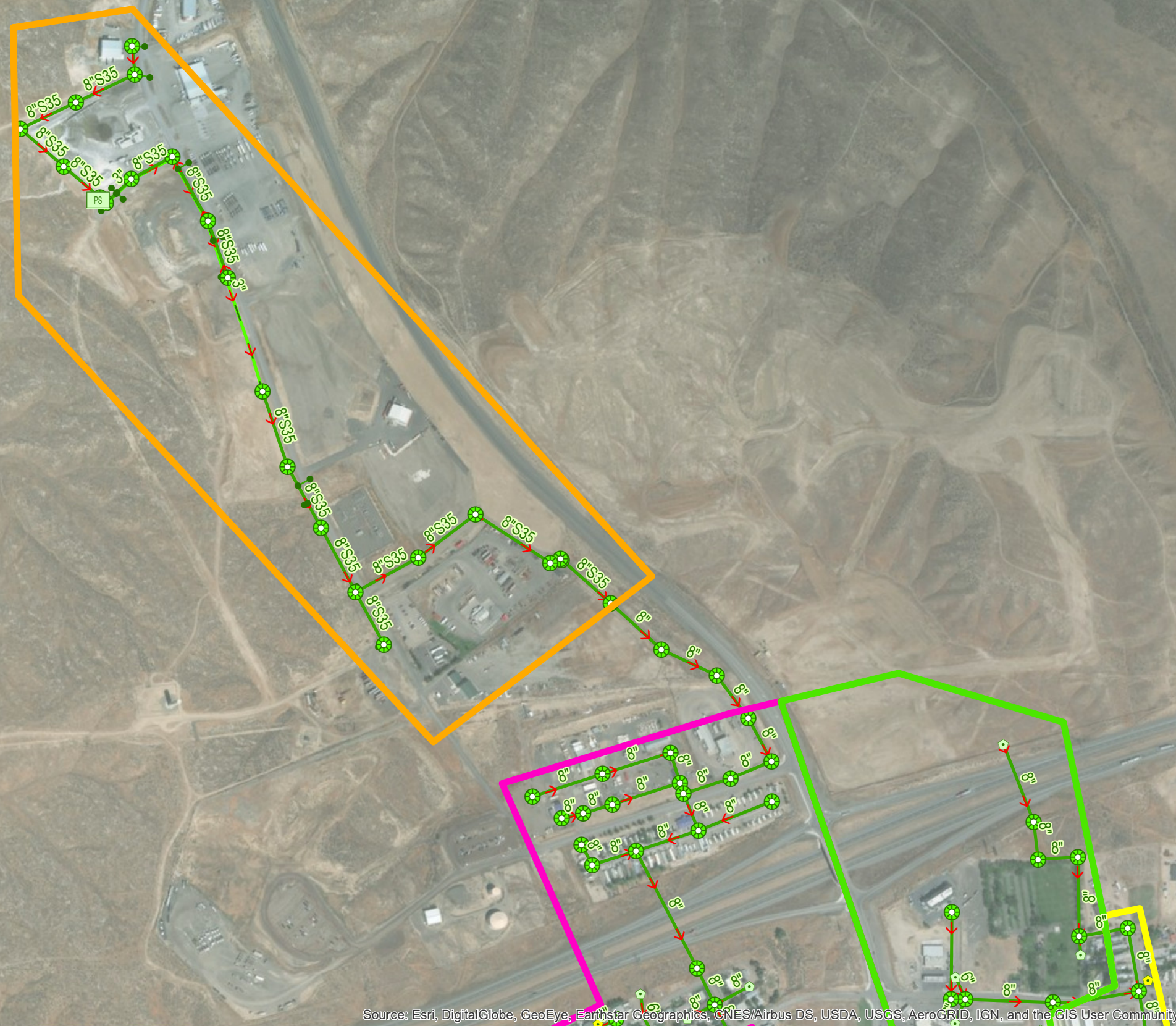
- PS Sewer Pump Station
- Sewer Manhole
- Lateral Cleanout
- Main Line Cleanout

Pipe Type, Diameter, Length

- Forced Main, 3" - 1,754'
- Forced Main, 4" - 797'
- Forced Main, 8" - 4,369'
- Gravity Main, 6" - 7,177'
- Gravity Main, 8" - 53,618'
- Gravity Main, 10" - 8,631'
- Gravity Main, Unknown - 5,556'
- Lateral, 4" - 718'
- Lateral, Unknown - 2,171'

Pipe Ages

- 1960s
- 1980s
- 1990s
- 2008



FARR WEST
ENGINEERING
5510 Longley Lane
Reno, NV 89511
(775) 851-4788
www.farrwestengineering.com

City of Carlin Sewer System



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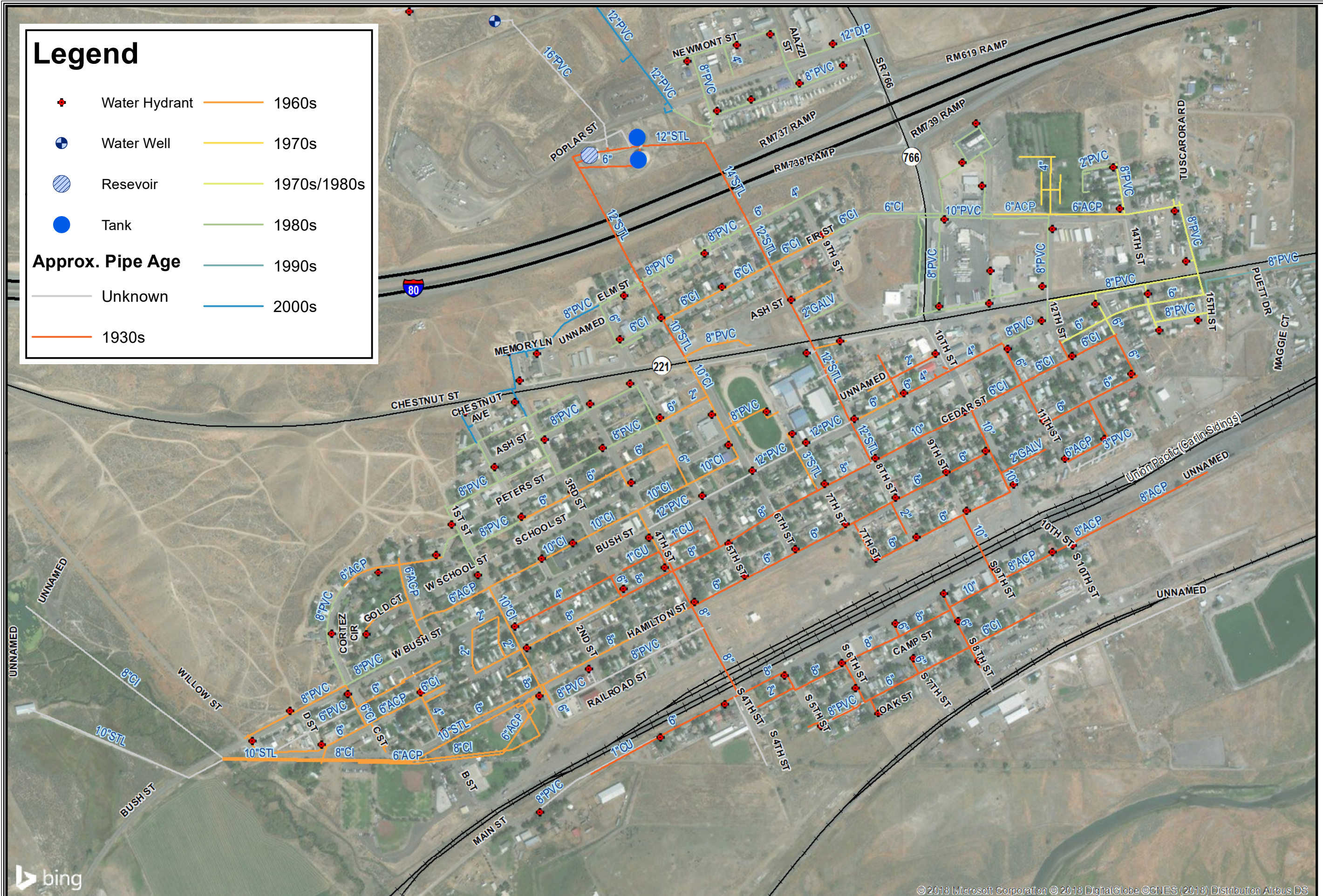
Legend

- ✦ Water Hydrant
 — 1960s
- ⊕ Water Well
 — 1970s
- ⊗ Reservoir
 — 1970s/1980s
- Tank
 — 1980s
- Approx. Pipe Age**
— 1990s
- Unknown
 — 2000s
- 1930s

City of Carlin Water System



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NEVADA
**STATE HISTORIC
PRESERVATION OFFICE**

Department of Conservation and Natural Resources

**Brian Sandoval, Governor
Kay Scherer, Interim Director
Rebecca L. Palmer, SHPO**

May 1, 2018

Michelle Stamates, P.E.
Bureau of Administrative Services
Nevada Division of Environmental Protection
901 S. Stewart Street, Ste 4001
Carson City, NV 89701

Re: Section 106 consultation with the Nevada Division of Environmental Protection for the City of Carlin Sewer and Water System Improvements project, Carlin, Elko County, Nevada (UT 2018-5345)

Dear Ms. Stamates,

The Nevada State Historic Preservation Office (SHPO) has reviewed the subject documents received April 2, 2018 in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The Nevada Division of Environmental Protection (NDEP) is coordinating this review on behalf of the U.S. Environmental Protection Agency.

Project Description

NDEP proposes to replace the sewer and water piping system in the City of Carlin. All work will occur within existing right-of-ways.

Area of Potential Effect (APE)

NDEP has defined the APE as an area approximately 480 acres in size that encompasses all streets where pipe replacement will occur, plus a buffer to include the parcels along those streets. The SHPO concurs with the adequacy of the APE for this undertaking.

Identification of Historic Properties

Archaeology:

The SHPO checked the Nevada Cultural Resources Inventory System (NVCRIS) on behalf of NDEP to identify historic properties, such as previously identified archaeological sites, within the APE. According to these records, portions of the APE have been inventoried for archaeological properties and no archaeological sites have been documented within the APE. However, numerous sites are within a 1-mile buffer of the APE. According to subject documents provided the APE is disturbed by development in the area. Thus, the SHPO would not recommend any additional archaeological inventory for this undertaking as there is a low potential for significant archaeological sites within the APE.

In the future, NVCRIS should be checked prior to any Section 106 submission as part of the identification effort for a federal undertaking. This records check is done via Ms. Annie Hershey the program coordinator for NVCRIS at (775) 684-3441 or via email at ahershey@shpo.nv.gov.

Architecture:

The existing water and sewer systems have not been identified and evaluated for National Register of Historic Places (NRHP) eligibility. What are the construction dates of the water and sewer systems? If they are 50 years of age or older, please indicate if NDEP wishes to evaluate them for NRHP eligibility. If

Michelle Stamates, P.E.

Page 2 of 2

May 1, 2018

the water and sewer systems have significant alterations that might render them *not eligible* for NRHP listing, please submit a description of alterations and a statement regarding the systems' overall integrity. The SHPO recommends using color-coded maps to depict the ages of the various system components.

The submitted materials includes a list of properties in Carlin that are 50 years or older. It is not clear which of these properties are located within the APE for this undertaking. Please submit:

- A list of all properties 50 years or older within the APE;
- A total count for how many properties 50 years or older are within the APE; and
- A statement regarding if NDEP intends to leave the (X number of) historic-age properties in the APE unevaluated and treat them as NRHP-eligible for the purposes of this undertaking.

Local Government Consultation

The SHPO acknowledges receipt of documentation that consultation with the affected local government has been completed. This consultation did not result in the identification of properties of historic or cultural significance that could be affected by the proposed undertaking.

Consultation with Tribes and Other Interested Parties

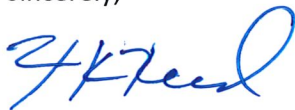
The SHPO has not received documentation that coordination with the affected Native American tribes, the general public, or other potentially-interested groups has occurred. Please submit documentation detailing your efforts in this regard, and indicate whether the consultation resulted in the identification of properties of religious, cultural, or historic significance that could be affected by the undertaking.

Determination of Effect

The SHPO will resume its review of project effect upon receipt of the above-described additional information regarding the consultation and identification efforts and the evaluation of historic-age resources.

Should you have questions concerning this correspondence, please contact SHPO staff archaeologist Ashley Wiley at (775) 684-3450 or by email at awiley@shpo.nv.gov or staff architectural historian Kristen Brown at (775) 684-3439 or by email at knbrown@shpo.nv.gov.

Sincerely,



Robin K. Reed

Deputy State Historic Preservation Officer

23599



May 21, 2018

Robin K. Reed
Deputy State Historic Preservation Officer
State Historic Preservation Office
901 S. Stewart Street, Suite 5004
Carson City, Nevada 89701

RE: SECTION 106 CONSULTATION FOR THE CITY OF CARLIN WATER AND SEWER IMPROVEMENTS PROJECT (UT-2018-5345)

Dear Robin,

This letter is in response to your letter dated May 1, 2018. The following addresses your concerns point-by-point (in bold):

- Construction dates of water and sewer lines.

Maps showing the age of all water and sewer lines are attached.

- List of all properties 50 years or older within APE.

All of the properties shown in yellow on the attached list are located within the APE.

- Total count for how many properties 50 years or older are within the APE.

The total number of properties within the APE is 1,122. They are shown in yellow on the attached list.

- Statement from NDEP regarding evaluation of historic age properties within the APE.

NDEP will need to submit this item.

- Consultation with Tribes.

The following Tribes/entities may have an interest in the project and require consultation, however, we are unable to consult directly with the tribes. NDEP and/or USDA will need to provide the results of consultation to SHPO.

Te-Moak Tribe of Western Shoshone 525 Sunset Street Elko, Nevada 89801 Phone: (775) 738-9251 Fax: (775) 738-2345 www.temoaktribe.com	Battle Mountain Band Council (18) 37 Mountain View Drive #C Battle Mountain, Nevada 89820 Phone: (775) 635-2004 Fax: (775) 635-8016
Elko Band Council (19) 1745 Silver Eagle Dr Elko, Nevada 89801 Phone: (775) 738-8889 Fax: (775) 753-5439	South Fork Band Council (20,21) H.C. 30 Box B-13 Spring Creek, Nevada 89815 Phone: (775) 744-4273 Fax: (775) 744-4523
Bureau of Indian Affairs Eastern Nevada Agency 1555 Shoshone Circle Elko, NV 89801 Phone: (775) 738-5165	Inter-Tribal Council of Nevada 680 Greenbrae Drive, Suite 280 Sparks, Nevada 89431 Phone: (775) 355-0600 Fax: (775) 355-0648 www.itcn.org

- Consultation with general public or other interested groups.

Public notification will be completed prior to approval of the environmental assessment. The public will have access to environmental assessment including all maps and descriptions of the proposed project.

Please contact me with any additional questions you may have. I can be reached at (775) 853-7265.

Regards,


 Danny Sommers
 Project Manager

Encl.:

cc:

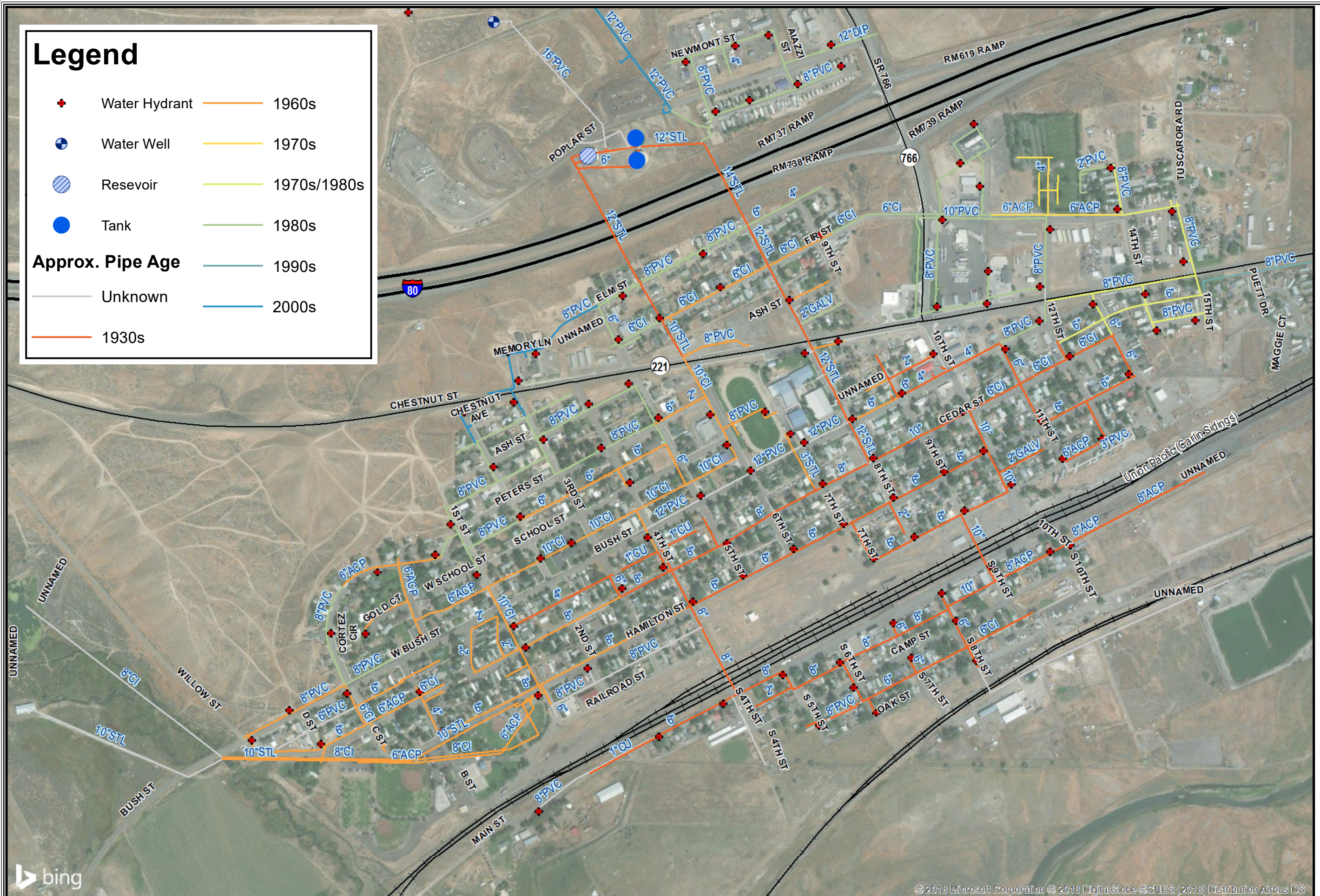
Legend

- ✦ Water Hydrant
 — 1960s
- ⊕ Water Well
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- ⊗ Reservoir
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City of Carlin Water System



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Legend

- PS Sewer Pump Station
- Sewer Manhole
- Lateral Cleanout
- Main Line Cleanout

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City of Carlin Sewer System

N
1" = 600'

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APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002010050	502		ELM ST	SINGLE FAMILY RES.	1965	MCCARTY, BRETT D
002010050	502		ELM ST	CFW	1965	MCCARTY, BRETT D
002010050	502		ELM ST	WOOD DECK	1965	MCCARTY, BRETT D
002015017			CHESTNUT ST	RETAIL SPACE	1955	GATES, DAVID M ET AL
002015017			CHESTNUT ST	CFW	1955	GATES, DAVID M ET AL
002022001	861		8TH ST	SINGLE FAMILY RES.	1939	DEXTER, MIKE
002022002	821		ELM ST	SINGLE FAMILY RES.	1966	NETHERY, SHIRLEY M
002022002	821		ELM ST	CFW	1966	NETHERY, SHIRLEY M
002022003	862		9TH ST	SINGLE FAMILY RES.	1965	DICKEY, JAMES E
002022003	862		9TH ST	4'C/L FENCE	1965	DICKEY, JAMES E
002022003	862		9TH ST	CFW	1965	DICKEY, JAMES E
002022003	862		9TH ST	PORCH	1965	DICKEY, JAMES E
002022004	842		9TH ST	HOOKUP	1966	GRAVES, GARREY L & LEONA M TR
002022005	822		FIR ST	MOBILE HOME PARK SPACES	1964	BENNETT, JAMES D ET AL
002022006	802		FIR ST	SINGLE FAMILY RES.	1946	ROGERS, NATHAN A
002022006	802		FIR ST	CFW	1946	ROGERS, NATHAN A
002023001	841		9TH ST	MH HOOKUP	1964	CLUFF, DANNY J
002023002	921		ELM ST	SINGLE FAMILY RES.	1950	GRAVES, DAVID L & MICHELLE M
002025001	761		8TH ST	DETACHED GARAGE	1950	GILLESPIE, JOE E & CHERI A
002025002	821		FIR ST	SINGLE FAMILY RES.	1948	POE, GENE N TR
002025002	821		FIR ST	MH HOOKUPS	1948	POE, GENE N TR
002025002	821		FIR ST	6'C/L FENCE	1948	POE, GENE N TR
002025002	821		FIR ST	CFW	1948	POE, GENE N TR
002025003	852		ASH ST	SINGLE FAMILY RES.	1950	WARREN, JOSHUA
002025003	852		ASH ST	4'C/L FENCE	1950	WARREN, JOSHUA
002025003	852		ASH ST	5'S/B FENCE	1950	WARREN, JOSHUA
002025003	852		ASH ST	3'S/B FENCE	1950	WARREN, JOSHUA
002025003	852		ASH ST	SHED	1950	WARREN, JOSHUA
002025003	852		ASH ST	CFW	1950	WARREN, JOSHUA
002025004	822		ASH ST	SINGLE FAMILY RES.	1938	DEXTER, PATRICK J
002025004	822		ASH ST	4'C/L FENCE	1938	DEXTER, PATRICK J
002025004	822		ASH ST	CFW	1938	DEXTER, PATRICK J
002025004	822		ASH ST	SHED	1938	DEXTER, PATRICK J
002025004	822		ASH ST	PORCH	1938	DEXTER, PATRICK J
002025005	802		ASH ST	SINGLE FAMILY RES.	1949	BRYSON, CATHARINE
002025005	802		ASH ST	WMS FENCE	1949	BRYSON, CATHARINE
002025005	802		ASH ST	PORCH	1949	BRYSON, CATHARINE
002025005	802		ASH ST	CFW	1949	BRYSON, CATHARINE
002028002	842		CHESTNUT ST	SINGLE FAMILY RES.	1942	MONDALE, EVANGELINE S ET AL
002028002	842		CHESTNUT ST	4'S/B FENCE	1942	MONDALE, EVANGELINE S ET AL
002028002	842		CHESTNUT ST	5'S/B FENCE	1942	MONDALE, EVANGELINE S ET AL
002028002	842		CHESTNUT ST	C-BLOCK WALL	1942	MONDALE, EVANGELINE S ET AL
002028002	842		CHESTNUT ST	WMS FENCE	1942	MONDALE, EVANGELINE S ET AL
002028002	842		CHESTNUT ST	CFW	1942	MONDALE, EVANGELINE S ET AL
002028003	822		CHESTNUT ST	HOOKUP	1965	WILKINSON, STEVEN E ET AL
002028003	822		CHESTNUT ST	DETACHED GARAGE	1965	WILKINSON, STEVEN E ET AL
002028003	822		CHESTNUT ST	AWNING	1965	WILKINSON, STEVEN E ET AL
002028004	806		CHESTNUT ST	SINGLE FAMILY RES.	1950	NEILL, JEREMY S & SARAH
002028004	806		CHESTNUT ST	4'C/L FENCE	1950	NEILL, JEREMY S & SARAH
002028004	806		CHESTNUT ST	ROCK WALL	1950	NEILL, JEREMY S & SARAH

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002028004	806		CHESTNUT ST	CFW	1950	NEILL, JEREMY S & SARAH
002028005	681		8TH ST	MULTI-FAMILY RES.	1914	CARLIN NEVADA DEVELOPMENT LLC
002028005	681		8TH ST	STORAGE BUILDINGS	1937	CARLIN NEVADA DEVELOPMENT LLC
002028005	681		8TH ST	STORAGE FLOORS	1937	CARLIN NEVADA DEVELOPMENT LLC
002028005	681		8TH ST	CFW	1965	CARLIN NEVADA DEVELOPMENT LLC
002028005	681		8TH ST	CFW	1914	CARLIN NEVADA DEVELOPMENT LLC
002028006	661		8TH ST	SINGLE FAMILY RES.	1937	CARLIN PARTNERS LLC
002028006	661		8TH ST	CFW	1937	CARLIN PARTNERS LLC
002030003	1021		TUSCARORA RD	DETACHED GARAGE	1966	HOUSE, LARRY E
002030003	1021		TUSCARORA RD	WMS FENCE	1966	HOUSE, LARRY E
002030003	1021		TUSCARORA RD	SIDE SHED ON DET GARAGE	1966	HOUSE, LARRY E
002030009	821		TUSCARORA RD	SINGLE FAMILY RES.	1930	ANDERSON, CLAY E & TRACY
002030009	821		TUSCARORA RD	CFW	1930	ANDERSON, CLAY E & TRACY
002030035	651		TUSCARORA RD	SHOP/STORAGE/GARAGE	1930	HOLM, K RICK & JANEEN
002030035	651		TUSCARORA RD	WMW FENCE	1948	HOLM, K RICK & JANEEN
002030036	1542		CHESTNUT ST	COTTAGE	1930	WESTERWELLE, MAX
002030036	1542		CHESTNUT ST	FENCE	1942	WESTERWELLE, MAX
002036001	1408		FIR ST	HOOKUP	1943	GALYEAN, SAMUEL F & REBECCA S
002036002	1410		FIR ST	HOOKUP	1943	MONTES DE OCA, FRED
002036003	1412		FIR ST	MH HOOKUP	1943	MONTES DE OCA, FRED
002036004	1414		FIR ST	HOOKUP	1943	MONTES DE OCA, FRED
002036005	1416		FIR ST	HOOKUP	1943	MONTES DE OCA, FRED
002036008	831		14TH ST	HOOKUP	1943	MINCHEW, ARTHUR & EVA
002036009			TUSCARORA RD	HOOKUP	1943	MONTES DE OCA, FRED
002036010	832		TUSCARORA RD	HOOKUP	1943	MUNSTER, TRAVIS
002036011	842		TUSCARORA RD	MH HOOKUP	1943	DANNINGER, APRIL LYNN ET AL
002036012	852		TUSCARORA RD	MH HOOKUP	1943	PAICE, PATSY L
002036013	841		14TH ST	SINGLE FAMILY RES.	1943	URENDA, JOHNNY C & ROSIE C TR
002036013	841		14TH ST	WMS FENCE	1943	URENDA, JOHNNY C & ROSIE C TR
002060001	125	W	BUSH ST	MH PARK	1965	ERP PROPERTIES LLC
002067001	341	W	BUSH ST	SINGLE FAMILY RES.	1932	MCCULLOUGH, THOMAS E
002067001	341	W	BUSH ST	4'C/LL FENCE	1932	MCCULLOUGH, THOMAS E
002067001	341	W	BUSH ST	C/L TOPRAIL	1932	MCCULLOUGH, THOMAS E
002067001	341	W	BUSH ST	SHED	1932	MCCULLOUGH, THOMAS E
002067001	341	W	BUSH ST	DET. GARAGE	1932	MCCULLOUGH, THOMAS E
002067001	341	W	BUSH ST	SHED	1932	MCCULLOUGH, THOMAS E
002068012	251	W	BUSH ST	DETACHED GARAGE	1930	AIAZZI, PETER J & CHERIE J
002077002	107		BUSH ST	SINGLE FAMILY RES.	1935	APLAND, ROBERT L
002077002	107		BUSH ST	CFW	1935	APLAND, ROBERT L
002077002	107		BUSH ST	4'C/L FENCE	1935	APLAND, ROBERT L
002077002	107		BUSH ST	C/L TOPRAIL	1935	APLAND, ROBERT L
002077003	362		2ND ST	HOOKUP	1967	GRISWOLD, TOM C & DIANE M
002077003	362		2ND ST	ADDITION	1967	GRISWOLD, TOM C & DIANE M
002077003	362		2ND ST	COVERED PORCH	1967	GRISWOLD, TOM C & DIANE M
002077008	110		CEDAR ST	HOOKUP	1967	HUGHES, RANDALL
002077008	110		CEDAR ST	CFW	1967	HUGHES, RANDALL
002078002	372		3RD ST	HOOKUP	1966	LOPEZ, TONY
002078002	372		3RD ST	CFW	1966	LOPEZ, TONY
002078003	332		3RD ST	HOOKUP	1967	HUSTEAD, TRENT
002078006	216		CEDAR ST	HOOKUP	1966	CAREY, HUBERT L & MYRTLE E

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002078011	220		CEDAR ST	MH HOOKUP	1966	GODWIN, KATHLEEN J ET AL
002078011	220		CEDAR ST	ENCLOSED PORCH	1966	GODWIN, KATHLEEN J ET AL
002078011	220		CEDAR ST	WOOD DECK	1966	GODWIN, KATHLEEN J ET AL
002078011	220		CEDAR ST	CFW	1966	GODWIN, KATHLEEN J ET AL
002079003	317		BUSH ST	SINGLE FAMILY RES.	1945	FERGUSON, DANIEL F & DEMOYA G
002079003	317		BUSH ST	HOOKUP	1945	FERGUSON, DANIEL F & DEMOYA G
002079003	317		BUSH ST	4'C/L FENCE	1945	FERGUSON, DANIEL F & DEMOYA G
002079003	317		BUSH ST	C/L PRIVACY SLATS	1945	FERGUSON, DANIEL F & DEMOYA G
002079003	317		BUSH ST	ASPHALT	1945	FERGUSON, DANIEL F & DEMOYA G
002079003	317		BUSH ST	CFW	1945	FERGUSON, DANIEL F & DEMOYA G
002079004	318		CEDAR ST	HOOKUP	1966	TAYLOR, DONNA
002079005	314		CEDAR ST	HOOKUP	1966	OVERHOLSER, SHECKY
002079007	306		CEDAR ST	SINGLE FAMILY RES.	1926	TRUJILLO, DAVID & HEATHER
002079007	306		CEDAR ST	CFW	1926	TRUJILLO, DAVID & HEATHER
002079007	306		CEDAR ST	3'S/B FENCE	1926	TRUJILLO, DAVID & HEATHER
002079007	306		CEDAR ST	5'S/B FENCE	1926	TRUJILLO, DAVID & HEATHER
002079008	321		3RD ST	SINGLE FAMILY RES.	1950	CULLEY-REYNOLDS, CHERYL L
002079008	321		3RD ST	3'S/B FENCE	1950	CULLEY-REYNOLDS, CHERYL L
002079012	305		BUSH ST	DETACHED GARAGE	1963	MONTES DE OCA, ALFRED ET AL
002079012	305		BUSH ST	CFW	1965	MONTES DE OCA, ALFRED ET AL
002080001	552		8TH ST	COMM'L-ELEMENTARY SCHOOL	1961	ELKO COUNTY SCHOOL DISTRICT
002080001	552		8TH ST	COMM'L-SECONDARY SCHOOL & GY	1926	ELKO COUNTY SCHOOL DISTRICT
002083003	416		BUSH ST	MULTI-FAMILY RES.	1935	HARDISTY, GARY A
002083003	416		BUSH ST	CFW	1935	HARDISTY, GARY A
002083003	416		BUSH ST	5'S/B FENCE	1935	HARDISTY, GARY A
002084008	520		BUSH ST	SINGLE FAMILY RES.	1963	TILLMAN, ABRAHAM N
002084008	520		BUSH ST	6'S/B FENCE	1963	TILLMAN, ABRAHAM N
002084008	520		BUSH ST	SHED	1963	TILLMAN, ABRAHAM N
002085001	401		BUSH ST	SINGLE FAMILY RES.	1937	GAREY, GREGORY D
002085001	401		BUSH ST	3'C/L FENCE	1937	GAREY, GREGORY D
002085001	401		BUSH ST	C/L PRIVACY SLATS	1937	GAREY, GREGORY D
002085001	401		BUSH ST	6'S/B FENCE	1937	GAREY, GREGORY D
002085002	409		BUSH ST	SINGLE FAMILY RES.	1932	HYDE, RICHARD E
002085002	409		BUSH ST	2'S/B FENCE	1932	HYDE, RICHARD E
002085002	409		BUSH ST	4'C/L FENCE	1932	HYDE, RICHARD E
002085002	409		BUSH ST	6'S/B FENCE	1932	HYDE, RICHARD E
002085002	409		BUSH ST	CFW	1932	HYDE, RICHARD E
002085003	411		BUSH ST	SINGLE FAMILY RES.	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	3'C/L FENCE	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	C/L TOPRAIL	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	C/L PRIVACY SLATS	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	6'C/L FENCE	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	C/L TOPRAIL	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	C/L PRIVACY SLATS	1952	HOGUE, SHIRLEY M
002085003	411		BUSH ST	CFW	1952	HOGUE, SHIRLEY M
002085004	342		5TH ST	SINGLE FAMILY RES.	1932	EASTMAN, KEITH P & MARY E
002085004	342		5TH ST	4'C/L FENCE	1932	EASTMAN, KEITH P & MARY E
002085004	342		5TH ST	C/L TOPRAIL	1932	EASTMAN, KEITH P & MARY E
002085004	342		5TH ST	6'C/L FENCE	1932	EASTMAN, KEITH P & MARY E
002085004	342		5TH ST	C/L TOPRAIL	1932	EASTMAN, KEITH P & MARY E

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002085004	342		5TH ST	MH HOOKUP	1932	EASTMAN, KEITH P & MARY E
002085004	342		5TH ST	CFW	1932	EASTMAN, KEITH P & MARY E
002085006	422		CEDAR ST	SINGLE FAMILY RES.	1920	HUSSEY, NANCY
002085006	422		CEDAR ST	SHED	1920	HUSSEY, NANCY
002085006	422		CEDAR ST	PORCH	1920	HUSSEY, NANCY
002085006	422		CEDAR ST	PORCH	1920	HUSSEY, NANCY
002085006	422		CEDAR ST	CFW	1920	HUSSEY, NANCY
002085007	420		CEDAR ST	HOOKUP	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	RESIDENCE (BUNKHOUSE COST)	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	UNFINISHED BASEMENT	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	FIXTURES	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	COVERED DECK	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	PORCH WALLS	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	SHED	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	CFW	1926	LITCHFIELD, LINCOLN & DIANA S
002085007	420		CEDAR ST	PORCH	1926	LITCHFIELD, LINCOLN & DIANA S
002085008	416		CEDAR ST	SINGLE FAMILY RES.	1926	LITCHFIELD, LINCOLN RJR
002085008	416		CEDAR ST	CFW	1926	LITCHFIELD, LINCOLN RJR
002085009	414		CEDAR ST	DET GARAGE	1932	SIERRA, CATALINA
002086001	501		BUSH ST	SINGLE FAMILY RES.	1943	SIMPSON, VALERIE JO
002086001	501		BUSH ST	4'C/L FENCE	1943	SIMPSON, VALERIE JO
002086001	501		BUSH ST	C/L TOPRAIL	1943	SIMPSON, VALERIE JO
002086001	501		BUSH ST	6'S/B FENCE	1943	SIMPSON, VALERIE JO
002086001	501		BUSH ST	CFW	1943	SIMPSON, VALERIE JO
002086003	523		BUSH ST	SINGLE FAMILY RES.	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	CFW	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	6'S/B FENCE	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	4'C/L FENCE	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	C/L TOPRAIL	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	COVERED PORCH	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	PORCH	1947	MICHELI, WILLIAM & JUDY M
002086003	523		BUSH ST	SHED	1947	MICHELI, WILLIAM & JUDY M
002086004	524		CEDAR ST	SINGLE FAMILY RES.	1942	COSENS, BRUCE & TRACIE
002086004	524		CEDAR ST	5'S/B FENCE	1942	COSENS, BRUCE & TRACIE
002086004	524		CEDAR ST	CFW	1942	COSENS, BRUCE & TRACIE
002086004	524		CEDAR ST	COVERED PORCH	1942	COSENS, BRUCE & TRACIE
002086007	514		CEDAR ST	SINGLE FAMILY RES.	1965	KITTS, BRANDON T & LORIE ANN
002086007	514		CEDAR ST	4'C/L FENCE	1965	KITTS, BRANDON T & LORIE ANN
002086007	514		CEDAR ST	C/L TOPRAIL	1965	KITTS, BRANDON T & LORIE ANN
002086007	514		CEDAR ST	CFW	1965	KITTS, BRANDON T & LORIE ANN
002086007	514		CEDAR ST	8"C-BLOCK WALL	1965	KITTS, BRANDON T & LORIE ANN
002086008	506		CEDAR ST	SINGLE FAMILY RES.	1952	HUTCHISON, DOUGLAS M
002086008	506		CEDAR ST	CFW	1952	HUTCHISON, DOUGLAS M
002086008	506		CEDAR ST	SHED	1952	HUTCHISON, DOUGLAS M
002086008	506		CEDAR ST	PORCH	1952	HUTCHISON, DOUGLAS M
002086009	502		CEDAR ST	SINGLE FAMILY RES.	1951	HENDERSON, JOHN & CHRISTINA
002086009	502		CEDAR ST	CFW	1951	HENDERSON, JOHN & CHRISTINA
002086009	502		CEDAR ST	AWNING	1951	HENDERSON, JOHN & CHRISTINA
002086010	518		CEDAR ST	BUNKHOUSE	1920	CLOUGH, MARK A & CONNIE R
002086010	518		CEDAR ST	FIXTURES	1920	CLOUGH, MARK A & CONNIE R

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002087001	623		BUSH ST	RV PARK	1964	KING, EDWARD O & TERRY L
002087001	623		BUSH ST	4'C/L FENCE	1964	KING, EDWARD O & TERRY L
002087002	618		CEDAR ST	SINGLE FAMILY RES.	1938	ALEXANDER, JEFFERY D TR ET AL
002087002	618		CEDAR ST	4'C/L FENCE	1938	ALEXANDER, JEFFERY D TR ET AL
002087002	618		CEDAR ST	4'S/B FENCE	1938	ALEXANDER, JEFFERY D TR ET AL
002087002	618		CEDAR ST	CFW	1938	ALEXANDER, JEFFERY D TR ET AL
002087003	614		CEDAR ST	SINGLE FAMILY RES.	1932	JNCF HOLDINGS LLC
002087003	614		CEDAR ST	CFW	1932	JNCF HOLDINGS LLC
002087003	614		CEDAR ST	5'C/L FENCE	1932	JNCF HOLDINGS LLC
002087004	610		CEDAR ST	SINGLE FAMILY RES.	1945	ANDERSON, JEFFREY K & NANCY LEE
002087004	610		CEDAR ST	4'C/L FENCE	1945	ANDERSON, JEFFREY K & NANCY LEE
002087004	610		CEDAR ST	C-BLOCK WALL	1945	ANDERSON, JEFFREY K & NANCY LEE
002087004	610		CEDAR ST	CFW	1945	ANDERSON, JEFFREY K & NANCY LEE
002087004	610		CEDAR ST	C-BLOCK WALL	1945	ANDERSON, JEFFREY K & NANCY LEE
002087008	606		CEDAR ST	SINGLE FAMILY RES	1920	CAILOR, ROBERT MICHAEL ET AL
002087008	606		CEDAR ST	WOOD DECK	1920	CAILOR, ROBERT MICHAEL ET AL
002090001	551		8TH ST	SINGLE FAMILY RES.	1945	WHITE, REBECCA
002090001	551		8TH ST	6'S/B FENCE	1945	WHITE, REBECCA
002090001	551		8TH ST	CFW	1945	WHITE, REBECCA
002090005	825		1/2 CHESTNUT ST	COMM'L-STORAGE	1948	MONTES DE OCA, ALFRED RYAN ETAL
002090005	825		1/2 CHESTNUT ST	MH SPACES	1962	MONTES DE OCA, ALFRED RYAN ETAL
002090005	825		1/2 CHESTNUT ST	CFW	1948	MONTES DE OCA, ALFRED RYAN ETAL
002090005	825		1/2 CHESTNUT ST	RETAINING WALL	1948	MONTES DE OCA, ALFRED RYAN ETAL
002090005	825		1/2 CHESTNUT ST	STORAGE	1948	MONTES DE OCA, ALFRED RYAN ETAL
002090006	915		CHESTNUT ST	COMM'L-BAR/TAVERN	1947	ATKINS, SONNY & TERI L
002090006	915		CHESTNUT ST	CFW	1947	ATKINS, SONNY & TERI L
002090006	915		CHESTNUT ST	COVERED PORCH	1947	ATKINS, SONNY & TERI L
002091001	451		8TH ST	SINGLE FAMILY RES.	1966	GILLESPIE, RICHARD D
002091001	451		8TH ST	6'S/B FENCE	1966	GILLESPIE, RICHARD D
002091001	451		8TH ST	CFW	1966	GILLESPIE, RICHARD D
002091003	818		BUSH ST	SINGLE FAMILY RES.	1960	CARPENTER MARIE TR
002091003	818		BUSH ST	6'S/B FENCE	1960	CARPENTER MARIE TR
002091003	818		BUSH ST	3'C/L FENCE	1960	CARPENTER MARIE TR
002091003	818		BUSH ST	CFW	1960	CARPENTER MARIE TR
002091005	808		BUSH ST	MH HOOKUP	1964	CARPENTER, MARIE A TR
002091005	808		BUSH ST	WOOD DECK	1964	CARPENTER, MARIE A TR
002091005	808		BUSH ST	CONCRETE	1964	CARPENTER, MARIE A TR
002091006	802		BUSH ST	SINGLE FAMILY RES.	1962	RAY, KODEE ET AL
002091006	802		BUSH ST	SHED	1962	RAY, KODEE ET AL
002091006	802		BUSH ST	CFW	1962	RAY, KODEE ET AL
002091006	802		BUSH ST	ASPHALT	1962	RAY, KODEE ET AL
002091006	802		BUSH ST	6'S/B FENCE	1962	RAY, KODEE ET AL
002092001	924		BUSH ST	COMM'L-RETAIL STORE	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092001	924		BUSH ST	ASPHALT	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092001	924		BUSH ST	COVERED PORCH	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092001	924		BUSH ST	6'C/L FENCE	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092001	924		BUSH ST	C/L TOPRAIL	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092001	924		BUSH ST	C/L BARBED WIRE	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092001	924		BUSH ST	COLD STORAGE	1962	OWENS, BRADLEY NEAL & KATHRYN M
002092002	902		BUSH ST	SINGLE FAMILY RES.	1964	MARCHAND, CHAD KEITH & CARLENE

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002092002	902		BUSH ST	CFW	1964	MARCHAND, CHAD KEITH & CARLENE
002092002	902		BUSH ST	5'C/L FENCE	1964	MARCHAND, CHAD KEITH & CARLENE
002093004	372		8TH ST	COMM'L-OFFICES	1963	KERR, BRUCE ET AL
002093004	372		8TH ST	ASPHALT	1963	KERR, BRUCE ET AL
002093004	372		8TH ST	CFW	1963	KERR, BRUCE ET AL
002093006	718		CEDAR ST	COMM'L-SENIOR CENTER	1910	CARLIN, CITY OF
002093006	718		CEDAR ST	CFW	1910	CARLIN, CITY OF
002093007	710		CEDAR ST	SINGLE FAMILY RES.	1914	SANTO, CHARLES T
002093007	710		CEDAR ST	SINGLE FAMILY RES.	1914	SANTO, CHARLES T
002093007	710		CEDAR ST	SINGLE FAMILY RES.	1932	SANTO, CHARLES T
002093007	710		CEDAR ST	SHED	1932	SANTO, CHARLES T
002093007	710		CEDAR ST	CFW	1932	SANTO, CHARLES T
002093007	710		CEDAR ST	6'S/B FENCE	1932	SANTO, CHARLES T
002093008	702		CEDAR ST	SINGLE FAMILY RES.	1938	RASMUSSEN, ROGER L & PATRICIA J
002093008	702		CEDAR ST	GARAGE	1938	RASMUSSEN, ROGER L & PATRICIA J
002093008	702		CEDAR ST	CFW	1938	RASMUSSEN, ROGER L & PATRICIA J
002093009	705		BUSH ST	SINGLE FAMILY RES.	1959	HOWE, DAVID & ANGELICA
002093009	705		BUSH ST	RETAINING WALL	1959	HOWE, DAVID & ANGELICA
002093009	705		BUSH ST	4'C/L FENCE	1959	HOWE, DAVID & ANGELICA
002093009	705		BUSH ST	CFW	1959	HOWE, DAVID & ANGELICA
002093010	701		BUSH ST	SINGLE FAMILY RES.	1959	CARDONA, ANGEL & VICTORIA
002093010	701		BUSH ST	CFW	1959	CARDONA, ANGEL & VICTORIA
002093011	711		BUSH ST	SINGLE FAMILY RES.	1942	RED, JERRY & ASHLEY
002093011	711		BUSH ST	SINGLE FAMILY RES.	1942	RED, JERRY & ASHLEY
002093011	711		BUSH ST	SINGLE FAMILY RES.	1947	RED, JERRY & ASHLEY
002093011	711		BUSH ST	CFW	1942	RED, JERRY & ASHLEY
002093011	711		BUSH ST	CFW	1947	RED, JERRY & ASHLEY
002094002	811		BUSH ST	SINGLE FAMILY RES.	1964	GATES, ROY
002094002	811		BUSH ST	4'C/L FENCE	1964	GATES, ROY
002094002	811		BUSH ST	RETAINING WALL	1964	GATES, ROY
002094002	811		BUSH ST	CFW	1964	GATES, ROY
002094002	811		BUSH ST	SHED	1964	GATES, ROY
002094003	821		BUSH ST	SINGLE FAMILY RES.	1964	CARPENTER, MARIE A TR
002094003	821		BUSH ST	CFW	1964	CARPENTER, MARIE A TR
002094003	821		BUSH ST	RETAINING WALL	1964	CARPENTER, MARIE A TR
002094003	821		BUSH ST	4'S/B FENCE	1964	CARPENTER, MARIE A TR
002094004	824		CEDAR ST	SINGLE FAMILY RES.	1942	JESS, KENNETH A & TERESA A
002094004	824		CEDAR ST	SINGLE FAMILY RES.	1942	JESS, KENNETH A & TERESA A
002094004	824		CEDAR ST	CFW	1942	JESS, KENNETH A & TERESA A
002094005	818		CEDAR ST	SINGLE FAMILY RES.	1932	WEAVER, PATRICK
002094005	818		CEDAR ST	CFW	1932	WEAVER, PATRICK
002094005	818		CEDAR ST	SHED	1932	WEAVER, PATRICK
002094006	816		CEDAR ST	SINGLE FAMILY RES.	1945	COLTRIN, DEREK M & RUTH E
002094006	816		CEDAR ST	CFW	1945	COLTRIN, DEREK M & RUTH E
002094006	816		CEDAR ST	SHED	1945	COLTRIN, DEREK M & RUTH E
002094006	816		CEDAR ST	PICKET FENCE	1945	COLTRIN, DEREK M & RUTH E
002094007	810		CEDAR ST	SINGLE FAMILY RES.	1945	TERRY, JACK K & SANDRA J
002094007	810		CEDAR ST	CFW	1945	TERRY, JACK K & SANDRA J
002094007	810		CEDAR ST	5'C/L FENCE	1945	TERRY, JACK K & SANDRA J
002094007	810		CEDAR ST	5'SB FENCE	1945	TERRY, JACK K & SANDRA J

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002094008	806		CEDAR ST	SINGLE FAMILY RES.	1947	NUNEZ, HELIODORO & ANNA
002094008	806		CEDAR ST	CFW	1947	NUNEZ, HELIODORO & ANNA
002094009	802		CEDAR ST	SINGLE FAMILY RES.	1952	GRIFFITH, PATRICK S & PATRICIA D
002094009	802		CEDAR ST	4'C/L FENCE	1952	GRIFFITH, PATRICK S & PATRICIA D
002094009	802		CEDAR ST	CFW	1952	GRIFFITH, PATRICK S & PATRICIA D
002095001	371		9TH ST	SINGLE FAMILY RES.	1954	CHASE, DELINDA
002095001	371		9TH ST	4'C/L FENCE	1954	CHASE, DELINDA
002095001	371		9TH ST	CFW	1954	CHASE, DELINDA
002095001	371		9TH ST	5'SB FENCE	1954	CHASE, DELINDA
002095002	909		BUSH ST	MH HOOKUPS	1966	CHIN, KAI YUEN & LI JU
002095002	909		BUSH ST	SHED	1966	CHIN, KAI YUEN & LI JU
002095002	909		BUSH ST	COVERED DECK	1966	CHIN, KAI YUEN & LI JU
002095002	909		BUSH ST	6'S/B FENCE	1966	CHIN, KAI YUEN & LI JU
002095002	909		BUSH ST	4'C/L FENCE	1966	CHIN, KAI YUEN & LI JU
002095002	909		BUSH ST	CFW	1966	CHIN, KAI YUEN & LI JU
002095003	917		BUSH ST	COMM'L-RESTAURANT/LAUNDROMAT	1966	CHIN, KAI YUEN & LI JU
002095003	917		BUSH ST	CFW	1966	CHIN, KAI YUEN & LI JU
002095004	922		CEDAR ST	SINGLE FAMILY RES.	1926	ALEGRIA, JOSE R ET AL
002095004	922		CEDAR ST	5'S/B FENCE	1926	ALEGRIA, JOSE R ET AL
002095004	922		CEDAR ST	4'C/L FENCE	1926	ALEGRIA, JOSE R ET AL
002095004	922		CEDAR ST	CFW	1926	ALEGRIA, JOSE R ET AL
002095005	916		CEDAR ST	SINGLE FAMILY RES.	1949	GUNNELS, MERVA RUTH
002095005	916		CEDAR ST	CFW	1949	GUNNELS, MERVA RUTH
002095006	910		CEDAR ST	SINGLE FAMILY RES.	1946	KULISEK, MICHAEL LOUIS JR
002095006	910		CEDAR ST	WMS FENCE	1946	KULISEK, MICHAEL LOUIS JR
002095006	910		CEDAR ST	CFW	1946	KULISEK, MICHAEL LOUIS JR
002095007	908		CEDAR ST	SINGLE FAMILY RES.	1941	MIERS, MAXINE D & MARSH E
002095007	908		CEDAR ST	4'C/L FENCE	1941	MIERS, MAXINE D & MARSH E
002100001	1003		CHESTNUT ST	COMM'L-MINI-MART	1946	SINGH, AMARJOT
002100001	1003		CHESTNUT ST	SHED	1950	SINGH, AMARJOT
002100001	1003		CHESTNUT ST	SHED	1950	SINGH, AMARJOT
002100005	1105		CHESTNUT ST	COMM'L-STORAGE BLDG.	1926	GUNNELS, BENJAMIN
002100005	1105		CHESTNUT ST	COMM'L-STORAGE BLDG.	1926	GUNNELS, BENJAMIN
002100005	1105		CHESTNUT ST	COVERED PORCH	1950	GUNNELS, BENJAMIN
002100005	1105		CHESTNUT ST	PATIO COVER	1950	GUNNELS, BENJAMIN
002100005	1105		CHESTNUT ST	ENCLOSED PORCH	1950	GUNNELS, BENJAMIN
002100005	1105		CHESTNUT ST	MH HOOKUP	1950	GUNNELS, BENJAMIN
002100005	1105		CHESTNUT ST	ATTACHED GARAGE	1950	GUNNELS, BENJAMIN
002100006	1124		BUSH ST	SHED	1966	GUNNELS, BENJAMIN
002101003	362		11TH ST	MH HOOKUP	1966	OWENS, DENNIS L
002101006	1012		CEDAR ST	SINGLE FAMILY RES.	1945	HOFELDT, DORTHA M TR
002101006	1012		CEDAR ST	CFW	1945	HOFELDT, DORTHA M TR
002101008	1014		CEDAR ST	SINGLE FAMILY RES.	1965	SEXTON, JUSIN L & LILA L
002101008	1014		CEDAR ST	CFW	1965	SEXTON, JUSIN L & LILA L
002101008	1014		CEDAR ST	SHED	1965	SEXTON, JUSIN L & LILA L
002101008	1014		CEDAR ST	SHED FLOOR	1965	SEXTON, JUSIN L & LILA L
002101008	1014		CEDAR ST	4'C/L FENCE	1965	SEXTON, JUSIN L & LILA L
002101008	1014		CEDAR ST	C/L TOPRAIL	1965	SEXTON, JUSIN L & LILA L
002101009	1022		CEDAR ST	SINGLE FAMILY RES.	1948	MICHEL, RUTH ANN
002101009	1022		CEDAR ST	CFW	1948	MICHEL, RUTH ANN

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002101009	1022		CEDAR ST	4'C/L FENCE	1948	MICHELI, RUTH ANN
002102001	371		11TH ST	SINGLE FAMILY RES.	1954	GIBSON, CHARLES TILT
002102001	371		11TH ST	CFW	1954	GIBSON, CHARLES TILT
002102001	371		11TH ST	SHED	1954	GIBSON, CHARLES TILT
002102001	371		11TH ST	3-POLE FENCE	1954	GIBSON, CHARLES TILT
002102001	371		11TH ST	6'S/B FENCE	1954	GIBSON, CHARLES TILT
002102007	311		11TH ST	SINGLE FAMILY RES.	1964	FOSTER, LARRY D
002121007	321	W	CEDAR ST	SINGLE FAMILY RES.	1932	FOBES, DENNIS A
002121007	321	W	CEDAR ST	CFW	1932	FOBES, DENNIS A
002121007	321	W	CEDAR ST	STORAGE SHED	1932	FOBES, DENNIS A
002121008	302	W	HAMILTON ST	SINGLE FAMILY RES.	1920	BROOK FAMILY LIVING TRUST
002121008	302	W	HAMILTON ST	CFW	1920	BROOK FAMILY LIVING TRUST
002121008	302	W	HAMILTON ST	4'C/L FENCE	1920	BROOK FAMILY LIVING TRUST
002121009		W	HAMILTON ST	SHED	1920	BROOK FAMILY LIVING TRUST
002121009		W	HAMILTON ST	CFW	1920	BROOK FAMILY LIVING TRUST
002122001	251	W	CEDAR ST	SINGLE FAMILY RES.	1938	WATSON, CARRIE M
002122001	251	W	CEDAR ST	4'C/L FENCE	1938	WATSON, CARRIE M
002122001	251	W	CEDAR ST	CFW	1938	WATSON, CARRIE M
002122002	241	W	CEDAR ST	SINGLE FAMILY RESIDENCE	1920	EKLUND, ERIC & TERA
002122002	241	W	CEDAR ST	CFW	1920	EKLUND, ERIC & TERA
002122002	241	W	CEDAR ST	6'S/B FENCE	1920	EKLUND, ERIC & TERA
002122002	241	W	CEDAR ST	4'C/L FENCE	1950	EKLUND, ERIC & TERA
002122002	241	W	CEDAR ST	C/L PRIVACY SLATS	1950	EKLUND, ERIC & TERA
002122003	110	W	HAMILTON ST	MH HOOKUPS	1966	KAUFMAN, BEVERLY J
002122005	126	W	HAMILTON ST	HOOKUP	1966	CLOUGH, MARK & CONNIE
002122006	202	W	HAMILTON ST	HOOKUPS	1966	JOHNSON, MICHAEL J & TONIA J
002131001	101		CEDAR ST	HOOKUP	1966	BRIDGES, SHEILA
002131003	113		CEDAR ST	HOOKUP	1967	SCRIPTER, CATHY
002131005	212		2ND ST	HOOKUP	1967	SPENCER, BONNIE L ET AL
002131010	121		CEDAR ST	HOOKUP	1967	HOLMES, VIRGINIA F
002131010	121		CEDAR ST	COVERED PORCH	1967	HOLMES, VIRGINIA F
002132009	214		HAMILTON ST	HOOKUP	1965	MONTES DE OCA, ALFRED
002132012	201		2ND ST	HOOKUP	1966	CAREY, HUBERT L ET AL
002132012	201		2ND ST	ADDITION	1966	CAREY, HUBERT L ET AL
002132013	220		HAMILTON ST	DETACHED GARAGE	1965	WILCOX, ROBERT A
002133005	242		4TH ST	SINGLE FAMILY RES.	1926	HOLBROOK, JORDAN & BRANDY
002133005	242		4TH ST	CFW	1950	HOLBROOK, JORDAN & BRANDY
002133005	242		4TH ST	SHED	1926	HOLBROOK, JORDAN & BRANDY
002133006	324		HAMILTON ST	SINGLE FAMILY RES	1906	STRESS, EDWARD J
002133008	316		HAMILTON ST	SINGLE FAMILY RES	1942	MELENDEZ, MATTHEW & KATIE
002133008	316		HAMILTON ST	CFW	1950	MELENDEZ, MATTHEW & KATIE
002133008	316		HAMILTON ST	SHED	1942	MELENDEZ, MATTHEW & KATIE
002133008	316		HAMILTON ST	DET GARAGE	1942	MELENDEZ, MATTHEW & KATIE
002133008	316		HAMILTON ST	C/L 4 FENCE	1950	MELENDEZ, MATTHEW & KATIE
002133008	316		HAMILTON ST	COVERED PORCH	1950	MELENDEZ, MATTHEW & KATIE
002133008	316		HAMILTON ST	PORCH WALLS	1950	MELENDEZ, MATTHEW & KATIE
002133009	304		HAMILTON ST	SINGLE FAMILY RES	1959	WRIGHT, NANCY A TR
002133009	304		HAMILTON ST	CFW	1959	WRIGHT, NANCY A TR
002133009	304		HAMILTON ST	PATIO COVER	1959	WRIGHT, NANCY A TR
002133009	304		HAMILTON ST	6'S/B FENCE	1959	WRIGHT, NANCY A TR

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002133009	304		HAMILTON ST	STORAGE	1959	WRIGHT, NANCY A TR
002133009	304		HAMILTON ST	4'C/L FENCE W/TR	1959	WRIGHT, NANCY A TR
002133012	315		CEDAR ST	HOOKUP	1966	CUTTS, LINDA
002133015	311		CEDAR ST	HOOKUPS	1966	MONTES DE OCA, ALFRED ET AL
002135001	203		HAMILTON ST	MH HOOKUPS	1966	FORD, JAMES GENE
002135003	221		HAMILTON ST	MH HOOKUP	1965	MONTES DE OCA, RICHARD & KATHY
002135003	221		HAMILTON ST	DETACHED GARAGE	1965	MONTES DE OCA, RICHARD & KATHY
002136001	301		HAMILTON ST	HOOKUP	1965	MONTES DE OCA, ALFRED
002136001	301		HAMILTON ST	DETACHED GARAGE	1965	MONTES DE OCA, ALFRED
002136004	315		HAMILTON ST	SINGLE FAMILY RES.	1954	KILPATRICK, LAWRENCE T ET AL
002136004	315		HAMILTON ST	6'C/L FENCE	1954	KILPATRICK, LAWRENCE T ET AL
002136004	315		HAMILTON ST	C/L PRIVACY SLATS	1954	KILPATRICK, LAWRENCE T ET AL
002136004	315		HAMILTON ST	WMS FENCE	1954	KILPATRICK, LAWRENCE T ET AL
002136004	315		HAMILTON ST	CFW	1954	KILPATRICK, LAWRENCE T ET AL
002141001	401		CEDAR ST	SINGLE FAMILY RES.	1938	SCHULZ, JOHN F
002141001	401		CEDAR ST	CFW	1938	SCHULZ, JOHN F
002141001	401		CEDAR ST	4'C/L FENCE	1938	SCHULZ, JOHN F
002141001	401		CEDAR ST	6'S/B FENCE	1938	SCHULZ, JOHN F
002141002	405		CEDAR ST	SINGLE FAMILY RES.	1931	SUTHERLAND, SHARON F
002141002	405		CEDAR ST	4'C/L FENCE	1931	SUTHERLAND, SHARON F
002141002	405		CEDAR ST	CFW	1931	SUTHERLAND, SHARON F
002141002	405		CEDAR ST	6'S/B FENCE	1938	SUTHERLAND, SHARON F
002141003	407		CEDAR ST	SINGLE FAMILY RES.	1926	SUTHERLAND, SHARON F
002141003	407		CEDAR ST	CFW	1926	SUTHERLAND, SHARON F
002141003	407		CEDAR ST	4'C/L FENCE	1948	SUTHERLAND, SHARON F
002141004	409		CEDAR ST	SINGLE FAMILY RES.	1948	MONTES DE OCA, ALFRED ET AL
002141004	409		CEDAR ST	CFW	1948	MONTES DE OCA, ALFRED ET AL
002141004	409		CEDAR ST	4'C/L FENCE	1948	MONTES DE OCA, ALFRED ET AL
002141005	411		CEDAR ST	SINGLE FAMILY RES.	1961	TAYLOR, GEORGE G JR & JANICE A
002141005	411		CEDAR ST	CFW	1961	TAYLOR, GEORGE G JR & JANICE A
002141005	411		CEDAR ST	4'C/L FENCE	1961	TAYLOR, GEORGE G JR & JANICE A
002141005	411		CEDAR ST	6'S/B FENCE	1961	TAYLOR, GEORGE G JR & JANICE A
002141005	411		CEDAR ST	SHED	1961	TAYLOR, GEORGE G JR & JANICE A
002141005	411		CEDAR ST	SIDE SHED	1961	TAYLOR, GEORGE G JR & JANICE A
002141006	272		5TH ST	SINGLE FAMILY RES.	1932	OTT, MARTHA ET AL
002141006	272		5TH ST	CFW	1932	OTT, MARTHA ET AL
002141006	272		5TH ST	4'S/B FENCE	1932	OTT, MARTHA ET AL
002141006	272		5TH ST	SHED	1932	OTT, MARTHA ET AL
002141009	408		HAMILTON ST	SINGLE FAMILY RES.	1926	DE VOE, VIRGINIA L
002141009	408		HAMILTON ST	SINGLE FAMILY RES.	1931	DE VOE, VIRGINIA L
002141009	408		HAMILTON ST	CFW	1926	DE VOE, VIRGINIA L
002141009	408		HAMILTON ST	2'S/B FENCE	1926	DE VOE, VIRGINIA L
002141010	402		HAMILTON ST	SINGLE FAMILY RES.	1932	MACDONALD FAMILY TRUST
002141010	402		HAMILTON ST	4'C/L FENCE	1932	MACDONALD FAMILY TRUST
002141010	402		HAMILTON ST	CFW	1932	MACDONALD FAMILY TRUST
002141011	420		HAMILTON ST	MH HOOKUPS	1966	EQUITY TRUST COMPANY FBO BRENT
002141011	420		HAMILTON ST	CABIN	1966	EQUITY TRUST COMPANY FBO BRENT
002141011	420		HAMILTON ST	CABIN FIXTURES	1966	EQUITY TRUST COMPANY FBO BRENT
002141013	416		HAMILTON ST	SINGLE FAMILY RES.	1926	JONES, VICTOR J & RENEE D
002141013	416		HAMILTON ST	4'C/L FENCE	1926	JONES, VICTOR J & RENEE D

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002141013	416		HAMILTON ST	CFW	1926	JONES, VICTOR J & RENEE D
002142001	503		CEDAR ST	SINGLE FAMILY RES.	1926	DOYLE, MICHAEL J
002142001	503		CEDAR ST	3'C/L FENCE	1926	DOYLE, MICHAEL J
002142001	503		CEDAR ST	CFW	1926	DOYLE, MICHAEL J
002142002	509		CEDAR ST	DUPLEX	1926	JRT INVESTMENTS LLC
002142002	509		CEDAR ST	CFW	1926	JRT INVESTMENTS LLC
002142005	514		HAMILTON ST	SINGLE FAMILY RES.	1932	BAYSINGER, CLIFFORD B& LISA L J
002142005	514		HAMILTON ST	CFW	1932	BAYSINGER, CLIFFORD B& LISA L J
002142005	514		HAMILTON ST	6'C/L FENCE	1932	BAYSINGER, CLIFFORD B& LISA L J
002142005	514		HAMILTON ST	4'C/L FENCE	1932	BAYSINGER, CLIFFORD B& LISA L J
002142005	514		HAMILTON ST	6'S/B FENCE	1932	BAYSINGER, CLIFFORD B& LISA L J
002142006	508		HAMILTON ST	SHED (CABIN)	1896	JEFFERSON, APRIL
002142007	506		HAMILTON ST	SINGLE FAMILY RES.	1934	JEFFERSON, APRIL
002142007	506		HAMILTON ST	6'S/B FENCE	1934	JEFFERSON, APRIL
002142007	506		HAMILTON ST	SHED	1934	JEFFERSON, APRIL
002142008	502		HAMILTON ST	SINGLE FAMILY RES.	1938	ZOMAR, GAYLE I
002142008	502		HAMILTON ST	BUNKHOUSE	1938	ZOMAR, GAYLE I
002142008	502		HAMILTON ST	BUNKHOUSE FIXTURES	1938	ZOMAR, GAYLE I
002142008	502		HAMILTON ST	6'S/B FENCE	1938	ZOMAR, GAYLE I
002142008	502		HAMILTON ST	CFW	1938	ZOMAR, GAYLE I
002142008	502		HAMILTON ST	CARPORT	1938	ZOMAR, GAYLE I
002142009	512		HAMILTON ST	SINGLE FAMILY RES.	1949	SIMON, DICK W & JANELLE J TR
002142009	512		HAMILTON ST	SINGLE FAMILY RES.	1949	SIMON, DICK W & JANELLE J TR
002142009	512		HAMILTON ST	CFW	1949	SIMON, DICK W & JANELLE J TR
002142009	512		HAMILTON ST	6'S/B FENCE	1949	SIMON, DICK W & JANELLE J TR
002142009	512		HAMILTON ST	4'C/L FENCE	1949	SIMON, DICK W & JANELLE J TR
002142009	512		HAMILTON ST	3'PICKET FENCE	1949	SIMON, DICK W & JANELLE J TR
002142011	515		CEDAR ST	SINGLE FAMILY RES.	1942	MONTES DE OCA, RICHARD & KATHY
002142011	515		CEDAR ST	SINGLE FAMILY RES.	1938	MONTES DE OCA, RICHARD & KATHY
002142011	515		CEDAR ST	6'S/B FENCE	1942	MONTES DE OCA, RICHARD & KATHY
002142011	515		CEDAR ST	CFW	1938	MONTES DE OCA, RICHARD & KATHY
002143001	601		CEDAR ST	SINGLE FAMILY RES.	1952	SIMPKINS, RONDA LEE TR ET AL
002143001	601		CEDAR ST	6'C/L FENCE	1952	SIMPKINS, RONDA LEE TR ET AL
002143001	601		CEDAR ST	6'S/B FENCE	1952	SIMPKINS, RONDA LEE TR ET AL
002143001	601		CEDAR ST	SHED	1952	SIMPKINS, RONDA LEE TR ET AL
002143001	601		CEDAR ST	CFW	1952	SIMPKINS, RONDA LEE TR ET AL
002143002	613		CEDAR ST	SINGLE FAMILY RES.	1945	GROVER, DAVID T
002143002	613		CEDAR ST	CFW	1945	GROVER, DAVID T
002143002	613		CEDAR ST	6'S/B FENCE	1945	GROVER, DAVID T
002143003	615		CEDAR ST	HOOKUP	1965	SALAZ, RAMON & ERNESTINE
002143003	615		CEDAR ST	CFW	1965	SALAZ, RAMON & ERNESTINE
002143004	619		CEDAR ST	BUNKHOUSE	1920	JENSEN, TODD
002143004	619		CEDAR ST	SHED	1920	JENSEN, TODD
002143005	618		HAMILTON ST	SHED	1887	BENDER, WILLIAM F & ISABELLA
002143006	614		HAMILTON ST	SINGLE FAMILY RES.	1947	EVENSON, WAYNE ALLEN
002143006	614		HAMILTON ST	DETACHED GARAGE	1947	EVENSON, WAYNE ALLEN
002143006	614		HAMILTON ST	3'C/L FENCE W/TR	1947	EVENSON, WAYNE ALLEN
002143006	614		HAMILTON ST	CFW	1947	EVENSON, WAYNE ALLEN
002143006	614		HAMILTON ST	AWNING	1947	EVENSON, WAYNE ALLEN
002143006	614		HAMILTON ST	6'S/B FENCE	1947	EVENSON, WAYNE ALLEN

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002143007	602		HAMILTON ST	SINGLE FAMILY RES.	1926	ANTHONY, AHREN
002143007	602		HAMILTON ST	CFW	1926	ANTHONY, AHREN
002143007	602		HAMILTON ST	6'S/B FENCE	1926	ANTHONY, AHREN
002143007	602		HAMILTON ST	WMS FENCE	1926	ANTHONY, AHREN
002151002	711		CEDAR ST	SINGLE FAMILY RES.	1920	DUKE, DARYL
002151002	711		CEDAR ST	6'S/B FENCE	1920	DUKE, DARYL
002151002	711		CEDAR ST	CFW	1920	DUKE, DARYL
002151003	713		CEDAR ST	SINGLE FAMILY RES.	1955	MATHERS, HARRY R & VIVIAN E
002151003	713		CEDAR ST	CFW	1955	MATHERS, HARRY R & VIVIAN E
002151003	713		CEDAR ST	5'S/B FENCE	1955	MATHERS, HARRY R & VIVIAN E
002151003	713		CEDAR ST	4'C/L FENCE	1955	MATHERS, HARRY R & VIVIAN E
002151003	713		CEDAR ST	SHED	1955	MATHERS, HARRY R & VIVIAN E
002151003	713		CEDAR ST	COLOR CFW	1955	MATHERS, HARRY R & VIVIAN E
002151003	713		CEDAR ST	WOOD DECK	1955	MATHERS, HARRY R & VIVIAN E
002151004	719		CEDAR ST	HOOKUP	1965	STENOVICH, BETTY
002151004	719		CEDAR ST	CARPORT	1965	STENOVICH, BETTY
002151004	719		CEDAR ST	PATIO COVER	1965	STENOVICH, BETTY
002151005	242		8TH ST	SINGLE FAMILY RES.	1926	DANN, MARY L
002151005	242		8TH ST	4'C/L FENCE	1926	DANN, MARY L
002151005	242		8TH ST	CFW	1926	DANN, MARY L
002151006	222		8TH ST	DETACHED GARAGE	1920	ZACHTE, ROBERT D & SHARON A TR
002151006	222		8TH ST	AWNING	1920	ZACHTE, ROBERT D & SHARON A TR
002151008	708		HAMILTON ST	SINGLE FAMILY RES.	1926	ANTHONY, ALLEN R & KATHLEEN G
002151008	708		HAMILTON ST	5'C/L FENCE	1926	ANTHONY, ALLEN R & KATHLEEN G
002151008	708		HAMILTON ST	SHED	1926	ANTHONY, ALLEN R & KATHLEEN G
002151009	702		HAMILTON ST	DETACHED GARAGE	1914	ALEXANDER, JEFFERY D TR ET AL
002152002	807		CEDAR ST	SINGLE FAMILY RES.	1926	BRAGG, BOBBY E & ANNA
002152002	807		CEDAR ST	4'C/L FENCE	1926	BRAGG, BOBBY E & ANNA
002152002	807		CEDAR ST	C/L TOPRAIL	1926	BRAGG, BOBBY E & ANNA
002152002	807		CEDAR ST	CFW	1926	BRAGG, BOBBY E & ANNA
002152003	811		CEDAR ST	SINGLE FAMILY RES.	1932	ZEITER, CHRISTINA LINK
002152003	811		CEDAR ST	5'S/B FENCE	1932	ZEITER, CHRISTINA LINK
002152003	811		CEDAR ST	CFW	1932	ZEITER, CHRISTINA LINK
002152004	815		CEDAR ST	SINGLE FAMILY RES.	1932	KAFTON, CLARK W & PHYLLIS
002152004	815		CEDAR ST	CFW	1932	KAFTON, CLARK W & PHYLLIS
002152004	815		CEDAR ST	6'S/B FENCE	1932	KAFTON, CLARK W & PHYLLIS
002152004	815		CEDAR ST	4'C/L FENCE	1932	KAFTON, CLARK W & PHYLLIS
002152005	821		CEDAR ST	SINGLE FAMILY RES.	1941	WILSON, CODY
002152005	821		CEDAR ST	CFW	1941	WILSON, CODY
002152005	821		CEDAR ST	5'S/B FENCE	1941	WILSON, CODY
002152005	821		CEDAR ST	SHED	1941	WILSON, CODY
002152005	821		CEDAR ST	AWNING	1941	WILSON, CODY
002152006	824		HAMILTON ST	SINGLE FAMILY RES.	1938	AQUARIAN MINING EXPLORATION, IN
002152006	824		HAMILTON ST	SHED	1938	AQUARIAN MINING EXPLORATION, IN
002152006	824		HAMILTON ST	CFW	1938	AQUARIAN MINING EXPLORATION, IN
002152006	824		HAMILTON ST	4'S/B FENCE	1938	AQUARIAN MINING EXPLORATION, IN
002152007	818		HAMILTON ST	SINGLE FAMILY RES.	1908	ESPARZA, CARLOS & SABRA
002152007	818		HAMILTON ST	SINGLE FAMILY RES.	1908	ESPARZA, CARLOS & SABRA
002152007	818		HAMILTON ST	CFW	1932	ESPARZA, CARLOS & SABRA
002152007	818		HAMILTON ST	5'S/B FENCE	1932	ESPARZA, CARLOS & SABRA

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002152007	818		HAMILTON ST	3' PICKET FENCE	1932	ESPARZA, CARLOS & SABRA
002152007	818		HAMILTON ST	PICKET FENCE	1908	ESPARZA, CARLOS & SABRA
002152009	808		HAMILTON ST	SINGLE FAMILY RES.	1932	TERRELL, JASON P
002152009	808		HAMILTON ST	CFW	1932	TERRELL, JASON P
002152009	808		HAMILTON ST	LOFT	1932	TERRELL, JASON P
002152009	808		HAMILTON ST	WOOD STAIRS	1932	TERRELL, JASON P
002152009	808		HAMILTON ST	WOOD DECK	1932	TERRELL, JASON P
002152010	806		HAMILTON ST	SINGLE FAMILY RES.	1935	CARLIN UNITED METHODIST CHURCH
002152010	806		HAMILTON ST	COMM'L-CHURCH W/SUNDAY SCHOO	1920	CARLIN UNITED METHODIST CHURCH
002152010	806		HAMILTON ST	CFW	1920	CARLIN UNITED METHODIST CHURCH
002152010	806		HAMILTON ST	PORCH	1920	CARLIN UNITED METHODIST CHURCH
002152010	806		HAMILTON ST	SHED	1920	CARLIN UNITED METHODIST CHURCH
002152010	806		HAMILTON ST	4'C/L FENCE	1935	CARLIN UNITED METHODIST CHURCH
002152010	806		HAMILTON ST	CFW	1935	CARLIN UNITED METHODIST CHURCH
002153001	903		CEDAR ST	SINGLE FAMILY RES.	1914	LESTER, THOMAS M & KAREN
002153001	903		CEDAR ST	SINGLE FAMILY RES.	1950	LESTER, THOMAS M & KAREN
002153001	903		CEDAR ST	4'C/L FENCE W/TR	1914	LESTER, THOMAS M & KAREN
002153001	903		CEDAR ST	4'C/L FENCE W/TR	1950	LESTER, THOMAS M & KAREN
002153001	903		CEDAR ST	CFW	1914	LESTER, THOMAS M & KAREN
002153002	907		CEDAR ST	SINGLE FAMILY RES.	1920	HARRER, WILLIAM
002153002	907		CEDAR ST	4'C/L FENCE	1920	HARRER, WILLIAM
002153002	907		CEDAR ST	CFW	1920	HARRER, WILLIAM
002153003	911		CEDAR ST	SINGLE FAMILY RES.	1920	JOYCE, VERONICA
002153003	911		CEDAR ST	CFW	1920	JOYCE, VERONICA
002153003	911		CEDAR ST	6'C/L FENCE	1920	JOYCE, VERONICA
002153004	913		CEDAR ST	SINGLE FAMILY RES.	1926	HALE, BRENDA A
002153004	913		CEDAR ST	6'C/L FENCE	1926	HALE, BRENDA A
002153004	913		CEDAR ST	CFW	1926	HALE, BRENDA A
002153006	916		CEDAR ST	SINGLE FAMILY RES.	1927	DANN, PEARL L
002153006	916		CEDAR ST	CFW	1914	DANN, PEARL L
002153007	924		HAMILTON ST	SINGLE FAMILY RES.	1926	HAZZARD, MICHAEL K
002153007	924		HAMILTON ST	SINGLE FAMILY RES.	1931	HAZZARD, MICHAEL K
002153008	918		HAMILTON ST	SINGLE FAMILY RES.	1938	GUINN, ANDY & MARJORIE M
002153008	918		HAMILTON ST	4'C/L FENCE	1938	GUINN, ANDY & MARJORIE M
002153008	918		HAMILTON ST	6'S/B FENCE	1938	GUINN, ANDY & MARJORIE M
002153008	918		HAMILTON ST	CFW	1938	GUINN, ANDY & MARJORIE M
002153009	914		HAMILTON ST	SINGLE FAMILY RES.	1953	DTK PROPERTIES LLC
002153009	914		HAMILTON ST	CFW	1953	DTK PROPERTIES LLC
002153010	910		HAMILTON ST	BUNKHOUSE (RES)	1920	OWENS, BRADLEY N & KATHRYN G
002153010	910		HAMILTON ST	HOOKUP	1920	OWENS, BRADLEY N & KATHRYN G
002153011	906		HAMILTON ST	SINGLE FAMILY RES.	1943	MESHEFSKI, SCOTT B & ELLEN
002153011	906		HAMILTON ST	CFW	1943	MESHEFSKI, SCOTT B & ELLEN
002153011	906		HAMILTON ST	4'C/L FENCE	1943	MESHEFSKI, SCOTT B & ELLEN
002153011	906		HAMILTON ST	SHED	1943	MESHEFSKI, SCOTT B & ELLEN
002153012	902		HAMILTON ST	SINGLE FAMILY RES.	1914	GARAMENDI, MITCHELL GUY
002153012	902		HAMILTON ST	4'C/L FENCE	1914	GARAMENDI, MITCHELL GUY
002153012	902		HAMILTON ST	CFW	1914	GARAMENDI, MITCHELL GUY
002154001	709		HAMILTON ST	SINGLE FAMILY RES.	1939	ROWE, BRADLEY
002154001	709		HAMILTON ST	4'C/L FENCE	1939	ROWE, BRADLEY
002154002	182		8TH ST	SINGLE FAMILY RES.	1942	WHITE, DANIEL W

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002154002	182		8TH ST	4'C/L FENCE	1942	WHITE, DANIEL W
002154002	182		8TH ST	WMS FENCE	1942	WHITE, DANIEL W
002154002	182		8TH ST	SHED	1942	WHITE, DANIEL W
002154002	182		8TH ST	CFW	1942	WHITE, DANIEL W
002154003	162		8TH ST	CFW	1932	JOHNSTON, DONALD J & KEELY J TR
002154003	162		8TH ST	4'C/L FENCE	1932	JOHNSTON, DONALD J & KEELY J TR
002154003	162		8TH ST	CFW	1932	JOHNSTON, DONALD J & KEELY J TR
002154004	122		8TH ST	SINGLE FAMILY RES.	1926	JOHNSTON, DONALD J & KEELY J TR
002154004	122		8TH ST	SINGLE FAMILY RES.	1926	JOHNSTON, DONALD J & KEELY J TR
002154004	122		8TH ST	CFW	1926	JOHNSTON, DONALD J & KEELY J TR
002154004	122		8TH ST	WMS FENCE	1926	JOHNSTON, DONALD J & KEELY J TR
002154005	724		RAILROAD ST	DUPLEX	1920	SHEEN, KENDALL L ET AL
002154005	724		RAILROAD ST	CFW	1920	SHEEN, KENDALL L ET AL
002154006	712		RAILROAD ST	SINGLE FAMILY RES.	1926	CARPENTER, JOSEPH C & CATRINA M
002154006	712		RAILROAD ST	4'C/L FENCE	1926	CARPENTER, JOSEPH C & CATRINA M
002154006	712		RAILROAD ST	CFW	1926	CARPENTER, JOSEPH C & CATRINA M
002154006	712		RAILROAD ST	SHED	1926	CARPENTER, JOSEPH C & CATRINA M
002154007	708		RAILROAD ST	SINGLE FAMILY RES.	1926	SHEEN, KENDALL L & MARY L ET AL
002154007	708		RAILROAD ST	WMS FENCE	1926	SHEEN, KENDALL L & MARY L ET AL
002154007	708		RAILROAD ST	CFW	1926	SHEEN, KENDALL L & MARY L ET AL
002154008	131		7TH ST	SINGLE FAMILY RES.	1926	NICHOLS, DIANA M
002154008	131		7TH ST	WMS FENCE	1926	NICHOLS, DIANA M
002154008	131		7TH ST	CFW	1926	NICHOLS, DIANA M
002154011	701		HAMILTON ST	SINGLE FAMILY RES.	1914	JOHNSTON, DONALD J & KEELY J TR
002154011	701		HAMILTON ST	WMW FENCE	1914	JOHNSTON, DONALD J & KEELY J TR
002154011	701		HAMILTON ST	6'C/L FENCE	1914	JOHNSTON, DONALD J & KEELY J TR
002154011	701		HAMILTON ST	3'S/B FENCE	1914	JOHNSTON, DONALD J & KEELY J TR
002154011	701		HAMILTON ST	CFW	1914	JOHNSTON, DONALD J & KEELY J TR
002155001	141		8TH ST	SINGLE FAMILY RES.	1930	HARPER, JON C
002155001	141		8TH ST	CFW	1930	HARPER, JON C
002155001	141		8TH ST	6'S/B FENCE	1930	HARPER, JON C
002155001	141		8TH ST	3-RAIL FENCE	1930	HARPER, JON C
002155001	141		8TH ST	6'S/B FENCE	1930	HARPER, JON C
002155001	141		8TH ST	WMS FENCE	1930	HARPER, JON C
002155001	141		8TH ST	CABIN	1930	HARPER, JON C
002155001	141		8TH ST	CABIN FIXTURES	1930	HARPER, JON C
002155003	807		HAMILTON ST	SINGLE FAMILY RES.	1945	BALLARD, TIMOTHY S
002155003	807		HAMILTON ST	CFW	1945	BALLARD, TIMOTHY S
002155003	807		HAMILTON ST	WMS FENCE	1945	BALLARD, TIMOTHY S
002155003	807		HAMILTON ST	AWNING	1945	BALLARD, TIMOTHY S
002155004	811		HAMILTON ST	SINGLE FAMILY RES.	1926	WRIGHT, NANCY A TR
002155004	811		HAMILTON ST	CFW	1926	WRIGHT, NANCY A TR
002155005	815		HAMILTON ST	SINGLE FAMILY RES.	1950	KAFTON, CLARK SCOTT
002155005	815		HAMILTON ST	CFW	1942	KAFTON, CLARK SCOTT
002155005	815		HAMILTON ST	WMS FENCE	1942	KAFTON, CLARK SCOTT
002155006	819		HAMILTON ST	SINGLE FAMILY RES.	1920	Y & T INVESTMENTS LLC
002155006	819		HAMILTON ST	CFW	1920	Y & T INVESTMENTS LLC
002155006	819		HAMILTON ST	WIRE FENCE	1920	Y & T INVESTMENTS LLC
002155006	819		HAMILTON ST	SHED	1920	Y & T INVESTMENTS LLC
002155007	823		HAMILTON ST	SINGLE FAMILY RES.	1920	GRENFELL, SANDRA MARIE

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002155007	823		HAMILTON ST	WMS FENCE	1920	GRENFELL, SANDRA MARIE
002155007	823		HAMILTON ST	CFW	1920	GRENFELL, SANDRA MARIE
002155008	132		9TH ST	DETACHED GARAGE	1930	WRIGHT, LARRY & KATHY
002155011	816		RAILROAD ST	SINGLE FAMILY RES.	1920	GREEN, DEREK C
002155011	816		RAILROAD ST	4'C/L FENCE	1920	GREEN, DEREK C
002155011	816		RAILROAD ST	AWNING	1920	GREEN, DEREK C
002155011	816		RAILROAD ST	CFW	1920	GREEN, DEREK C
002155012	812		RAILROAD ST	SINGLE FAMILY RES.	1937	MIRELES, LUIS ET AL
002155012	812		RAILROAD ST	4'C/L FENCE	1937	MIRELES, LUIS ET AL
002155012	812		RAILROAD ST	CFW	1937	MIRELES, LUIS ET AL
002155013	808		RAILROAD ST	SINGLE FAMILY RES.	1967	KRANTZ, TERRY E
002155013	808		RAILROAD ST	4'C/L FENCE	1967	KRANTZ, TERRY E
002155013	808		RAILROAD ST	CFW	1967	KRANTZ, TERRY E
002155014	802		RAILROAD ST	SINGLE FAMILY RES.	1897	PEARSON, BETTY F ETAL
002155014	802		RAILROAD ST	4'C/L FENCE	1897	PEARSON, BETTY F ETAL
002155014	802		RAILROAD ST	SHED	1897	PEARSON, BETTY F ETAL
002155014	802		RAILROAD ST	CFW	1897	PEARSON, BETTY F ETAL
002155015	820		RAILROAD ST	SINGLE FAMILY RES.	1926	WILSON, TINA M
002155015	820		RAILROAD ST	STORAGE	1926	WILSON, TINA M
002155015	820		RAILROAD ST	4'C/L FENCE	1926	WILSON, TINA M
002155015	820		RAILROAD ST	CFW	1926	WILSON, TINA M
002156001	901		HAMILTON ST	SINGLE FAMILY RES.	1948	GONZALEZ, MICHAEL C & CECILIA M
002156001	901		HAMILTON ST	4'C/L FENCE	1948	GONZALEZ, MICHAEL C & CECILIA M
002156001	901		HAMILTON ST	C/L PRIVACY SLATS	1948	GONZALEZ, MICHAEL C & CECILIA M
002156001	901		HAMILTON ST	6'C/L FENCE	1948	GONZALEZ, MICHAEL C & CECILIA M
002156001	901		HAMILTON ST	CFW	1948	GONZALEZ, MICHAEL C & CECILIA M
002156002	909		HAMILTON ST	SINGLE FAMILY RES.	1927	JOHNSTON, WILLIAM H ET AL
002156002	909		HAMILTON ST	WMS FENCE	1927	JOHNSTON, WILLIAM H ET AL
002156002	909		HAMILTON ST	4'C/L FENCE	1927	JOHNSTON, WILLIAM H ET AL
002156002	909		HAMILTON ST	6'C/L FENCE	1927	JOHNSTON, WILLIAM H ET AL
002156002	909		HAMILTON ST	CFW	1927	JOHNSTON, WILLIAM H ET AL
002156002	909		HAMILTON ST	SHED	1927	JOHNSTON, WILLIAM H ET AL
002156003	913		HAMILTON ST	SINGLE FAMILY RES.	1920	BECK, MARTY DUANE ET AL
002156003	913		HAMILTON ST	SINGLE FAMILY RES.	1945	BECK, MARTY DUANE ET AL
002156003	913		HAMILTON ST	CFW	1945	BECK, MARTY DUANE ET AL
002156004	917		HAMILTON ST	SINGLE FAMILY RES.	1938	TROUSDALE, EARL
002156004	917		HAMILTON ST	WMS FENCE	1938	TROUSDALE, EARL
002156004	917		HAMILTON ST	CFW	1938	TROUSDALE, EARL
002156005	172		10TH ST	SINGLE FAMILY RES.	1948	LIEBSACK, TASHA L
002156005	172		10TH ST	4'C/L FENCE	1948	LIEBSACK, TASHA L
002156005	172		10TH ST	CFW	1948	LIEBSACK, TASHA L
002156006	122		10TH ST	COMM'L-STORAGE	1920	CAMP CARLIN LLC
002156006	122		10TH ST	PATIO COVER	1920	CAMP CARLIN LLC
002156007	920		RAILROAD ST	SINGLE FAMILY RES.	1920	BUTTARS, MILTON ROGER ET AL
002156008	916		RAILROAD ST	SINGLE FAMILY RES.	1926	SANTO, CHARLES
002156008	916		RAILROAD ST	4'C/L FENCE	1926	SANTO, CHARLES
002156008	916		RAILROAD ST	CFW	1926	SANTO, CHARLES
002156009	912		RAILROAD ST	SINGLE FAMILY RES.	1926	CAMP CARLIN LLC
002156009	912		RAILROAD ST	CFW	1926	CAMP CARLIN LLC
002156010	908		RAILROAD ST	SINGLE FAMILY RES.	1920	BROWN, MORRIS WAYNE

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002156010	908		RAILROAD ST	WMS FENCE	1920	BROWN, MORRIS WAYNE
002156010	908		RAILROAD ST	CFW	1920	BROWN, MORRIS WAYNE
002156010	908		RAILROAD ST	6'C/L FENCE	1920	BROWN, MORRIS WAYNE
002156011	101		9TH ST	SINGLE FAMILY RES.	1926	DTK PROPERTIES LLC
002156011	101		9TH ST	6'S/B FENCE	1926	DTK PROPERTIES LLC
002156011	101		9TH ST	3'C/L FENCE	1926	DTK PROPERTIES LLC
002156011	101		9TH ST	CFW	1926	DTK PROPERTIES LLC
002156013	121		9TH ST	SINGLE FAMILY RES.	1914	LACY, J RAYMOND
002156013	121		9TH ST	4'S/B FENCE	1914	LACY, J RAYMOND
002156013	121		9TH ST	6'S/B FENCE	1914	LACY, J RAYMOND
002156013	121		9TH ST	CFW	1914	LACY, J RAYMOND
002156014	131		9TH ST	SINGLE FAMILY RES.	1914	SUMPTER, SCOTT L
002156014	131		9TH ST	6'S/B FENCE	1914	SUMPTER, SCOTT L
002156014	131		9TH ST	CFW	1914	SUMPTER, SCOTT L
002161002	1011		CEDAR ST	SINGLE FAMILY RES.	1934	MARTIN, KAREN W
002161002	1011		CEDAR ST	CFW	1934	MARTIN, KAREN W
002161003	1017		CEDAR ST	SINGLE FAMILY RES.	1914	OVERMAN, BERTHA ANN
002161003	1017		CEDAR ST	ASPHALT	1914	OVERMAN, BERTHA ANN
002161003	1017		CEDAR ST	4'C/L FENCE	1914	OVERMAN, BERTHA ANN
002161003	1017		CEDAR ST	SHED	1914	OVERMAN, BERTHA ANN
002161003	1017		CEDAR ST	CFW	1914	OVERMAN, BERTHA ANN
002161005	1024		HAMILTON ST	SINGLE FAMILY RES.	1941	GATES, DAVID M ET AL
002161005	1024		HAMILTON ST	4'C/L FENCE	1941	GATES, DAVID M ET AL
002161005	1024		HAMILTON ST	PRIVACY SLATS	1941	GATES, DAVID M ET AL
002161005	1024		HAMILTON ST	CFW	1941	GATES, DAVID M ET AL
002161006	1018		HAMILTON ST	SINGLE FAMILY RES.	1926	GATES, DAVID MORGAN
002161006	1018		HAMILTON ST	SINGLE FAMILY RES.	1938	GATES, DAVID MORGAN
002161006	1018		HAMILTON ST	CFW	1926	GATES, DAVID MORGAN
002161006	1018		HAMILTON ST	4'C/L FENCE	1926	GATES, DAVID MORGAN
002161006	1018		HAMILTON ST	RETAINING WALL	1926	GATES, DAVID MORGAN
002161006	1018		HAMILTON ST	6'S/B FENCE	1938	GATES, DAVID MORGAN
002161008	1002		HAMILTON ST	SINGLE FAMILY RES.	1945	GLENNON, JODY WOODS ET AL
002161008	1002		HAMILTON ST	CFW	1945	GLENNON, JODY WOODS ET AL
002161008	1002		HAMILTON ST	6'S/B FENCE	1945	GLENNON, JODY WOODS ET AL
002161008	1002		HAMILTON ST	RETAINING WALL	1945	GLENNON, JODY WOODS ET AL
002161009	1016		HAMILTON ST	SINGLE FAMILY RES.	1946	FEASEL, TERI L
002161009	1016		HAMILTON ST	CFW	1946	FEASEL, TERI L
002161009	1016		HAMILTON ST	4'C/L FENCE	1946	FEASEL, TERI L
002161009	1016		HAMILTON ST	C/L TOPRAIL	1946	FEASEL, TERI L
002161009	1016		HAMILTON ST	6'S/B FENCE	1946	FEASEL, TERI L
002161010	1014		HAMILTON ST	SINGLE FAMILY RES.	1932	CHAVEZ, RAFAEL
002161010	1014		HAMILTON ST	SHED	1932	CHAVEZ, RAFAEL
002161010	1014		HAMILTON ST	CFW	1932	CHAVEZ, RAFAEL
002162001	251		11TH ST	SINGLE FAMILY RES.	1967	DOXEY, LOREN THOMAS & CATERINA
002162001	251		11TH ST	CFW	1967	DOXEY, LOREN THOMAS & CATERINA
002162001	251		11TH ST	6'S/B FENCE	1967	DOXEY, LOREN THOMAS & CATERINA
002162001	251		11TH ST	4'C/L FENCE	1967	DOXEY, LOREN THOMAS & CATERINA
002162001	251		11TH ST	RETAINING WALL	1967	DOXEY, LOREN THOMAS & CATERINA
002162001	251		11TH ST	SHED	1967	DOXEY, LOREN THOMAS & CATERINA
002162001	251		11TH ST	AWNING	1967	DOXEY, LOREN THOMAS & CATERINA

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002162003	1117		CEDAR ST	HOOKUP	1966	KEARNEY, RAYMOND L & CAROLYN E
002162010	1102		HAMILTON ST	MULTI-FAMILY RES.	1932	HUFFMAN, KEVIN KORY ET AL
002162010	1102		HAMILTON ST	CFW	1932	HUFFMAN, KEVIN KORY ET AL
002162010	1102		HAMILTON ST	ASPHALT	1932	HUFFMAN, KEVIN KORY ET AL
002162010	1102		HAMILTON ST	SHED	1932	HUFFMAN, KEVIN KORY ET AL
002162010	1102		HAMILTON ST	SHED	1932	HUFFMAN, KEVIN KORY ET AL
002164001	151		10TH ST	SINGLE FAMILY RES.	1946	TOGNINI, TODD L
002164001	151		10TH ST	6'C/L FENCE	1946	TOGNINI, TODD L
002164002	171		10TH ST	SINGLE FAMILY RES.	1945	JONES, MICHAEL R
002164002	171		10TH ST	CFW	1945	JONES, MICHAEL R
002164002	171		10TH ST	6'C/L FENCE	1945	JONES, MICHAEL R
002164002	171		10TH ST	4'C/L FENCE	1945	JONES, MICHAEL R
002164003	1009		HAMILTON ST	SINGLE FAMILY RES.	1942	PATERSON, SCOTT C & HOLLY M
002164003	1009		HAMILTON ST	CFW	1942	PATERSON, SCOTT C & HOLLY M
002164003	1009		HAMILTON ST	6'S/B FENCE	1942	PATERSON, SCOTT C & HOLLY M
002164003	1009		HAMILTON ST	SHED	1920	PATERSON, SCOTT C & HOLLY M
002164004	1015		HAMILTON ST	SINGLE FAMILY RES.	1920	VINING, SCOTT & MONICA
002164004	1015		HAMILTON ST	CFW	1920	VINING, SCOTT & MONICA
002164007	1022		RAILROAD ST	SINGLE FAMILY RES.	1931	JRT INVESTMENTS LLC
002164007	1022		RAILROAD ST	SINGLE FAMILY RES.	1908	JRT INVESTMENTS LLC
002164007	1022		RAILROAD ST	SINGLE FAMILY RES.	1908	JRT INVESTMENTS LLC
002164007	1022		RAILROAD ST	6'S/B FENCE	1931	JRT INVESTMENTS LLC
002164007	1022		RAILROAD ST	CFW	1931	JRT INVESTMENTS LLC
002164007	1022		RAILROAD ST	PAVERS	1931	JRT INVESTMENTS LLC
002164008	1016		RAILROAD ST	SINGLE FAMILY RES.	1932	HANSEN, GARY D
002164008	1016		RAILROAD ST	CFW	1932	HANSEN, GARY D
002164008	1016		RAILROAD ST	4'C/L FENCE	1932	HANSEN, GARY D
002164008	1016		RAILROAD ST	4'S/B FENCE	1932	HANSEN, GARY D
002164009	1014		RAILROAD ST	SINGLE FAMILY RES.	1920	ULLMAN, LINDA D
002164009	1014		RAILROAD ST	4'S/B FENCE	1920	ULLMAN, LINDA D
002164009	1014		RAILROAD ST	4'C/L FENCE	1920	ULLMAN, LINDA D
002164009	1014		RAILROAD ST	CFW	1920	ULLMAN, LINDA D
002164010	1010		RAILROAD ST	SINGLE FAMILY RES.	1938	MONGER, ROBERT & SUSAN
002164010	1010		RAILROAD ST	CFW	1938	MONGER, ROBERT & SUSAN
002164010	1010		RAILROAD ST	4'C/L FENCE	1938	MONGER, ROBERT & SUSAN
002164010	1010		RAILROAD ST	4'S/B FENCE	1938	MONGER, ROBERT & SUSAN
002164011	1006		RAILROAD ST	SINGLE FAMILY RES.	1932	ROWE, JOHN F TR
002164011	1006		RAILROAD ST	CFW	1932	ROWE, JOHN F TR
002164011	1006		RAILROAD ST	4'C/L FENCE	1932	ROWE, JOHN F TR
002164012	1002		RAILROAD ST	SINGLE FAMILY RES.	1940	JOHNSON, HENRY C
002164012	1002		RAILROAD ST	CFW	1940	JOHNSON, HENRY C
002164012	1002		RAILROAD ST	WMW FENCE	1940	JOHNSON, HENRY C
002164012	1002		RAILROAD ST	AWNING	1940	JOHNSON, HENRY C
002164013	131		10TH ST	SINGLE FAMILY RES.	1931	JOHNSON, HENRY C
002164013	131		10TH ST	CFW	1931	JOHNSON, HENRY C
002164013	131		10TH ST	4'C/L FENCE	1931	JOHNSON, HENRY C
002164014	1017		HAMILTON ST	SINGLE FAMILY RES.	1914	DTK PROPERTIES LLC
002164014	1017		HAMILTON ST	SINGLE FAMILY RES.	1920	DTK PROPERTIES LLC
002164014	1017		HAMILTON ST	4'C/L FENCE	1920	DTK PROPERTIES LLC
002164014	1017		HAMILTON ST	5'C/L FENCE	1914	DTK PROPERTIES LLC

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002164014	1017		HAMILTON ST	CFW	1914	DTK PROPERTIES LLC
002164015	822		TUSCARORA RD	RESIDENCE (LOW-COST BUNKHOUS	1914	DTK PROPERTIES LLC
002164015	822		TUSCARORA RD	STORAGE	1914	DTK PROPERTIES LLC
002164015	822		TUSCARORA RD	FIXTURES	1914	DTK PROPERTIES LLC
002164015	822		TUSCARORA RD	HOOKUP	1914	DTK PROPERTIES LLC
002170001			4TH ST	BARN	1966	WRIGHT, GARY L & RACHEL
002170001			4TH ST	CORRALS	1966	WRIGHT, GARY L & RACHEL
002170001			4TH ST	WMW FENCE	1966	WRIGHT, GARY L & RACHEL
002170001			4TH ST	BARBED WIRE FENCE	1966	WRIGHT, GARY L & RACHEL
002171001	221		MAIN ST	SINGLE FAMILY RES.	1930	SANDSTEDT, ROBERT M
002171001	221		MAIN ST	CFW	1950	SANDSTEDT, ROBERT M
002171001	221		MAIN ST	SHED	1950	SANDSTEDT, ROBERT M
002171001	221		MAIN ST	4'S/B FENCE	1950	SANDSTEDT, ROBERT M
002171002	231		MAIN ST	SINGLE FAMILY RES.	1926	HOLD, HARVEY
002171002	231		MAIN ST	CFW	1950	HOLD, HARVEY
002171003	245		MAIN ST	SINGLE FAMILY RES.	1902	FERRIN, LAVINIA KIM TR ET AL
002171003	245		MAIN ST	SINGLE FAMILY RES.	1908	FERRIN, LAVINIA KIM TR ET AL
002171003	245		MAIN ST	SINGLE FAMILY RES.	1925	FERRIN, LAVINIA KIM TR ET AL
002171003	245		MAIN ST	CFW	1950	FERRIN, LAVINIA KIM TR ET AL
002171003	245		MAIN ST	4'C/L FENCE	1950	FERRIN, LAVINIA KIM TR ET AL
002171003	245		MAIN ST	6'C/L FENCE	1950	FERRIN, LAVINIA KIM TR ET AL
002171005	271		MAIN ST	SINGLE FAMILY RES.	1935	JOHNSON, MARY F TR
002171005	271		MAIN ST	CFW	1950	JOHNSON, MARY F TR
002171005	271		MAIN ST	PICKET FENCE	1950	JOHNSON, MARY F TR
002171006	301		MAIN ST	SINGLE FAMILY RES.	1920	FERRIN, LAVINIA KIM TR ET AL
002171006	301		MAIN ST	CFW	1920	FERRIN, LAVINIA KIM TR ET AL
002171006	301		MAIN ST	ASPHALT	1920	FERRIN, LAVINIA KIM TR ET AL
002171006	301		MAIN ST	4'C/L FENCE	1920	FERRIN, LAVINIA KIM TR ET AL
002171007	305		MAIN ST	SINGLE FAMILY RES.	1940	MANGUM, BRADY & LARA
002171007	305		MAIN ST	CFW	1940	MANGUM, BRADY & LARA
002171007	305		MAIN ST	4'C/L FENCE	1940	MANGUM, BRADY & LARA
002171008	309		MAIN ST	SINGLE FAMILY RES.	1926	COLTON, DANIEL R & CONNIE L TR
002171008	309		MAIN ST	CFW	1926	COLTON, DANIEL R & CONNIE L TR
002171008	309		MAIN ST	5'S/B FENCE	1926	COLTON, DANIEL R & CONNIE L TR
002171009	311		MAIN ST	SINGLE FAMILY RES.	1956	WALLACE, DONALD S
002171009	311		MAIN ST	CFW	1930	WALLACE, DONALD S
002171010	317		MAIN ST	SINGLE FAMILY RES.	1940	BURNEY, THOMAS J & KATHLEEN L
002171010	317		MAIN ST	CFW	1950	BURNEY, THOMAS J & KATHLEEN L
002171010	317		MAIN ST	4'C/L FENCE	1950	BURNEY, THOMAS J & KATHLEEN L
002171011	321		MAIN ST	SINGLE FAMILY RES.	1915	CAMP CARLIN LLC
002171011	321		MAIN ST	CFW	1950	CAMP CARLIN LLC
002171011	321		MAIN ST	4'C/L FENCE	1950	CAMP CARLIN LLC
002171011	321		MAIN ST	SHED	1950	CAMP CARLIN LLC
002181005	419		MAIN ST	CFW	1950	RIDDLE, JOHN G & JANET L
002181005	419		MAIN ST	6'S/B FENCE	1950	RIDDLE, JOHN G & JANET L
002181005	419		MAIN ST	4'S/B FENCE	1950	RIDDLE, JOHN G & JANET L
002181007	152	S	5TH ST	SINGLE FAMILY RES.	1926	DANN, RUSSELL J & ELIZABETH J
002181007	152	S	5TH ST	CFW	1950	DANN, RUSSELL J & ELIZABETH J
002181007	152	S	5TH ST	3'C-BLOCK WALL	1950	DANN, RUSSELL J & ELIZABETH J
002181007	152	S	5TH ST	MH HOOKUP	1950	DANN, RUSSELL J & ELIZABETH J

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002181008	414		CAMP ST	SINGLE FAMILY RES.	1902	DOYLE, MIKE
002181008	414		CAMP ST	CFW	1950	DOYLE, MIKE
002181008	414		CAMP ST	6'S/B FENCE	1950	DOYLE, MIKE
002181008	414		CAMP ST	4'C/L FENCE	1950	DOYLE, MIKE
002181009	410		CAMP ST	SINGLE FAMILY RES.	1955	KINNEY, CAMERON
002181009	410		CAMP ST	CFW	1956	KINNEY, CAMERON
002181009	410		CAMP ST	4'C/L FENCE	1956	KINNEY, CAMERON
002181011	407		MAIN ST	SINGLE FAMILY RES.	1902	DRESEN, JERRY & LORETTA
002181011	407		MAIN ST	CFW	1902	DRESEN, JERRY & LORETTA
002181013	401		MAIN ST	SINGLE FAMILY RES.	1908	GRIFFIN, GREGORY LOGAN
002181013	401		MAIN ST	CFW	1950	GRIFFIN, GREGORY LOGAN
002181013	401		MAIN ST	5'C/L FENCE	1950	GRIFFIN, GREGORY LOGAN
002181013	401		MAIN ST	2-RAIL FENCE	1950	GRIFFIN, GREGORY LOGAN
002181013	401		MAIN ST	4'C/L FENCE	1950	GRIFFIN, GREGORY LOGAN
002182001	501		MAIN ST	SINGLE FAMILY RES.	1920	CORDOVA, PHILLIP EUGENE
002182001	501		MAIN ST	4'C/L FENCE	1950	CORDOVA, PHILLIP EUGENE
002182001	501		MAIN ST	CFW	1950	CORDOVA, PHILLIP EUGENE
002182002	505		MAIN ST	SINGLE FAMILY RES.	1925	KULISEK, MICHAEL LOUIS JR
002182002	505		MAIN ST	4'C/L FENCE	1950	KULISEK, MICHAEL LOUIS JR
002182003	509		MAIN ST	SINGLE FAMILY RES.	1914	BROWN, DAVID F
002182003	509		MAIN ST	SINGLE FAMILY RES.	1942	BROWN, DAVID F
002182003	509		MAIN ST	4'C/L FENCE	1950	BROWN, DAVID F
002182003	509		MAIN ST	5'S/B FENCE	1950	BROWN, DAVID F
002182003	509		MAIN ST	CFW	1950	BROWN, DAVID F
002182004	517		MAIN ST	SINGLE FAMILY RES.	1914	MONTES DE OCA, ALFRED
002182004	517		MAIN ST	SHED (CABIN)	1914	MONTES DE OCA, ALFRED
002182004	517		MAIN ST	CFW	1950	MONTES DE OCA, ALFRED
002182004	517		MAIN ST	4'C/L FENCE	1950	MONTES DE OCA, ALFRED
002182004	517		MAIN ST	5'S/B FENCE	1950	MONTES DE OCA, ALFRED
002182005	521		MAIN ST	SINGLE FAMILY RES.	1938	BROCK, BRENDA D
002182005	521		MAIN ST	CFW	1938	BROCK, BRENDA D
002182005	521		MAIN ST	SHED	1938	BROCK, BRENDA D
002182007	131	S	6TH ST	SINGLE FAMILY RES.	1950	KIRKHAM, RONALD DAVID& BEVERLY
002182007	131	S	6TH ST	CFW	1950	KIRKHAM, RONALD DAVID& BEVERLY
002182007	131	S	6TH ST	PICKET FENCE	1950	KIRKHAM, RONALD DAVID& BEVERLY
002182008	520		CAMP ST	SINGLE FAMILY RES.	1932	ROMANS, DANIEL F & BECKY
002182008	520		CAMP ST	CFW	1950	ROMANS, DANIEL F & BECKY
002182008	520		CAMP ST	PICKET FENCE	1950	ROMANS, DANIEL F & BECKY
002182008	520		CAMP ST	SHED	1950	ROMANS, DANIEL F & BECKY
002182009	516		CAMP ST	SINGLE FAMILY RES.	1949	JOHN, CRISTINA V
002182009	516		CAMP ST	CFW	1954	JOHN, CRISTINA V
002182009	516		CAMP ST	4' PICKET FENCE	1954	JOHN, CRISTINA V
002182009	516		CAMP ST	SHED 1	1954	JOHN, CRISTINA V
002182009	516		CAMP ST	SHED 2	1954	JOHN, CRISTINA V
002182009	516		CAMP ST	SHED 3	1954	JOHN, CRISTINA V
002182009	516		CAMP ST	SHED 4	1954	JOHN, CRISTINA V
002182010	151	S	5TH ST	DETACHED GARAGE	1946	SIMPSON, KARLA JUNE
002182011	506		CAMP ST	SINGLE FAMILY RES.	1930	CONNER, PATRICK SR & WENDY M
002182011	506		CAMP ST	WMS FENCE	1950	CONNER, PATRICK SR & WENDY M
002183001	601		MAIN ST	STORAGE WAREHOUSE	1920	RUTHERFORD, J BRETT ET AL

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002183003	609		MAIN ST	RES. HOTEL/APTS.	1926	ATKINS, SONNY B & TERI L
002183005	172	S	7TH ST	SINGLE FAMILY RES.	1918	MOEN, JAMES A TR
002183005	172	S	7TH ST	3'C/L FENCE	1950	MOEN, JAMES A TR
002183005	172	S	7TH ST	C/L PRIVACY SLATS	1950	MOEN, JAMES A TR
002183005	172	S	7TH ST	6'C/L FENCE	1950	MOEN, JAMES A TR
002183005	172	S	7TH ST	C/L PRIVACY SLATS	1950	MOEN, JAMES A TR
002183005	172	S	7TH ST	CFW	1950	MOEN, JAMES A TR
002183007	614		CAMP ST	SINGLE FAMILY RES.	1914	CARDENAS, JENNY ELIZABETH
002183007	614		CAMP ST	CFW	1950	CARDENAS, JENNY ELIZABETH
002183007	614		CAMP ST	4'C/L FENCE	1950	CARDENAS, JENNY ELIZABETH
002183008	610		CAMP ST	SINGLE FAMILY RES.	1942	MEALEY, DANIEL P & AMY D
002183008	610		CAMP ST	CFW	1942	MEALEY, DANIEL P & AMY D
002183008	610		CAMP ST	WIRE MESH FENCE	1942	MEALEY, DANIEL P & AMY D
002183008	610		CAMP ST	SHED	1942	MEALEY, DANIEL P & AMY D
002183009	141	S	6TH ST	COMM'L-FRATERNAL BLDG.	1936	AMERICAN LEGION
002183010	132	S	7TH ST	SINGLE FAMILY RES	1938	ABBOT/DAVIS LLC
002183011	617		MAIN ST	CFW	1938	CARLIN, CITY OF
002183011	617		MAIN ST	6'C/L FENCE	1938	CARLIN, CITY OF
002183011	617		MAIN ST	SALVAGE VALUE FOR BLDG.	1938	CARLIN, CITY OF
002184001			5TH ST	BARN	1943	SHRODE, ATHENA LYNNE
002184001			5TH ST	3-RAIL FENCE	1943	SHRODE, ATHENA LYNNE
002184002	212	S	5TH ST	SINGLE FAMILY RES.	1908	SHRODE, ATHENA LYNNE
002184002	212	S	5TH ST	WIRE FENCE	1950	SHRODE, ATHENA LYNNE
002185004	262	S	6TH ST	SINGLE FAMILY RES.	1941	ABRAM, BRIAN L ET AL
002185004	262	S	6TH ST	CFW	1950	ABRAM, BRIAN L ET AL
002185007	519		CAMP ST	DORMITORY	1902	CAMP STREET LLC
002185007	519		CAMP ST	COVERED PORCH	1902	CAMP STREET LLC
002185007	519		CAMP ST	BALCONY (BOTH SIDES)	1902	CAMP STREET LLC
002185007	519		CAMP ST	FLIGHTS OF STAIRS	1902	CAMP STREET LLC
002185009	513		CAMP ST	SINGLE FAMILY RES.	1922	DOXEY, ELIZABETH C TR
002185009	513		CAMP ST	STORAGE BLDG.	1922	DOXEY, ELIZABETH C TR
002185009	513		CAMP ST	CFW	1950	DOXEY, ELIZABETH C TR
002186001	601		CAMP ST	SINGLE FAMILY RES.	1920	BINGHAM, ELAINA
002186001	601		CAMP ST	S/B FENCE	1950	BINGHAM, ELAINA
002186002	603		CAMP ST	SINGLE FAMILY RES.	1939	LUDWIG, JOHN C & LESLIE L
002186002	603		CAMP ST	SB FENCE	1950	LUDWIG, JOHN C & LESLIE L
002186002	603		CAMP ST	CFW	1950	LUDWIG, JOHN C & LESLIE L
002186003	607		CAMP ST	MOBILE HOME HOOKUP	1950	LUDWIG, JOHN C & LESLIE L
002186003	607		CAMP ST	AWNING	1950	LUDWIG, JOHN C & LESLIE L
002186003	607		CAMP ST	WMS FENCE	1950	LUDWIG, JOHN C & LESLIE L
002186003	607		CAMP ST	SHED	1931	LUDWIG, JOHN C & LESLIE L
002186004	609		CAMP ST	SINGLE FAMILY RES.	1922	ARNOLD, STEVEN
002186004	609		CAMP ST	CFW	1950	ARNOLD, STEVEN
002186004	609		CAMP ST	5'S/B FENCE	1950	ARNOLD, STEVEN
002186004	609		CAMP ST	ALUMINUM AWNING	1950	ARNOLD, STEVEN
002186005	613		CAMP ST	SINGLE FAMILY RES.	1914	CARPLUK, CHRIS & CYNDI
002186005	613		CAMP ST	CFW	1950	CARPLUK, CHRIS & CYNDI
002186005	613		CAMP ST	SHED	1950	CARPLUK, CHRIS & CYNDI
002186005	613		CAMP ST	4'C/L FENCE	1950	CARPLUK, CHRIS & CYNDI
002186005	613		CAMP ST	4'S/B FENCE	1950	CARPLUK, CHRIS & CYNDI

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002186006	619		CAMP ST	SINGLE FAMILY RES.	1926	BATTLE, BRADFORD E & DIANA S
002186006	619		CAMP ST	CFW	1950	BATTLE, BRADFORD E & DIANA S
002186007	202	S	7TH ST	SINGLE FAMILY RES.	1914	SUPP, VICTORIA
002186007	202	S	7TH ST	SHED	1950	SUPP, VICTORIA
002186007	202	S	7TH ST	6'C/L FENCE	1950	SUPP, VICTORIA
002186007	202	S	7TH ST	CFW	1950	SUPP, VICTORIA
002186008	262	S	7TH ST	S/B FENCE	1950	LUDWIG, JOHN & LESLIE
002186009	620		OAK ST	SINGLE FAMILY RES.	1932	ANDERSON, JULIE H
002186010	616		OAK ST	SINGLE FAMILY RES.	1922	ROUNDTREE, LISA
002186010	616		OAK ST	SINGLE FAMILY RES.	1908	ROUNDTREE, LISA
002186010	616		OAK ST	CFW	1950	ROUNDTREE, LISA
002186010	616		OAK ST	S/B FENCE	1950	ROUNDTREE, LISA
002186010	616		OAK ST	WIRE FENCE	1950	ROUNDTREE, LISA
002186011	614		OAK ST	SINGLE FAMILY RES.	1922	PEARSON, RONALD ET AL
002186011	614		OAK ST	CFW	1950	PEARSON, RONALD ET AL
002186011	614		OAK ST	WMS FENCE	1950	PEARSON, RONALD ET AL
002186011	614		OAK ST	SHED	1950	PEARSON, RONALD ET AL
002186012	261	S	6TH ST	SINGLE FAMILY RES.	1924	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	SHED	1908	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	HOOKUP	1908	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	CFW	1950	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	5'S/B FENCE	1950	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	PORCH	1925	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	PORCH	1925	LUDWIG, JOHN C & LESLIE L
002186012	261	S	6TH ST	SHED	1925	LUDWIG, JOHN C & LESLIE L
002190003	904		OAK ST	STORAGE	1903	ROUNDTREE, LISA
002190003	904		OAK ST	STORAGE	1903	ROUNDTREE, LISA
002190003	904		OAK ST	BUNKHOUSE	1903	ROUNDTREE, LISA
002190003	904		OAK ST	BUNKHOUSE	1903	ROUNDTREE, LISA
002190003	904		OAK ST	PORCH	1903	ROUNDTREE, LISA
002190003	904		OAK ST	STORAGE FLOORS	1903	ROUNDTREE, LISA
002190004	825		CAMP ST	SINGLE FAMILY RES.	1920	HOUSE, KEITH
002190004	825		CAMP ST	CFW	1960	HOUSE, KEITH
002190007	171	S	10TH ST	SINGLE FAMILY RES.	1966	DEMING, COLLEEN MARIE
002190007	171	S	10TH ST	WIRE FENCE	1966	DEMING, COLLEEN MARIE
002190007	171	S	10TH ST	DET GARAGE	1966	DEMING, COLLEEN MARIE
002190007	171	S	10TH ST	HORSE SHED	1966	DEMING, COLLEEN MARIE
002190007	171	S	10TH ST	S/B FENCE	1966	DEMING, COLLEEN MARIE
002190007	171	S	10TH ST	WIRE FENCE	1966	DEMING, COLLEEN MARIE
002191001	703		MAIN ST	COMM'L-RETAIL STORE	1925	MONTES DE OCA, ALFRED
002191003	707		MAIN ST	COMM'L-RETAIL STORE	1910	DTK PROPERTIES LLC
002191004	711		MAIN ST	COMM'L-RESTAURANT	1927	FONG, JOHN & YOSHIKO
002191006	719		MAIN ST	POTATO STORAGE	1918	SANDSTEDT, ROBERT M & TERRI
002191008	152	S	8TH ST	COMM'L-JAIL	1948	CARLIN, CITY OF
002191008	152	S	8TH ST	PORCH	1948	CARLIN, CITY OF
002191009	720		CAMP ST	SINGLE FAMILY RES.	1938	CAMP CARLIN LLC
002191010	716		CAMP ST	SINGLE FAMILY RES.	1920	CONNER, WENDY M
002191010	716		CAMP ST	4'C/L FENCE	1950	CONNER, WENDY M
002191010	716		CAMP ST	6'C/L FENCE	1950	CONNER, WENDY M
002191011	712		CAMP ST	SINGLE FAMILY RES.	1936	SUTHERLAND, SHARON F

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002191011	712		CAMP ST	5'S/B FENCE	1950	SUTHERLAND, SHARON F
002191011	712		CAMP ST	SHED	1950	SUTHERLAND, SHARON F
002191011	712		CAMP ST	CFW	1950	SUTHERLAND, SHARON F
002191012	171	S	7TH ST	SINGLE FAMILY RES.	1914	FORNESS, JAMES A
002191014	717		MAIN ST	BAR/TAVERN	1910	SANDSTEDT, ROBERT M & TERRI
002191015	713		MAIN ST	BUNKHOUSE	1942	TERRALL, LEWIS D
002191015	713		MAIN ST	BUNKHOUSE FIXTURES	1942	TERRALL, LEWIS D
002192001	101	S	8TH ST	COMM'L-OFFICE BLDG.	1964	CARLIN, CITY OF
002192001	101	S	8TH ST	CFW	1966	CARLIN, CITY OF
002192001	101	S	8TH ST	ASPHALT	1966	CARLIN, CITY OF
002192003	815		MAIN ST	RETAIL STORE	1919	PIERETTI, DOMINEK J TR
002192003	815		MAIN ST	CARPORT	1950	PIERETTI, DOMINEK J TR
002192004	823		MAIN ST	COMM'L-SERVICE GARAGE	1938	GATES, DAVID
002192004	823		MAIN ST	6'C/L FENCE	1950	GATES, DAVID
002192004	823		MAIN ST	C/L TOPRAIL	1950	GATES, DAVID
002192004	823		MAIN ST	C/L PRIVACY SLATS	1950	GATES, DAVID
002192007	810		CAMP ST	SINGLE FAMILY RES.	1932	RIAL, FRANK M
002192007	810		CAMP ST	WMS FENCE	1950	RIAL, FRANK M
002192010	818		CAMP ST	DETACHED GARAGE	1930	SUMPTER, SCOTT ET AL
002193001	903		MAIN ST	SINGLE FAMILY RES.	1926	SMITH, GRANT R
002193001	903		MAIN ST	3'S/B FENCE	1950	SMITH, GRANT R
002193001	903		MAIN ST	CFW	1960	SMITH, GRANT R
002193002	913		MAIN ST	SINGLE FAMILY RES.	1920	FERRIN, LAVINIA KIM TR ET AL
002193002	913		MAIN ST	CFW	1950	FERRIN, LAVINIA KIM TR ET AL
002193002	913		MAIN ST	3'C/L FENCE	1950	FERRIN, LAVINIA KIM TR ET AL
002193002	913		MAIN ST	3'S/B FENCE	1960	FERRIN, LAVINIA KIM TR ET AL
002193003	917		MAIN ST	SINGLE FAMILY RES.	1932	BELSEY, ROBERT & APRIL C
002193003	917		MAIN ST	SHED	1932	BELSEY, ROBERT & APRIL C
002193004	923		MAIN ST	COMM'L-CHURCH	1922	GORS, ROBERT A & BRYAN L
002193004	923		MAIN ST	CFW	1922	GORS, ROBERT A & BRYAN L
002193006	1002		CAMP ST	SINGLE FAMILY RES.	1930	WAGNER, MILO J
002193006	1002		CAMP ST	SINGLE FAMILY RES.	1918	WAGNER, MILO J
002193006	1002		CAMP ST	6'S/B FENCE	1950	WAGNER, MILO J
002193006	1002		CAMP ST	4'C/L FENCE	1950	WAGNER, MILO J
002193006	1002		CAMP ST	CFW	1930	WAGNER, MILO J
002193006	1002		CAMP ST	AWNINGS	1930	WAGNER, MILO J
002193007	930		CAMP ST	SINGLE FAMILY RES.	1914	SMITH, ROGER M
002193007	930		CAMP ST	6'S/B FENCE	1950	SMITH, ROGER M
002193008	924		CAMP ST	SINGLE FAMILY RES.	1935	TONG, APRIL D
002193008	924		CAMP ST	6'S/B FENCE	1950	TONG, APRIL D
002193008	924		CAMP ST	CFW	1950	TONG, APRIL D
002193009	914		CAMP ST	SINGLE FAMILY RES.	1914	THOMPSON, JANET R
002193009	914		CAMP ST	SINGLE FAMILY RES.	1920	THOMPSON, JANET R
002193009	914		CAMP ST	5'S/B FENCE	1950	THOMPSON, JANET R
002193009	914		CAMP ST	SHED	1914	THOMPSON, JANET R
002193009	914		CAMP ST	CFW	1920	THOMPSON, JANET R
002193010	906		CAMP ST	SINGLE FAMILY RES.	1920	WILMINGTON SAVINGS FUND SOCIETY
002193010	906		CAMP ST	4'C/L FENCE	1950	WILMINGTON SAVINGS FUND SOCIETY
002193010	906		CAMP ST	SHED	1920	WILMINGTON SAVINGS FUND SOCIETY
002193010	906		CAMP ST	CFW	1950	WILMINGTON SAVINGS FUND SOCIETY

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002193010	906		CAMP ST	S/B FENCE	1950	WILMINGTON SAVINGS FUND SOCIETY
002193011	902		CAMP ST	SINGLE FAMILY RES.	1920	CAMP CARLIN LLC
002193011	902		CAMP ST	6'C/L FENCE	1950	CAMP CARLIN LLC
002193011	902		CAMP ST	SHED	1950	CAMP CARLIN LLC
002193011	902		CAMP ST	CFW	1950	CAMP CARLIN LLC
002193011	902		CAMP ST	CAR COVER	1950	CAMP CARLIN LLC
002193012	927		MAIN ST	SINGLE FAMILY RES.	1922	BELSEY, APRIL CHANTELE ET AL
002193012	927		MAIN ST	3'S/B FENCE	1950	BELSEY, APRIL CHANTELE ET AL
002193012	927		MAIN ST	CFW	1950	BELSEY, APRIL CHANTELE ET AL
002194001	201	S	7TH ST	SINGLE FAMILY RES.	1926	TAYLOR, KENNETH G III ET AL
002194001	201	S	7TH ST	3'S/B FENCE	1926	TAYLOR, KENNETH G III ET AL
002194003	709		CAMP ST	SINGLE FAMILY RES.	1925	LEDESMA, PEGGY
002194003	709		CAMP ST	CFW	1925	LEDESMA, PEGGY
002194004	713		CAMP ST	SINGLE FAMILY RES.	1938	MACDONALD FAMILY TRUST
002194004	713		CAMP ST	WMS FENCE	1938	MACDONALD FAMILY TRUST
002194004	713		CAMP ST	CFW	1938	MACDONALD FAMILY TRUST
002194005			CAMP ST	HOOKUP	1922	MACDONALD FAMILY TRUST
002194005			CAMP ST	RESIDENCE (SHED VALUE)	1922	MACDONALD FAMILY TRUST
002194005			CAMP ST	SHED FLOOR	1922	MACDONALD FAMILY TRUST
002194006	717		CAMP ST	SINGLE FAMILY RES.	1926	PIERETTI, DOMINEK J
002194006	717		CAMP ST	FENCE	1928	PIERETTI, DOMINEK J
002194006	717		CAMP ST	SHED	1928	PIERETTI, DOMINEK J
002194007	222	S	8TH ST	SINGLE FAMILY RES.	1920	LACY, J RAYMOND
002194007	222	S	8TH ST	SINGLE FAMILY RES.	1920	LACY, J RAYMOND
002194008	272	S	8TH ST	SINGLE FAMILY RES.	1948	JOHNSTON, MARGARET A
002194008	272	S	8TH ST	4'C/L FENCE	1948	JOHNSTON, MARGARET A
002194008	272	S	8TH ST	6'S/B FENCE	1948	JOHNSTON, MARGARET A
002194009	718		OAK ST	SINGLE FAMILY RES.	1926	JOHNSTON, MARGARET A
002194009	718		OAK ST	6'C/L FENCE	1950	JOHNSTON, MARGARET A
002194010	714		OAK ST	SINGLE FAMILY RES.	1926	YARDLEY, DANIEL A ET AL
002194010	714		OAK ST	BUNKHOUSE	1926	YARDLEY, DANIEL A ET AL
002194013	706		OAK ST	HOOKUP	1966	WRIGHT, NANCY A TR
002194013	706		OAK ST	COVERED PORCH	1966	WRIGHT, NANCY A TR
002194013	706		OAK ST	CFW	1966	WRIGHT, NANCY A TR
002195001	803		CAMP ST	SINGLE FAMILY RES.	1947	PACINI, ROY
002195001	803		CAMP ST	CFW	1953	PACINI, ROY
002195001	803		CAMP ST	SHED	1953	PACINI, ROY
002195001	803		CAMP ST	SHED	1953	PACINI, ROY
002195001	803		CAMP ST	FENCE	1942	PACINI, ROY
002195002	809		CAMP ST	SINGLE FAMILY RES.	1942	JONES, DELOS & DOROTHY E
002195002	809		CAMP ST	CFW	1942	JONES, DELOS & DOROTHY E
002195002	809		CAMP ST	SHED	1942	JONES, DELOS & DOROTHY E
002195002	809		CAMP ST	5'S/B FENCE	1942	JONES, DELOS & DOROTHY E
002195002	809		CAMP ST	FENCE	1942	JONES, DELOS & DOROTHY E
002195003	811		CAMP ST	SINGLE FAMILY RES.	1935	PIERETTI, DOMINEK J TR
002195003	811		CAMP ST	CFW	1935	PIERETTI, DOMINEK J TR
002195003	811		CAMP ST	6'S/B FENCE	1950	PIERETTI, DOMINEK J TR
002195004	815		CAMP ST	SINGLE FAMILY RES.	1920	GIURLANI, LORRAINE ET AL
002195004	815		CAMP ST	CFW	1930	GIURLANI, LORRAINE ET AL
002195004	815		CAMP ST	COTTAGE	1930	GIURLANI, LORRAINE ET AL

APN	Loc #	Loc Dir	Location or Street	DESCRIPTION	YR BUILT	Assessed Owner
002195005	821		CAMP ST	SINGLE FAMILY RES.	1951	MILLER, DAVID L & JOANNA
002195005	821		CAMP ST	SINGLE FAMILY RESIDENCE	1938	MILLER, DAVID L & JOANNA
002195005	821		CAMP ST	CFW	1938	MILLER, DAVID L & JOANNA
002195005	821		CAMP ST	3'C/L FENCE	1938	MILLER, DAVID L & JOANNA
002195005	821		CAMP ST	6'C/L FENCE	1938	MILLER, DAVID L & JOANNA
002195005	821		CAMP ST	C/L PRIVACY SLATS	1938	MILLER, DAVID L & JOANNA
002195006	810		OAK ST	QUONSET BLDG.	1930	CARLIN, CITY OF
002195006	810		OAK ST	SHED	1930	CARLIN, CITY OF
002195006	810		OAK ST	SHED	1930	CARLIN, CITY OF
002195006	810		OAK ST	SHED FLOORS	1930	CARLIN, CITY OF
002195006	810		OAK ST	GARAGE	1920	CARLIN, CITY OF
002195006	810		OAK ST	CFW	1930	CARLIN, CITY OF
002195007	271	S	8TH ST	STORAGE WAREHOUSE	1942	CARLIN, CITY OF
002195007	271	S	8TH ST	SHED	1942	CARLIN, CITY OF
002210041	501		POPLAR ST	TANK	1950	CARLIN, CITY OF
002230002	101	W	MAIN ST	SINGLE FAMILY RES.	1927	JONES, RACHEL
002230002	101	W	MAIN ST	GARAGE/SHOP	1920	JONES, RACHEL
002230002	101	W	MAIN ST	BARN	1920	JONES, RACHEL
002230002	101	W	MAIN ST	HORSE SHED	1920	JONES, RACHEL
002230002	101	W	MAIN ST	SLAUGHTER HOUSE	1920	JONES, RACHEL
002230002	101	W	MAIN ST	RR CAR STORAGE	1920	JONES, RACHEL
002230002	101	W	MAIN ST	GARAGE	1955	JONES, RACHEL
002230002	101	W	MAIN ST	BUNKHOUSE STORAGE	1955	JONES, RACHEL
002230002	101	W	MAIN ST	LOAFING SHED	1920	JONES, RACHEL
002230002	101	W	MAIN ST	BARN MISC-2 FLOOR	1920	JONES, RACHEL
002230008			4TH & OAK STS	UTILITY BUILDING	1920	CARLIN, CITY OF

FINAL TOTALS
COUNT 1,126

* * * END OF REPORT * * *



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
Phone: (775) 861-6300 Fax: (775) 861-6301
<http://www.fws.gov/nevada/>



In Reply Refer To:

December 15, 2017

Consultation Code: 08ENVD00-2018-SLI-0125

Event Code: 08ENVD00-2018-E-00316

Project Name: City of Carlin Sewer and Water Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list indicates threatened, endangered, proposed, and candidate species and designated or proposed critical habitat that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (ESA, 16 U.S.C. 1531 et seq.), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species have no protection under the ESA but are included for consideration because they could be listed prior to the completion of your project. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions. For additional information regarding species that may be found in the proposed project area, visit <http://www.fws.gov/nevada/es/ipac.html>.

The purpose of the ESA is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be

prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Guidelines for preparing a Biological Assessment can be found at: http://www.fws.gov/midwest/endangered/section7/ba_guide.html.

If a Federal action agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this species list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally listed, proposed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally, as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation, for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the attached list.

The Nevada Fish and Wildlife Office (NFWO) no longer provides species of concern lists. Most of these species for which we have concern are also on the Animal and Plant At-Risk Tracking List for Nevada (At-Risk list) maintained by the State of Nevada's Natural Heritage Program (Heritage). Instead of maintaining our own list, we adopted Heritage's At-Risk list and are partnering with them to provide distribution data and information on the conservation needs for at-risk species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. In addition, in order to avoid future conflicts, we ask that you consider these at-risk species early in your project planning and explore management alternatives that provide for their long-term conservation.

For a list of at-risk species by county, visit Heritage's website (<http://heritage.nv.gov>). For a specific list of at-risk species that may occur in the project area, you can obtain a data request form from the website (http://heritage.nv.gov/get_data) or by contacting the Administrator of Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the ESA. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address.

Furthermore, certain species of fish and wildlife are classified as protected by the State of

Nevada (<http://www.leg.state.nv.us/NAC/NAC-503.html>). You must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (NDOW) to take, or possess any parts of protected fish and wildlife species. Please visit <http://www.ndow.org> or contact NDOW in northern Nevada (775) 688-1500, in southern Nevada (702) 486-5127, or in eastern Nevada (775) 777-2300.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Service's wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

The Service's Pacific Southwest Region developed the Interim Guidelines for the Development of a Project Specific Avian and Bat Protection Plan for Wind Energy Facilities (Interim Guidelines). This document provides energy facility developers with a tool for assessing the risk of potential impacts to wildlife resources and delineates how best to design and operate a bird- and bat-friendly wind facility. These Interim Guidelines are available upon request from the NFWO. The intent of a Bird and Bat Conservation Strategy is to conserve wildlife resources while supporting project developers through: (1) establishing project development in an adaptive management framework; (2) identifying proper siting and project design strategies; (3) designing and implementing pre-construction surveys; (4) implementing appropriate conservation measures for each development phase; (5) designing and implementing appropriate post-construction monitoring strategies; (6) using post-construction studies to better understand the dynamics of mortality reduction (e.g., changes in blade cut-in speed, assessments of blade "feathering" success, and studies on the effects of visual and acoustic deterrents) including efforts tied into Before-After/Control-Impact analysis; and (7) conducting a thorough risk assessment and validation leading to adjustments in management and mitigation actions.

The template and recommendations set forth in the Interim Guidelines were based upon the Avian Powerline Interaction Committee's Avian Protection Plan template (<http://www.aplic.org/>) developed for electric utilities and modified accordingly to address the unique concerns of wind energy facilities. These recommendations are also consistent with the Service's wind energy guidelines. We recommend contacting us as early as possible in the planning process to discuss the need and process for developing a site-specific Bird and Bat Conservation Strategy.

The Service has also developed guidance regarding wind power development in relation to prairie grouse leks (sage-grouse are included in this). This document can be found at: http://www.fws.gov/southwest/es/Oklahoma/documents/te_species/wind%20power/prairie%20gr

Migratory Birds are a Service Trust Resource. Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918, as amended (MBTA; 16 U.S.C. 703 et seq.), we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such

destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible, we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Guidance for minimizing impacts to migratory birds for projects involving communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

If wetlands, springs, or streams are known to occur in the project area or are present in the vicinity of the project area, we ask that you be aware of potential impacts project activities may have on these habitats. Discharge of fill material into wetlands or waters of the United States is regulated by the U.S. Army Corps of Engineers (ACOE) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the ACOE's Regulatory Section regarding the possible need for a permit. For projects located in northern Nevada (Carson City, Churchill, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, and Washoe Counties) contact the Reno Regulatory Office at 300 Booth Street, Room 3060, Reno, Nevada 89509, (775) 784-5304; in southern Nevada (Clark, Lincoln, Nye, and White Pine Counties) contact the St. George Regulatory Office at 321 North Mall Drive, Suite L-101, St. George, Utah 84790-7314, (435) 986-3979; or in California along the eastern Sierra contact the Sacramento Regulatory Office at 650 Capitol Mall, Suite 5-200, Sacramento, California 95814, (916) 557-5250.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

The table below outlines lead FWS field offices by county and land ownership/project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead.

Lead FWS offices by County and Ownership/Program

County	Ownership/Program	Species	Office Lead*
Alameda	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO

Alameda	All ownerships but tidal/estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO
Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO
Del Norte	All	All	AFWO
El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
Humboldt	All except Shasta Trinity National Forest	All	AFWO
Humboldt	Shasta Trinity National Forest	All	YFWO
Lake	Mendocino National Forest	All	AFWO

Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)
Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal/estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Modoc	Modoc National Forest	All	KFWO
Modoc	BLM Alturas Resource Area	All	KFWO
Modoc	Klamath Basin National Wildlife Refuge Complex	All	KFWO
Modoc	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Modoc	All other ownerships	All	By jurisdiction (See map)
Mono	Inyo National Forest	All	RFWO

Mono	Humboldt Toiyabe National Forest	All	RFWO
Napa	All ownerships but tidal/estuarine	All	SFWO
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)
Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Francisco	All ownerships but tidal/estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal/estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta	BDFWO

		smelt	
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO
Shasta	BLM Alturas Resource Area	All	KFWO
Shasta	Caltrans	By jurisdiction	SFWO/AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO/BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Siskiyou	Klamath National Forest (except Ukonom District)	All	YFWO
Siskiyou	Six Rivers National Forest and Ukonom District	All	AFWO
Siskiyou	Shasta Trinity National Forest	All	YFWO
Siskiyou	Lassen National Forest	All	SFWO
Siskiyou	Modoc National Forest	All	KFWO

Siskiyou	Lava Beds National Volcanic Monument	All	KFWO
Siskiyou	BLM Alturas Resource Area	All	KFWO
Siskiyou	Klamath Basin National Wildlife Refuge Complex	All	KFWO
Siskiyou	All other ownerships	All	By jurisdiction (see map)
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)
Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
Tehama	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Trinity	BLM	All	AFWO
Trinity	Six Rivers National Forest	All	AFWO
Trinity	Shasta Trinity National Forest	All	YFWO
Trinity	Mendocino National Forest	All	AFWO
Trinity	BIA (Tribal Trust Lands)	All	AFWO

Trinity	County Government	All	AFWO
Trinity	All other ownerships	All	By jurisdiction (See map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO

***Office Leads:**

AFWO=Arcata Fish and Wildlife Office

BDFWO=Bay Delta Fish and Wildlife Office

KFWO=Klamath Falls Fish and Wildlife Office

RFWO=Reno Fish and Wildlife Office

YFWO=Yreka Fish and Wildlife Office

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
(775) 861-6300

Project Summary

Consultation Code: 08ENVD00-2018-SLI-0125

Event Code: 08ENVD00-2018-E-00316

Project Name: City of Carlin Sewer and Water Improvements

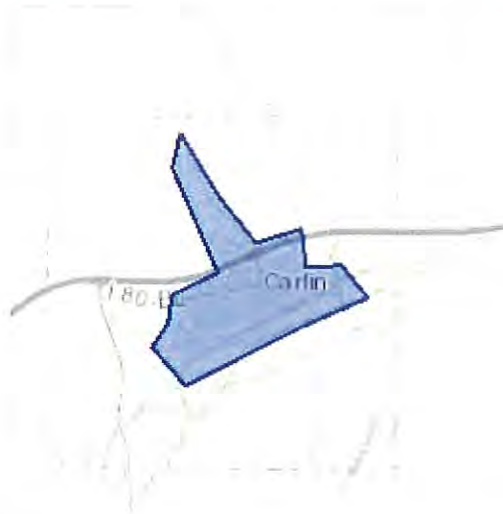
Project Type: WATER SUPPLY / DELIVERY

Project Description: The project includes the replacement of all existing sewer collection and water distribution pipe within the City of Carlin service area.

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/40.721077409154276N116.10692112379377W>



Counties: Elko, NV

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Fishes

NAME	STATUS
Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3964 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/233/office/14320.pdf	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service³. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured. Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or are known to have particular vulnerabilities in your project location. To learn more about the levels of concern for birds on your list, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your specific project area. To see maps of where birders and the general public have sighted birds in and around your project area, visit E-bird tools such as the [E-bird data mapping tool](#) (search for the scientific name of a bird on your list to see specific locations where that bird has been reported to occur within your project area over a certain time-frame) and the [E-bird Explore Data Tool](#) (perform a query to see a list of all birds sighted in your county or region and within a certain time-frame). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list can be found [below](#).

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC), but is of concern in this area either because of the Eagle Act, or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 20 to Sep 15
Black Rosy-finch <i>Leucosticte atrata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9460	Breeds Jun 15 to Aug 31
Brewer's Sparrow <i>Spizella breweri</i>	Breeds

<p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9291</p>	May 15 to Aug 10
<p>Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jan 1 to Dec 31
<p>Golden Eagle <i>Aquila chrysaetos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680</p>	Breeds Apr 1 to Aug 31
<p>Green-tailed Towhee <i>Pipilo chlorurus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9444</p>	Breeds May 1 to Aug 10
<p>Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511</p>	Breeds Apr 1 to Jul 31
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420</p>	Breeds Feb 15 to Jul 15
<p>Sagebrush Sparrow <i>Artemisiospiza nevadensis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 15 to Jul 31

Sage Thrasher *Oreoscoptes montanus*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9433>

Breeds Apr
15 to Aug
10

Willow Flycatcher *Empidonax traillii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/3482>

Breeds
May 20 to
Aug 31

Willet *Tringa semipalmata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr
20 to Aug
5

Williamson's Sapsucker *Sphyrapicus thyroideus*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8832>

Breeds
May 1 to
Jul 31

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds
<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeas>

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

FRESHWATER EMERGENT WETLAND

- [PEM](#)



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

March 21, 2018

Dan Sommers
Farr West Engineering
5510 Longley Lane
Reno, Nevada 89511

RE: Environmental Review: City of Carlin Water and Sewer Improvements Project

In reply, please reference plan review number EL-0005887-18.

Dear Mr. Sommers:

The Nevada Division of Environmental Protection (NDEP), Bureau of Safe Drinking Water (BSDW), has reviewed the information provided in the above referenced project document and offers the following comments:

Based on the information provided by Farr West Engineering regarding this project the BSDW does not anticipate any negative environmental impacts to the existing ground water quality from the construction of the project. Please be aware that all vertical and horizontal separation distances between sewer main/laterals and water main/laterals must be maintained in accordance with the Nevada Administrative Code 445A.6715 to 445A.6718 inclusive, "Design, Construction, Operation and Maintenance of Public Water Systems". If compliance with the required separation distances cannot be achieved or is impracticable, the existing water main/lateral shall be protected as described in these sections of NAC 445A. Please be advised that the water improvements must be approved by the BSDW prior to construction.

Please feel free to contact me at (775) 687-9517 or jbalderson@ndep.nv.gov, if you have any questions or comments.

Sincerely,

James R. Balderson, P.E. Engineering Supervisor,
Bureau of Safe Drinking Water
Nevada Division of Environmental Protection

cc: My-Linh Nguyen, Chief, Bureau of Safe Drinking Water

FARR WEST

ENGINEERING

January 23, 2018

Jim Balderson, Safe Drinking Water Engineering Supervisor
Division of Water Resources
Nevada Department of Conservation and Natural Resources
901 So. Stewart Street, Suite 4001
Carson City, Nevada 89701

RE: City of Carlin Water and Sewer Improvements Project

Dear Jim,

The City of Carlin is in the process of performing an environmental review pursuant to the National Environmental Policy Act for USDA Rural Development in order that it may assess the environmental impacts of water and sewer system improvements in Carlin, Nevada. The project includes the items listed below. Enclosed is a map that depicts the proposed project's area of potential effect for all construction activities.

The project includes the installation of the following water and sewer pipes:

WATER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
¾	730	6	29,734
1	2,029	8	40,063
1 ¼	405	10	1,332
1 ½	104	12	26,255
2	3,775	14	663
3	1,113	16	1,055
4	3,022	Unknown	15,063

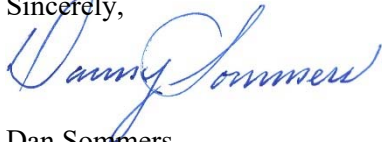
SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727

We are requesting information on the possible effects of the above proposed project in which the Bureau determines if the project will have a negative environmental impact and/or any other potential effects regarding water quality. We would appreciate any of your recommendations to minimize or avoid these effects. We also seek your assessment of the compatibility of the proposed project with State and local government or any private programs and policies regarding the environmental impacts of construction within the proposed project area.

We would appreciate a response within 30 days. If you need further information or wish to discuss the project, please contact Dan Sommers of Farr West Engineering at 775-851-4788.

Sincerely,















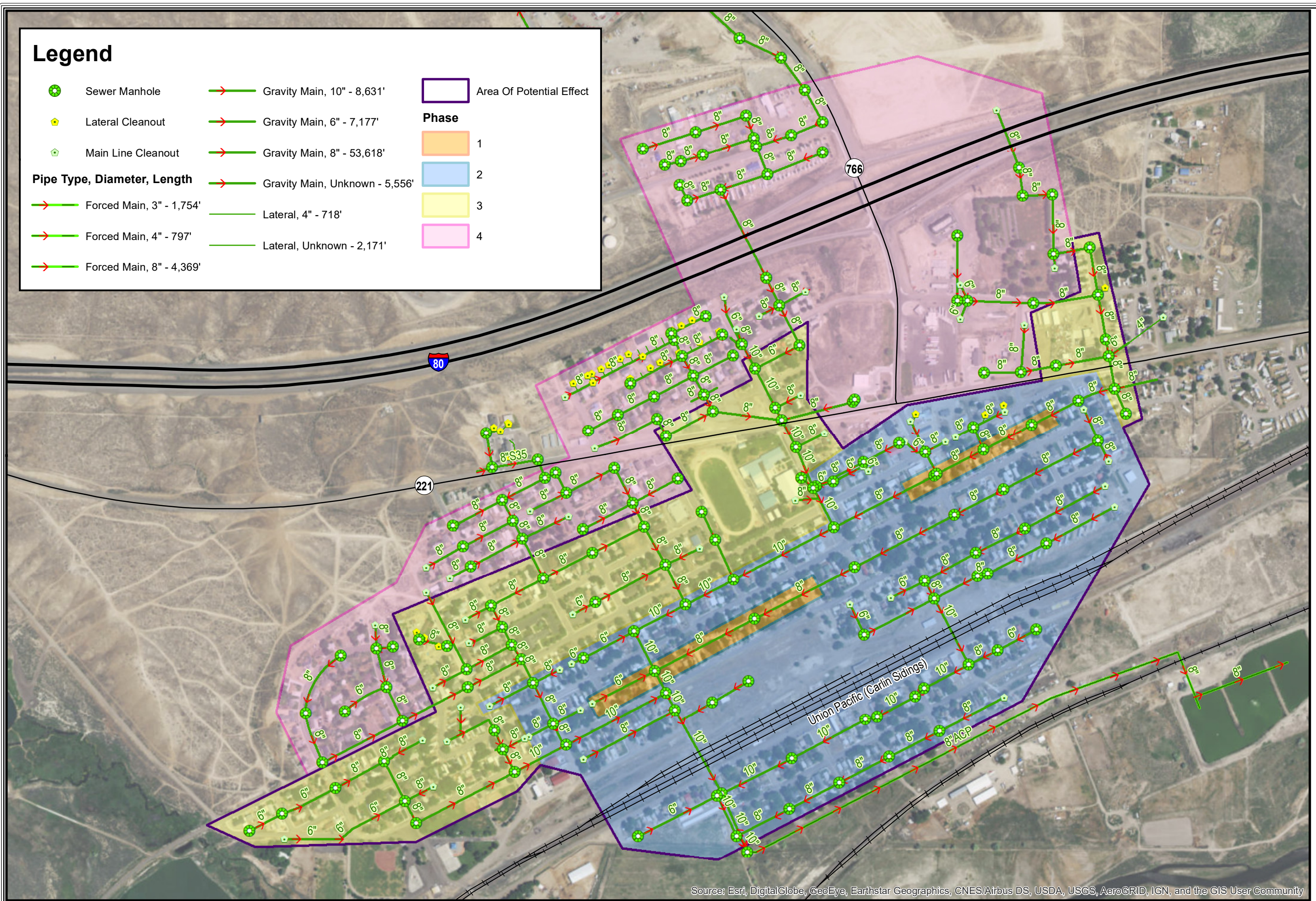
Dan Sommers
Farr West Engineering

Enc.

cc: City of Carlin, USDA

Legend

- | | | |
|--|--|---|
|  Sewer Manhole |  Gravity Main, 10" - 8,631' | <div style="border: 1px solid purple; width: 30px; height: 15px; display: inline-block; margin-bottom: 5px;"></div> Area Of Potential Effect |
|  Lateral Cleanout |  Gravity Main, 6" - 7,177' | |
|  Main Line Cleanout |  Gravity Main, 8" - 53,618' | |
| Pipe Type, Diameter, Length | | |
|  Forced Main, 3" - 1,754' |  Gravity Main, Unknown - 5,556' | |
|  Forced Main, 4" - 797' |  Lateral, 4" - 718' | Phase
<div style="background-color: orange; width: 20px; height: 10px; display: inline-block; margin-bottom: 5px;"></div> 1
<div style="background-color: lightblue; width: 20px; height: 10px; display: inline-block; margin-bottom: 5px;"></div> 2
<div style="background-color: yellow; width: 20px; height: 10px; display: inline-block; margin-bottom: 5px;"></div> 3
<div style="background-color: pink; width: 20px; height: 10px; display: inline-block;"></div> 4 |
|  Forced Main, 8" - 4,369' |  Lateral, Unknown - 2,171' | |



FARR WEST
ENGINEERING
5510 Longley Lane
Reno, NV 89511
(775) 851-4788
www.farrwestengineering.com

City of Carlin Sewer System



The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

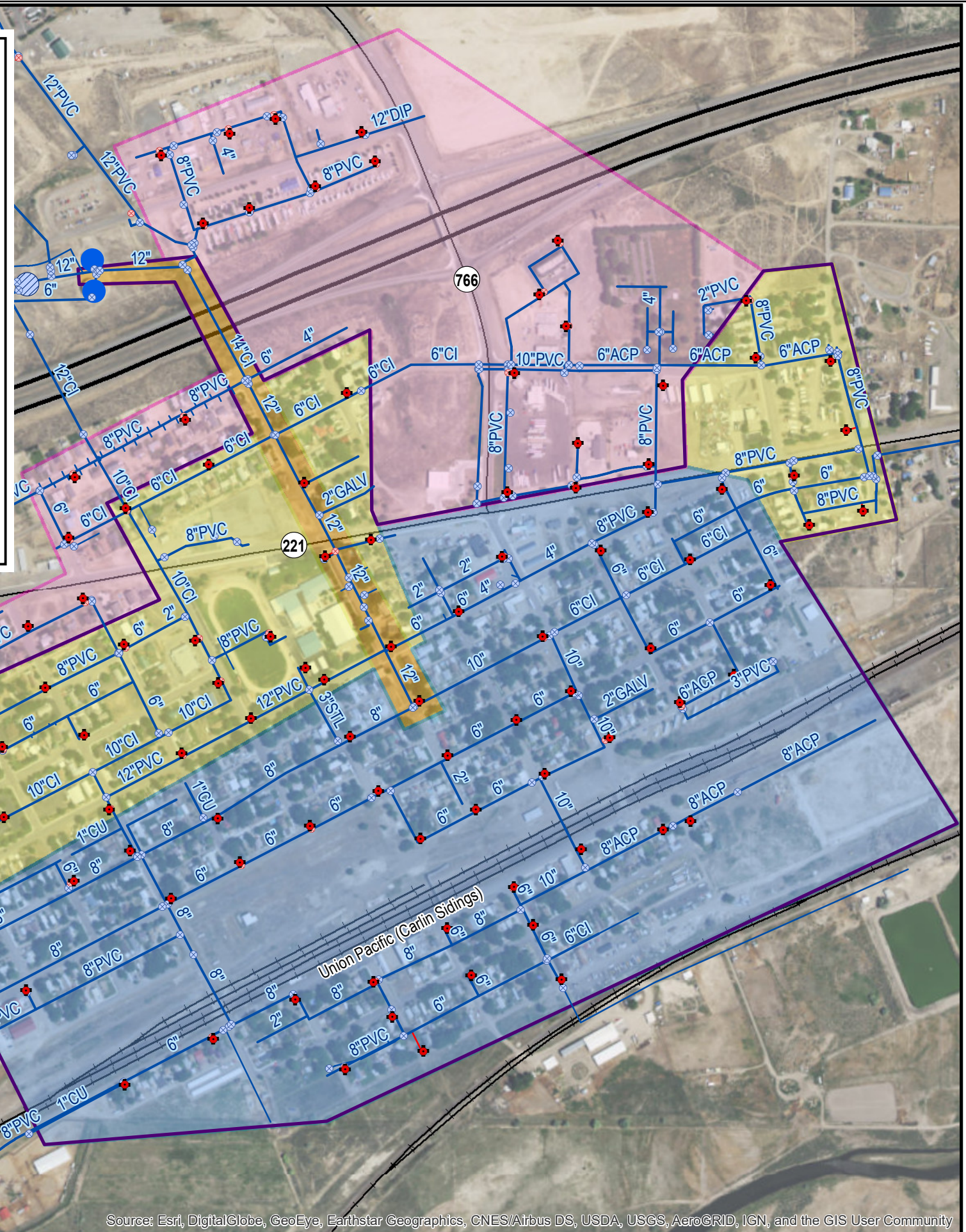
Legend

- Water Hydrant
- Hydrant Valve
- Isolation Valve
- Water Well
- Reservoir
- Tank

Pipe Type, Diameter, Length

- | | |
|-----------------------------------|-------------------------------------|
| Hydrant Lateral, 6" - 244' | Pressurized Main, 14" - 663' |
| Hydrant Lateral, Unknown - 3,196' | Pressurized Main, 16" - 1,055' |
| Pressurized Main, 1 1/4" - 405' | Pressurized Main, 2" - 1,413' |
| Pressurized Main, 1" - 1447' | Pressurized Main, 3" - 1,113' |
| Pressurized Main, 10" - 1,332' | Pressurized Main, 4" - 3,022' |
| Pressurized Main, 12" - 26,255' | Pressurized Main, 6" - 29,490' |
| | Pressurized Main, 8" - 40,063' |
| | Pressurized Main, Unknown - 10,249' |
| | Service Lateral, 1 1/2" - 104' |
| | Service Lateral, 1" - 582' |
| | Service Lateral, 2" - 2,362' |
| | Service Lateral, 3/4" - 730' |
| | Service Lateral, Unknown -1,618' |

- Area Of Potential Effect
- Phase
- 1
 - 2
 - 3
 - 4



FARR WEST
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City of Carlin Water System

N
1" = 600'

The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

E2018-111 (City of Carlin Sewer and Water System Improvements)

The Nevada Division of Environmental Protection – Bureau of Air Pollution Control (BAPC) requires that a surface area disturbance permit be submitted to clear, excavate, or level 5 acres or more of land per Nevada Administrative Code (NAC) 445B.22037. Exceptions to this regulation include agricultural activities occurring on agricultural land or surface disturbances authorized by permits issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

This project does not acknowledge the need for the applicant to obtain a surface area disturbance permit so we want to make sure they are aware of this requirement. The permit application should be submitted to the BAPC. Additional information and the BAPC's Surface Area Disturbances Permit Application can be found at <http://ndep.nv.gov/bapc/permitting/permitd.html>. For questions, please contact Ryan Clark at (775) 687-9536 or rjclark@ndep.nv.gov.

NAC 445B.22037 Emissions of particulate matter: Fugitive dust. (NRS 445B.210)

1. No person may cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.

2. Except as otherwise provided in subsection 4, no person may cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction and revegetation.

3. Except as otherwise provided in subsection 4, no person may disturb or cover 5 acres or more of land or its topsoil until the person has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.

4. The provisions of subsections 2 and 3 do not apply to:

(a) Agricultural activities occurring on agricultural land; or

(b) Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

[Environmental Comm'n, Air Quality Reg. §§ 7.3.1 & 7.3.2, eff. 11-7-75; § 7.3.3, eff. 11-7-75; A 12-15-77] — (NAC A 9-19-90; 12-26-91; 12-13-93; 10-30-95) — (Substituted in revision for NAC 445B.365)



Lisa Kremer, P.E.
Chief, Bureau of Air Pollution Control
Nevada Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, NV 89701
p: 775.687.9336
lkremer@ndep.nv.gov
www.ndep.nv.gov



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources

Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

February 2, 2018

Mr. Dan Sommers
Farr West Engineering
5510 Longley Lane
Reno, NV 89511

RE: Environmental Review: City of Carlin Water & Sewer Improvements Project, City of Carlin

Dear Mr. Sommers:

Enclosed you will find the signed environmental review form for the City of Carlin Water & Sewer Improvements Project proposed by the City of Carlin. The Nevada Division of Environmental Protection, Bureau of Air Quality Planning has reviewed this project for conformance with federal air quality standards, and it will conform to Nevada's Applicable State Implementation Plan. Please note the following requirements that must be complied with during the planning and implementation phases of this project:

1. It is our understanding that this project is to improve the water and sewer system in Carlin, Nevada. Pursuant to NAC 445B.22037, if during the course of a project an area in excess of five (5) acres is disturbed, a surface area disturbance permit is required from the Bureau of Air Pollution Control (BAPC).
2. Regardless of the size of the disturbed area, fugitive dust emitted from the project must be controlled at all times through the use of best practical methods. These methods can include, but are not limited to, paving, chemical stabilization, watering, phased construction, and revegetation. For assistance with controlling fugitive dust, you may contact Travis Osterhout at (775) 687-9530.

If you have any questions on this review you may call me at (775) 687-9392, or e-mail at sjaunara@ndep.nv.gov.

Sincerely,

Sig Jaunarajs, Supervisor
Planning and Mobile Sources Branch

ENVIRONMENTAL REVIEW: AIR QUALITY ACT

Grantee: City of Carlin

Project Name: City of Carlin Water & Sewer
Improvements Project

Pursuant to U.S Department of Housing and Urban Development, U.S. Department of Commerce, Economic Development Administration or other federal department or agency requirements, as applicable, the grant recipient assumes the responsibility for environmental review, decision making and actions required by local, state, and federal environmental laws or authorities. In order to complete the environmental review requirements, we are requesting the Nevada Division of Environmental Protection's (NDEP) review of the project with respect to the threshold for Air Quality. The pertinent standards for Air Quality include the following criteria, standards, policies and/or regulations:

1. The Clean Air Act (42 U.S.C. 7401 et seq.) as amended; particularly Section 176 (c) and (d) (42 U.S.C. 7506 (c) and (d)).

Please check either line A or B below and add any applicable comments in the space provided. Please feel free to attach any additional comments.

- ☒ A. The project conforms to the EPA-approved State Implementation Plan (SIP), per contract with the State Air Quality Management District or Board.
- ☐ B. The environmental threshold for Air Quality is exceeded. The project is not in conformance with the Clean Air Act. Negotiate suitable mitigation measures with the Air Quality Management District or Board.

NDEP Comments:

This project is not expected to disturb an area in excess of five (5) acres at one time, therefore, a surface area disturbance permit is not required.

In the event a surface area disturbance permit is required, contact Ryan Clark, Supervisor, BAPC Permitting Branch at (775) 687-9536.

In accordance with NAC 445B.22037, fugitive dust must be controlled at all times during the implementation of this project.



/ Supervisor

Signature/Title
Nevada Division of Environmental Protection

2/2/18

Date

FARR WEST

ENGINEERING

January 23, 2018

Adele Malone
Nevada Bureau of Air Quality Planning
901 So. Stewart St., Suite 4001
Carson City, NV 89701

RE: City of Carlin Water and Sewer Improvements Project

Dear Ms. Malone,

The City of Carlin is in the process of performing an environmental review pursuant to the National Environmental Policy Act for USDA Rural Development in order that it may assess the environmental impacts of water and sewer system improvements in Carlin, Nevada. The project includes the items listed below. Enclosed is a map that depicts the proposed project's area of potential effect for all construction activities.

The project includes the installation of the following water and sewer pipes:

WATER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
¾	730	6	29,734
1	2,029	8	40,063
1 ¼	405	10	1,332
1 ½	104	12	26,255
2	3,775	14	663
3	1,113	16	1,055
4	3,022	Unknown	15,063
Total:	11,178	Total:	114,165

SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727
Total:	10,446	Total:	74,345

The total estimated length of pipe to be replaced is 210,134 feet. The estimated total ground disturbance to occur during construction is 24 acres. However, since the project will be phased, only part of the 24 acres will be under construction at any time. Likewise, during each phase, only a small segment (about 0.1 acres) of the total acreage will be disturbed at any time.

We are requesting information on the possible effects of the above proposed project in which the Bureau determines if the project will have a negative environmental impact and/or any other potential effects regarding air quality. We would appreciate any of your recommendations to minimize or avoid these effects. We also seek your assessment of the compatibility of the proposed project with State and local government or any private programs and policies regarding the environmental impacts of construction within the proposed project area.

We would appreciate a response within 30 days. If you need further information or wish to discuss the project, please contact Dan Sommers of Farr West Engineering at 775-851-4788.

Sincerely,

A handwritten signature in cursive script, reading "Dan Sommers".

Dan Sommers
Farr West Engineering

Enc.

cc: City of Carlin, USDA

DATE: 1/25/2018

TO: Nevada State Clearinghouse, DCNR

FROM: Nevada Division of Environmental Protection, Bureau of Water Pollution Control

SUBJECT: State Clearinghouse Comments for E2018-111 (City of Carlin Sewer and Water System Improvements)

Disclaimer: The Nevada Division of Environmental Protection (NDEP), Bureau of Water Pollution Control (BWPC) does not have authority for projects occurring on Tribal Lands.

The NDEP, BWPC has received the aforementioned State Clearinghouse item and offers the following comments:

The project may be subject to BWPC permitting. Permits are required for discharges to surface waters and groundwaters of the State (Nevada Administrative Code NAC 445A.228). BWPC permits include, but are not limited to, the following:

- Stormwater Industrial General Permit
- De Minimis Discharge General Permit
- Pesticide General Permit
- Drainage Well General Permit
- Temporary Permit for Discharges to Groundwater's of the State
- Working in Waters Permit
- Wastewater Discharge Permits
- Underground Injection Control Permits
- Onsite Sewage Disposal System Permits
- Holding Tank Permits

Please note that discharge permits must be issued from this Division before construction of any treatment works (Nevada Revised Statute 445A.585).

For more information on BWPC Permitting, please visit our website at:
<https://ndep.nv.gov/water/water-pollution-control/permitting> .

Additionally, the applicant is responsible for all other permits that may be required, which may include, but may not be limited to:

- | | |
|-----------------------------------|---|
| • Dam Safety Permits | - Division of Water Resources |
| • Well Permits | - NDEP |
| • 401 Water Quality Certification | - U.S. Army Corps of Engineers |
| • 404 Permits | - Local Health or State Health Division |
| • Air Permits | - Local Government |
| • Health Permits | |
| • Local Permits | |

Thank you for the information and the opportunity to comment.



Ginger Poulson, AA IV, Supervisor
Bureau of Water Pollution Control
Nevada Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, NV 89701
p: 775-687-9437 f: 775-684-4684
e: gpoulson@ndep.nv.gov

FARR WEST

ENGINEERING

January 23, 2018

Joseph L. Maez, P.E.
Bureau of Water Pollution Control
901 So. Stewart Street, Suite 4001
Carson City, Nevada 89701

RE: City of Carlin Water and Sewer Improvements Project

Dear Mr. Maez,

The City of Carlin is in the process of performing an environmental review pursuant to the National Environmental Policy Act for USDA Rural Development in order that it may assess the environmental impacts of water and sewer system improvements in Carlin, Nevada. The project includes the items listed below. Enclosed is a map that depicts the proposed project's area of potential effect for all construction activities.

The project includes the installation of the following water and sewer pipes:

WATER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
¾	730	6	29,734
1	2,029	8	40,063
1 ¼	405	10	1,332
1 ½	104	12	26,255
2	3,775	14	663
3	1,113	16	1,055
4	3,022	Unknown	15,063

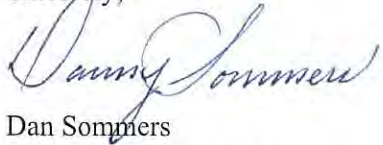
SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727

The proposed project does not represent a "major construction activity" as defined in 50 CFR 402.02. We are requesting information on the possible effects of the proposed project which the Bureau determines to have a negative environmental impact with regards to water quality and/or any other potential effects. We also seek your assessment of the compatibility of the proposed project with State and local government or any private programs and policies regarding the environmental impacts of construction within the proposed project area.

We would appreciate a response within 30 days. If you need further information or wish to discuss the project, please contact Dan Sommers of Farr West Engineering at 775-851-4788.

Sincerely,

A handwritten signature in cursive script that reads "Dan Sommers". The signature is written in dark ink and is positioned above the printed name.

Dan Sommers
Farr West Engineering

Enc.

cc: City of Carlin, USDA



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
Nevada Natural Heritage Program

Brian Sandoval
Governor

Bradley Crowell
Director

Kristin Szabo
Administrator

24 January 2018

Danny Sommers
Farr West Engineering
5510 Longley Lane
Reno, NV 89511

RE: Data request received 23 January 2018

Dear Mr. Sommers:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or At Risk plant and animal taxa recorded within or near the City of Carlin Water and Sewer Improvements Project area in Elko County. We searched our database and maps for the following, a 2 kilometer radius around area provided including:

Township 33N Range 52E Sections 26 and 27

There are no at risk taxa recorded within the given area. However, habitat may be available for: the big-brown bat, *Eptesicus fuscus*, a Nevada Bureau of Land Management (BLM) Sensitive Species, the Columbia spotted frog (Great Basin Population) *Rana luteiventris* pop. 3, a Nevada BLM Sensitive Species; and the pygmy rabbit, *Brachylagus idahoensis*, a Nevada BLM Sensitive Species. The Nevada Department of Wildlife (NDOW) manages, protects, and restores Nevada's wildlife resources and associated habitat. Please contact Bonnie Weller, NDOW GIS biologist (775) 688-1439 to obtain further information regarding wildlife resources within and near your area of interest. Removal or destruction of state protected flora species requires a special permit from Nevada Division of Forestry (NRS 527.270).

Please note that our data are dependent on the research and observations of many individuals and organizations and in most cases are not the result of comprehensive or site-specific field surveys. Natural Heritage reports should never be regarded as final statements on the taxa or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for checking with our program. Please contact us for additional information or further assistance.

Sincerely,

Eric S. Miskow
Biologist/Data Manager

NEVADA NATURAL HERITAGE PROGRAM DATA REQUEST FORM

rev. 2015-06

Use this form to query the Nevada Natural Heritage Program database for sensitive species location information. Please fill out this form as completely and specifically as possible, attaching additional sheets as needed. For more information on available species and data fields, fees, limitations, and restrictions, please visit our web site <http://heritage.nv.gov> or contact us for printed information. We cannot guarantee our response time; please allow two weeks for delivery.

Date submitted: 1/23/18

Organization: Farr West Engineering

Mailing Address: 5510 Longley Lane, Reno, NV 89511

Phone: 775-853-7265 FAX: 775-851-0766 email: danny@farrwestengineering.com

Project or Site Name: City of Carlin Water and Sewer Improvements

How will the information be used? USDA Environmental Assessment

KIND OF SEARCH

(see current fee schedule <http://heritage.nv.gov/fees> for descriptions, costs, and examples)

☒ Standard (one-time), OR... Annual Subscription: first year continuation

LIMIT SEARCH BY THE FOLLOWING CRITERIA

Location (please submit polygon(s) of area(s) as ArcGIS files or specify by township-range-section, map quadrangle, watershed, or other boundaries, and attach map(s) when possible):

W1/2 sec 26, sec 27, T33N R52E

Species: ☒ all plants ☒ all animals ☒ all vertebrates ☒ all invertebrates

other (specify groups/taxa):

Status: ☒ all sensitive ☒ all federal T/E/candidate ☒ all state T/E ☒ all watch list

Additional Limiting Criteria:

FORMAT AND CONTENT OF SEARCH RESULTS

(see <http://heritage.nv.gov/gis> for sample dataset)

☒ Excel spreadsheet (limited fieldset)
☐ OR ArcGIS shapefile (complete fieldset, truncated fields)
☐ OR ArcGIS personal geodatabase (complete fieldset, full length fields)

projection (default = UTM Zone 11N):

datum (default=NAD83):

HOW YOU WANT THE RESULTS SENT

Please Send: ☒ search results immediately cost estimate first

Send by any of the following checked methods: U.S. Mail ☒ email FedEx

For FedEx, include PHYSICAL address above, and specify account to charge:

BY SIGNING BELOW, I acknowledge that I have read and agreed to abide by the Nevada Natural Heritage Program's (NNHP's) current fee schedule <http://heritage.nv.gov/fees> and its data license agreement http://heritage.nv.gov/sites/default/files/other_docs/limitats.pdf. A signed data license agreement must be submitted with an individual's first data request but it is not required for subsequent requests by the same individual.

I also agree that (1) all data supplied, and the analytic tools and processes from which they are derived, are the privileged, confidential property of NNHP, and/or NatureServe, and/or those who supplied the data to NNHP, and will not be provided to any other party without our consent; (2) in any use of the data, NNHP will be cited as a source, along with the year and month it supplied the data; and (3) while NNHP strives for accuracy and completeness, the data it supplies depend on the observations and research of many individuals and organizations, new data are constantly received, and in no case will the data be represented as a complete survey of any species or area.


Signature

Danny Sommers
Name (please print)

Project Manager
Title

Date Received

Internal Use Only

Received by:

Please MAIL or FAX completed and signed form to: Nevada Natural Heritage Program, attn: Data Manager, 901 S. Stewart St, ste. 5002, Carson City NV 89701-5245. FAX (775) 684-2909, phone (775) 684-2900.

TRANSACTION REPORT

JAN/23/2018/TUE 03:00 PM

FAX (TX)

#	DATE	START T.	RECEIVER	COM. TIME	PAGE	TYPE/NOTE	FILE
001	JAN/23	02:59PM	6842909	0:00:33	1	MEMORY OK	SG3 0867

NEVADA NATURAL HERITAGE PROGRAM DATA REQUEST FORM

rev. 2015-08

Use this form to query the Nevada Natural Heritage Program database for sensitive species location information. Please fill out this form as completely and specifically as possible, attaching additional sheets as needed. For more information on available species and data fields, fees, limitations, and restrictions, please visit our web site <http://heritage.nv.gov> or contact us for printed information. We cannot guarantee our response time; please allow two weeks for delivery.

Date submitted: 1/23/18

Organization: Farr West Engineering

Mailing Address: 5510 Longley Lane, Reno, NV 89511

Phone: 775-853-7265 FAX: 775-851-0768 email: danny@farrwestengineering.com

Project or Site Name: City of Carlin Water and Sewer Improvements

How will the information be used? USDA Environmental Assessment

KIND OF SEARCH

(see current fee schedule <http://heritage.nv.gov/fees> for descriptions, costs, and examples)

☒ Standard (one-time), ☐ OR... Annual Subscription: ☐ first year ☐ continuation

LIMIT SEARCH BY THE FOLLOWING CRITERIA

Location (please submit polygon(s) of area(s) as ArcGIS files or specify by township-range-section, map quadrangle, watershed, or other boundaries, and attach map(s) when possible):
W1/2 sec 26, sec 27, T33N R52E

Species: ☒ all plants ☒ all animals ☒ all vertebrates ☒ all invertebrates
other (specify groups/taxa):

Status: ☒ all sensitive ☒ all federal T/E/candidate ☒ all state T/E ☒ all watch list

Additional Limiting Criteria:

FORMAT AND CONTENT OF SEARCH RESULTS

(see <http://heritage.nv.gov/gis> for sample dataset)

☒ Excel spreadsheet (limited fieldset)
☐ OR ArcGIS shapefile (complete fieldset, truncated fields)
☐ OR ArcGIS personal geodatabase (complete fieldset, full length fields)
projection (default = UTM Zone 11N): datum (default=NAD83):

HOW YOU WANT THE RESULTS SENT


Please Send: ☒ search results immediately ☐ cost estimate first

Send by any of the following checked methods: ☐ U.S. Mail ☒ email ☐ FedEx

For FedEx, include PHYSICAL address above, and specify account to charge:

BY SIGNING BELOW, I acknowledge that I have read and agreed to abide by the Nevada Natural Heritage Program's (NNHP's) current fee schedule <http://heritage.nv.gov/fees> and its data license agreement http://heritage.nv.gov/sites/default/files/other_docs/limitats.pdf. A signed data license agreement must be submitted with an individual's first data request but it is not required for subsequent requests by the same individual.

I also agree that (1) all data supplied, and the analytic tools and processes from which they are derived, are the privileged, confidential property of NNHP, and/or NaturaServe, and/or those who supplied the data to NNHP, and will not be provided to any other party without our consent; (2) in any use of the data, NNHP will be cited as a source, along with the year and month it supplied the data; and (3) while NNHP strives for accuracy and completeness, the data it supplies depend on the observations and research of many individuals and organizations, new data are constantly received, and in no case will the data be represented as a complete survey of any species or area.



Project Manager

Danny Sommers

Project Manager

E2018-111 (City of Carlin Sewer and Water System Improvements)

DATE: January 26, 2018

Division of Water Resources – Sue Gilbert

Nevada SAI # E2018-111

Project: City of Carlin Sewer and Water System Improvements

_____ No comment on this project X Proposal supported as written

AGENCY COMMENTS:

Water for Construction Projects

Ensure that any water used on this project is provided by an established utility or under permit or waiver issued by the State Engineer's Office with a manner of use acceptable for suggested projects water needs.

FARR WEST

ENGINEERING

January 23, 2018

Kelvin Hickenbottom, Deputy State Engineer
Nevada Division of Water Resources
Nevada Department of Conservation and Natural Resources
901 S. Stewart St., Suite 2002
Carson City, NV 89701

RE: City of Carlin Water and Sewer Improvements Project

Dear Mr. Hickenbottom,

The City of Carlin is in the process of performing an environmental review pursuant to the National Environmental Policy Act for USDA Rural Development in order that it may assess the environmental impacts of water and sewer system improvements in Carlin, Nevada. The project includes the items listed below. Enclosed is a map that depicts the proposed project's area of potential effect for all construction activities.

The project includes the installation of the following water and sewer pipes:

WATER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3/4	730	6	29,734
1	2,029	8	40,063
1 1/4	405	10	1,332
1 1/2	104	12	26,255
2	3,775	14	663
3	1,113	16	1,055
4	3,022	Unknown	15,063

SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727

We are requesting information on the possible effects of the proposed project relating to water rights, water quality, water availability, and any other potential effects of the proposed project. We would appreciate any recommendations you have to minimize or avoid these effects. We also seek your assessment of the compatibility of the proposed project with State and local government or any private programs and policies regarding the environmental impacts of construction within the proposed project area.

We would appreciate a response within 30 days. If you need further information or wish to discuss the project, please contact Dan Sommers of Farr West Engineering at 775-851-4788.

Sincerely,

A handwritten signature in blue ink that reads "Dan Sommers". The signature is fluid and cursive, with the first name "Dan" and last name "Sommers" clearly legible.

Dan Sommers
Farr West Engineering

Enc.

cc: City of Carlin, USDA

Danny Sommers

From: Lindsey Lesmeister <llesmeister@ndow.org>
Sent: Thursday, February 15, 2018 3:11 PM
To: Danny Sommers
Cc: Caleb McAdoo
Subject: RE: Carlin Sewer and water project

Danny,

Thank you for providing NDOW the opportunity to evaluate the potential wildlife impacts from the Carlin Sewer and water project. At this time NDOW has no wildlife concern from the project, if the scope of work changes NDOW would ask for an additional opportunity to assess the potential wildlife impacts. If you have any further questions please feel free to contact me.

Thanks,



Lindsey Lesmeister, Habitat Biologist
Nevada Department of Wildlife
60 Youth Center Road
Elko, Nevada 89801
(775) 777-2368
llesmeister@ndow.org

Support Nevada's Wildlife...Buy a Hunting and Fishing License

State of Nevada Confidentiality Disclaimer: This message is intended only for the named recipient. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

From: Danny Sommers [mailto:danny@farrwestengineering.com]
Sent: Wednesday, February 14, 2018 1:23 PM
To: Caleb McAdoo
Cc: Lindsey Lesmeister
Subject: Carlin Sewer and water project

Hi Caleb,

I was directed by Bonnie Weller to contact you concerning this project (Please see attached maps). The project description is as follows:

The City of Carlin is in the process of performing an environmental review pursuant to the National Environmental Policy Act for USDA Rural Development in order that it may assess the environmental impacts of water and sewer system improvements in Carlin, Nevada. The project includes the items listed below. Enclosed is a map that depicts the proposed project's area of potential effect for all construction activities.

The project includes the installation of the following water and sewer pipes:

WATER

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4	3,022	Unknown	15,063
Total:		Total:	114,165

SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727

We are requesting information on the possible effects of the above proposed project in which the NDOW determines if the project will have a negative environmental impact and/or any other potential effects regarding wildlife and/or habitat. We would appreciate any of your recommendations to minimize or avoid these effects. We also seek your assessment of the compatibility of the proposed project with State and local government or any private programs and policies regarding the environmental impacts of construction within the proposed project area.

Please let me know if you have questions.

Thanks,

Danny

Danny Sommers
Direct: (775) 853-7265
Cell: (775) 530-3359

From: Caleb McAdoo [<mailto:cmcadoo@ndow.org>]
Sent: Tuesday, February 13, 2018 4:48 PM
To: Danny Sommers <danny@farrwestengineering.com>
Cc: Lindsey Lesmeister <llesmeister@ndow.org>
Subject: NDOW Contact info



Caleb McAdoo, Eastern Region Habitat Supervisor
Nevada Department of Wildlife
60 Youth Center Road
Elko, Nevada 89801
(775) 777-2306
(775) 388-1914 Cell
cmcadoo@ndow.org

Support Nevada's Wildlife...Buy a Hunting and Fishing License

State of Nevada Confidentiality Disclaimer: *This message is intended only for the named recipient. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.*



BRIAN SANDOVAL
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE

6980 Sierra Center Parkway, Suite 120
Reno, Nevada 89511
(775) 688-1500 • Fax (775) 688-1495

TONY WASLEY
Director

ELIZABETH O'BRIEN
Deputy Director

JACK ROBB
Deputy Director

Danny Sommers
Project Manager
Farr West Engineering
5510 Longley In
Reno, Nevada 89511

January 25, 2018

Re: Carlin Utility Pipeline Project

Dear Danny Sommers:

I am responding to your request for information from the Nevada Department of Wildlife (NDOW) on the known or potential occurrence of wildlife resources in the vicinity of the Carlin Utility Pipeline Project located in Elko County, Nevada. In order to fulfill your request an analysis was performed using the best available data from the NDOW's wildlife occurrences, raptor nest sites and ranges, greater sage-grouse leks and habitat, and big game distributions databases. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species or resources. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the needs of the project described on your GIS Data Request Form. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

To adequately provide wildlife resource information in the vicinity of the proposed project the NDOW delineated an area of interest that included a four-mile buffer around the project area provided by you on Tuesday, January 23, 2018. Wildlife resource data was queried from the NDOW databases based on this area of interest. The results of this analysis are summarized below.

Big Game - Occupied elk, mule deer, and pronghorn antelope distributions exist within portions of the project area and four-mile buffer area. No known occupied bighorn sheep distribution exists in the vicinity of the project area. Please refer to the attached maps for details regarding big game distributions relative to the proposed project area.

Greater Sage-Grouse - Greater sage-grouse habitat in the vicinity of the project area has primarily been classified as Other habitat by the Nevada Sagebrush Ecosystem Program (<http://sagebrusheco.nv.gov>). Priority and General habitat also exists in the vicinity of the project area. Please refer to the attached map for details regarding greater sage-grouse habitat relative to the proposed project area. There are no known radio-marked greater sage-grouse tracking locations in the vicinity of the project area. There are no known greater sage-grouse lek sites in the vicinity of the project area.

Lahontan Cutthroat Trout - are known to exist in the vicinity of the project area in the Lower Maggie Creek watershed.

Raptors - Various species of raptors, which use diverse habitat types, may reside in the vicinity of the project area. American kestrel, bald eagle, barn owl, burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, great horned owl, long-eared owl, merlin, northern goshawk, northern harrier, northern saw-whet owl, osprey, peregrine falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, Swainson's hawk, turkey vulture, and western screech owl have distribution ranges that include the project area and four-mile buffer area. Furthermore, bald eagle, barn owl, golden eagle, merlin, prairie

falcon, and rough-legged hawk have been directly observed in the vicinity of the project area.

Raptor species are protected by State and Federal laws. In addition, bald eagle, burrowing owl, California spotted owl, ferruginous hawk, flammulated owl, golden eagle, northern goshawk, peregrine falcon, prairie falcon, and short-eared owl are NDOW species of special concern and are target species for conservation as outlined by the Nevada Wildlife Action Plan. Per the *Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance* (United States Fish and Wildlife Service 2010) we have queried our raptor nest database to include raptor nest sites within ten miles of the proposed project area. There are 77 known raptor nest sites within ten miles of the project area. Please refer to the appendix for details regarding these raptor nest sites.

Other Wildlife Resources

There are no water developments in the vicinity of the project area. The following species have also been observed in the vicinity of the project area:

Common Name	ESA	State	SWAP SoCP
ambersnail (unknown)			
American beaver		Furbearer	
black-billed magpie		Protected	
California floater			Yes
California quail			
California toad			Yes
chukar			
common raven		Protected	
Cortez Hills (Carlin) pebblesnail			
cottontail (unknown)			
fingernail clam (unknown)			
gray partridge			
northern river otter		Furbearer	Yes
physa (unknown)			
pondsnail (unknown)			
pygmy rabbit			Yes
raccoon			
ruffed grouse			
slug (unknown)			
springsnail (unknown)			
striped whipsnake			

ESA: Endangered Species Act Status

State: State of Nevada Special Status

SWAP SoCP: Nevada State Wildlife Action Plan (2012) Species of Conservation Priority

The proposed project area may also be in the vicinity of abandoned mine workings, which often provide habitat for state and federally protected wildlife, especially bat species, many of which are protected under NAC 503.030. To request data regarding known abandoned mine workings in the vicinity of the project area please contact the Nevada Division of Minerals (<http://minerals.state.nv.us/>).

The above information is based on data stored at our Reno Headquarters Office, and does not necessarily incorporate the most up to date wildlife resource information collected in the field. Please

contact the Habitat Division Supervising Biologist at our Eastern Region Elko Office (775.777.2300) to discuss the current environmental conditions for your project area and the interpretation of our analysis. Furthermore, it should be noted that the information detailed above is preliminary in nature and not necessarily an identification of every wildlife resource concern associated with the proposed project. Consultation with the Supervising Habitat biologist will facilitate the development of appropriate survey protocols and avoidance or mitigation measures that may be required to address potential impacts to wildlife resources.

Caleb McAdoo - Eastern Region Habitat Supervisor (775.777.2306)

Federally listed Threatened and Endangered species are also under the jurisdiction of the United States Fish and Wildlife Service. Please contact them for more information regarding these species.

If you have any questions regarding the results or methodology of this analysis please do not hesitate to contact our GIS office at (775) 688-1439.

Sincerely,

Bonnie Weller

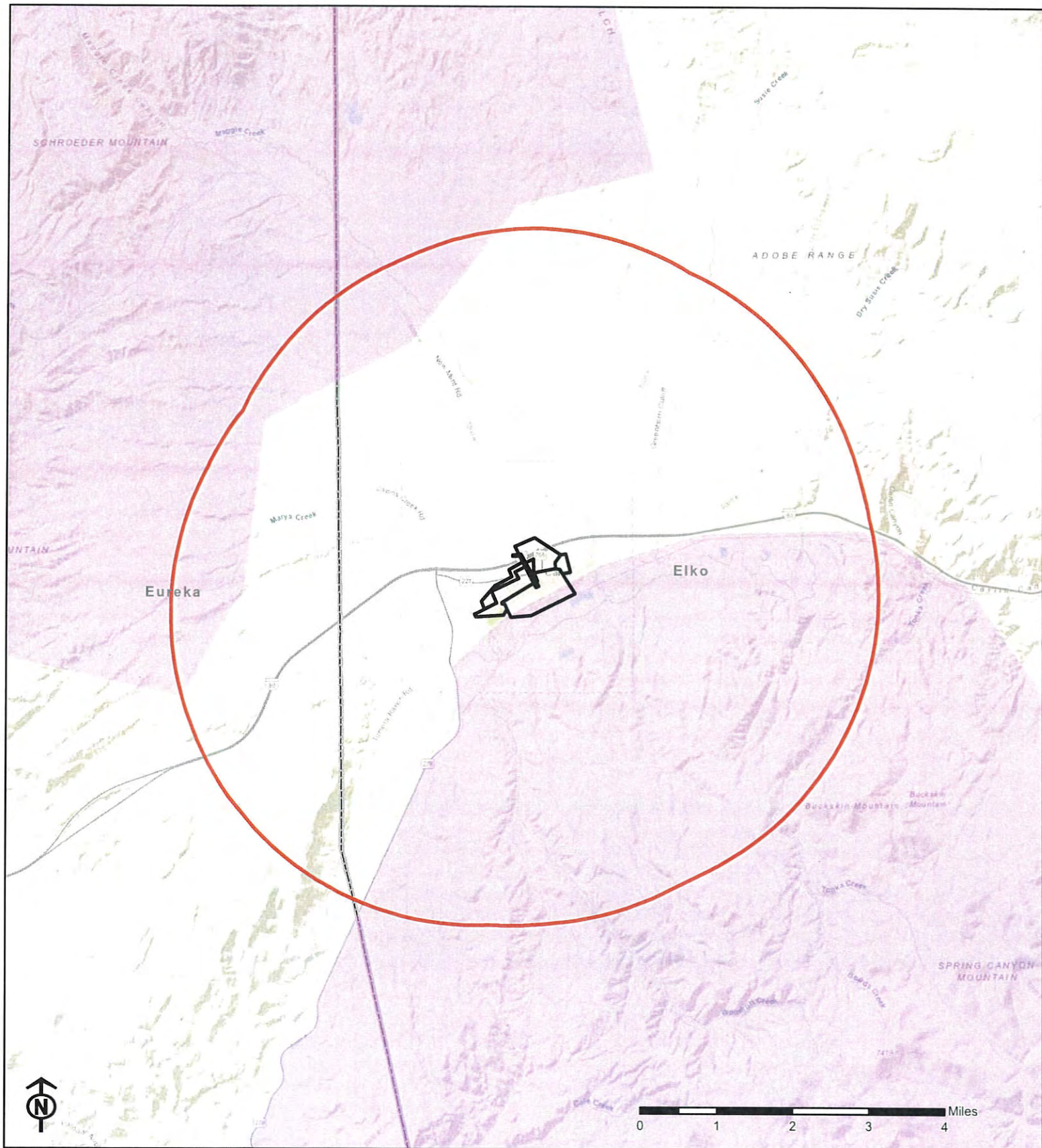





Bonnie Weller, GIS Analyst
Data and Technology Services
Nevada Department of Wildlife
6980 Sierra Center Parkway, Ste. 120
Reno, Nevada 89511
(775) 688-1439
bweller@ndow.org

Appendix: Raptor Nest Sites Table

Probable Use	Last Check	Last Active	Township/Range/Section
Buteo	4/14/1982		21 0310N 0510E 002
Buteo	1/1/1994	1/1/1994	21 0330N 0520E 026
Buteo	5/23/2001		21 0310N 0510E 003
Buteo	5/3/2004	5/3/2004	21 0320N 0510E 035
Buteo	5/8/2014	5/8/2014	
Buteo	5/8/2014	5/8/2014	
Buteo	5/8/2014		
Buteo/Corvid	5/29/2007	5/29/2007	21 0320N 0510E 036
Buteo/Corvid	5/7/2014	5/7/2014	
Buteo/Corvid	5/7/2014		
Buteo/Corvid	5/7/2014		
Buteo/Corvid	5/7/2014		
Buteo/Corvid	5/7/2014		
Buteo/Corvid	5/7/2014		
Buteo/Corvid	5/8/2014		
Corvid	5/7/2014	5/7/2014	
Corvid	5/7/2014		
Corvid	5/8/2014	5/8/2014	
Corvid	5/8/2014	5/8/2014	
Corvid	5/8/2014		
Eagle	3/7/1972	3/7/1972	21 0330N 0530E 014
Eagle	4/29/1972		21 0330N 0540E 032
Eagle	5/26/1972		21 0320N 0530E 007
Eagle	5/26/1972		21 0320N 0530E 007
Eagle	5/4/1973	5/4/1973	21 0340N 0510E 022
Eagle	5/15/1974		21 0330N 0530E 002
Eagle	6/1/1974		21 0340N 0510E 025
Eagle	6/14/1975	6/14/1975	21 0310N 0520E 004
Eagle	5/23/2001		21 0320N 0520E 008
Eagle	5/29/2007	5/29/2007	21 0320N 0510E 025
Eagle	5/29/2007		21 0320N 0510E 025
Eagle	6/2/2011	6/2/2011	21 0310N 0510E 003
Eagle	6/2/2011	6/2/2011	21 0310N 0520E 006
Eagle	6/2/2011	6/2/2011	21 0320N 0520E 030
Eagle	5/7/2014	1/1/1974	21 0330N 0530E 028
Eagle	5/7/2014	5/29/2007	21 0330N 0530E 028
Eagle	5/7/2014	5/7/2014	
Eagle	5/7/2014	5/7/2014	
Eagle	5/7/2014	5/7/2014	
Eagle	5/7/2014	5/7/2014	
Eagle	5/7/2014		210330N0530E026
Eagle	5/7/2014		
Eagle	5/7/2014		
Eagle	5/7/2014		
Eagle	5/7/2014		

Eagle	5/7/2014		
Eagle	5/7/2014		
Eagle	5/7/2014		
Eagle	5/8/2014		
Eagle	5/8/2014		
Eagle/Buteo	6/2/2011	5/29/2007	21 0310N 0510E 010
Eagle/Buteo	6/2/2011		21 0320N 0520E 030
Eagle/Buteo	5/7/2014	5/7/2014	
Eagle/Buteo	5/7/2014		21 0320N 0520E 032
Eagle/Buteo	5/7/2014		21 0330N 0530E 026
Eagle/Buteo	5/7/2014		
Eagle/Buteo	5/8/2014	5/8/2014	
Eagle/Buteo	5/8/2014		
Eagle/Buteo	5/8/2014		
Falcon - Confirmed	6/14/1975	6/14/1975	21 0310N 0510E 010
Falcon - Confirmed	5/29/2007	5/29/2007	21 0320N 0510E 025
Falcon - Confirmed	5/29/2007	5/29/2007	21 0320N 0510E 036
Falcon - Confirmed	5/23/2010	5/23/2010	21 0320N 0530E 035
Falcon - Probable	1/1/1974	1/1/1974	21 0320N 0510E 036
Falcon - Probable	6/10/1975		21 0330N 0540E 019
Falcon - Probable	6/14/1975	6/14/1975	21 0320N 0510E 036
Falcon - Probable	6/22/1976		21 0330N 0540E 019
Falcon - Probable	3/10/1977		21 0320N 0510E 035
Falcon - Probable	3/10/1977		21 0320N 0510E 036
Falcon - Probable	5/23/2001	5/23/2001	21 0310N 0510E 003
Falcon - Probable	5/29/2007	5/29/2007	21 0320N 0510E 036
Falcon - Probable	5/7/2014	5/7/2014	
Falcon - Probable	5/7/2014	5/7/2014	
Falcon - Probable	5/8/2014	5/8/2014	
Ferruginous Hawk	6/1/1993		21 0330N 0510E 034
Ferruginous Hawk	6/1/1993		21 0340N 0510E 024
Unknown	5/8/2014	5/8/2014	



-  Project Area
-  Four Mile Buffer Area Boundary
-  Elk Distribution

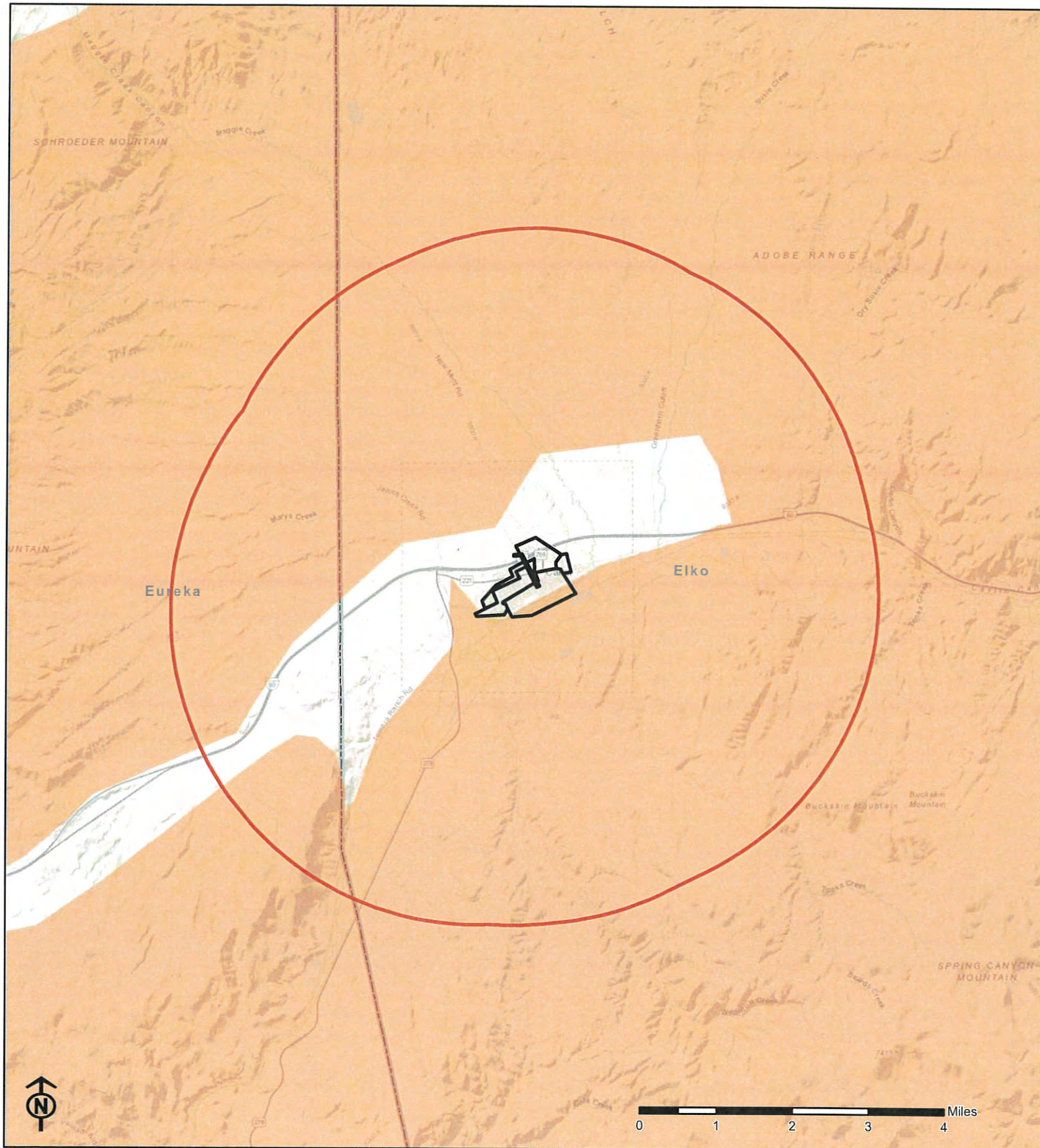
Carlin Utility Pipeline Project Elk Distribution




January 25, 2018

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data.





-  Project Area
-  Four Mile Buffer Area Boundary
-  Mule Deer Distribution

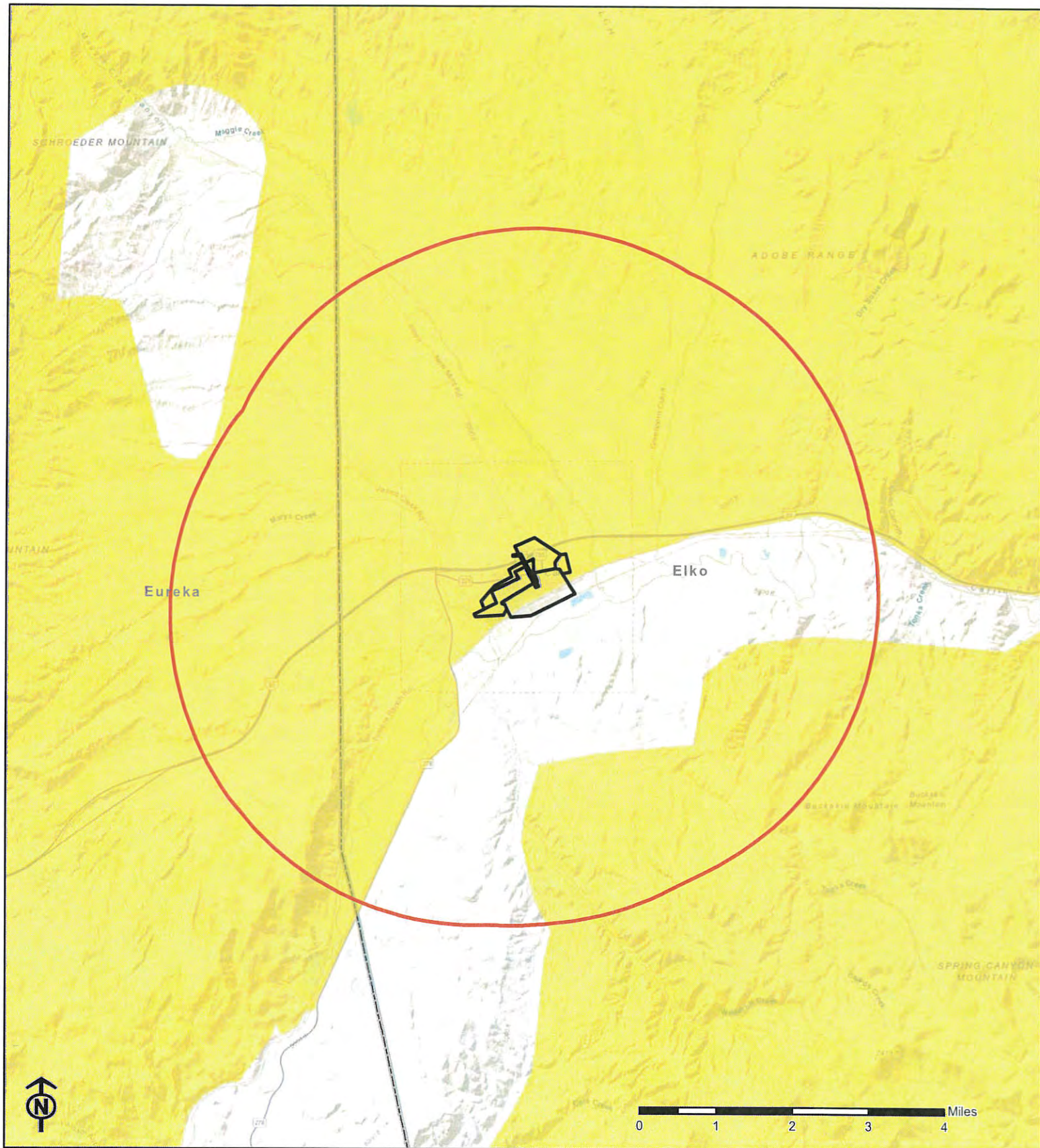
Carlin Utility Pipeline Project Mule Deer Distribution

January 25, 2018

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data.





-  Project Area
-  Four Mile Buffer Area Boundary
-  Pronghorn Antelope Distribution

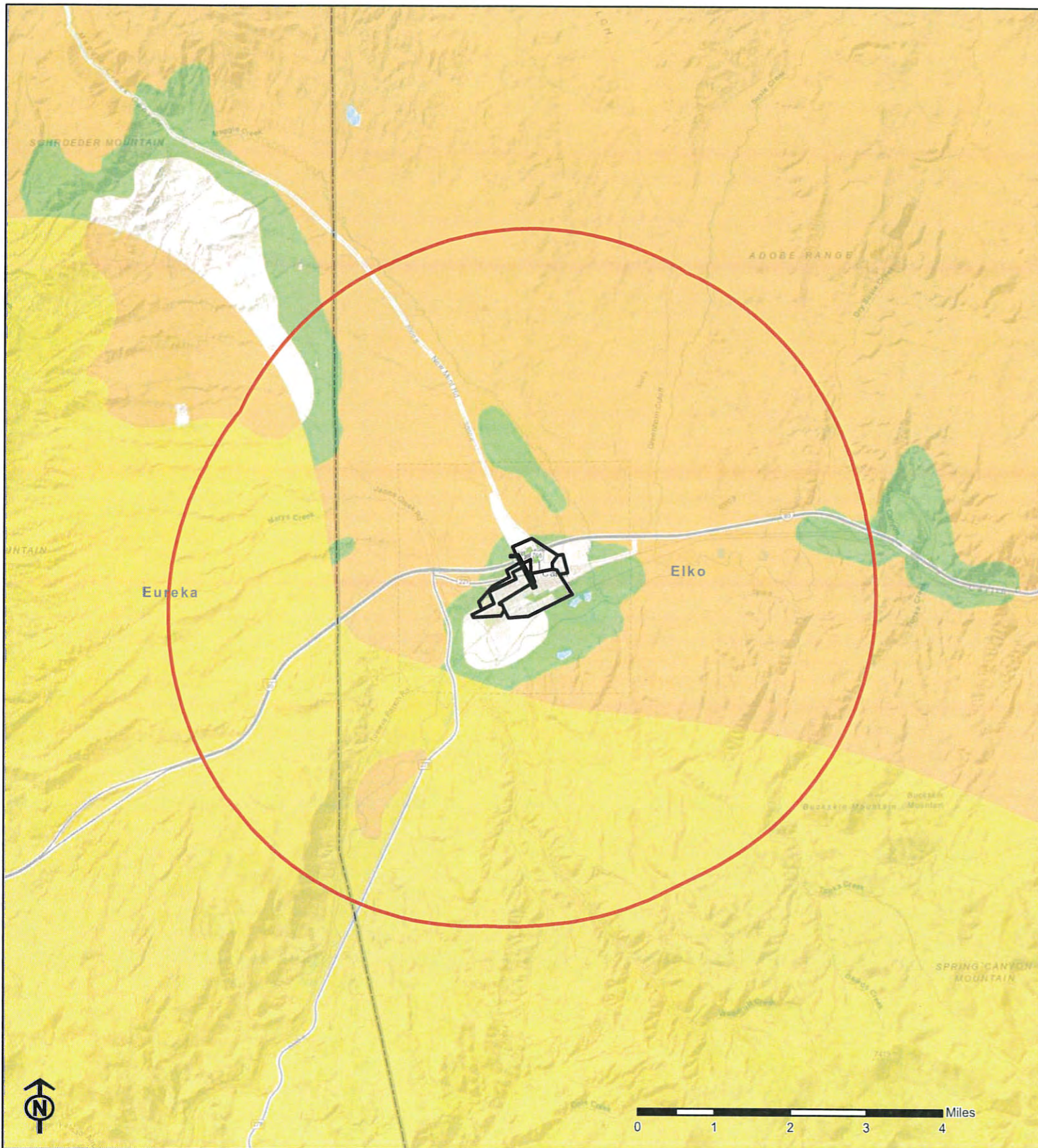
Carlin Utility Pipeline Project Pronghorn Antelope Distribution







January 25, 2018

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife
as to the accuracy, reliability, or completeness of the data
for individual use or aggregate use with other data.





-  Project Area
-  Four Mile Buffer Area Boundary
-  Priority Habitat
-  General Habitat
-  Other Habitat
-  Bi-State Habitat

Carlin Utility Pipeline Project Greater Sage-Grouse Habitat

January 25, 2018

Projection: UTM Zone 11 North, NAD83

No warranty is made by the Nevada Department of Wildlife
as to the accuracy, reliability, or completeness of the data
for individual use or aggregate use with other data.





BRIAN SANDOVAL
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE

6980 Sierra Center Parkway, Suite 120
Reno, Nevada 89511
(775) 688-1500 • Fax (775) 688-1595

TONY WASLEY
Director

JACK ROBB
Deputy Director

ELIZABETH O'BRIEN
Deputy Director

DATA REQUEST FORM

In order to refine our database queries and provide the most detailed information available, the Nevada Department of Wildlife (NDOW) requires information that details the need for NDOW data and how it would be used. This information will allow the NDOW to better anticipate resource management needs, as well as provide the information necessary for appropriate staff review and approval of this request.

DATA REQUEST CONTACT INFORMATION:

Name:	Danny Sommers	Title:	Project manager		
Organization:	Farr West Engineering				
Address:	5510 Longley lane	City:	Reno	State:	NV Zip: 89511
Phone Number:	775-853-7265	Email:	danny@farrwestengineering.com		

REQUEST TYPE (CHECK ONE):

**Standard Project
Site Analysis**



Estimated response time: 2-3 days

**Specific Wildlife
Data Request**



Estimated response time: 2-3 weeks

Signed Data Sharing Agreement may be required

PROJECT DESCRIPTION [ATTACH ADDITIONAL PAGES AS NEEDED]:

Project Name:	Carlin Water/Sewer	Project Type¹:	Water/sewer pipeline
Project Area (acres):	525	Project Start Date:	August 2018
Project Duration:	2 years	Project Status²:	Amend existing project
Permitting Authority:	NV Div. of water resources	Project Extent³: <i>Provide GIS files if available</i>	See attached shape file

Expected Use of Data⁴:

USDA Environmental Assessment

1. E.g. Solar/wind/geothermal (renewable) energy development; Fossil fuel energy development; Mining; Urban development; Energy transmission line; Pipeline; Communication line; Recreation; Restoration; Research or modeling (no surface disturbance); Other.
2. New; Expansion/amendment to existing project; Restoration/reclamation.
3. Attach ESRI shapefile (or similar format such as KML/KMZ files) delineating area of interest or provide location coordinates for areas less than one acre. Minimum required information includes Public Land Survey System (PLSS) location information [Township/Range/Sections] or map documents, but this may delay response.
4. Describe how data will be used. Examples include land use development planning, incorporation into modeling efforts, restoration monitoring, recreational interest, etc.

The completion of this form will ensure that you receive the most accurate response possible. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data provided for individual use or aggregate use with other data. Information received may be considered **sensitive** and may contain information regarding the location of sensitive wildlife species. All appropriate measures should be taken to ensure the use of any data received is strictly limited to serve the needs of the project described above. Abuse of NDOW information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

Please submit form to: Bonnie Weller – GIS Biologist III – bweller@ndow.org – 775.688.1439

Danny Sommers

From: Danny Sommers
Sent: Tuesday, February 20, 2018 2:40 PM
To: 'Skip Canfield'
Subject: RE: State Agency Comments E2018-111 City of Carlin Sewer and Water System Improvements

Thanks Skip!

Danny Sommers
Direct: (775) 853-7265
Cell: (775) 530-3359

From: Skip Canfield [mailto:scanfield@lands.nv.gov]
Sent: Tuesday, February 20, 2018 2:38 PM
To: Danny Sommers <danny@farrwestengineering.com>
Cc: Skip Canfield <scanfield@lands.nv.gov>
Subject: State Agency Comments E2018-111 City of Carlin Sewer and Water System Improvements

Hi Danny:

The Nevada State Clearinghouse received the attached three comment documents regarding the City of Carlin Sewer and Water System Improvements proposal;

<http://clearinghouse.nv.gov/public/Notice/2018/E2018-111.pdf>

Skip Canfield
Nevada State Clearinghouse
State Land Use Planning Agency

Nevada Division of State Lands
Department of Conservation and Natural Resources
901 South Stewart Street, Suite 5003
Carson City, NV 89701
775-684-2723
<http://clearinghouse.nv.gov>
www.lands.nv.gov

Danny Sommers

From: Danny Sommers
Sent: Wednesday, January 24, 2018 11:14 AM
To: 'Skip Canfield'
Subject: RE: City of Carlin sewer and water system improvements

Thanks!

Danny Sommers
Direct: (775) 853-7265
Cell: (775) 530-3359

From: Skip Canfield [mailto:scanfield@lands.nv.gov]
Sent: Wednesday, January 24, 2018 11:12 AM
To: Danny Sommers <danny@farrwestengineering.com>
Subject: RE: City of Carlin sewer and water system improvements

OK I'll do that now, I'm in the system, have a good day. -Skip

Skip Canfield
Nevada State Clearinghouse
State Land Use Planning Agency

Nevada Division of State Lands
Department of Conservation and Natural Resources
901 South Stewart Street, Suite 5003
Carson City, NV 89701
775-684-2723
<http://clearinghouse.nv.gov>
www.lands.nv.gov

From: Danny Sommers [mailto:danny@farrwestengineering.com]
Sent: Wednesday, January 24, 2018 11:06 AM
To: Skip Canfield <scanfield@lands.nv.gov>
Subject: City of Carlin sewer and water system improvements

Hi Skip,

Please see the attached. Thanks for the help.

Danny



Danny Sommers

Senior Project Manager
Farr West Engineering
5510 Longley Lane
Reno, NV 89511

Main: (775) 851-4788
Direct: (775) 853-7265
Cell: (775) 530-3359
Fax: (775) 851-0766
www.farrwestengineering.com



January 23, 2018

Skip Canfield
Nevada Division of State Lands
901 S. Stewart St, Ste 5003
Carson City, NV 89701-5246

RE: City of Carlin Water and Sewer Improvements Project

Dear Mr. Canfield:

The City of Carlin is in the process of performing an environmental review pursuant to the National Environmental Policy Act for USDA Rural Development in order that it may assess the environmental impacts of water and sewer system improvements in Carlin, Nevada. The project includes the items listed below. Enclosed is a map that depicts the proposed project's area of potential effect for all construction activities.

The project includes the installation of the following water and sewer pipes:

WATER

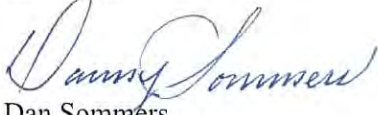
PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
¾	730	6	29,734
1	2,029	8	40,063
1 ¼	405	10	1,332
1 ½	104	12	26,255
2	3,775	14	663
3	1,113	16	1,055
4	3,022	Unknown	15,063

SEWER

PIPE DIAMETER (in)	PIPE LENGTH (ft)	PIPE DIAMETER (in)	PIPE LENGTH (ft)
3	1,754	8	57,987
4	1,515	10	8,631
6	7,177	Unknown	7,727

Please distribute this information to any entity that might have an interest in the project. All responses and/or recommendations will be used to complete the USDA environmental assessment. We would appreciate a response within 30 days. If you need further information or wish to discuss the project, please contact Dan Sommers of Farr West Engineering at 775-851-4788.

Sincerely,

A handwritten signature in blue ink that reads "Dan Sommers". The signature is fluid and cursive, with the first name "Dan" and last name "Sommers" clearly legible.

Dan Sommers
Farr West Engineering

Enc.











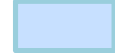






cc: City of Carlin, USDA

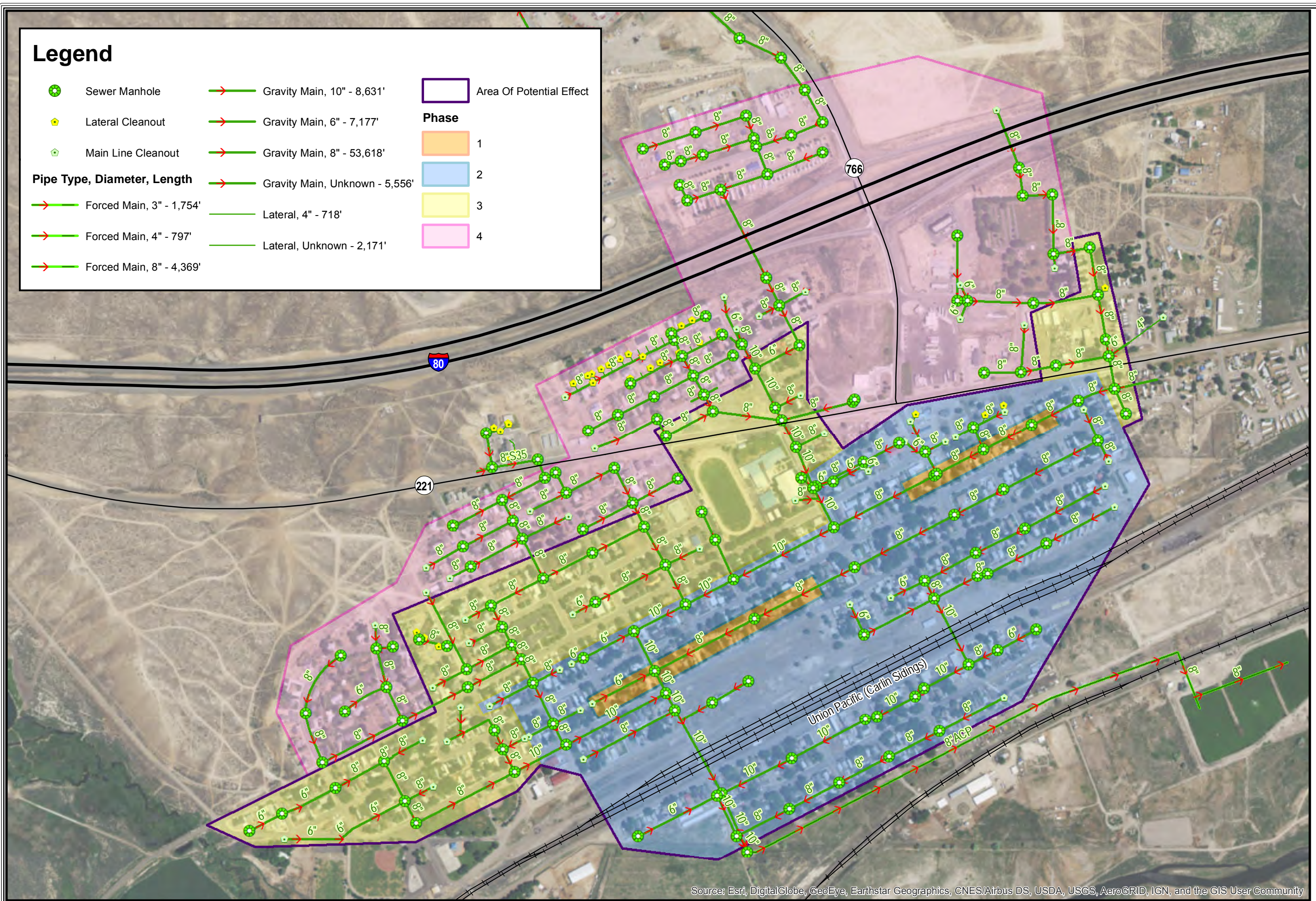
7.0 REFERENCES

This section includes the following exhibits:

- Map of the proposed project elements
- FEMA maps
- Wetlands maps
- EPA Sole Source Aquifer Fact Sheet
- Nevada Natural Landmarks
- Nevada Wilderness Areas

Legend

- | | | |
|--|--|---|
|  Sewer Manhole |  Gravity Main, 10" - 8,631' |  Area Of Potential Effect |
|  Lateral Cleanout |  Gravity Main, 6" - 7,177' | |
|  Main Line Cleanout |  Gravity Main, 8" - 53,618' | Phase |
| Pipe Type, Diameter, Length | |  1 |
|  Forced Main, 3" - 1,754' |  Gravity Main, Unknown - 5,556' |  2 |
|  Forced Main, 4" - 797' |  Lateral, 4" - 718' |  3 |
|  Forced Main, 8" - 4,369' |  Lateral, Unknown - 2,171' |  4 |



FARR WEST
ENGINEERING
5510 Longley Lane
Reno, NV 89511
(775) 851-4788
www.farrwestengineering.com

City of Carlin Sewer System



The data contained herein does not represent survey delineation and should not be construed as a replacement for the authoritative source. No liability is assumed by Farr West Engineering as to the sufficiency or accuracy of the data.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

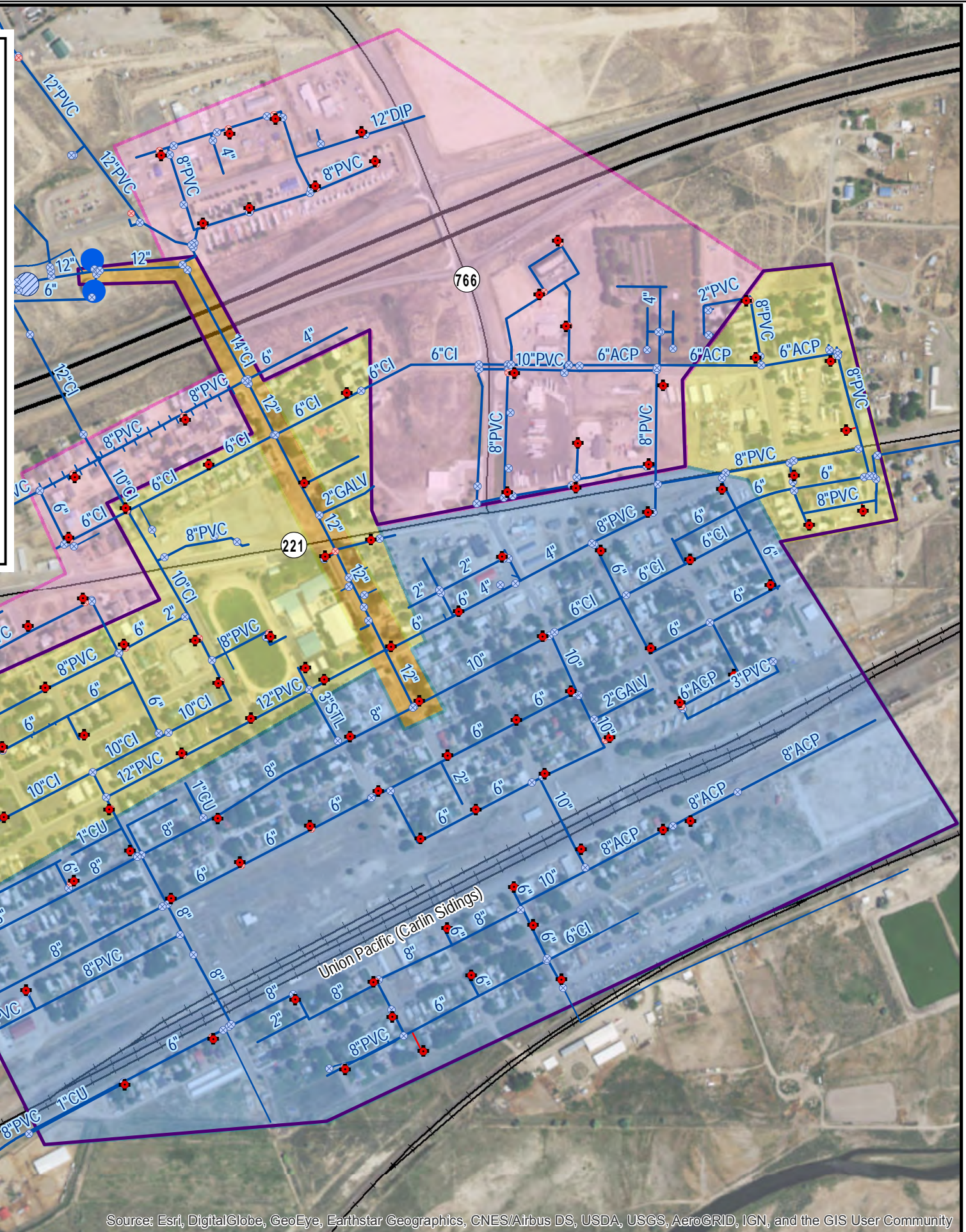
Legend

- Water Hydrant
- Hydrant Valve
- Isolation Valve
- Water Well
- Reservoir
- Tank

Pipe Type, Diameter, Length

- Hydrant Lateral, 6" - 244'
- Hydrant Lateral, Unknown - 3,196'
- Pressurized Main, 1 1/4" - 405'
- Pressurized Main, 1" - 1447'
- Pressurized Main, 10" - 1,332'
- Pressurized Main, 12" - 26,255'
- Pressurized Main, 14" - 663'
- Pressurized Main, 16" - 1,055'
- Pressurized Main, 2" - 1,413'
- Pressurized Main, 3" - 1,113'
- Pressurized Main, 4" - 3,022'
- Pressurized Main, 6" - 29,490'
- Pressurized Main, 8" - 40,063'
- Pressurized Main, Unknown - 10,249'
- Service Lateral, 1 1/2" - 104'
- Service Lateral, 1" - 582'
- Service Lateral, 2" - 2,362'
- Service Lateral, 3/4" - 730'
- Service Lateral, Unknown -1,618'

- Area Of Potential Effect
- Phase
- 1
 - 2
 - 3
 - 4



NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM), zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NGS12
National Geodetic Survey
SSMC-3, #302
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

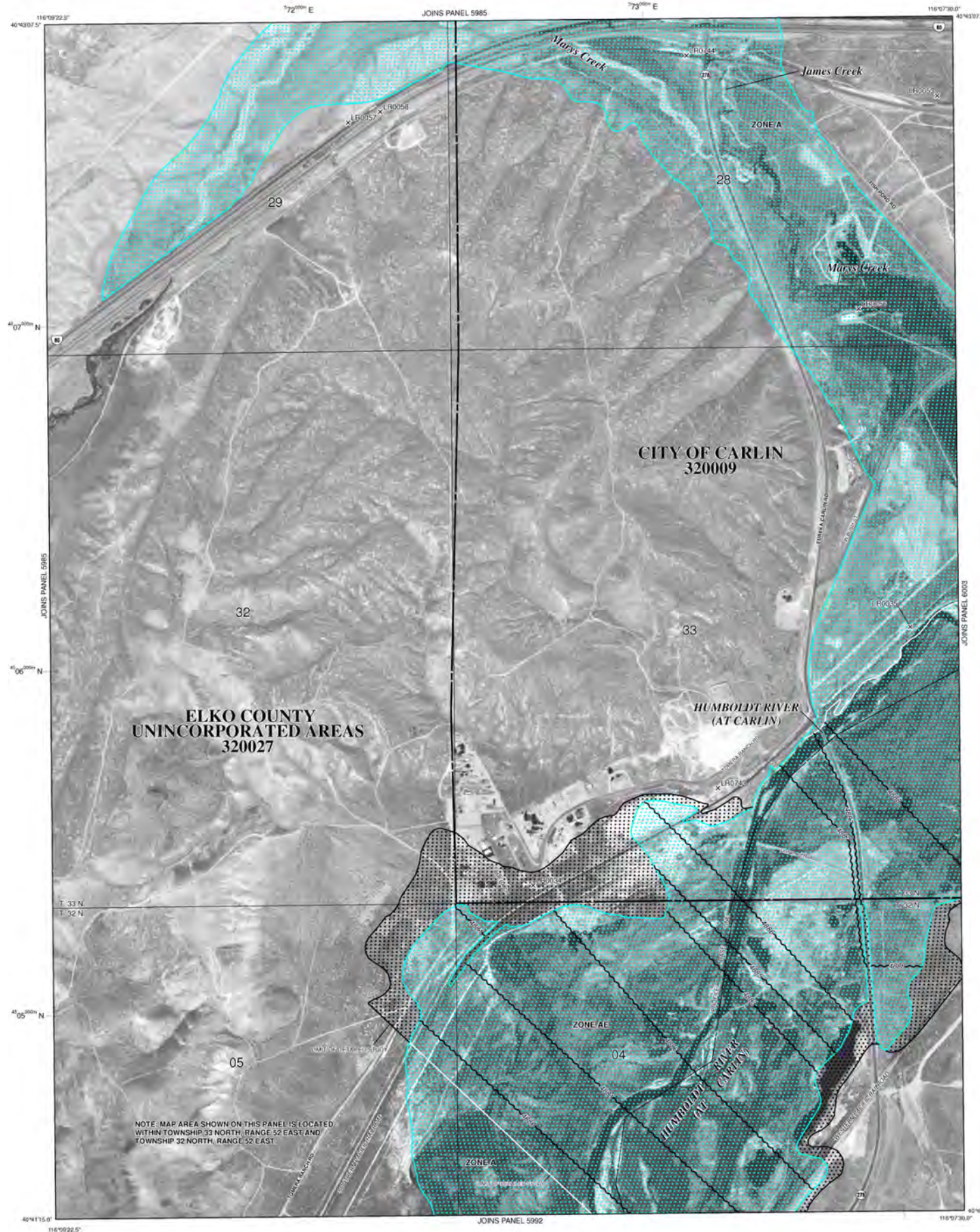
Base map information shown on this FIRM was provided in digital format by the USDA National Agriculture Imagery Program (NAIP). This information was photogrammetrically compiled at a scale of 1:12,000 from aerial photography data 2006.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

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LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently deteriorated. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

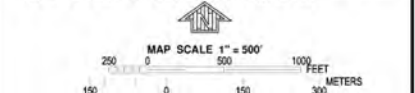
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A** Cross section line
- 23** Tract line
- 91°17'30", 32°52'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 475°00'00" 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 6000000 M 5000-foot grid ticks: Nevada State Plane coordinate system, east zone (NAD 83/2011)
- DX5610** Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5** River Mile
- MAP REPOSITORIES** Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP** September 4, 2013
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 5984E

FIRM
FLOOD INSURANCE RATE MAP
ELKO COUNTY,
NEVADA
AND INCORPORATED AREAS

PANEL 5984 OF 8425
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ELKO COUNTY	320027	5984	E
CARLIN, CITY OF	320009	5984	E

Notice to User: The Map Number shown above should be used when ordering map products. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
32007C5984E
EFFECTIVE DATE
SEPTEMBER 4, 2013

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA/NNGS12
National Geodetic Survey
SSMC-3, #502
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided in digital format by the USDA National Agriculture Imagery Program (NAIP). This information was photogrammetrically compiled at a scale of 1:12,000 from aerial photography data 2005.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A: No Base Flood Elevations determined.
- ZONE AE: Base Flood Elevations determined.
- ZONE AH: Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR: Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99: Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V: Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE: Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X: Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X: Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D: Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

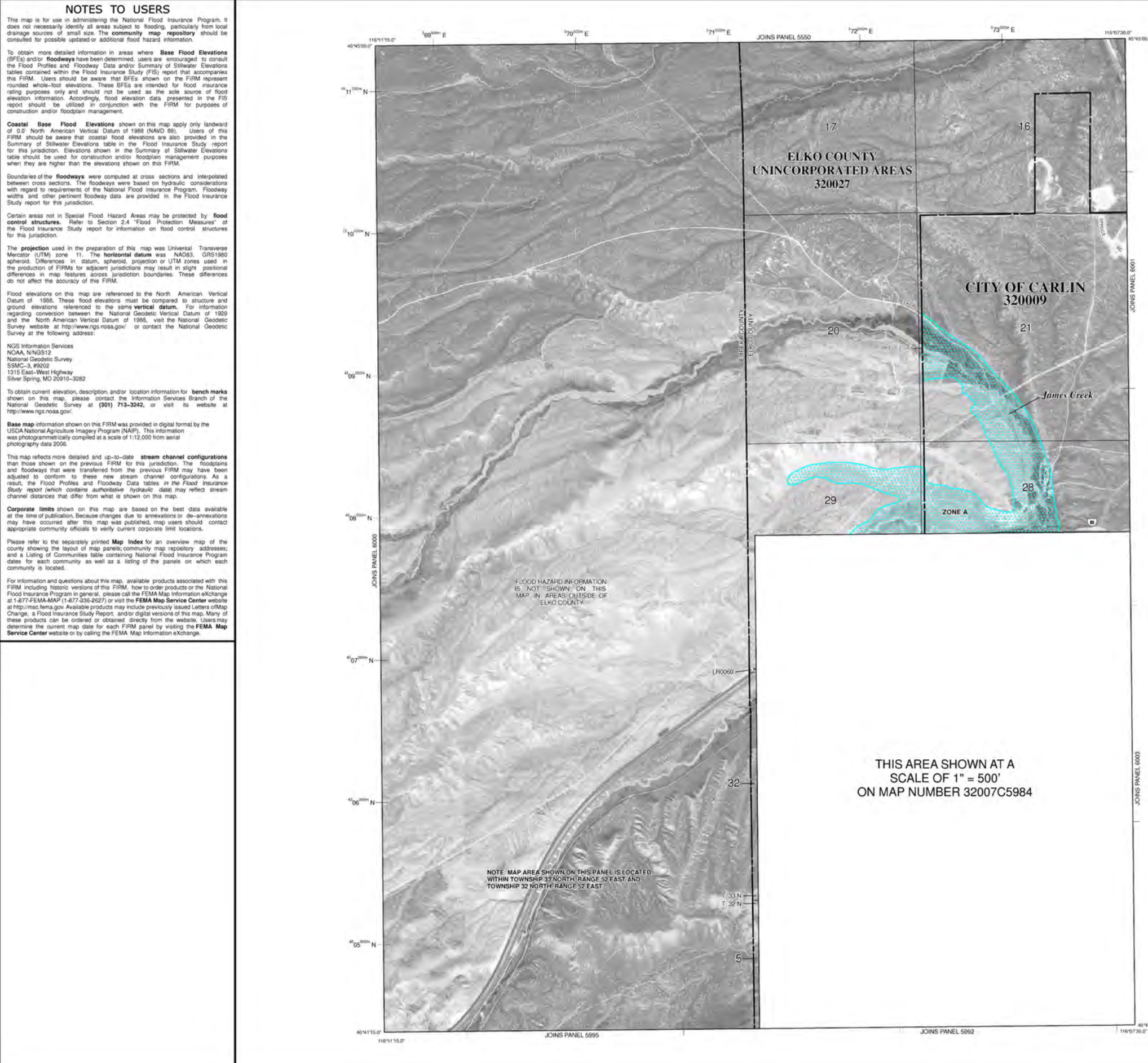
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- Cross section line
- Traverse line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 5000-foot grid ticks: Nevada State Plane coordinate system, east zone (NAD 83/2701)
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORIES
Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 4, 2013
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 5985E

FIRM
FLOOD INSURANCE RATE MAP
ELKO COUNTY,
NEVADA
AND INCORPORATED AREAS

PANEL 5985 OF 8425
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:	COMMUNITY	NUMBER	PANEL	SUFFIX
ELKO COUNTY	320027	5985	E	
CARLIN, CITY OF	320009	5985	E	

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
32007C5985E

EFFECTIVE DATE
SEPTEMBER 4, 2013

Federal Emergency Management Agency

NOTES TO USERS

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Coastal Base Flood Elevations shown on this map apply only to landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSAC-C-1, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

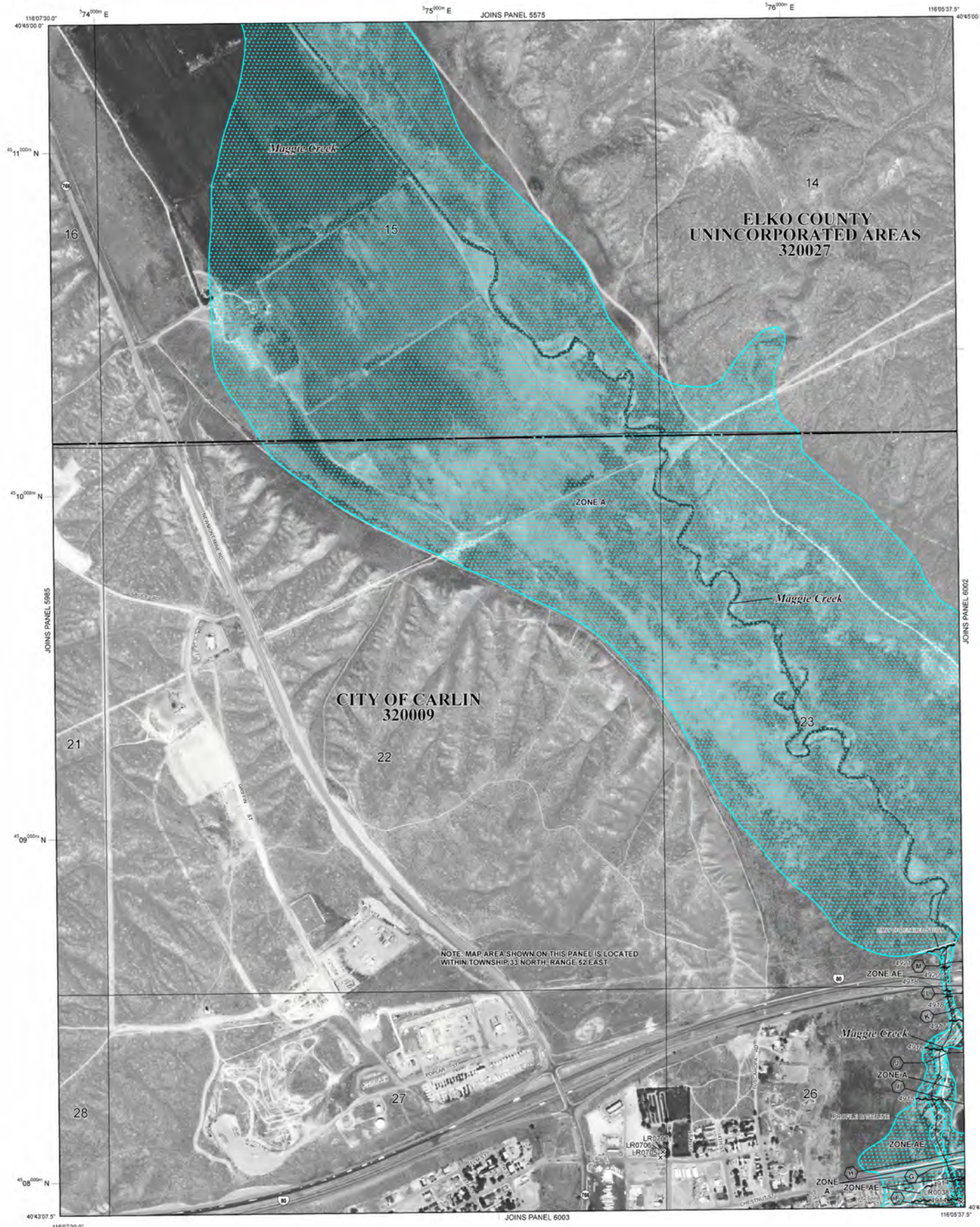
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LEGEND

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- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decommissioned. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS
ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS
ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

Cross section line

Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

1000-meter Universal Transverse Mercator grid ticks, zone 11

5000-foot grid ticks: Nevada State Plane coordinate system, east zone (FIPS/ZONE 2701).

Bench mark (see explanation in Notes to Users section of this FIRM panel)

River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 4, 2013

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 600'

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NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSM-C-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

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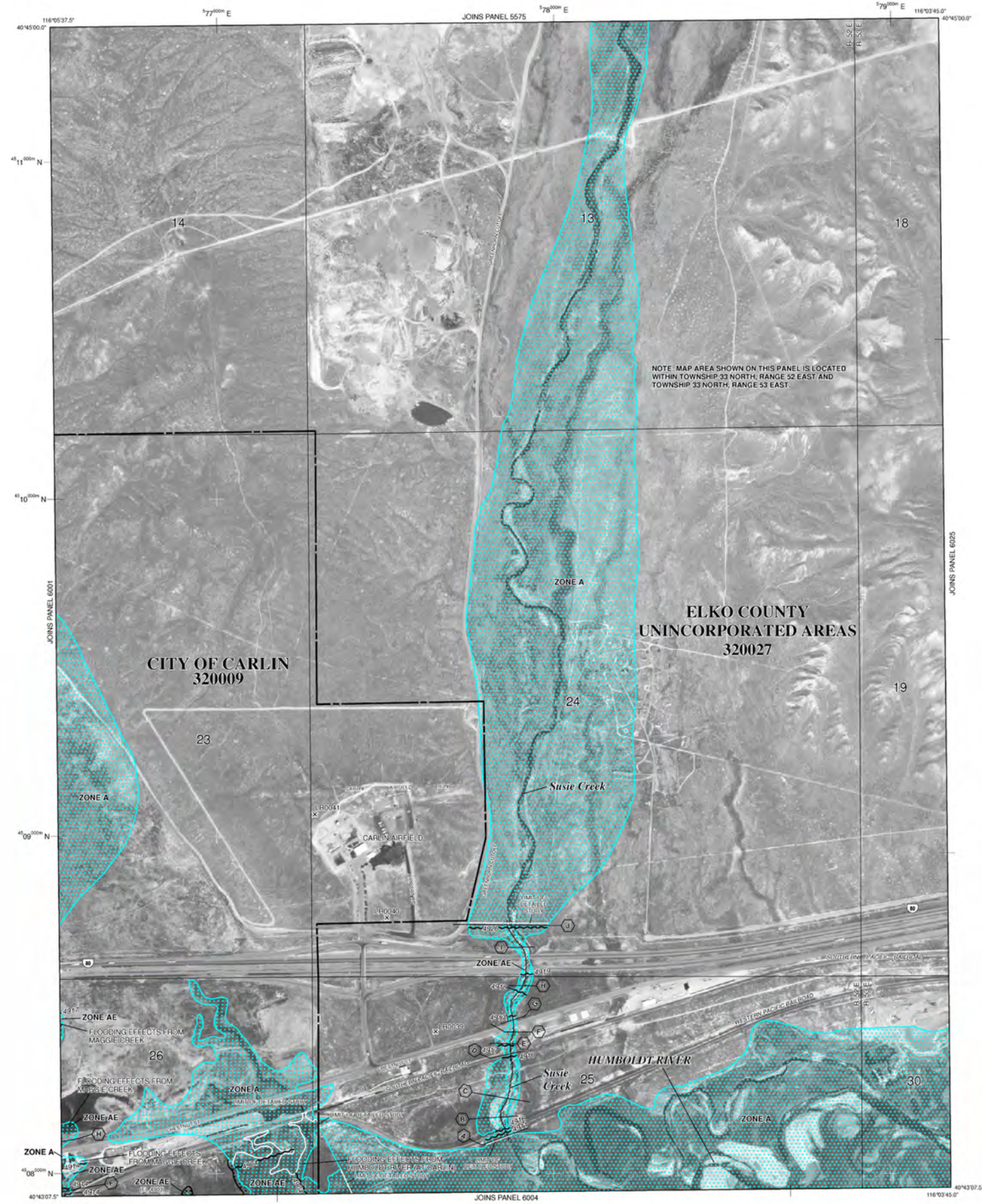
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LEGEND

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- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined to be inoperable. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 5000-foot grid ticks: Nevada State Plane coordinate system, east zone (FIPSZONE 2701), Transverse Mercator
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- DX5510
- M1.5
- River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 4, 2013
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6600.



MAP SCALE 1" = 500'

250 0 250 500 1000 FEET

150 0 150 300 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 6002E

FIRM
FLOOD INSURANCE RATE MAP
ELKO COUNTY,
NEVADA
AND INCORPORATED AREAS

PANEL 6002 OF 8425
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ELKO COUNTY	320027	6002	E
CARLIN, CITY OF	320009	6002	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
32007C6002E
EFFECTIVE DATE
SEPTEMBER 4, 2013

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodway Data have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSAC-3, #202
1315 East-West Highway
Silver Spring, MD 20910-0282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

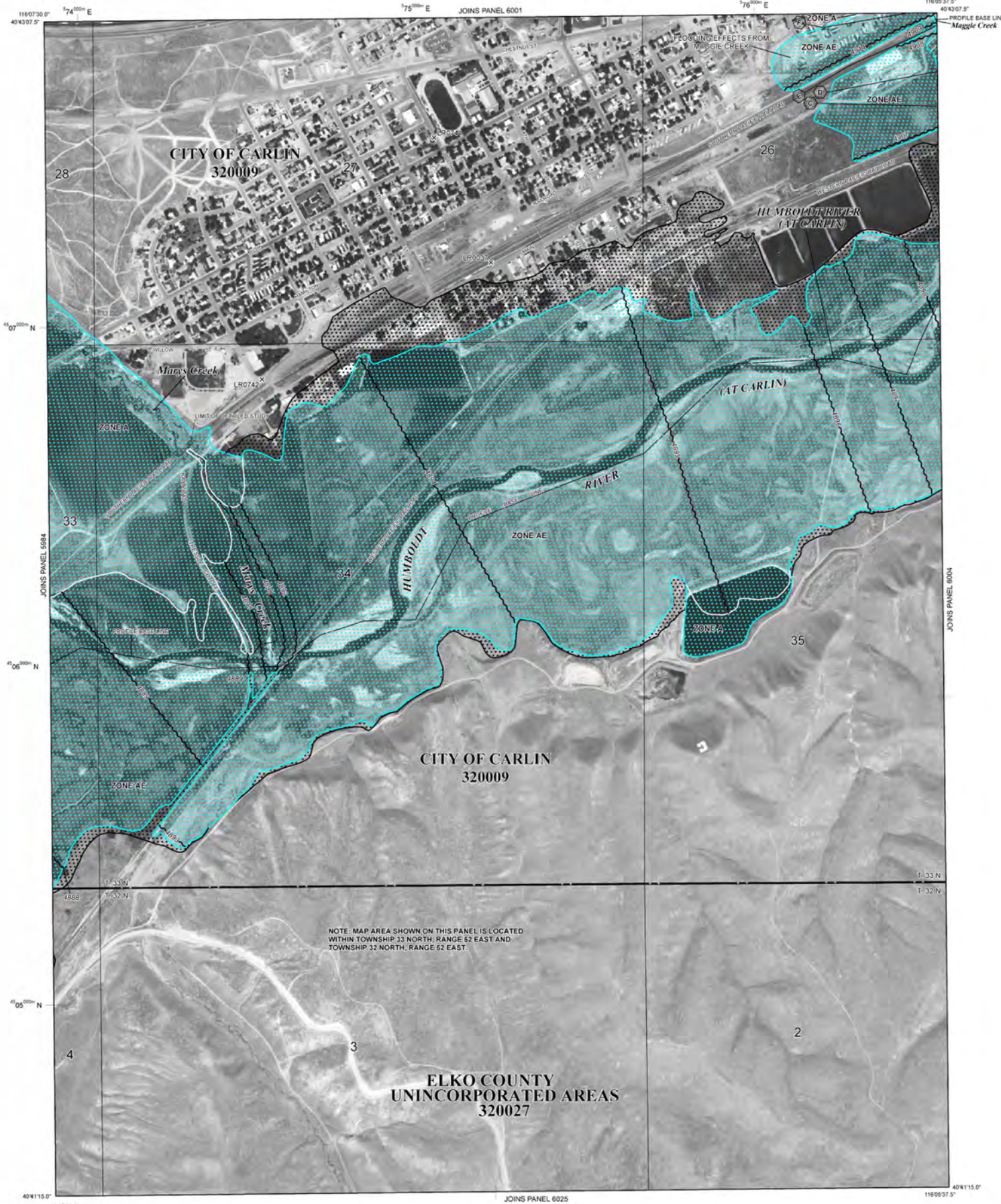
Base map information shown on this FIRM was provided in digital format by the USDA National Agriculture Imagery Program (NAIP). This information was photogrammetrically compiled at a scale of 1:12,000 from aerial photography data 2006.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, APF, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A No Base Flood Elevations determined.
- ZONE AE Base Flood Elevations determined.
- ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently identified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE APF Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

- OTHER FLOOD AREAS
- ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D Areas in which flood hazards are undetermined, but possible.

- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

Cross section line

Traverse line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

1000-meter Universal Transverse Mercator grid ticks, zone 11

5000-foot grid ticks: Nevada State Plane coordinate system, east zone (FIPSZONE 2701), Transverse Mercator

Bench mark (see explanation in Notes to Users section of this FIRM panel)

River Mile

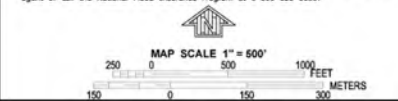
MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 4, 2013

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



PANEL 6003E

FIRM
FLOOD INSURANCE RATE MAP
ELKO COUNTY,
NEVADA
AND INCORPORATED AREAS

PANEL 6003 OF 8425 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)			
CONTAINS:			
COMMUNITY	NUMBER	PANEL	SUFFIX
ELKO COUNTY	320027	6003	E
CARLIN, CITY OF	320009	6003	E

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
32007C6003E
EFFECTIVE DATE
SEPTEMBER 4, 2013

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the **Flood Profiles and Floodway Data** and/or **Summary of Stillwater Elevations** tables contained within the **Flood Insurance Study (FIS)** report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the **Summary of Stillwater Elevations** table in the **Flood Insurance Study** report for this jurisdiction. Elevations shown in the **Summary of Stillwater Elevations** table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the **Flood Insurance Study** report for this jurisdiction.

Certain areas not in **Special Flood Hazard Areas** may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the **Flood Insurance Study** report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA/NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

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This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The **floodplains** and **floodways** that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the **Flood Profiles and Floodway Data** tables in the **Flood Insurance Study report** (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

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LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The **Special Flood Hazard Area** is the area subject to flooding by the 1% annual chance flood. Areas of **Special Flood Hazard** include Zones A, AE, AH, AO, AR, A99, V and VE. The **Base Flood Elevation** is the water-surface elevation of the 1% annual chance flood.

ZONE AE No Base Flood Elevations determined.

ZONE AH Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AR Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decommissioned. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE V Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

Base Flood Elevation line and value; elevation in feet*

Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

Cross section line

Transect line

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

1000-meter Universal Transverse Mercator grid ticks, zone 11

5000-foot grid ticks: Nevada State Plane coordinate system, east zone (FIPSZONE 2701), Transverse Mercator

Bench mark (see explanation in Notes to Users section of this FIRM panel)

River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 4, 2013
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 250 500 1000 FEET
150 0 150 300 METERS

NFIP

PANEL 6004E

FIRM FLOOD INSURANCE RATE MAP ELKO COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 6004 OF 8425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY

NUMBER PANEL SUFFIX

ELKO COUNTY 320027 6004 E

CARLIN, CITY OF 320009 6004 E

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
32007C6004E

EFFECTIVE DATE
SEPTEMBER 4, 2013

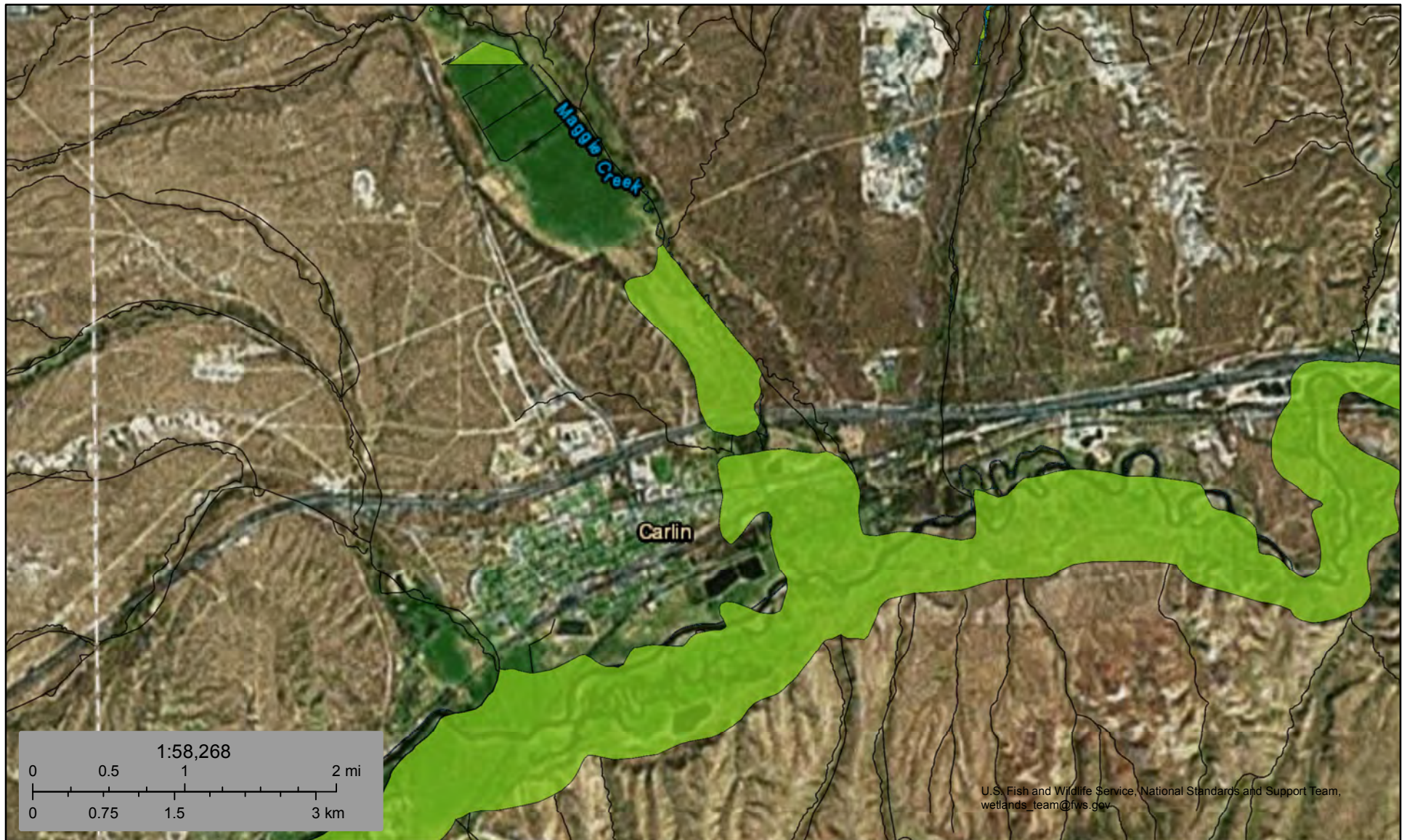
Federal Emergency Management Agency



U.S. Fish and Wildlife Service

National Wetlands Inventory

City of Carlin Sewer and Water Improvement



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

December 15, 2017

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Pacific Southwest, Region 9

Serving: Arizona, California, Hawaii, Nevada, Pacific Islands, Tribal Nations

Ground Water

Ground Water Quick Finder

[Ground Water Home](#)
[Class V Wells](#)
[Cesspools in Hawaii](#)

[Onsite Sewage Treatment Permits](#)

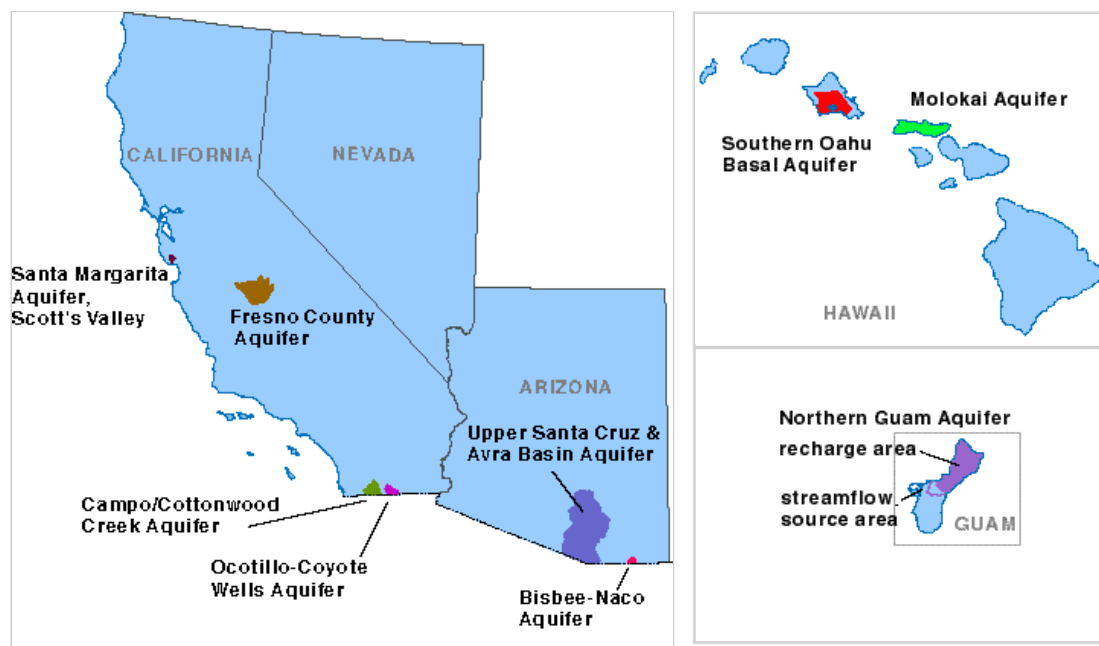
[Sole Source Aquifer Source Water Protection](#)

[Tribal Water Protection Underground Injection Wells](#)

Sole Source Aquifer

The EPA's Sole Source Aquifer (SSA) Program was established under Section 1424(e) of the Safe Drinking Water Act (SDWA.) Since 1977, it has been used by communities to help prevent contamination of groundwater from federally-funded projects. It has increased public awareness of the vulnerability of groundwater resources. The SSA program allows for [EPA environmental review \(PDF\)](#) (1pg, 34K) of any project which is financially assisted by federal grants or federal loan guarantees. These projects are evaluated to determine whether they have the potential to contaminate a sole source aquifer.

In Region 9, nine sole source aquifers have been designated:



Maps

Click [here for a national layer](#) including all available coverage for [Sole Source Aquifers \(SSA\)](#) that can be used in Geographic Information Systems (GIS)

State	Sole Source Aquifer Name	Federal Reg. Cit	Publ. Date	Map
AZ	Upper Santa Cruz & Avra Basin Aquifer	49 FR 2948	01/24/84	KMZ PDF (1 pg, 1.3M)
AZ	Bisbee-Naco Aquifer	53 FR 38337	09/30/88	KMZ PDF (1 pg, 175K)
CA	Fresno County Aquifer	44 FR 52751	09/10/79	KMZ PDF (1 pg, 1.3M)
CA	Santa Margarita Aquifer, Scotts Valley	50 FR 2023	01/14/85	KMZ PDF (1 pg, 434K)
CA	Campo/Cottonwood Creek	58 FR 31024	05/28/93	KMZ PDF (1 pg, 321K)
CA	Ocotillo-Coyote Wells Aquifer	61 FR 47752	09/10/96	KMZ PDF (1 pg, 337K)
GU	Northern Guam Aquifer System	43 FR 17867	04/26/78	KMZ PDF (1 pg, 400K)
HI	Southern Oahu Basal Aquifer	52 FR 45496	11/30/87	KMZ PDF (1 pg, 716K)

National Links

[EPA Ground Water & Drinking Water Home](#)

You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more about PDF, and for a link to the free Adobe Reader.

HI

Molokai Aquifer

59 FR 23063

04/20/93

KMZPDF (1 pg, 146K)

A map of all nationally designated SSAs is also [available on the Source Water Protection Publications Database](#).

For more information, please contact the Ground Water Office at 415-972-3971 or visit the national [EPA Sole Source Aquifer Program](#) site.

Outreach Documents

[Sole Source Aquifer Fact Sheet \(PDF\)](#) (1pg, 34K)

For Project Planners: [What to submit for EPA review of proposed projects \(PDF\)](#) (1pg, 34K)

Contact Information

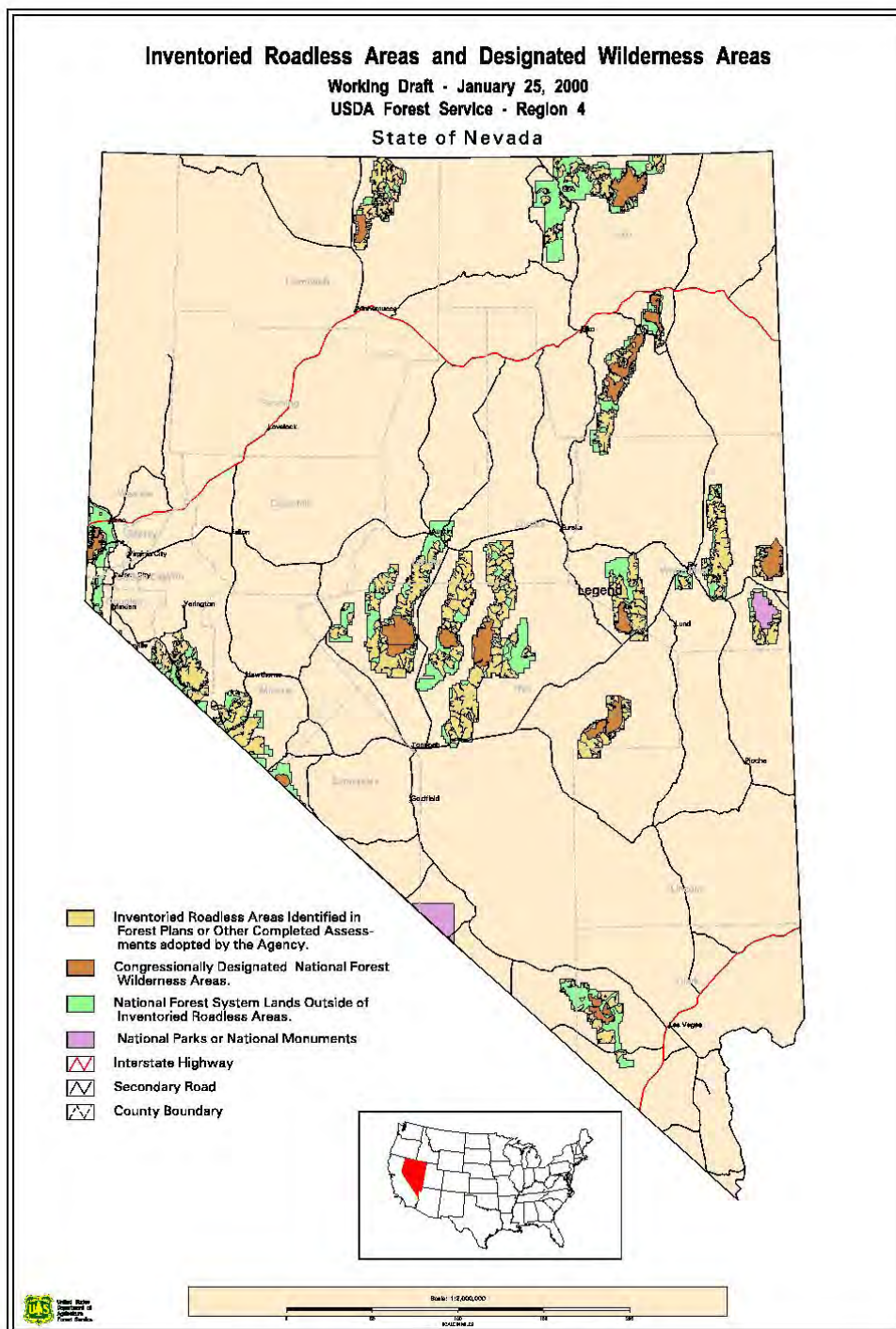
See the [Sole Source Aquifer section](#) of the Ground Water contacts page.

Last updated on 10/22/2015

NEVADA NATURAL LANDMARKS



NEVADA WILDERNESS AREAS



8.0 LIST OF PREPARERS

This environmental assessment was prepared by:

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Fax: 775.851.0766



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
Phone: (775) 861-6300 Fax: (775) 861-6301
<http://www.fws.gov/reno/>



In Reply Refer To:

June 16, 2021

Consultation Code: 08ENV00-2021-SLI-0419

Event Code: 08ENV00-2021-E-01251

Project Name: Carlin Water and Sewer Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list indicates threatened, endangered, proposed, and candidate species and designated or proposed critical habitat that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (ESA, 16 U.S.C. 1531 *et seq.*), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species have no protection under the ESA but are included for consideration because they could be listed prior to the completion of your project. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions. For additional information regarding species that may be found in the proposed project area, visit <http://www.fws.gov/nevada/es/ipac.html>.

The purpose of the ESA is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or

designated or proposed critical habitat. Guidelines for preparing a Biological Assessment can be found at: http://www.fws.gov/midwest/endangered/section7/ba_guide.html.

If a Federal action agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this species list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally listed, proposed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally, as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation, for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the attached list.

The Nevada Fish and Wildlife Office (NFWO) no longer provides species of concern lists. Most of these species for which we have concern are also on the Animal and Plant At-Risk Tracking List for Nevada (At-Risk list) maintained by the State of Nevada's Natural Heritage Program (Heritage). Instead of maintaining our own list, we adopted Heritage's At-Risk list and are partnering with them to provide distribution data and information on the conservation needs for at-risk species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. In addition, in order to avoid future conflicts, we ask that you consider these at-risk species early in your project planning and explore management alternatives that provide for their long-term conservation.

For a list of at-risk species by county, visit Heritage's website (<http://heritage.nv.gov>). For a specific list of at-risk species that may occur in the project area, you can obtain a data request form from the website (http://heritage.nv.gov/get_data) or by contacting the Administrator of Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the ESA. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address.

Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (<http://www.leg.state.nv.us/NAC/NAC-503.html>). You must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (NDOW) to

take, or possess any parts of protected fish and wildlife species. Please visit <http://www.ndow.org> or contact NDOW in northern Nevada (775) 688-1500, in southern Nevada (702) 486-5127, or in eastern Nevada (775) 777-2300.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Service's wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

The Service's Pacific Southwest Region developed the *Interim Guidelines for the Development of a Project Specific Avian and Bat Protection Plan for Wind Energy Facilities* (Interim Guidelines). This document provides energy facility developers with a tool for assessing the risk of potential impacts to wildlife resources and delineates how best to design and operate a bird- and bat-friendly wind facility. These Interim Guidelines are available upon request from the NFWO. The intent of a Bird and Bat Conservation Strategy is to conserve wildlife resources while supporting project developers through: (1) establishing project development in an adaptive management framework; (2) identifying proper siting and project design strategies; (3) designing and implementing pre-construction surveys; (4) implementing appropriate conservation measures for each development phase; (5) designing and implementing appropriate post-construction monitoring strategies; (6) using post-construction studies to better understand the dynamics of mortality reduction (*e.g.*, changes in blade cut-in speed, assessments of blade "feathering" success, and studies on the effects of visual and acoustic deterrents) including efforts tied into Before-After/Control-Impact analysis; and (7) conducting a thorough risk assessment and validation leading to adjustments in management and mitigation actions.

The template and recommendations set forth in the Interim Guidelines were based upon the Avian Powerline Interaction Committee's Avian Protection Plan template (<http://www.aplic.org/>) developed for electric utilities and modified accordingly to address the unique concerns of wind energy facilities. These recommendations are also consistent with the Service's wind energy guidelines. We recommend contacting us as early as possible in the planning process to discuss the need and process for developing a site-specific Bird and Bat Conservation Strategy.

The Service has also developed guidance regarding wind power development in relation to prairie grouse leks (sage-grouse are included in this). This document can be found at: http://www.fws.gov/southwest/es/Oklahoma/documents/te_species/wind%20power/prairie%20grouse%20lek%205%20mile%20public.pdf.

Migratory Birds are a Service Trust Resource. Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918, as amended (MBTA; 16 U.S.C. 703 *et seq.*), we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible,

we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Guidance for minimizing impacts to migratory birds for projects involving communications towers (*e.g.*, cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

If wetlands, springs, or streams are known to occur in the project area or are present in the vicinity of the project area, we ask that you be aware of potential impacts project activities may have on these habitats. Discharge of fill material into wetlands or waters of the United States is regulated by the U.S. Army Corps of Engineers (ACOE) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the ACOE's Regulatory Section regarding the possible need for a permit. For projects located in northern Nevada (Carson City, Churchill, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, and Washoe Counties) contact the Reno Regulatory Office at 300 Booth Street, Room 3060, Reno, Nevada 89509, (775) 784-5304; in southern Nevada (Clark, Lincoln, Nye, and White Pine Counties) contact the St. George Regulatory Office at 321 North Mall Drive, Suite L-101, St. George, Utah 84790-7314, (435) 986-3979; or in California along the eastern Sierra contact the Sacramento Regulatory Office at 650 Capitol Mall, Suite 5-200, Sacramento, California 95814, (916) 557-5250.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

The table below outlines lead FWS field offices by county and land ownership/project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead.

Lead FWS offices by County and Ownership/Program

County	Ownership/Program	Species	Office Lead*
Alameda	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Alameda	All ownerships but tidal/estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO

Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO
Del Norte	All	All	AFWO
El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
	All except Shasta Trinity National Forest	All	AFWO
Humboldt			
Humboldt	Shasta Trinity National Forest	All	YFWO
Lake	Mendocino National Forest	All	AFWO
Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO

Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)
Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal/estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Modoc	Modoc National Forest	All	KFWO
Modoc	BLM Alturas Resource Area	All	KFWO
Modoc	Klamath Basin National Wildlife Refuge Complex	All	KFWO
Modoc	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Modoc	All other ownerships	All	By jurisdiction (See map)
Mono	Inyo National Forest	All	RFWO
Mono	Humboldt Toiyabe National Forest	All	RFWO
	All ownerships but tidal/estuarine	All	SFWO
Napa			
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)

Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Francisco	All ownerships but tidal/estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal/estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO

Shasta	BLM Alturas Resource Area	All	KFWO
Shasta	Caltrans	By jurisdiction	SFWO/AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO/BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Siskiyou	Klamath National Forest (except Ukonom District)	All	YFWO
Siskiyou	Six Rivers National Forest and Ukonom District	All	AFWO
Siskiyou	Shasta Trinity National Forest	All	YFWO
Siskiyou	Lassen National Forest	All	SFWO
Siskiyou	Modoc National Forest	All	KFWO
Siskiyou	Lava Beds National Volcanic Monument	All	KFWO
Siskiyou	BLM Alturas Resource Area	All	KFWO
Siskiyou	Klamath Basin National Wildlife Refuge Complex	All	KFWO
Siskiyou	All other ownerships	All	By jurisdiction (see map)
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)

Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
Tehama	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Trinity	BLM	All	AFWO
Trinity	Six Rivers National Forest	All	AFWO
Trinity	Shasta Trinity National Forest	All	YFWO
Trinity	Mendocino National Forest	All	AFWO
Trinity	BIA (Tribal Trust Lands)	All	AFWO
Trinity	County Government	All	AFWO
Trinity	All other ownerships	All	By jurisdiction (See map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO

***Office Leads:**

AFWO=Arcata Fish and Wildlife Office

BDFWO=Bay Delta Fish and Wildlife Office

KFWO=Klamath Falls Fish and Wildlife Office

RFWO=Reno Fish and Wildlife Office

YFWO=Yreka Fish and Wildlife Office

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Reno Fish And Wildlife Office

1340 Financial Boulevard, Suite 234

Reno, NV 89502-7147

(775) 861-6300

Project Summary

Consultation Code: 08ENV00-2021-SLI-0419

Event Code: 08ENV00-2021-E-01251

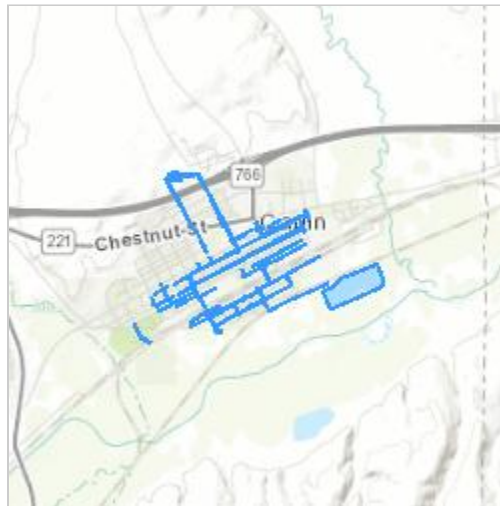
Project Name: Carlin Water and Sewer Improvements

Project Type: WATER SUPPLY / DELIVERY

Project Description: Water and sewer pipeline replacement and waste water pond rehabilitation.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.71309995,-116.09664442948906,14z>



Counties: Elko County, Nevada

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Gray Wolf <i>Canis lupus</i> Population: Western Distinct Population Segment No critical habitat has been designated for this species.	Proposed Endangered

Fishes

NAME	STATUS
Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3964	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Rosy-finch <i>Leucosticte atrata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9460	Breeds Jun 15 to Aug 31

NAME	BREEDING SEASON
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Golden Eagle <i>Aquila chrysaetos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433	Breeds Apr 15 to Aug 10
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
Willow Flycatcher <i>Empidonax traillii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/3482	Breeds May 20 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

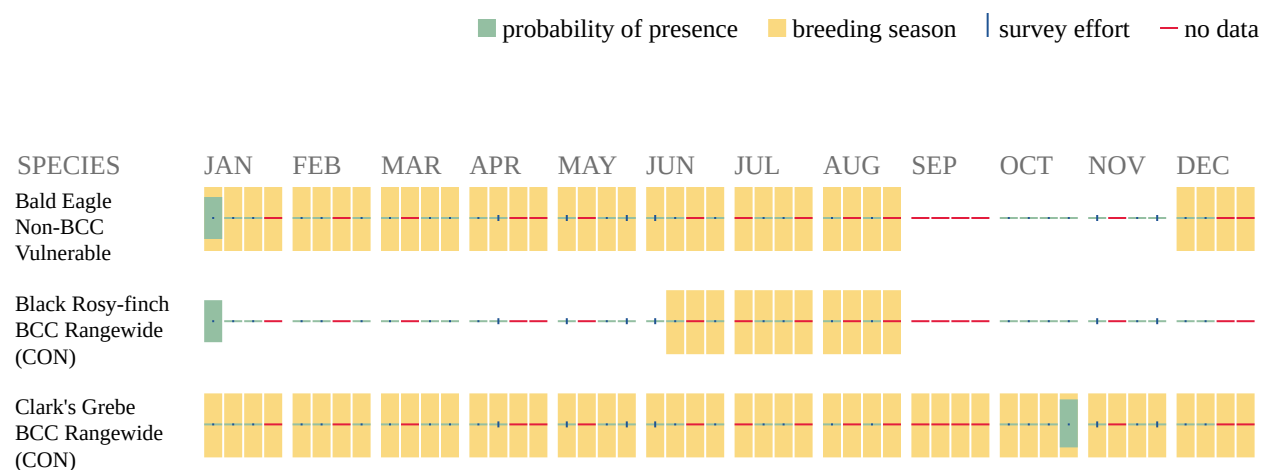
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as

occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can

implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

8.0 REFERENCES

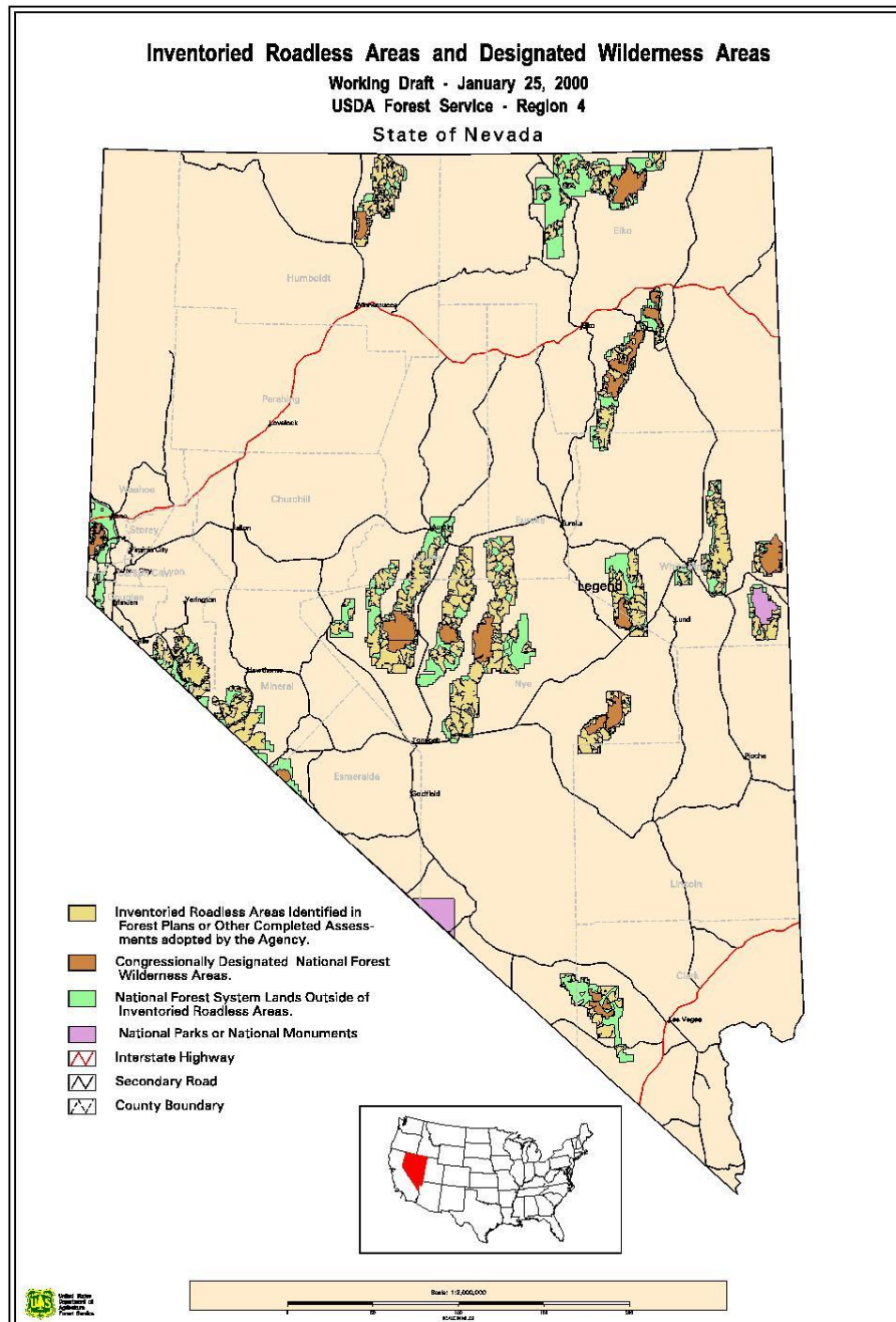
This section includes the following exhibits:

- Map of the proposed project elements
- FEMA maps
- Wetlands maps
- EPA Sole Source Aquifer Fact Sheet
- Nevada Natural Landmarks
- Nevada Wilderness Areas

NEVADA NATURAL LANDMARKS



NEVADA WILDERNESS AREAS



This environmental assessment was prepared by:

Danny Sommers

Project Manager,

Farr West Engineering

5510 Longley Lane

Reno, NV 89511

Email: danny@farrwestengineering.com

Phone: 775.851.4788

Fax: 775.851.0766

Jessica Dugan

Environmental and Regulatory Specialist

Farr West Engineering

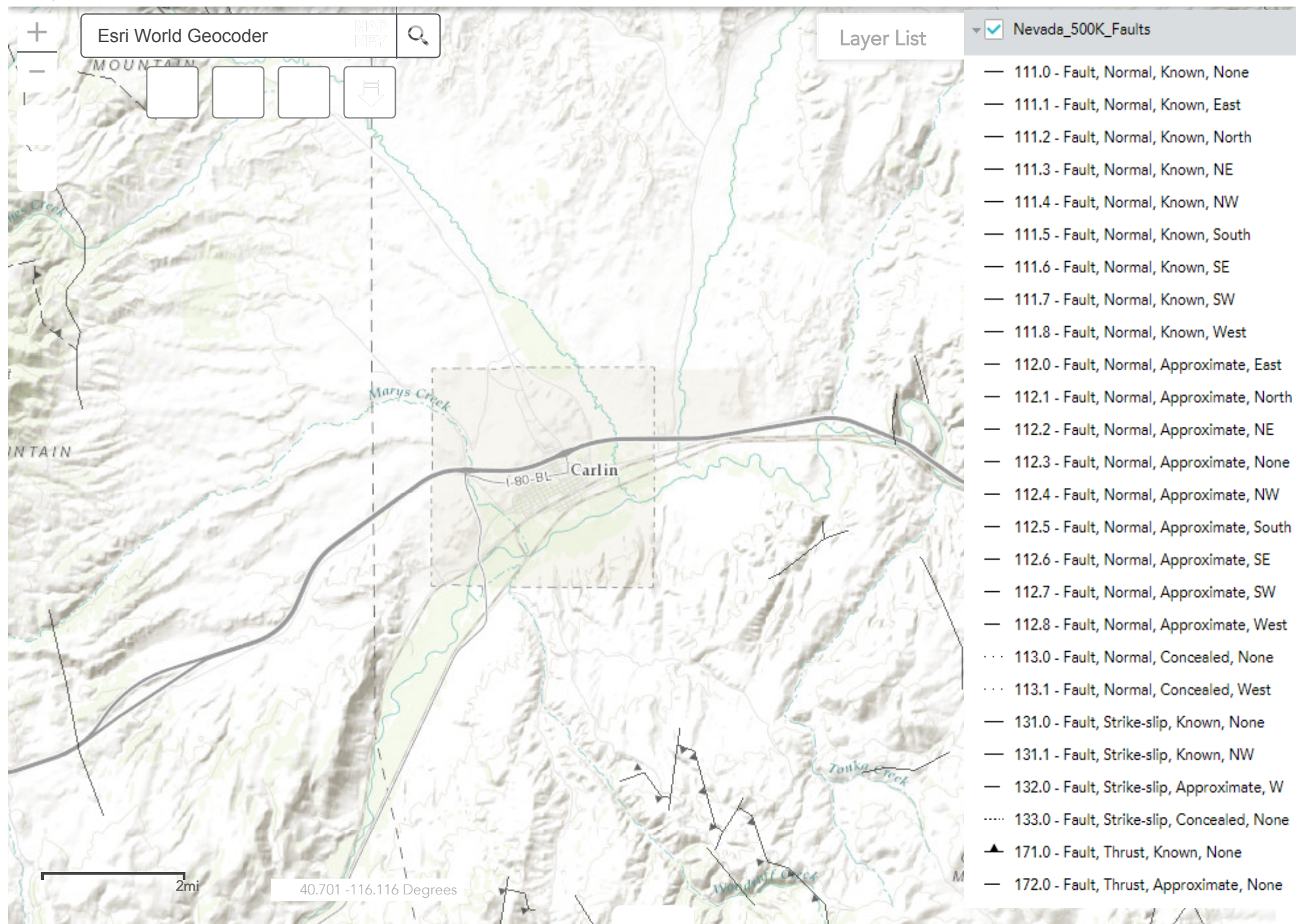
5510 Longley Lane

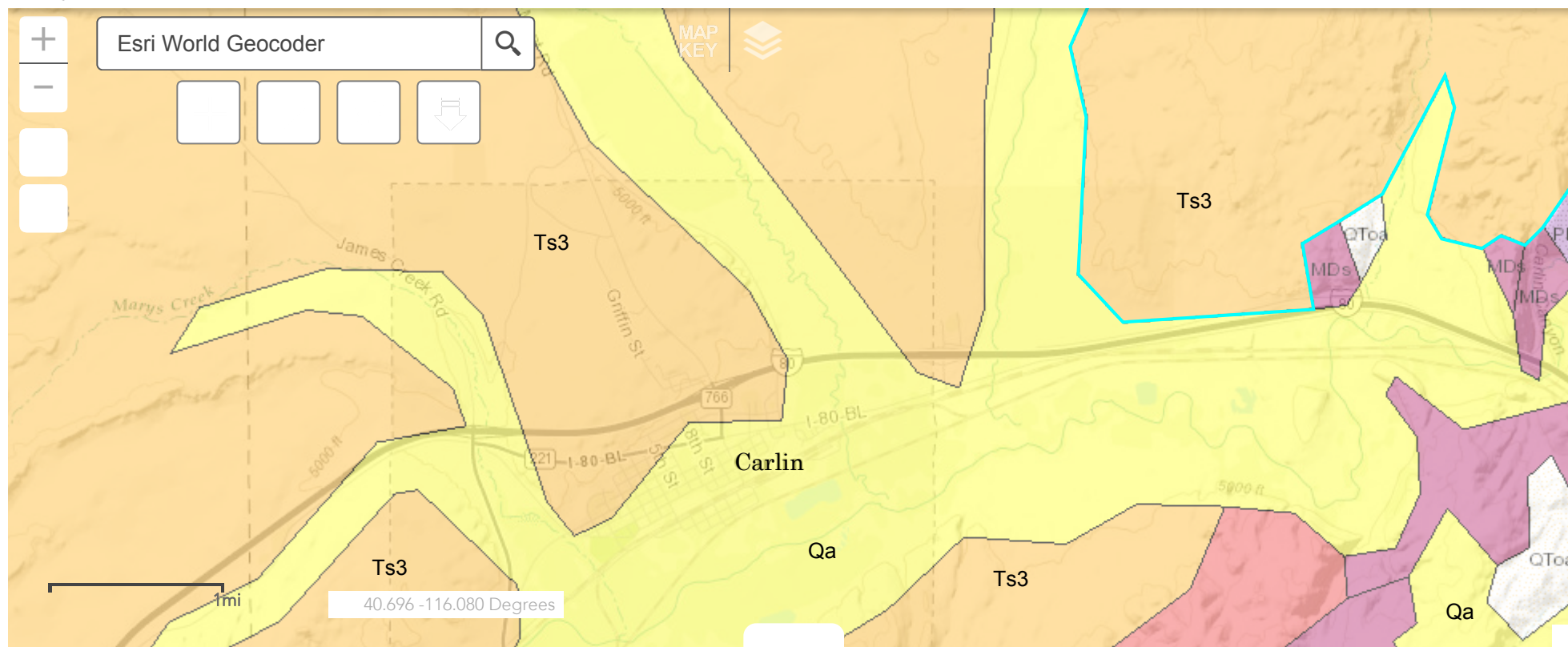
Reno, NV 89511

Email: JDugan@farrwestengineering.com

Phone: 775.997.7495

Fax: 775.851.0766





Nevada_500k_Anno

Nevada_500k_Contacts

Nevada_500K_Faults

Nevada_500K_Geologic_Unit

Options

Filter by Map Extent

Zoom to

Clear Selection

Refresh

OBJECTID	Unit Symbol	Name	Description	Unit Type	Lithology	Geologic History	Specification
2729	Ts3	TUFF ACEOUS SEDIMENTARY ROCKS	TUFF ACEOUS SEDIMENTARY ROCKS-Locally includes minor amounts of tuff	Lithostratigraphic Unit	Igneous rock	Late Eocene to Late Miocene	Unknown
2855	Qa	ALL UVIAL DEPOSITS	Locally includes beach and sand dune deposits.	Lithostratigraphic Unit	Unconsolidated	Quaternary	Unknown

1 features 0 selected

APPENDIX B

WELL LOGS

WATER RIGHTS INVENTORY

STATE OF NEVADA
DIVISION OF WATER RESOURCES

OFFICE USE ONLY
Log No. 30646
Permit No. 52264
Basin 52 - Marysville Area
7966

PRINT OR TYPE ONLY

WELL DRILLERS REPORT

Please complete this form in its entirety

NOTICE OF INTENT NO. 7966

OWNER City of Carlin
MAILING ADDRESS 101 S. Eighth Street
Carlin, Nevada 89822
ADDRESS AT WELL LOCATION Municipal Water Well

2. LOCATION NE 1/4 Sec. 27 T. 33 N/S R. 52 E. Eureka Co
PERMIT NO. W-262 County Eureka

Issued by Water Resources Parcel No. Subdivision Name

3. TYPE OF WORK
New Well ☒ Recondition ☐
Deepen ☐ Other ☐
4. PROPOSED USE
Domestic ☐ Irrigation ☐ Test ☐
Municipal ☒ Industrial ☐ Stock ☐
5. TYPE WELL
Cable ☐ Rotary ☒
Other ☐

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thick-ness
black dirt		0	30	30
yellow clay		30	50	20
gold-yellow clay		50	70	20
lg to sm gravel, broken rocks				
white clay, fine sand		70	90	20
clay sand gravel		90	110	20
sm gravel, broken rock chips, sand		110	130	20
sand med gravel		130	150	20
white-gray clay, sand silt		150	230	80
white clay		230	250	20
white-tan-gray clay, sand stone				
silt		250	470	220
darker gray clay		470	510	40
multi-color caly		510	530	20
dark brown-tan-gray limestone		530	610	80
sand & clay layers		610	625	15
sand & gravel		625	630	5
sand		630	640	10
clay w/sand		640	654	14

8. WELL CONSTRUCTION

Diameter hole 17-1/2 inches Total depth 654 feet
Casing record 12-3/4 O.D. x 1/4
Weight per foot 33.38 Thickness
Diameter From To
conductor inches feet feet
18-3/8 inches +1 feet 153 feet
12-3/4 inches 153 feet 654 feet
Surface seal: Yes ☒ No ☐ Type cement grout
Depth of seal 153 feet
Gravel packed: Yes ☒ No ☐
Gravel packed from 153 feet to 654 feet

Perforations:

Type perforation MS slot - Std Const WW Screen
Size perforation 12-3/4 x 1/4
From 207 feet to 367 P feet
From 367 feet to 649 S feet
From feet to feet
From feet to feet
From feet to feet

9. WATER LEVEL

Static water level 165 feet below land surface
Flow G.P.M. P.S.I.
Water temperature Cold F. Quality Good

10. DRILLERS CERTIFICATION

This well was drilled under my supervision and the report is true to the best of my knowledge.

Name Sargent Irrigation Company
Contractor

Address P.O. Box 2646 Elko, Nevada 89801
Contractor

Nevada contractor's license number 21246

Nevada contractor's drillers number 1391

Nevada driller's license number 1492

Signed Mark Leibel Actual Driller
Contractor

Date October 12, 1988

Date started 6/22 19 88
Date completed 8/24 19 88

7. WELL TEST DATA

Pump RPM	G.P.M.	Draw Down	After Hours Pump
<u>1200</u>	<u>5</u>	<u>48</u>	

BAILER TEST

G.P.M. Draw down feet hours
G.P.M. Draw down feet hours
G.P.M. Draw down feet hours

City of Carlin

February 9, 2018

Basin	App. No.	Status	Cert. No.	Priority Date	Source	Type of Use	POD Designation	Well Log	POD QQ	POD Qtr	POD Sec	POD Twn	POD Rng	Div Rate (CFS)	Annual Duty (AFA)	TCD	County	Due Dates POC	Due Dates PBU	Change App Filed	Remarks
Maggie Creek Area Basin No. 051																					
51	31193	PER		3/18/1977	EFF	STO			SE	SW	26	33N	52E	1.500	1085.955		Elko	Filed	N/A		
51	31193-S01	CER	14197	3/18/1977	EFF	IRR			SE	SW	26	33N	52E	1.500	120.76		Elko	Filed	Filed		30.19 Acres Total
51	51981	PER		4/4/1988	UG	MUN			SW	SW	23	33N	52E	2.000	735.308		Elko	4/11/2018	4/11/2018		
51	70714	PER		1/5/2004	UG	MUN			SE	SE	16	33N	52E	0.100	4.603		Elko	6/24/2018	6/24/2018		Mining Interpretive Center
Mary's Creek Area Basin No. 052																					
52	50434	CER	15550	12/19/1986	SPR	MUN	Arthur Spring		SW	SE	28	33N	52E	0.144	35.2		Elko	Filed	Filed		
52	50437	PER		7/25/1961	SPR	MUN	Arthur Spring		SW	SE	28	33N	52E	1.000			Elko	Filed	4/11/2018		
52	68232	PER		3/19/1956	SPR	MUN	Arthur Spring		SW	SE	28	33N	52E	3.000			Elko	Filed	6/20/2018		
52	50439	CER	15551	1/1/1870	SPR	MUN	S.P. Spring		SW	SE	28	33N	52E	0.770	557.457		Elko	Filed	Filed		
52	50436	PER		9/7/1934	UG	MUN			SE	SW	27	33N	52E	0.890	644.346		Elko	Filed	4/11/2018		
52	52266	PER		9/9/1933	UG	MUN		30646	NE	NW	27	33N	52E	0.560	405.432		Elko	Filed	4/11/2018		
52	57712	PER		4/4/1988	UG	MUN			SE	SE	27	33N	52E	2.000	735.308		Elko	4/11/2018	4/11/2018		

All water right permits filed in the name of "City of Carlin" and shown as "Carlin - City" on NDWR database

TCD of Permit Nos. 50436, 51981, 52266, 57712 = 342.07 MGA (1049.774 AFA). This TCD spreads over both hydrographic basins.

APPENDIX C

NDEP DOCUMENTS

City of Carlin
Public Works Department
810 Oak Street, PO Box 340
Carlin, NV 89822
Phone 775-754-6515
Fax 775-754-6253
publicworks@explorecarlinnv.com

Director Carlos A Esparza

The City of Carlin is an equal opportunity provider and employer.

January 11, 2010
Mr. Ross Cooper

Subject, Sanitary survey of Carlin utilities (NV0000014) Elko County

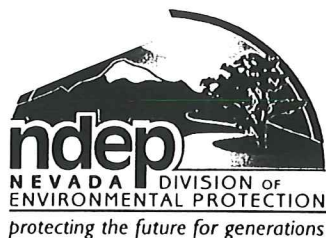
Dear Mr. Cooper

I received your letter out lining our deficiencies. We have taken the following actions. We will as soon as weather permits back fill and grade gravel around the large water tank as noted. We are researching and pricing flapper valves for the two tanks and the reservoir that will soon be on line. If the cost remains in our existing budget we will order and install as soon as possible, if the cost are excessive to our budget they will be ordered on start of new budget on July first 2010. We have already repaired the screen on the Industrial tank and tightened leaking bolts. We have already replaced one air relief valve at well # 3 and the second is on back order and shall be replaced upon arrival. We are in the process of building a secondary containment area for spills in our chlorination areas. I hope you find our corrective actions are satisfactory. If you have any questions or comments please feel free to contact me.

Thanks for your help and time



Carlos A Esparza
Director of Public Works



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor

Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

BUREAU OF SAFE DRINKING WATER

December 3, 2009

Mr. Carlos Esparza
Carlin Utilities
PO Box 340
Carlin NV 89822

Subject: SANITARY SURVEY OF CARLIN UTILITIES (NV0000014); ELKO COUNTY

Dear Mr. Carlos Esparza,

This letter serves to report the results of the Sanitary Survey inspection conducted by the Nevada Division of Environmental Protection, Bureau of Safe Drinking Water (BSDW) of the above referenced facility on November 18, 2009. The assistance of water system representatives mentioned below was very helpful and greatly appreciated.

Parties Present

NAME	ORGANIZATION
Ross Cooper	Bureau Of Safe Drinking Water
Carlos Esparza	Carlin Utilities
Ken Mallory	SPB Utility Services Inc

The deficiencies listed below were noted during the inspection and require corrective action. **Please provide a written response addressing these issues within 45 days of receipt of this report, January 18, 2010.** Your response must outline the course of action that has or will be taken and the date by which you propose to correct the deficiencies.

Other Deficiencies

The following items are deficiencies which require corrective action:

FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	The storage facility has problems with the base/foundation. NAC 445A.6708
Comments: Back fill and re-grade gravel foundation of the Small Storage Tank base. See Attachment #1.		

BSDW Fax (775) 687-5699

901 S. Stewart Street, Suite 4001 • Carson City, Nevada 89701-5249 • p: 775.687.9521 • f: 775.687.5699 • ndep.nv.gov

FACILITY	CATEGORY	DESCRIPTION
ST04 - INDUSTRIAL STORAGE TANK 212K	Finished Water Storage	The storage facility is leaking or has openings that will allow contamination to occur. NAC 445A.6708
Comments: Ensure the screen over the vent also secures the bolt holes on the Industrial Storage Tank.		
FACILITY	CATEGORY	DESCRIPTION
ST03 - BIG STORAGE TANK 1M250K	Finished Water Storage	The storage facility overflow pipe is not adequately sized, or the terminus is not screened or equipped with a flapper valve, has no splash plate or the terminus is not air gapped to daylight. NAC 445A.6708
Comments: Replace metal screen on overflow pipe with a designated flapper valve. See Attachment #4.		

Significant Deficiencies

The following items are significant deficiencies which require immediate attention:

No observations were recorded in this category.

Observations/Recommendations

The following are observations, comments, and/or recommendations and require written response where indicated. The recommendations will enable your system to better conform to the requirements of applicable design criteria or other industry standards:

FACILITY	CATEGORY	DESCRIPTION
ST01 - COVERED RES STORAGE TANK 340K	Finished Water Storage	The storage facility overflow pipe is not adequately sized, or the terminus is not screened or equipped with a flapper valve, has no splash plate or the terminus is not air gapped to daylight. NAC 445A.6708
Comments: Advise replacing screen on PVC overflow pipe with a designated flapper valve before being placed in service. See Attachment #3.		
FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	The storage facility overflow pipe is not adequately sized, or the terminus is not screened or equipped with a flapper valve, has no splash plate or the terminus is not air gapped to daylight. NAC 445A.6708
Comments: Recommend extending storage tank overflow pipe and replacing steel screen with a flapper valve. See Attachment #2		
FACILITY	CATEGORY	DESCRIPTION
TP01 - SPRING CHLORINATOR	Treatment	Chemicals used at the treatment plant are not properly stored and/or labeled. NAC 445A.6681
Comments: To control the potential for spills, chemicals in liquid form should have a means for secondary containment. See Attachment #5.		

FACILITY	CATEGORY	DESCRIPTION
TP02 - WELL 3 CHLORINATOR	Treatment	Chemicals used at the treatment plant are not properly stored and/or labeled. NAC 445A.6681
Comments: To control the potential for spills, chemicals in liquid form should have a means for secondary containment.		
FACILITY	CATEGORY	DESCRIPTION
W01 - WELL 3	Source	Other issues at source.
Comments: Air relief valve requires frequent replacement (~ annually) and is displacing "quite a bit of water" in addition to releasing air. John Allred of Nevada Rural Water Association has been contacted to provide assistance. See Attachment #6.		

Monitoring and Reporting

Monitoring Violations:

No monitoring violations were reported in the past year.

Maximum Contaminant Level (MCL) Violations during the past year:

Violation Date	Sample Result	Maximum Contaminant Level	Analyte	Compliance Period
06/18/2008	NA	NA	COLIFORM (TCR)	July 2008

Other Violations during the past year:

No other violations were reported in the past year.

Positive bacteriological sampling history for the past year:

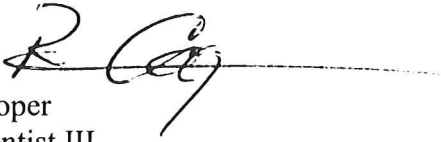
No Positive Samples were reported in the past year.

Reminders

- The Nevada Administrative Code (NAC) 445A.6669 requires the Division's approval prior to commencement of construction of any improvements, treatment process modifications, or the addition of new water sources.
- The Nevada Administrative Code contains specific requirements for record keeping. Some records must be kept for as long as ten years. The Public Water System is responsible for maintaining its own records.
- Most regulations, guidance documents, and forms are available via Internet on the Bureau's website. Please link to www.ndep.nv.gov/bsdww for further information.
- Additional information and guidance is available on the EPA's Office of Ground Water and Drinking Water web site (www.epa.gov/safewater) or at the Safe Drinking Water hotline (1-800-426-4791).

If you have any questions, please contact me at 775-687-9522. Thank you for your time and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Cooper', is written over a horizontal line.

Ross Cooper
Env Scientist III
rcooper@ndep.nv.gov

cc: Ken Mallory, SPB Utility Services Inc

Attachments



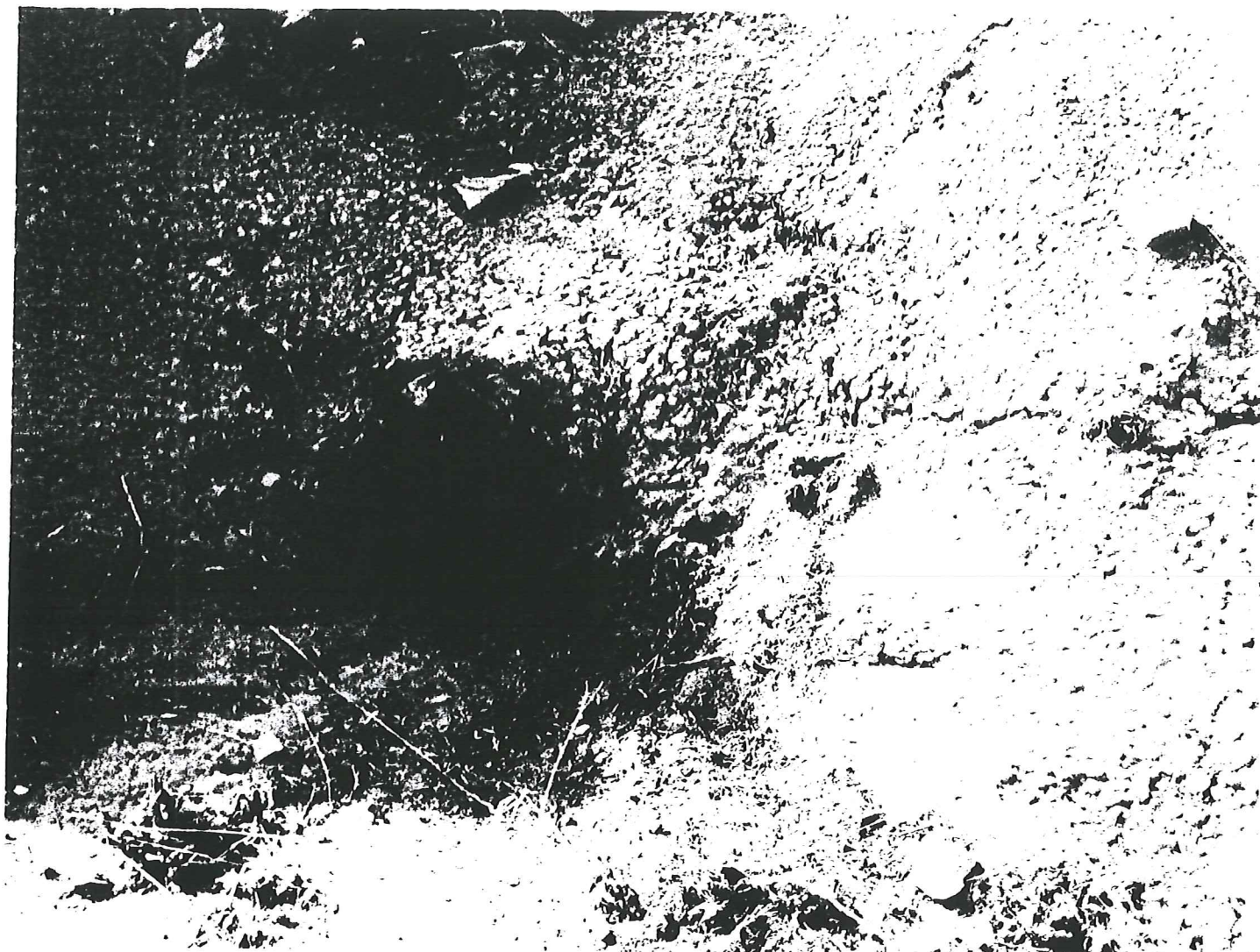
Attachment #1

Severity: Minor

Facility ID: SMALL STORAGE TANK 300K

Category: Finished Water Storage

Attachment Comments: Back fill and re-grade the gravel foundation of the Storage Tank.



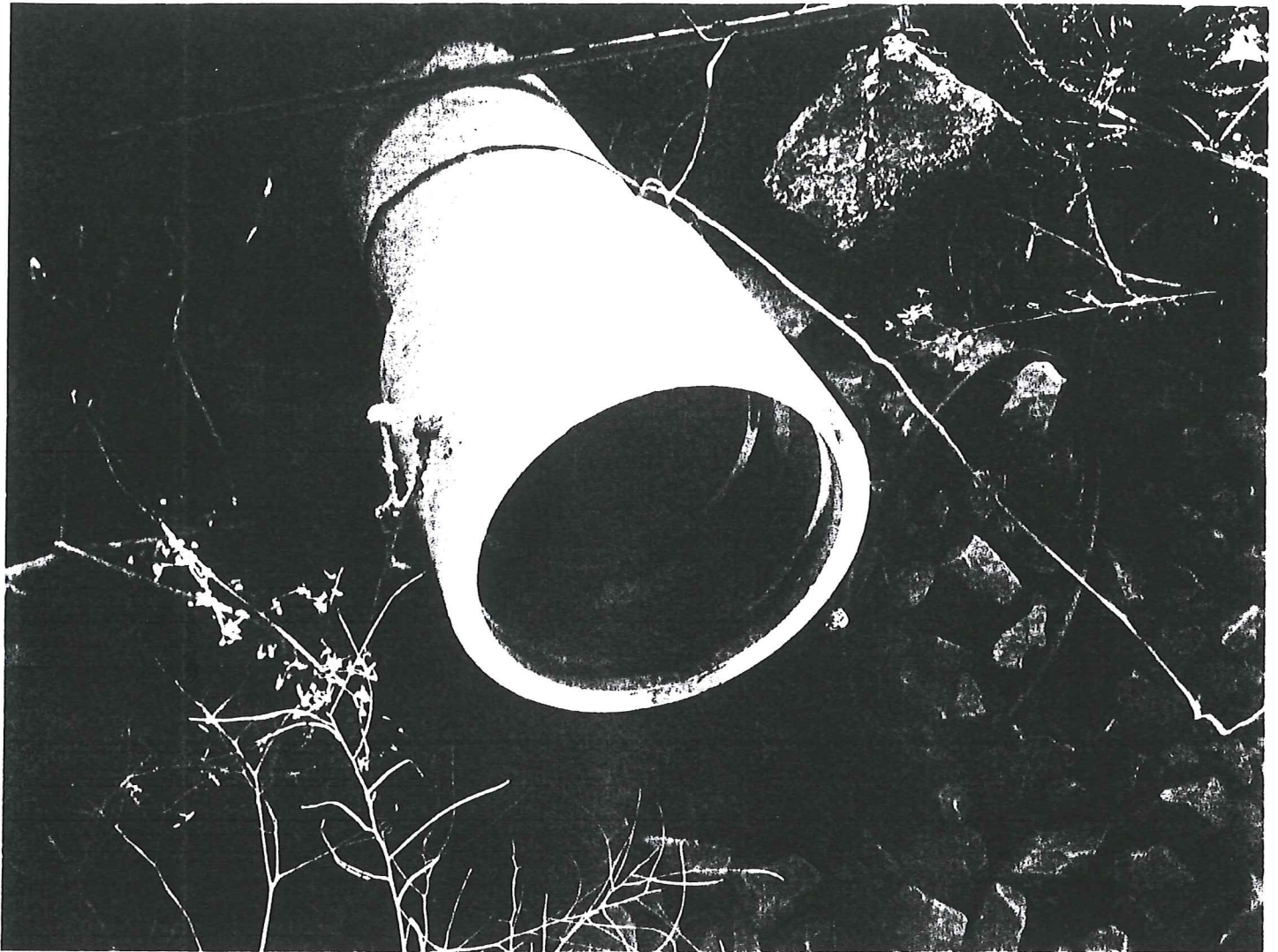
Attachment #2

Severity: Recommendations

Facility ID: SMALL STORAGE TANK 300K

Category: Finished Water Storage

Attachment Comments: Recommend extending storage tank overflow pipe and replacing steel screen with a flapper valve.



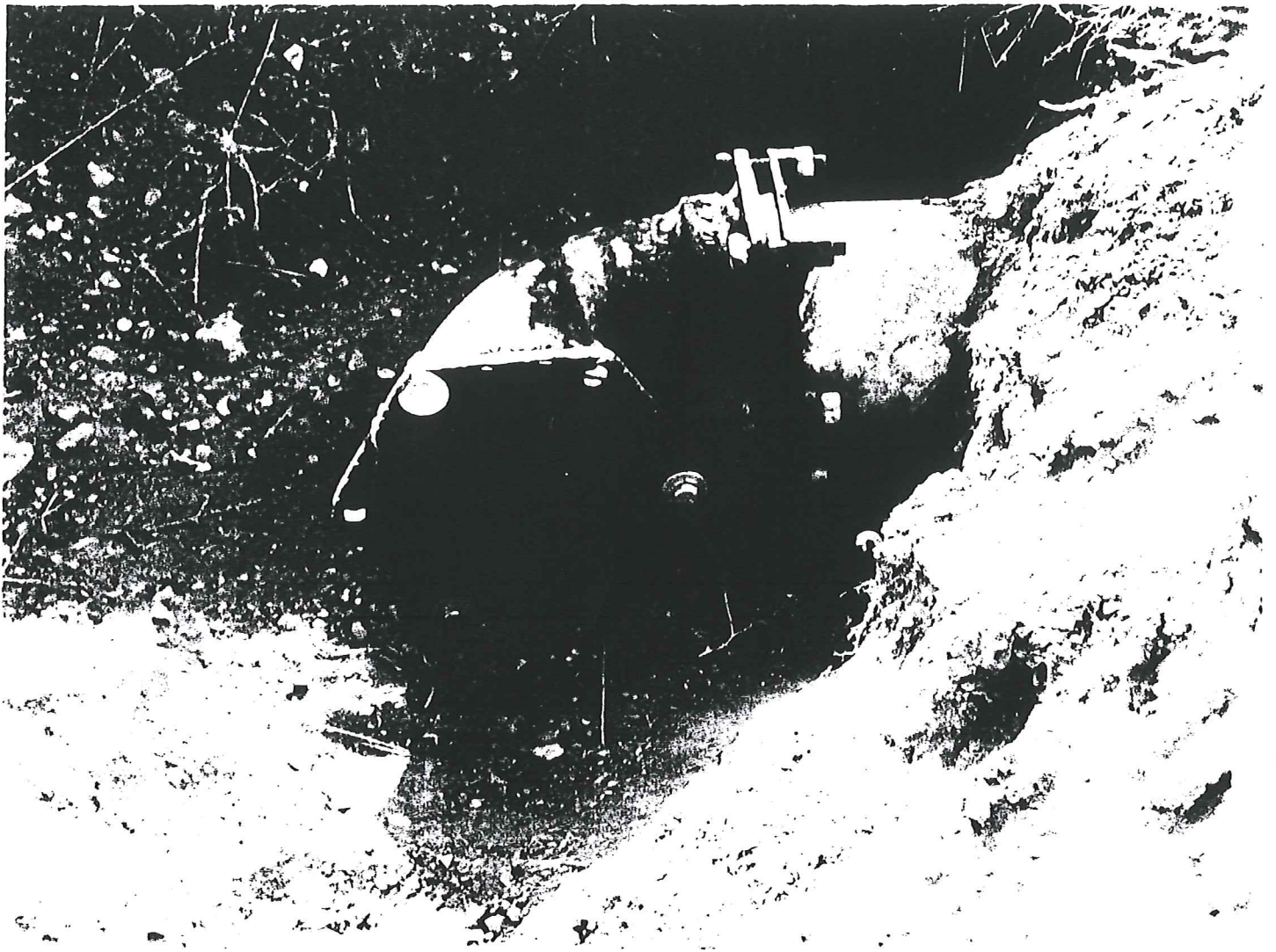
Attachment #3

Severity: Recommendations

Facility ID: COVERED RES STORAGE TANK 340K

Category: Finished Water Storage

Attachment Comments: Install a designated flapper valve on overflow pipe before underground reservoir is brought on line.



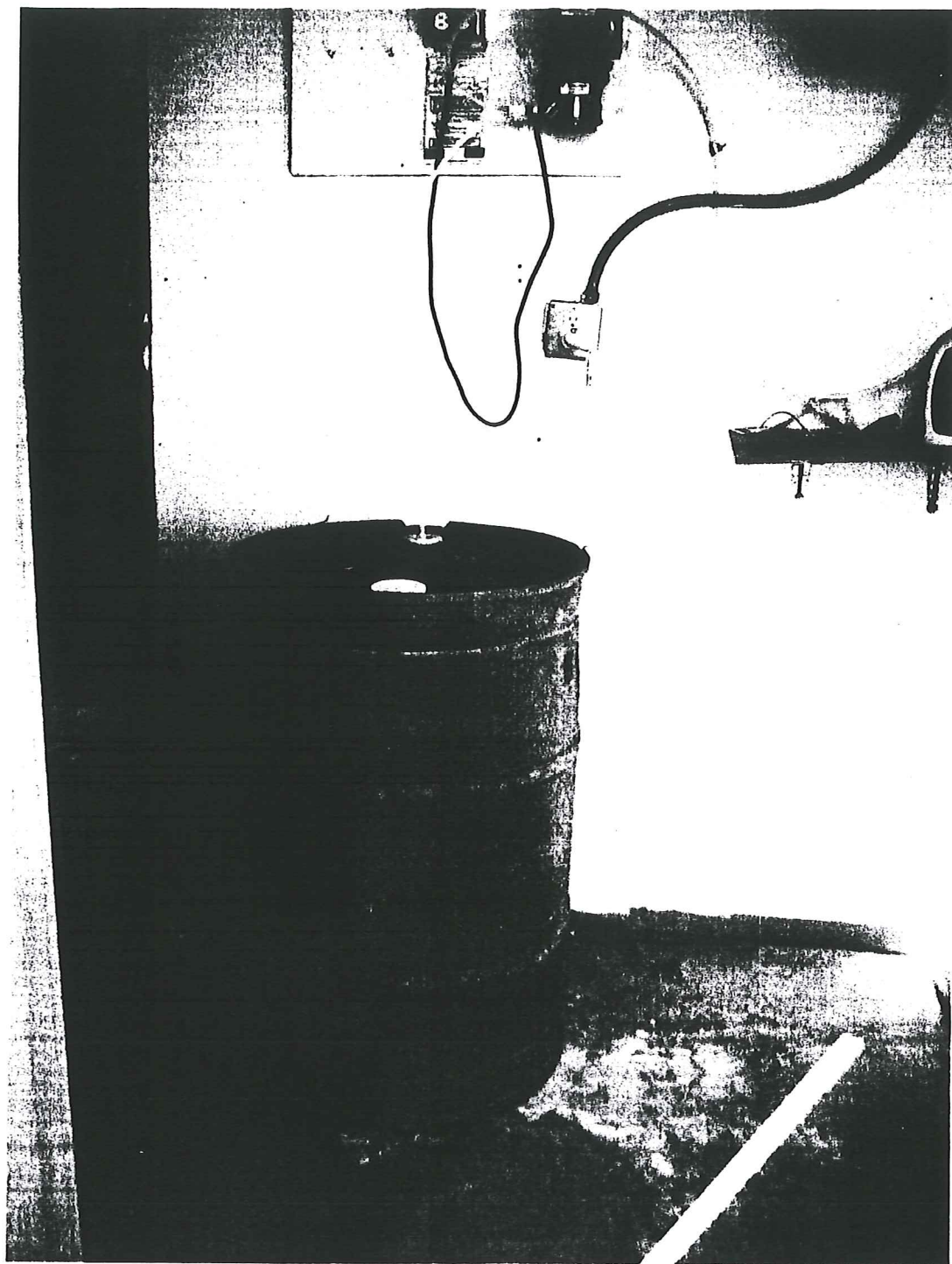
Attachment #4

Severity: Minor

Facility ID: BIG STORAGE TANK 1M250K

Category: Finished Water Storage

Attachment Comments: Replace metal screen on overflow pipe with a designated flapper valve.



Attachment #5

Severity: Recommendations

Facility ID: SPRING CHLORINATOR

Category: Treatment

Attachment Comments: To control the potential for spills, chemicals in liquid form should have a means for secondary containment.



Attachment #6

Severity: Recommendations

Facility ID: WELL 3

Category: Source

Attachment Comments: Air relief valve requires frequent replacement (~ annually) and is displacing "quite a bit of water" in addition to releasing air.



STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Leo M. Drozdoff, PE, Director
David Emme, Administrator

July 2, 2015

CERTIFIED:
9171 9690 0935 0012 2564 78

Mr. Carlos Esparza
Carlin Utilities
PO BOX 340
Carlin NV 89822

Subject: SANITARY SURVEY OF CARLIN UTILITIES (NV0000014); ELKO COUNTY

Dear Mr. Esparza:

This letter serves to report the results of the Sanitary Survey inspection conducted by the Nevada Division of Environmental Protection, Bureau of Safe Drinking Water (BSDW), of the above referenced facility on **June 4, 2015**. To document the necessary corrective actions, you are required to provide a written response addressing the noted deficiency(s) within **45 days** of receipt of this report or by **August 13, 2015**. The assistance of water system representatives mentioned below was very helpful and greatly appreciated.

Parties Present

NAME	ORGANIZATION
Margie Evans	Bureau Of Safe Drinking Water
Carlos Esparza	Carlin Utilities
Rich Johnson	Bureau Of Safe Drinking Water

Significant Deficiencies

The significant deficiencies listed below were noted during the inspection and require immediate corrective action, as outlined in the "comments". The Ground Water Rule requires that you meet the following regulatory deadlines for completing all actions associated with the significant deficiency(s):

- 30 days- **Consult** with our agency to determine the appropriate corrective actions and schedule for compliance within 30 days of receipt of this report.
- 45 days- **Submit** a written response within 45 days of receipt of this report. The response must outline the course of action that has or will be taken and the date by which you propose to correct the deficiencies.
- 120 days- **Correct** the significant deficiency(s) or have an approved corrective action plan within 120 days of receipt of this report, unless a more stringent deadline is noted in the "comments" below.
- 30 days- **Document** and submit in writing, within 30 days of correction, that the significant deficiency(s) has been corrected.

FACILITY	CATEGORY	DESCRIPTION
ST01 - COVERED RES STORAGE TANK 340K	Finished Water Storage	The storage facility must be maintained to prevent pollution and contamination by way of leaks and openings (prevent entrance of rain, surface water, dust, birds, insects, and other animals). NAC 445A.6708.4 and 445A.67095
Comments: Upon inspection of the facility, three dead birds were found floating in the north side of the reservoir. The storage area was shut off from the water system, and the system was directed to drain and disinfect. Once it is flushed and refilled, they are to provide sample analysis to confirm that no coliforms remain. During the process, find and seal all openings that can allow access for contamination. The water system maintained contact with BSDW in Carson City after the inspectors left. Please provide a copy of the sample results on consecutive days showing that the storage tank is free of microbial contamination. Provide photographic documentation to show that the openings have been sealed. As a proactive approach to avoid future situations, provide the public water system's plan to add checks to the system to address animal intrusion (e.g. checklist for weekly inspections). See Attachment #1		
FACILITY	CATEGORY	DESCRIPTION
SP02 - SPRING	Source	The spring collection box cover must be properly constructed and fitted with a sealing gasket. NAC 445A.6696.3
Comments: The building over the spring collection gallery has many areas where daylight gets through. Evidence of contamination potential was present in debris and bird feces around inside walkway of gallery. The building needs to be well-sealed so that contamination cannot occur. Send photographic evidence that holes are sealed, walkway around gallery cleaned, and all vermin debris removed. As a proactive approach to avoid future situations, provide the public water system's plan to add checks to the system to address animal intrusion (e.g. checklist for weekly inspections). See Attachments #2 and #3		
FACILITY	CATEGORY	DESCRIPTION
SP02 - SPRING	Source	Spring discharge and overflow pipes and other appurtenances must be properly screened, oriented and/or air gapped to daylight. NAC 445A.6696
Comments: The spring outflow pipes are screened and daylight at an air break that discharges into a stream. The distance between the discharge and stream water level does not appear to be sufficient to achieve an air gap. An air gap must fall a distance of twice the diameter of the discharging pipe to be effective and meet regulations. The pipes are not pressurized, allowing airspace where insects and dust can infiltrate the coarse screen and enter the collection gallery. The vegetation and debris need to be removed and the collecting basin beneath the outflow lowered to provide an appropriate airgap. The coarse screens protecting the outflow must be replaced with flapper valves that don't allow introduction of contaminants. Consult with BSDW Engineering to assess the various flapper valves and determine the best choice for this area. See Attachment #4		
FACILITY	CATEGORY	DESCRIPTION
SP02 - SPRING	Source	The system must routinely control weeds, remove debris and remove root systems deeper than 2 feet that are within 100 ft of the spring collection area. NAC 445A.6696
Comments: Although crews are regularly assigned to remove weeds around the spring collection area,		

Comments: The flapper valve at the downstream end of the overflow pipe does not seal tightly and must be free of litter and debris. Re-arm the drainage, lowering the input point so that erosion cannot cause the valve to stick open. Provide photographic evidence that the channel has been repaired and cleaned, and that the valve seals appropriately. See Attachment #8

FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	Metal surfaces of storage facilities must be protected with approved interior or exterior coatings. NAC 445A.67085

Comments: Although the tank has been inspected on a regular schedule, the amount of rust appearing on the inside of the tank should be watched and addressed at the next tank inspection. The inspection report has been submitted to BSDW for review. See Attachment #9

FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	Storage facilities must use a properly sized vent and the vent screen must be present in working condition. NAC 445A.6708.3

Comments: The screening material used on the tank does not meet regulations. The vent screen must be replaced with 22-24 mesh of non-corrosive material. See Attachment #10

FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	The storage facility must be maintained to prevent pollution and contamination by way of leaks and openings (prevent entrance of rain, surface water, dust, birds, insects, and other animals). NAC 445A.6708.4 and 445A.67095

Comments: The hatch does not close tightly and needs a gasket to provide an airtight seal. Please address and provide photographic evidence that the hatch lid seals appropriately.

FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	The storage facility has problems with the base/foundation. NAC 445A.6708.1(b)

Comments: Two of the three storage tanks inspected, including this one, have issues with rodents or other pests burrowing down and back under the storage tanks. Operator stated that a crew is sent up regularly to inspect and repair any burrow holes around the tank. Talk with Nevada Rural Water Association staff to determine ways to prevent or discourage this vermin behavior. See Attachment #11

FACILITY	CATEGORY	DESCRIPTION
ST02 - SMALL STORAGE TANK 300K	Finished Water Storage	Other issues or observations at finished water storage.

Comments: The hatch does not close tightly and needs a gasket to provide an airtight seal. The hatch needs to be adjusted so that it can be locked. Please address and provide photographic evidence that the hatch lid seats and seals appropriately. See Attachments #12

FACILITY	CATEGORY	DESCRIPTION
ST03 - BIG STORAGE TANK 1M250K	Finished Water Storage	Storage facilities must use a properly sized vent and the vent screen must be present in working condition. NAC 445A.6708.3

Comments: Please replace the existing vent screen with one approved by regulations and provide photographic evidence of the proper screening in place.

FACILITY	CATEGORY	DESCRIPTION
ST03 - BIG STORAGE TANK 1M250K	Finished Water Storage	Storage facility's overflow pipe must be adequately sized, or the terminus must be screened or equipped with a flapper valve, or must have splash plate or the terminus must have an air gapped to daylight. NAC 445A.6708.3
Comments: The outflow channel seems to have eroded to bring the level of the catch basin too close to the valve. Clean out the channel, re-armor as needed, and reduce the level of the catch basin so that erosion will not affect the operation of the valve. Please provide photographic evidence that the channel has been cleaned out and releveled. See Attachment #13		
FACILITY	CATEGORY	DESCRIPTION
ST03 – BIG STORAGE TANK 1M250K	Finished Water Storage	Storage facilities must use a properly sized vent and the vent screen must be present in working condition. NAC 445A.6708.3
Comments: Please replace the existing vent screen with one approved by regulations and provide photographic evidence of repair. See Attachment #14		

Observations/Recommendations

The following are observations, comments, and/or recommendations and require written response where indicated. The recommendations will enable your system to better conform to the requirements of applicable design criteria or other industry standards:

FACILITY	CATEGORY	DESCRIPTION
ST04 – INDUSTRIAL STORAGE TANK 212K	Finished Water Storage	Other issues or observations at finished water storage.
Comments: Please verify, with photographs, that the outflow seals properly, that the hatch closes completely and has a gasket installed, that the vent is screened with 22-24 mesh non-corrosive material, and that the base of the tank does not have foundation issues. Provide these photographs before September 1, 2015.		

While there are several deficiencies, several are the result of aging infrastructure and improved understanding of microbial pathways. A Capital Improvement Project may be needed to address the building over the spring box and the spring discharge issues. BSDW Engineering and Compliance Branches are happy to consult with you on the project potential if needed. Nevada Rural Water Association has been contacted regarding the burrowing issue you have at the storage tanks. Please contact them if you need ideas on how to control the damage. They are also available to consult/assist on any other concerns you may have.

If these deficiencies cannot be correct within the timeframe required by regulation, be sure to consult with BSDW staff to devise realistic timeframes to complete the work. We can assign some of the deficiencies to Corrective Action Plans whether short- or long-term. The important piece in all this is to develop a plan and work closely with BSDW.

Monitoring and Reporting

Monitoring Violations:

No monitoring violations were reported in the past year.

Maximum Contaminant Level (MCL) Violations during the past year:

No maximum contaminant level violations were reported in the past year.

Other Violations during the past year:

No other violations were reported in the past year.

Positive bacteriological sampling history for the past year:

No Positive Samples were reported in the past year.

During the inspection, the items noted above and self-reported compliance data from 2012 to 2015 were reviewed/discussed. BSDW Staff researched your current radiological monitoring schedule and found that you have been monitoring more often than necessary given recent results. Included in this report is an updated Monitoring Assessment Plan (MAP) that shows a reduced sampling schedule for radiological constituents. While you are not required to report uranium results on the same schedule as your other radiologicals, we caution you to take uranium with the gross alpha and radium samples because of the method your lab uses to analyze the results (as noted on the MAP).

Reminders

The Nevada Administrative Code (NAC) 445A.6669 requires the Division's approval prior to commencement of construction of any improvements, treatment process modifications, or the addition of new water sources.

The Nevada Administrative Code contains specific requirements for record keeping. Some records must be kept for as long as ten years. The Public Water System is responsible for maintaining its own records.

Most regulations, guidance documents, and forms are available via Internet on the Bureau's website. Please link to www.ndep.nv.gov/bsdw for further information.

Additional information and guidance is available on the EPA's Office of Ground Water and Drinking Water web site (www.epa.gov/safewater) or at the Safe Drinking Water hotline (1-800-426-4791).

If you have any questions, please contact me at 775-687-9516. Thank you for your time and cooperation.

Sincerely,



Margie Evans,
Bureau of Safe Drinking Water
mevans@ndep.nv.gov

Encl. *GWR Significant Deficiency Attachment*
Monitoring Assessment Plan
EPA Lead Free Markings for Drinking Water System

Cc: Ken Mallory, SPB Utilities
ec: Andrea Seifert, P.E., PWS Compliance Branch Supervisor

1. The first part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

2. The second part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

3. The third part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

4. The fourth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

5. The fifth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

6. The sixth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

7. The seventh part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

8. The eighth part of the paper discusses the importance of the study of the history of the United States. It is argued that a knowledge of the past is essential for a full understanding of the present and for the development of a sound policy for the future. The author points out that the study of history is not only a means of satisfying a natural curiosity about the past, but also a means of developing a sense of responsibility for the future.

Attachments

Attachment #1



Severity: Significant
Facility ID: COVERED RES STORAGE
TANK 340K
Category: Finished Water Storage
Attachment Comments: Dead birds
floating in the covered storage
reservoir.

Attachment #2



Severity: Significant
Facility ID: SPRING
Category: Source
Attachment Comments: Evidence
of birds in the collection gallery
building indicates pathways for
microbial contamination.

Attachment #3



Severity: Significant
Facility ID: SPRING
Category: Source
Attachment Comments: The garage door and base of the corrugated siding do not provide a tight protective seal for the collection gallery.

Attachment #4



Severity: Minor
Facility ID: SPRING
Category: Source
Attachment Comments: Weeds and debris crowd the spring outflows and the coarse screen does not prevent entry of dust and insects that can be sources of microbial contamination..

Attachment #5



Severity: Significant
Facility ID: DISTRIBUTION SYSTEM
Category: Distribution System
Attachment Comments: Please verify that the new bulk vending facility has a backflow device to protect the city's water distribution.

Attachment #6



Severity: Significant
Facility ID: SMALL STORAGE TANK 300K
Category: Finished Water Storage
Attachment Comments: Adjust the hatch so that it can be completely closed and locked.

Attachment #7



Severity: Minor
Facility ID: WELL 3
Category: Source
Attachment Comments: Screen should be 22-24 mesh and non-corrosive.

Attachment #8



Severity: Minor
Facility ID: COVERED RES STORAGE TANK 340K
Category: Finished Water Storage
Attachment Comments: Flapper valves can get jammed open with rodent activity or other means. Have crew visually inspect routinely to verify that it seals and seats properly.

Attachment #9



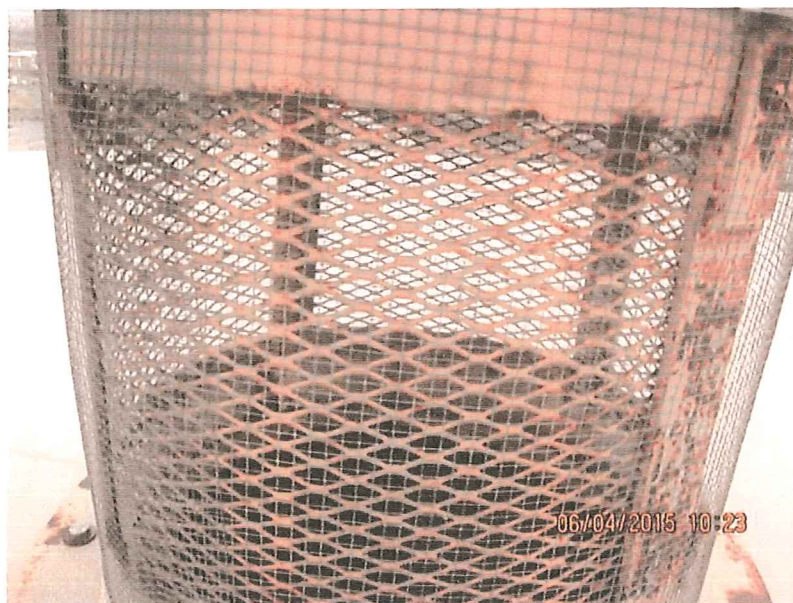
Severity: Minor

Facility ID: SMALL STORAGE TANK
300K

Category: Finished Water Storage

Attachment Comments: Inspect
regularly for signs that the rusting
and corrosion is getting worse. Plan
for appropriate maintenance.

Attachment #10



Severity: Minor

Facility ID: SMALL STORAGE TANK
300K

Category: Finished Water Storage

Attachment Comments: The two
types of screening material should be
replaced with non-corrosive 22-24
mesh per regulations.

Attachment #11



Severity: Minor

Facility ID: SMALL STORAGE TANK
300K

Category: Finished Water Storage

Attachment Comments: Pests
burrowing under the tanks.

Attachment #12



Severity: Minor

Facility ID: SMALL STORAGE TANK
300K

Category: Finished Water Storage

Attachment Comments: Should have
a line of NSF-approved gasket
material around the inside of the
hatch cover where it comes in
contact with the hatch rim.

Attachment #13



Severity: Minor

Facility ID: BIG STORAGE TANK
1M250K

Category: Finished Water Storage
Attachment Comments: The
drainage needs to be cleaned out
and deepened.

Attachment #14



Severity: Minor

Facility ID: BIG STORAGE TANK
1M250K

Category: Finished Water Storage
Attachment Comments: Vent must
be screened with 22-24 mesh of non-
corrosive material.



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

July 18, 2018

CERTIFIED:
9171 9690 0935 0040 4782 24

Mr. Carlos Esparza
Carlin Utilities
PO BOX 340
Carlin, NV 89822

Subject: SANITARY SURVEY OF CARLIN UTILITIES (NV0000014); ELKO COUNTY

Dear Mr. Esparza,

This letter serves to report the results of the Sanitary Survey inspection conducted by the Nevada Division of Environmental Protection, Bureau of Safe Drinking Water (BSDW), of the above referenced facility on **June 20, 2018**. To document the necessary corrective actions, you are required to provide a written response addressing the noted deficiency(s) within **45 days** of receipt of this report or by **September 01, 2018**. The assistance of water system representatives mentioned below was very helpful and greatly appreciated.

Parties Present

NAME	ORGANIZATION
Margie Evans	Bureau Of Safe Drinking Water
Ken Mallory	Operator, SPB Utility Services
Clay Knight	Carlin Utilities

Significant Deficiencies

The significant deficiencies listed below were noted during the inspection and require immediate corrective action, as outlined in the "comments". The Ground Water Rule requires that you meet the following regulatory deadlines for completing all actions associated with the significant deficiency(s):

- 30 days- **Consult** with our agency to determine the appropriate corrective actions and schedule for compliance within 30 days of receipt of this report.
- 45 days- **Submit** a written response within 45 days of receipt of this report. The response must outline the course of action that has or will be taken and the date by which you propose to correct the deficiencies.
- 120 days- **Correct** the significant deficiency(s) or have an approved corrective action plan within 120 days of receipt of this report, unless a more stringent deadline is noted in the "comments" below.
- 30 days- **Document** and submit in writing, within 30 days of correction, that the significant deficiency(s) has been corrected.

Significant Deficiencies

FACILITY	CATEGORY	DESCRIPTION
Management	System Management and Operation	Systems must have and implement a current written cross-connection control program. NAC 445A.67185
Comments: The city of Carlin does not have a formal cross-connection control plan that addresses the need for backflow and backsiphonage protection throughout the system. This plan must be prepared to address service connections, high-hazard connections, and other system vulnerabilities. It must be submitted and approved by the BSDW Engineering Branch with implementation to begin within 30 days of BSDW approval. Implementation will include additions as required to municipal code to require compliance from all public water system service connections.		
FACILITY	CATEGORY	DESCRIPTION
DS01 - DISTRIBUTION SYSTEM	Distribution System	The Distribution system must be protected from potential cross connections by using proper backflow control devices. NAC 445A.67185
Comments: Backflow devices must be installed on all connections of concern and an inventory of backflow protection devices must be prepared with a method for tracking and ensuring that all devices are tested annually. Refer to NAC 445A.66655 for the appropriate backflow protection.		
FACILITY	CATEGORY	DESCRIPTION
SP02 - SPRING	Source	Spring discharge and overflow pipes and other appurtenances must be properly screened, oriented and/or air gapped to daylight. NAC 445A.6696
Comments: The channel that accepts the spring outflow is heavily clogged with weeds and the water surface is too close to the pipes for proper airgap protection. There are three pipes coming out of the spring collection area, with the largest one being lower than the other two. The lower part of the pipe opening is below the channel's water level by 3-4 inches. You must determine the origin of that line and if it is connected to potable water. The two lines confirmed to be carrying spring outflow have flapper valves but terminate only a few inches above the water's surface. The receiving channel must be maintained by removing weeds and deepening the channel so that an airgap at least two times the size of the outflow pipe diameter exists at all times. Provide BSDW with a report on the purpose of the large lower line and your plans to improve maintenance on the ditch so that all potable lines are properly airgapped above the channel. Also provide BSDW with your plans to routinely inspect and address issues with the channel so that it does not again threaten the potable water system. See Attachment #1 and #2		
FACILITY	CATEGORY	DESCRIPTION
ST01 - COVERED RES STORAGE TANK 340K	Finished Water Storage	The storage facility must be maintained to prevent pollution and contamination by way of leaks and openings (prevent

		entrance of rain, surface water, dust, birds, insects, and other animals). NAC 445A.6708.4 and 445A.67095
Comments: The facility appears to be tight but there is a large blanket of insulation hanging down from the ceiling. This must be repaired so that it doesn't fall into the reservoir. See Attachment #3		

Other Deficiencies

The following deficiencies need to be corrected to ensure adequate long-term protection, construction, monitoring, operation or maintenance of the public water system. If left uncorrected, the situation may deteriorate and result in the inability of the public water system to provide a safe and reliable supply of water to its customers. Include the corrective action(s) or schedule to correct with your written response to our agency:

FACILITY	CATEGORY	DESCRIPTION
Management	Operator Compliance with State Requirements	The system must ensure that the certified operator is performing compliance duties. NAC445A.6267/ 445A.6275

Comments: Per information submitted to the BSDW, Kirk Peterson is the Operator in Responsible Charge of the Carlin Utilities Public Water System. During this inspection, Ken Mallory represented the water system and was able to address all aspects of the operation, including his comment that he is at the public water system weekly. Please provide BSDW with a confirmation of which employee of SPB Utility Services is actually the operator in responsible charge. Also describe how that person ensures that losses of pressure, maintenance and repair issues, and other day-to-day occurrences are handled when the operator is not regularly on site.

Update: Ken Mallory is the Designated Operator of Carlin Utilities per correspondence received July 17, 2018. Thank you for the clarification.

FACILITY	CATEGORY	DESCRIPTION
Management	System Management and Operation	Storage facilities must have a regular inspection and maintenance schedule. NAC 445A.6667

Comments: You MUST include in your inspection and maintenance schedule a routine inspection of the tank and spring outflows. The channels must be maintained in such a way that water moves quickly away from the source of the outflow. Provide BSDW with your standard operating procedure to implement this requirement.

FACILITY	CATEGORY	DESCRIPTION
ST04 - INDUSTRIAL STORAGE TANK 212K	Finished Water Storage	The storage facility must be maintained to prevent pollution and contamination by way of leaks and openings (prevent entrance of rain, surface water, dust, birds, insects, and other animals). NAC 445A.6708.4 and 445A.67095

Comments: The tank is showing evidence of growth around some of the joints. The bots should be tightened and plans made to rehab the tank in the next few years. Be sure to obtain BSDW Engineering approval before moving forward with a tank rehabilitation.

Observations/Recommendations

The following are observations, comments, and/or recommendations and require written response where indicated. The recommendations will enable your system to better conform to the requirements of applicable design criteria or other industry standards:

FACILITY	CATEGORY	DESCRIPTION
Management	M&R and Data Verification	All systems must have and follow an approved site sample plan for Total Coliform Rule (TCR) monitoring. NAC 445A.4525 and 40 CFR 141.21(a) and 40 CFR 141.851 through 861 (Subpart Y)

Comments: Per Revised Total Coliform Rule regulations, the Coliform Sampling Plan was reviewed by all parties. It was determined that the current sampling points and sampling frequency are representative of the distribution system and reflective of the average population. No changes were made.

A Cross-connection control program is required of ALL public water systems by Nevada Administrative Code. The system is growing and many new buildings and services are being developed in the town. Consult with your contracted operator and/or engineering firm to begin development and implementation of a plan to protect the water that you deliver to your customers. Don't hesitate to reach out to BSDW and Nevada Rural Water Association (NvRWA) as well if needed.

Monitoring and Reporting

Monitoring Violations:

No monitoring violations were reported in the past year.

Maximum Contaminant Level (MCL) Violations during the past year:

No maximum contaminant level violations were reported in the past year.

Other Violations during the past year:

No other violations were reported in the past year.

Positive bacteriological sampling history for the past year:

No Positive Samples were reported in the past year.

During the inspection, the items noted above and self-reported compliance data since the 2015 sanitary survey were discussed and no violations or issues were noted.

Reminders

The Nevada Administrative Code (NAC) 445A.6669 requires the Division's approval prior to commencement of construction of any improvements, treatment process modifications, or the addition of new water sources.

The Nevada Administrative Code contains specific requirements for record keeping. Some records must be kept for as long as ten years. The Public Water System is responsible for maintaining its own records.

The "Reduction of Lead in Drinking Water Act of 2011" and "Community Fire Safety Act of 2013" amended the Federal Safe Drinking Water Act. The BSDW amended the Nevada Administrative Code (NAC) effective December 22, 2014, to reflect the new Federal definition of lead-free that became effective January 4, 2014. Public Water System compliance with the new definition of lead-free in NAC 445A.66085 is required.

The Revised Total Coliform Rule requires public water system operators and managers to know when they have triggered a Treatment Technique Level 1 Assessment due to coliform positive detects. A fact sheet on the Level 1 Assessment Process and the Level 1 Assessment form required by BSDW may be found at <https://ndep.nv.gov/water/drinking-water/forms>. In addition, most regulations, guidance documents, and forms are available via Internet on the Bureau's website. Please link to <https://ndep.nv.gov/water/drinking-water> for further information.

Additional information and guidance is available on the EPA's Office of Ground Water and Drinking Water web site (www.epa.gov/safewater) or at the Safe Drinking Water hotline (1-800-426-4791).

If you have any questions, please contact me at 775-687-9516. Thank you for your time and cooperation.

Sincerely,



Margie Evans,
Bureau of Safe Drinking Water
mevans@ndep.nv.gov

Encl. [*GWR Significant Deficiency Attachment*](#)

ec: Andrea Seifert, P.E., PWS Compliance Branch Supervisor
Ken Mallory, Designated Operator
Bob Foerster, Nevada Rural Water Association

cc: SPB Utility Services
File

Attachments

Attachment #1



Severity: Significant

Facility ID: SPRING

Category: Source

Attachment Comments: Routine regular maintenance and inspection must be implemented to keep the channel free and the lines properly airgapped.

Attachment #2



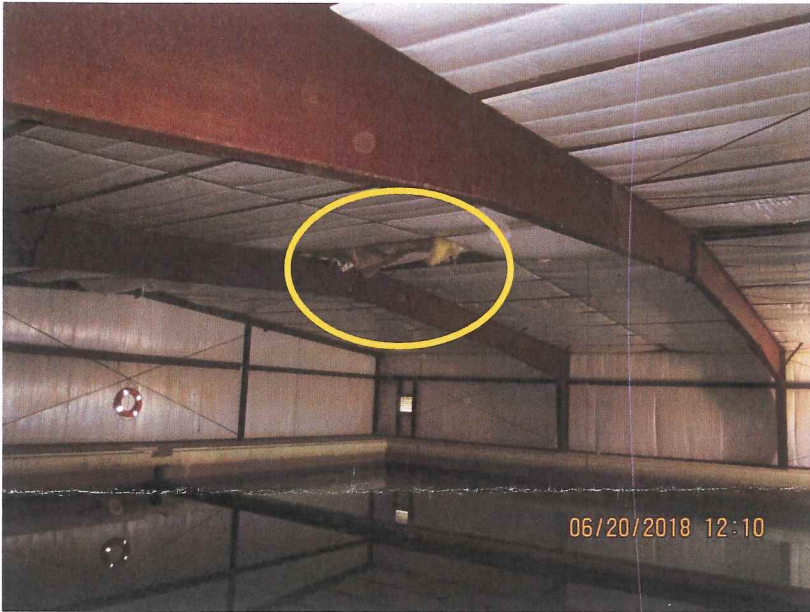
Severity: Significant

Facility ID: SPRING

Category: Source

Attachment Comments: This water conveyance is partially immersed in the channel. If this line is connected to the potable water system, it must be raised or the channel lowered far enough to provide a proper airgap.

Attachment #3



Severity: Significant

Facility ID: COVERED RES STORAGE TANK
340K

Category: Finished Water Storage

Attachment Comments: The ceiling must be repaired so that there is no danger of insulation falling into the reservoir.

APPENDIX D

INTERNATIONAL FIRE CODE – FIRE FLOW REQUIREMENTS

Chapter 3

FIRE CODE

7-3-1: ADOPTION OF CODE:

7-3-2: ESTABLISHMENT AND DUTIES OF BUREAU OF FIRE PREVENTION:

7-3-3: DEFINITIONS:

7-3-4: APPEALS:

7-3-5: PENALTIES:

7-3-6: COPIES OF CODE AVAILABLE:

7-3-7: NEW MATERIALS, PROCESSES OR OCCUPANCIES WHICH MAY REQUIRE PERMITS:

7-3-8: TANK STORAGE AND BULK STORAGE COMPLIANCE:

7-3-1: ADOPTION OF CODE:

There is hereby adopted for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, that certain code known as the international fire code (IFC) recommended by the International Code Council being particularly the latest edition thereof and the whole thereof, save and except such portions as are hereinafter deleted, modified or amended, such to become effective thirty (30) days after public notice of the filing in the Carlin city clerk's office hereinafter specified and posting. One copy of the latest edition being adopted shall be approved by the board of councilmen and placed on file in the office of the clerk of the city of Carlin. From the date on which such filed edition of said code shall take effect, the provisions thereof shall be controlling within the limits of the city. The said code is hereby adopted as the rules and regulations for governing conditions hazardous to life from fire or explosion. In the event that any of the provisions of the latest edition of the IFC conflict with any provisions of this chapter, the provisions of this chapter shall govern and be controlling.

All supplements to the IFC, issued by the International Code Council between editions and approved by the board of councilmen and filed in the office of the clerk of the city of Carlin shall become part of this IFC effective thirty (30) days after public notice of such filing is given by posting in two (2) conspicuous places within the city. Certain section of the international fire code and appendices may be added or deleted by resolution. (Ord. 211, 2-22-2006)

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION B101 GENERAL

B101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102 DEFINITIONS

B102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

FIRE-FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m²), used to determine the required fire flow.

SECTION B103 MODIFICATIONS

B103.1 Decreases. The fire chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

B103.2 Increases. The fire chief is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

B103.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the *fire code official* is authorized to utilize NFPA 1142 or the *International Wildland-Urban Interface Code*.

SECTION B104 FIRE-FLOW CALCULATION AREA

B104.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the *exterior walls*, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B104.2 Area separation. Portions of buildings which are separated by *fire walls* without openings, constructed in accordance with the *International Building Code*, are allowed to be considered as separate fire-flow calculation areas.

B104.3 Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration requirements for one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration for buildings other than one- and two-family *dwellings*, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.2 and B105.1(2).

TABLE B105.1(1)
REQUIRED FIRE-FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0-3,600	Section 903.3.1.3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	500	1/2
3,601 and greater	Section 903.3.1.3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	1/2 value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m.

TABLE B105.1(2)
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V-A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.

TABLE B105.2
REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONE- AND
TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the <i>International Fire Code</i>	25% of the value in Table B105.1(2) ^a	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the <i>International Fire Code</i>	25% of the value in Table B105.1(2) ^b	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

a. The reduced fire-flow shall be not less than 1,000 gallons per minute.

b. The reduced fire-flow shall be not less than 1,500 gallons per minute.

B105.3 Water supply for buildings equipped with an automatic sprinkler system. For buildings equipped with an approved *automatic sprinkler system*, the water supply shall be capable of providing the greater of:

1. The *automatic sprinkler system* demand, including hose stream allowance.
2. The required fire-flow.

**SECTION B106
REFERENCED STANDARDS**

ICC	IBC—15	International Building Code	B104.2,
ICC	IFC—15	International Fire Code	Tables B105.1(1) and B105.2
ICC	IWUIC—15	International Wildland- Urban Interface Code	B103.3
ICC	IRC—15	International Residential Code	Table B105.1(1)
NFPA	1142—12	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103.3

APPENDIX C

FIRE HYDRANT LOCATIONS AND DISTRIBUTION

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION C101 GENERAL

C101.1 Scope. In addition to the requirements of Section 507.5.1 of the *International Fire Code*, fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed or moved into the jurisdiction.

SECTION C102 NUMBER OF FIRE HYDRANTS

C102.1 Minimum number of fire hydrants for a building. The number of fire hydrants available to a building shall be not less than the minimum specified in Table C102.1.

SECTION C103 FIRE HYDRANT SPACING

C103.1 Hydrant spacing. Fire apparatus access roads and public streets providing required access to buildings in accordance with Section 503 of the *International Fire Code* shall be provided with one or more fire hydrants, as determined by Section C102.1. Where more than one fire hydrant is

required, the distance between required fire hydrants shall be in accordance with Sections C103.2 and C103.3.

C103.2 Average spacing. The average spacing between fire hydrants shall be in accordance with Table C102.1.

Exception: The average spacing shall be permitted to be increased by 10 percent where existing fire hydrants provide all or a portion of the required number of fire hydrants.

C103.3 Maximum spacing. The maximum spacing between fire hydrants shall be in accordance with Table C102.1.

SECTION C104 CONSIDERATION OF EXISTING FIRE HYDRANTS

C104.1 Existing fire hydrants. Existing fire hydrants on public streets are allowed to be considered as available to meet the requirements of Sections C102 and C103. Existing fire hydrants on adjacent properties are allowed to be considered as available to meet the requirements of Sections C102 and C103 provided that a fire apparatus access road extends between properties and that an easement is established to prevent obstruction of such roads.

TABLE C102.1
REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS ^{a, b, c, f, g} (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT ^{d, f, g}
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more ^e	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

- Reduce by 100 feet for dead-end streets or roads.
- Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.
- Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
- Reduce by 50 feet for dead-end streets or roads.
- One hydrant for each 1,000 gallons per minute or fraction thereof.
- A 50-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.
- A 25-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2 or 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*.

APPENDIX E

WATER RATES, FINANCIAL STATEMENTS

Rate Number	Description	Service	Base Amount
101	WATER - RESIDENTIAL	1 (WATER)	32.2200
102	WATER FLAT RATE	1 (WATER)	10.0000
111	WATER-RV	1 (WATER)	12.8900
201	WATER METERED CITY LIMITS	2 (WATER METERED)	32.2200
202	WATER METERED OUTSIDE CITY	2 (WATER METERED)	.0000
203	WATER FLAT RATE	2 (WATER METERED)	.0000
301	SEWER - RESIDENTIAL	3 (SEWER)	29.8500
302	SEWER FLAT RATE RV PARKS	3 (SEWER)	7.1600
311	SEWER-RV	3 (SEWER)	7.1600
401	BULK WATER	4 (BULK WATER)	.0000
501	LANDFILL - RESIDENTIAL	5 (LANDFILL)	14.3000
502	LANDFILL - COMMERCIAL 1-3 X WK	5 (LANDFILL)	61.4900
503	LANDFILL - DUMPSTER	5 (LANDFILL)	91.6900
601	LANDFILL 3YRD 3 TO 5 TIMES PER WEEK	6 (LANDFILL - DUMPSTER)	137.3800
602	LANDFILL-2yd	6 (LANDFILL - DUMPSTER)	61.4900
701	SEWER USE FEE - RESIDENTIAL	7 (SEWER USE FEE)	.0000
901	STREET LIGHT - RESIDENTIAL	9 (STREET LIGHT)	2.3800
902	STREET LIGHT FLATE RATE RV PKS	9 (STREET LIGHT)	1.0000
911	STREET LIGHT-RV	9 (STREET LIGHT)	.5600
1301	SMALL CLAIMS FEES	13 (SMALL CLAIMS FEE)	.0000
1801	RECONNECT FEES	18 (RECONNECT FEE)	.0000
1901	PENALTY	19 (PENALTY)	15.0000
2101	NSF FEE	21 (NSF FEE)	.0000

water metered is based on fixture units x
32.22 to get base amount then .00108
per gallon.

water metered outside city limits is .00137
per gallon.

Excess amount is still debatable. Software
support says it could be manual billing
amounts.

Rate Number	Rate Description	Service	Number of Customers	Number of Units	Base/Minimum	Excess Amount	Adjustments	Total Amount	Usage
101	WATER - RESIDENTIAL	WA	800	949.7000	200,152.51	3,866.44	1,046.69-	202,972.26	750
102	WATER FLAT RATE	WA	1	1.0000	66.00	31.02	-	97.02	2
111	WATER-RV	WA	25	107.3300	8,927.95	354.53	-	9,282.48	596
201	WATER METERED CITY LIMITS	WM	11	36.4100	9,558.38	8,834.44	-	18,392.82	8,252,931
202	WATER METERED OUTSIDE CITY	WM	4	20.0000	6,770.40	3,092.25	-	9,862.65	4,660,000
301	SEWER - RESIDENTIAL	SW	777	947.9500	184,216.56	402.18	1,029.47-	183,589.27	782
302	SEWER FLAT RATE RV PARKS	SW	1	1.0000	46.54	44.46	-	91.00	2
311	SEWER-RV	SW	25	107.3300	4,957.98	211.98	-	5,169.96	605
401	BULK WATER	WA	2	2.0000	-	10.04	-	10.04	-
501	LANDFILL - RESIDENTIAL	LF	759	1,009.2000	94,861.46	1,144.36	538.98-	95,466.84	940
502	LANDFILL - COMMERCIAL 1-3 X WK	LF	26	28.0000	9,864.18	-	-	9,864.18	33
503	LANDFILL - DUMPSTER	LF	20	35.5000	11,705.76	1,639.33	-	13,345.09	654
601	LANDFILL 3YRD 3 TO 5 TIMES PER		8	16.0000	13,188.48	-	137.38-	13,051.10	84
901	STREET LIGHT - RESIDENTIAL	LT	795	993.1300	15,714.76	32.11	82.26-	15,664.61	722
902	STREET LIGHT FLATE RATE RV PK	LT	1	49.0000	319.00	-	-	319.00	319
911	STREET LIGHT-RV	LT	23	57.3300	205.21	15.68	-	220.89	283
1801	RECONNECT FEES	RE	22	22.0000	-	510.00	-	510.00	23
1901	PENALTY	PN	296	300.0000	11,880.00	-	285.00-	11,595.00	-
2101	NSF FEE	NS	9	9.0000	-	326.46	-	326.46	-
Grand Totals:			3,605	4,691.8800	572,435.17	20,515.28	3,119.78-	589,830.67	12,918,726

Rate Number	Rate Description	Service	Number of Customers	Number of Units	Base/Minimum	Excess Amount	Adjustments	Total Amount	Usage
101	WATER - RESIDENTIAL	WA	818	974.2000	343,505.50	10,740.78	1,740.11-	352,506.17	1,165
102	WATER FLAT RATE	WA	1	1.0000	116.00	56.87	-	172.87	4
111	WATER-RV	WA	28	110.3300	15,508.52	1,689.47	45.12-	17,152.87	1,140
201	WATER METERED CITY LIMITS	WM	11	36.4100	16,383.88	14,041.53	2.78	30,428.19	13,148,332
202	WATER METERED OUTSIDE CITY	WM	4	20.0000	11,606.40	3,149.66	-	14,756.06	5,622,000
301	SEWER - RESIDENTIAL	SW	796	972.9500	314,186.37	134.66	1,908.28-	312,412.75	1,184
302	SEWER FLAT RATE RV PARKS	SW	1	1.0000	82.34	81.51	-	163.85	4
311	SEWER-RV	SW	28	110.3300	8,614.55	945.67	54.93-	9,505.29	1,140
501	LANDFILL - RESIDENTIAL	LF	781	1,039.2000	162,690.97	2,821.61	1,159.14-	164,353.44	1,464
502	LANDFILL - COMMERCIAL 1-3 X WK	LF	22	23.5000	14,188.57	778.68	-	14,967.25	42
503	LANDFILL - DUMPSTER	LF	23	38.5000	23,484.24	2,871.63	98.47-	26,257.40	1,094
601	LANDFILL 3YRD 3 TO 5 TIMES PER		11	20.0000	25,054.72	-	137.38-	24,917.34	144
602	LANDFILL-2yd		2	2.0000	186.66	-	75.19-	111.47	-
701	SEWER USE FEE - RESIDENTIAL	UF	1	1.0000	-	-	.01	.01	-
901	STREET LIGHT - RESIDENTIAL	LT	812	1,016.6300	26,868.10	13.20	126.53-	26,754.77	1,062
902	STREET LIGHT FLATE RATE RV PK	LT	2	62.0000	625.58	12.00	.82-	636.76	630
911	STREET LIGHT-RV	LT	26	60.3300	316.49	67.50	2.12-	381.87	511
1801	RECONNECT FEES	RE	35	35.0000	-	1,075.00	15.00-	1,060.00	48
1901	PENALTY	PN	348	348.0000	16,230.00	-	156.90-	16,073.10	-
2101	NSF FEE	NS	8	8.0000	-	287.64	42.18	329.82	-
Grand Totals:			3,758	4,880.3800	979,648.88	38,767.42	5,475.02-	1,012,941.28	18,779,966

Rate Number	Rate Description	Service	Number of Customers	Number of Units	Base/Minimum	Excess Amount	Adjustments	Total Amount	Usage
101	WATER - RESIDENTIAL	WA	839	1,030.7000	348,096.26	12,366.47	3,062.79-	357,399.94	878
102	WATER FLAT RATE	WA	1	1.0000	116.00	56.87	-	172.87	6
111	WATER-RV	WA	27	130.3300	15,677.07	2,456.08	460.86-	17,672.29	881
201	WATER METERED CITY LIMITS	WM	12	37.4100	16,383.46	13,859.89	314.28-	29,929.07	12,568,743
202	WATER METERED OUTSIDE CITY	WM	5	21.5000	11,606.40	2,792.85	2.34-	14,396.91	4,675,000
301	SEWER - RESIDENTIAL	SW	817	1,028.9500	319,330.35	2,618.67	2,667.33-	319,281.69	916
302	SEWER FLAT RATE RV PARKS	SW	1	1.0000	82.34	81.51	-	163.85	6
311	SEWER-RV	SW	27	130.3300	8,765.45	1,364.27	530.30-	9,599.42	936
501	LANDFILL - RESIDENTIAL	LF	809	1,104.7000	163,776.74	6,158.52	3,071.45-	166,863.81	848
502	LANDFILL - COMMERCIAL 1-3 X WK	LF	21	22.5000	14,387.48	209.42	-	14,596.90	49
503	LANDFILL - DUMPSTER	LF	27	43.5000	24,695.00	2,810.28	77.39-	27,427.89	1,081
601	LANDFILL 3YRD 3 TO 5 TIMES PER		11	20.0000	26,005.99	-	148.17-	25,857.82	141
602	LANDFILL-2yd		2	2.0000	156.49	-	-	156.49	-
701	SEWER USE FEE - RESIDENTIAL	UF	1	1.0000	-	-	.01	.01	-
901	STREET LIGHT - RESIDENTIAL	LT	834	1,074.6300	27,129.61	218.47	214.83-	27,133.25	598
902	STREET LIGHT FLATE RATE RV PK	LT	2	62.0000	699.00	20.50	-	719.50	603
911	STREET LIGHT-RV	LT	24	66.3300	293.55	94.66	46.33-	341.88	318
1301	SMALL CLAIMS FEES	SC	1	1.0000	-	-	-	.00	3
1801	RECONNECT FEES	RE	35	35.0000	-	1,131.48	13.39-	1,118.09	47
1901	PENALTY	PN	380	380.0000	15,750.00	-	510.64-	15,239.36	-
2101	NSF FEE	NS	9	9.0000	-	10,120.58	9,818.56-	302.02	-
Grand Totals:			3,885	5,202.8800	992,951.20	56,360.51	20,938.65-	1,028,373.06	17,251,052

Rate Number	Rate Description	Service	Number of Customers	Number of Units	Base/Minimum	Excess Amount	Adjustments	Total Amount	Usage
101	WATER - RESIDENTIAL	WA	797	950.2000	148,315.29	6,379.59	835.51-	153,859.37	346
102	WATER FLAT RATE	WA	1	1.0000	50.00	25.85	-	75.85	1
111	WATER-RV	WA	21	111.3300	6,645.73	971.26	65.84-	7,551.15	295
201	WATER METERED CITY LIMITS	WM	12	37.4100	6,826.99	7,179.80	-	14,006.79	6,659,529
202	WATER METERED OUTSIDE CITY	WM	4	20.0000	4,836.00	2,661.31	-	7,497.31	2,749,970
301	SEWER - RESIDENTIAL	SW	787	960.9500	137,420.66	2,179.19	706.09-	138,893.76	365
302	SEWER FLAT RATE RV PARKS	SW	1	1.0000	35.80	37.05	-	72.85	1
311	SEWER-RV	SW	21	111.3300	3,691.47	539.51	48.55-	4,182.43	295
501	LANDFILL - RESIDENTIAL	LF	776	1,045.1000	71,225.06	3,094.53	827.38-	73,492.21	270
502	LANDFILL - COMMERCIAL 1-3 X WK	LF	20	21.5000	5,845.44	-	-	5,845.44	23
503	LANDFILL - DUMPSTER	LF	22	45.5000	9,584.66	3,371.51	733.52	13,689.69	458
601	LANDFILL 3YRD 3 TO 5 TIMES PER		8	17.0000	5,103.99	137.38	1,298.81-	3,942.56	47
701	SEWER USE FEE - RESIDENTIAL	UF	1	1.0000	-	2.38	-	2.38	-
901	STREET LIGHT - RESIDENTIAL	LT	798	1,006.1300	11,631.82	166.65	42.86-	11,755.60	230
902	STREET LIGHT FLATE RATE RV PK	LT	2	62.0000	300.69	5.00	8.08-	297.61	240
911	STREET LIGHT-RV	LT	18	48.3300	120.53	39.96	6.28-	154.21	55
1801	RECONNECT FEES	RE	23	23.0000	-	680.00	-	680.00	20
1901	PENALTY	PN	259	263.0000	6,720.00	-	330.00-	6,390.00	-
2101	NSF FEE	NS	4	4.0000	-	76.48	76.48	152.96	1
Grand Totals:			3,575	4,729.7800	418,354.14	27,547.43	3,359.40-	442,542.17	9,412,145

Rate Number	Description	Service	Base Amount
101	WATER - RESIDENTIAL	1 (WATER)	32.2200
102	WATER FLAT RATE	1 (WATER)	10.0000
111	WATER-RV	1 (WATER)	12.8900
201	WATER METERED CITY LIMITS	2 (WATER METERED)	32.2200
202	WATER METERED OUTSIDE CITY	2 (WATER METERED)	.0000
203	WATER FLAT RATE	2 (WATER METERED)	.0000
301	SEWER - RESIDENTIAL	3 (SEWER)	29.8500
302	SEWER FLAT RATE RV PARKS	3 (SEWER)	7.1600
311	SEWER-RV	3 (SEWER)	7.1600
401	BULK WATER	4 (BULK WATER)	.0000
501	LANDFILL - RESIDENTIAL	5 (LANDFILL)	14.3000
502	LANDFILL - COMMERCIAL 1-3 X WK	5 (LANDFILL)	61.4900
503	LANDFILL - DUMPSTER	5 (LANDFILL)	91.6900
601	LANDFILL 3YRD 3 TO 5 TIMES PER WEEK	6 (LANDFILL - DUMPSTER)	137.3800
602	LANDFILL-2yd	6 (LANDFILL - DUMPSTER)	61.4900
701	SEWER USE FEE - RESIDENTIAL	7 (SEWER USE FEE)	.0000
901	STREET LIGHT - RESIDENTIAL	9 (STREET LIGHT)	2.3800
902	STREET LIGHT FLATE RATE RV PKS	9 (STREET LIGHT)	1.0000
911	STREET LIGHT-RV	9 (STREET LIGHT)	.5600
1301	SMALL CLAIMS FEES	13 (SMALL CLAIMS FEE)	.0000
1801	RECONNECT FEES	18 (RECONNECT FEE)	.0000
1901	PENALTY	19 (PENALTY)	15.0000
2101	NSF FEE	21 (NSF FEE)	.0000



Financial Statements
June 30, 2019

City of Carlin

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Independent Auditor's Report

To the Honorable Mayor and Members of the City Council
City of Carlin
State of Nevada

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Carlin, State of Nevada (the City), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the City's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Carlin, State of Nevada, as of June 30, 2019, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 5 through 12, budgetary comparison information on pages 50 through 53, the Schedule of Changes in the City's Total OPEB Liability and Related Ratios for the City of Carlin Employee Health Benefit Plan and State of Nevada Public Employees' Benefit Plan on pages 54 and 55, the Schedule of the City's Share of Net Pension Liability on page 56 and the Schedule of the City's Contributions on page 57 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the Management's Discussion and Analysis, the Schedule of Changes in the City's Total OPEB Liability and Related Ratios for the City of Carlin Employee Health Benefit Plan and State of Nevada Public Employees' Benefit Plan, the Schedule of the City's Share of Net Pension Liability and the Schedule of the City's Contributions in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

The budgetary comparison information is the responsibility of management and was derived from and relates directly to underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statement themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the budgetary comparison information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

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Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The combining and individual nonmajor fund financial statements, budgetary comparisons and schedule of fees imposed subject to the provision of NRS 354.5989 are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The combining and individual nonmajor fund financial statements and budgetary comparisons are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual nonmajor fund financial statements and budgetary comparisons are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The schedule of fees imposed subject to the provision of NRS 354.5989 has not been subject to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

Prior-Year Comparative Information

We have previously audited, in accordance with accounting standards general accepted in the United States of America, the basic financial statements of the City as of and for the year ended June 30, 2018, and have issued a report thereon dated January 22, 2019, which expressed an unmodified opinion on the respective financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information.

The individual fund financial statements and budgetary comparisons related to the 2018 financial statements are presented for purposes of additional analysis and were derived from and relate directly to the underlying accounting and other records used to prepare the 2018 financial statements. The information has been subjected to the auditing procedures applied in the audit of the 2018 basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those financial statements or to those financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. The combining and individual fund financial statements and budgetary comparisons are consistent in relation to the basic financial statements from which they have been derived.

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Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 11, 2019 on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over financial reporting and compliance.

Edie Bailly LLP

Elko, Nevada
December 11, 2019

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The Management's Discussion and Analysis (MD&A) is presented to provide the reader with an overview of the financial activity and financial condition of the City of Carlin (City). This document is required by the Governmental Accounting Standards Board (GASB) in Statement No. 34 and subsequent statements governing the presentation of the financial statements, MD&A, and note disclosure for state and local governments. The major components of this financial report include:

- Management's Discussion and Analysis (MD&A)
- Basic Financial Statements
- Other Required Supplementary Information (RSI)

The MD&A, a component of RSI, introduces the basic financial statements and provides an analytical overview of the City's financial activities.

Overview of the Financial Statements

The City's basic financial statements include the following elements:

Government-wide Financial Statements

Government-wide financial statements provide both long-term and short-term information about the City's overall financial condition. Changes in the City's financial position may be measured over time by increases and decreases in the Statement of Net Position. Information on how the City's net position changed during the fiscal year is presented in the Statement of Activities.

Fund Financial Statements

Fund financial statements focus on individual parts of the City, reporting the City's operations in more detail than the government-wide financial statements. Fund financial statements include the statements for governmental, proprietary and fiduciary funds.

Notes to the Financial Statements

Notes to the financial statements provide additional information that is essential to the full understanding of the data provided in the government-wide and fund financial statements.

Refer to Note 1 to the financial statements for more detailed information on the elements of the financial statements. Table 1 below summarizes the major features of the basic financial statements.

	Table 1: Major Features of the Basic Financial Statements			
	Government-Wide Financial Statements	Governmental Funds	Fund Financial Statements Proprietary Funds	Fiduciary Funds
Scope	Entire City Government (except fiduciary funds)	Activities of the City that are not proprietary or fiduciary	Activities of the City that are operated similar to private businesses	Instances in which the City is the trustee agent for someone else's resources
Required Financial Statements	Statement of Net Position, Statement of Activities	Balance Sheet, Statement of Revenues, Expenditures and Changes in Fund Balances	Statement of Net Position, Statement of Revenues, Expenses and Changes in Net Position, Statement of Cash Flows	Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position
Accounting Basis and Measurement Focus	Accrual accounting and economic resources focus	Modified accrual accounting and current financial resources focus	Accrual accounting and economic resources focus	Accrual accounting
Types of Asset/Liability/Deferred Inflow/Outflow Information	All assets and liabilities both financial, capital assets and short-term and long-term, deferred inflows/outflows of resources	Only assets expected to be used up and liabilities that come due during the year or soon thereafter; no capital assets included. Deferred inflows/outflows are resources for which cash will be received or expended in a future period	All assets and liabilities, both financial, capital assets and short-term and long-term, deferred inflows/outflows of resources	Assets and liabilities held in fiduciary capacity
Type of Inflow/Outflow Information	All revenues and expenses during the year, regardless of when cash is received or paid	Revenues for which cash is received during or soon after the end of the year; expenditures when goods or services have been received and payment is due during the year or soon	All revenues and expenses during the year, regardless of when cash is received or paid	Revenues and expenses during the year, regardless of when cash is received or paid

Condensed Statement of Net Position

The largest component, \$7,860,165 of the City's net position reflects its investment in capital assets (i.e. land, infrastructure, buildings, equipment and others) less depreciation and any related debt outstanding that was needed to acquire or construct the assets. Capital Assets represent 54% of this City's total Net Position. The City uses these capital assets to provide services to the citizens and businesses in the City; consequently, these capital assets are not available for future spending. Although the City's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

Table 2 below presents the City's condensed statement of net position. These are derived from the government-wide Statement of Net Position.

Table 2: Condensed Statement of Net Position

	Governmental Activities		Business-type Activities		Total	
	2019	2018	2019	2018	2019	2018
Current and other assets	\$ 7,505,504	\$ 6,506,173	\$ 2,463,443	\$ 2,403,142	\$ 9,968,947	\$ 8,909,315
Capital Assets	5,163,768	5,014,877	2,827,684	2,969,807	7,991,452	7,984,684
Total Assets	12,669,272	11,521,050	5,291,127	5,372,949	17,960,399	16,893,999
Deferred outflows of resources	284,532	288,941	90,294	94,360	374,826	383,301
Other liabilities	448,591	118,471	84,262	146,713	532,853	265,184
Long-term liabilities						
Due in one year	68,381	46,734	32,223	26,962	100,604	73,696
Due in more than one year	2,176,719	2,503,799	607,797	724,059	2,784,516	3,227,858
Total liabilities	2,693,691	2,669,004	724,282	897,734	3,417,973	3,566,738
Deferred inflows of resources	408,416	231,525	132,107	71,181	540,523	302,706
Net investment in capital assets	5,032,481	4,877,507	2,827,684	2,969,807	7,860,165	7,847,314
Restricted	138,786	230,905	-	-	138,786	230,905
Unrestricted	4,680,430	3,801,050	1,697,348	1,528,587	6,377,778	5,329,637
Total net position	\$ 9,851,697	\$ 8,909,462	\$ 4,525,032	\$ 4,498,394	\$ 14,376,729	\$ 13,407,856

Changes in Net Position

Table 3 presents the City's changes in net position, as derived from the government-wide Statement of Activities. Over time, increases and decreases measure whether the City's financial position is improving or deteriorating. During the fiscal year, the net position of the governmental activities increased by \$942,235 and the net position of the business-type activities increased by \$26,638.

Table 3: Change in Net Position

	Governmental Activities		Business-type Activities		Total	
	2019	2018	2019	2018	2019	2018
Program revenues						
Charges for services	\$ 171,393	\$ 207,395	\$ 1,031,911	\$ 1,013,914	\$ 1,203,304	\$ 1,221,309
Operating grants contributions	258,621	189,852	-	-	258,621	189,852
Capital grants and contributions	22,491	34,899	1,000	20,424	23,491	55,323
Total programs revenues	452,505	432,146	1,032,911	1,034,338	1,485,416	1,466,484
General revenues						
Taxes						
Property	439,107	453,899	-	-	439,107	453,899
Room	40,490	53,040	-	-	40,490	53,040
Fuel	52,738	53,376	-	-	52,738	53,376
Consolidated tax revenues	2,292,642	1,995,534	-	-	2,292,642	1,995,534
Interest and investment earnings	8,550	6,447	18,264	18,722	26,814	25,169
Gain on sale of capital assets	10,000	-	-	-	10,000	-
Miscellaneous	61,661	87,134	2,296	14,597	63,957	101,731
Total general revenues	2,905,188	2,649,430	20,560	33,319	2,925,748	2,682,749
Total revenues	3,357,693	3,081,576	1,053,471	1,067,657	4,411,164	4,149,233
Program expenses						
General government	677,106	1,085,524			677,106	1,085,524
Public safety	920,282	900,461	-	-	920,282	900,461
Judicial	56,676	66,939	-	-	56,676	66,939
Public works	310,440	240,489	-	-	310,440	240,489
Health and sanitation	100,448	100,048	-	-	100,448	100,048
Culture and recreation	344,489	292,890	-	-	344,489	292,890
Water	-	-	487,333	492,034	487,333	492,034
Garbage	-	-	151,276	155,078	151,276	155,078
Sewer	-	-	360,634	417,488	360,634	417,488
Street lights	-	-	27,590	27,574	27,590	27,574
Interest on long-term debt	6,017	6,503	-	-	6,017	6,503
Total expenses	2,415,458	2,692,854	1,026,833	1,092,174	3,442,291	3,785,028
Change in net position	942,235	388,722	26,638	(24,517)	968,873	364,205
Net position, beginning of year	8,909,462	8,520,740	4,498,394	4,522,911	13,407,856	13,043,651
Net position, end of year	\$ 9,851,697	\$ 8,909,462	\$ 4,525,032	\$ 4,498,394	\$ 14,376,729	\$ 13,407,856

Program Expenses and Revenues for Governmental Activities

Table 4 presents program expenses and revenues for governmental activities. Generally, program revenues were not sufficient to cover program expenses for governmental activities. The net program expenses of these governmental activities were, therefore, supported by general revenues, which are derived primarily from consolidated tax revenue from the State and from property taxes.

**Table 4: Program Expenses and Revenues
for Governmental Activities
For the Fiscal Year Ended June 30, 2019**

<u>City Programs</u>	<u>Program Expenses</u>	<u>Program Revenues</u>	<u>Net Program (Expenses)/Revenues</u>
General Government	\$ 677,106	\$ 40,642	\$ (636,464)
Public Safety	920,282	52,529	(867,753)
Judicial	56,676	-	(56,676)
Public Works	310,440	66,583	(243,857)
Health and Sanitation	100,448	1,950	(98,498)
Culture and Recreation	344,489	290,801	(53,688)
Interest Long-term Debt	6,017	-	(6,017)
 Total	 <u>\$ 2,415,458</u>	 <u>\$ 452,505</u>	 <u>\$ (1,962,953)</u>

Program Expenses and Revenues for Business-type Activities

Table 5 presents program expenses and revenues for business-type activities. Program revenues generated from business-type activities were not sufficient to cover program expenses.

**Table 5: Program Expenses and Revenues
for Business-type Activities
For the Fiscal Year Ended June 30, 2019**

<u>City Programs</u>	<u>Program Expenses</u>	<u>Program Revenues</u>	<u>Net Program (Expenses) Revenues</u>
Water	\$ 487,333	\$ 433,162	\$ (54,171)
Garbage	151,276	247,211	95,935
Sewer	360,634	324,948	(35,686)
Street Lights	27,590	27,590	-
 Total	 <u>\$ 1,026,833</u>	 <u>\$ 1,032,911</u>	 <u>\$ 6,078</u>

Financial highlights for the City during the fiscal year ended June 30, 2019, include the following:

- The City's total Net Position for all activities increased from \$13,407,856 to \$14,376,729 an increase of \$968,873 (7.2%). This increase is attributable to continued expense control by all departments because of uncertain revenue projections. General Fund expenditures were lower than budgeted amounts by \$609,191 (23.3 %). General Fund revenues were also better than projected by \$576,585 (24.5 %) due to a conservative estimate of budget revenues during budgeting.
- Capital assets added during the year in the amount of \$487,926 include improvements to City buildings and facilities, the City Park, one new city vehicle, new road addition and the completion of a chip and seal project for the city streets.
- The City's Business-type Activities (Utility Fund) operating revenues exceeded operating expenses by \$5,078. As an Enterprise Fund, the Utility Fund is required to generate operating revenues sufficient to offset operating expenses. Excess revenues year to year are used for maintenance and eventual replacement of older infrastructure. A Preliminary Engineering Report (PER) was completed and a refurbishment plan is underway using the PER.
- During the fiscal year the City implemented GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The primary objective of this statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. The City has implemented the provision of this statement as of July 1, 2018, refer to Note 6 in the financial statements.

Fund Analysis

All Governmental Funds

At the close of the fiscal year ending June 30, 2019, the City's governmental funds reported a combined ending fund balance of \$6,964,272, representing an increase of \$742,227 (11.9 %) from the previous fiscal year. The increase across all governmental funds is the result of the following factors:

- Expense control by all departments.
- Increased revenue from higher than projected revenues.

General Fund

Fund balance at June 30, 2019 totaled \$5,430,352 which is an increase of \$634,140 (13.2%) from the previous fiscal year. The increase is due to lower than budgeted expenses and an increase in revenues from consolidated taxes.

Capital Projects Fund

Fund balance at June 30, 2019 totaled \$632,034 which is an increase of \$37,880 (6.3 %) from the previous year. The increase is due to lower than budgeted expenses.

Non-major Governmental Funds

Fund balance at June 30, 2019 totaled \$901,886 which is a decrease of \$70,207 (8.4 %) from the previous fiscal year. The following table shows the fund balances that are included in the Non-major Governmental Funds, as of June 30, 2019 and the increase/(decrease) from the previous fiscal year:

<u>Fund</u>	<u>Fund Balance June 30, 2019</u>	<u>Increase/ Decrease</u>
Non-Major Governmental Funds:		
Grants Fund	54,968	23,507
Open Door Senior Citizens Fund	165,911	57,403
Municipal Court Building Fund	8,845	(3,535)
Administrative Assessment Fund	9,154	1,270
Park and Recreation Fund	259,532	(12,398)
Parks and Recreation Fund #2	89,523	2,316
Equestrian Center Fund	62,056	11,582
Debt Service Fund	53,226	(12,100)
Police Forfeiture Fund	108,233	-
Perpetual Cemetery Care Fund	90,438	2,162
Totals	<u><u>\$ 901,886</u></u>	<u><u>\$ 70,207</u></u>

Proprietary Funds

The City's sole Proprietary Fund, the Utility Fund, had a net position of \$4,525,032 as of June 30, 2019. Operating revenues exceeded operating expenses by \$5,078.

Capital Asset and Long-term Debt Activity

Capital Asset Activity

At June 30, 2019, the City reported \$5,163,768 in capital assets for governmental activities and \$2,827,684 in capital assets for business-type activities. Capital asset additions included improvements to City buildings and facilities, the City Park, one new city vehicle, new road addition and the completion of a chip and seal project for the city streets.

Long-term Debt Activity

Long-term debt outstanding at June 30, 2019, excluding the annual required contribution for other postemployment benefits and the net pension liability, totaled \$131,287, which is entirely for the Senior Center. The other postemployment benefits liability decreased by \$97,409 to \$358,083. The City's net pension liability decreased by \$331,084 to \$2,254,999.

Additionally, the City estimates \$140,751 for compensated absences.

For additional information, refer to Notes 6, 7 and 11 in the financial statements.

Requests for Information

This financial report is designed to provide a general overview of the financial activity of the City of Carlin to all having an interest in the City of Carlin. Questions concerning any of the information provided in this report or requests of additional financial information should be addressed to the City of Carlin, Attn: City Manager, P.O. Box 787, Carlin, Nevada 89822.

City of Carlin
Statement of Net Position
June 30, 2019

	Governmental Activities	Business-Type Activities	Total
Assets			
Cash	\$ 6,708,891	\$ 2,371,461	\$ 9,080,352
Accounts receivable, net	77,233	88,005	165,238
Due from other governments	645,136	-	645,136
Taxes receivable, delinquent	16,703	-	16,703
Prepaid expenses	12,437	3,977	16,414
Restricted cash and cash equivalents	45,104	-	45,104
Capital assets, net of accumulated depreciation	3,638,675	2,749,629	6,388,304
Capital assets, not being depreciated	1,525,093	78,055	1,603,148
Total assets	12,669,272	5,291,127	17,960,399
Deferred Outflows of Resources			
Deferred outflows related to other postemployment benefits	13,134	4,180	17,314
Deferred outflows related to pensions	271,398	86,114	357,512
Total deferred outflows of resources	284,532	90,294	374,826
Total Assets and Deferred Outflows of Resources	12,953,804	5,381,421	18,335,225
Liabilities			
Accounts payable and other	393,318	66,578	459,896
Accrued salaries and related liabilities	30,936	-	30,936
Due to other governments	10,976	5,430	16,406
Customer meter deposits	-	12,254	12,254
Unearned revenue - grants	13,361	-	13,361
Noncurrent liabilities portion due or payable within one year			
Compensated absences	62,025	32,223	94,248
Notes payable	6,356	-	6,356
Noncurrent liabilities portion due or payable after one year			
Compensated absences	30,603	15,900	46,503
Notes payable	124,931	-	124,931
Total other postemployment benefits liability	285,880	72,203	358,083
Net pension liability	1,735,305	519,694	2,254,999
Total liabilities	2,693,691	724,282	3,417,973
Deferred Inflows of Resources			
Deferred inflows related to pensions	408,416	132,107	540,523
Total Liabilities and Deferred Inflows of Resources	3,102,107	856,389	3,958,496
Net Position			
Net investment in capital assets	5,032,481	2,827,684	7,860,165
Restricted for			
Debt service	12,100	-	12,100
Nonspendable perpetual cemetery care	33,004	-	33,004
Perpetual cemetery care	57,434	-	57,434
Senior Center	18,249	-	18,249
Judicial fees (NRS 176)	17,999	-	17,999
Unrestricted	4,680,430	1,697,348	6,377,778
Total net position	\$ 9,851,697	\$ 4,525,032	\$ 14,376,729

Functions/Programs	Expenses	Program Revenues		
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
Governmental Activities				
General government	\$ 677,106	\$ -	\$ 40,642	\$ -
Public safety	920,282	37,038	-	15,491
Judicial	56,676	-	-	-
Public works	310,440	66,583	-	-
Health and sanitation	100,448	-	1,950	-
Culture and recreation	344,489	67,772	216,029	7,000
Interest on long-term debt	6,017	-	-	-
Total governmental activities	2,415,458	171,393	258,621	22,491
Business-type Activities				
Water	487,333	433,162	-	-
Garbage	151,276	247,211	-	-
Sewer	360,634	323,948	-	1,000
Street lights	27,590	27,590	-	-
Total business-type activities	1,026,833	1,031,911	-	1,000
Total primary government	\$ 3,442,291	\$ 1,203,304	\$ 258,621	\$ 23,491
Property taxes				
Room taxes				
Consolidated tax revenues - unrestricted				
Fuel taxes				
Interest and investment earnings				
Gain on sale of capital assets				
Miscellaneous revenue				
Total general revenues				
Change in Net Position				
Net Position, Beginning of Year				
Net Position, End of Year				

See Notes to Financial Statements

City of Carlin
Statement of Activities
Year Ended June 30, 2019

Net (Expense) Revenue and Changes in Net Position		
Primary Government		
Governmental Activities	Business-Type Activities	Total
\$ (636,464)	\$ -	\$ (636,464)
(867,753)	-	(867,753)
(56,676)	-	(56,676)
(243,857)	-	(243,857)
(98,498)	-	(98,498)
(53,688)	-	(53,688)
(6,017)	-	(6,017)
<u>(1,962,953)</u>	<u>-</u>	<u>(1,962,953)</u>
-	(54,171)	(54,171)
-	95,935	95,935
-	(35,686)	(35,686)
<u>-</u>	<u>-</u>	<u>-</u>
-	6,078	6,078
<u>(1,962,953)</u>	<u>6,078</u>	<u>(1,956,875)</u>
439,107	-	439,107
40,490	-	40,490
2,292,642	-	2,292,642
52,738	-	52,738
8,550	18,264	26,814
10,000	-	10,000
61,661	2,296	63,957
<u>2,905,188</u>	<u>20,560</u>	<u>2,925,748</u>
<u>942,235</u>	<u>26,638</u>	<u>968,873</u>
<u>8,909,462</u>	<u>4,498,394</u>	<u>13,407,856</u>
<u>\$ 9,851,697</u>	<u>\$ 4,525,032</u>	<u>\$ 14,376,729</u>

City of Carlin
Balance Sheet – Governmental Funds
June 30, 2019

	General	Capital Projects Fund	Other Governmental Funds	Total Governmental Funds
Assets				
Cash	\$ 4,983,792	\$ 877,971	\$ 847,128	\$ 6,708,891
Receivables, net				
Accounts	68,657	-	8,576	77,233
Taxes	16,703	-	-	16,703
Due from other governments	605,129	10,206	29,801	645,136
Prepaid expenses	9,584	-	2,853	12,437
Restricted cash	-	-	45,104	45,104
Total assets	\$ 5,683,865	\$ 888,177	\$ 933,462	\$ 7,505,504
Liabilities				
Accounts payable	\$ 128,058	\$ 247,771	\$ 17,297	\$ 393,126
Accrued salaries and related liabilities	30,936	-	-	30,936
Bail and fines held	192	-	-	192
Due to other governments	10,058	-	918	10,976
Unearned revenue - grants	-	-	13,361	13,361
Total liabilities	169,244	247,771	31,576	448,591
Deferred Inflows of Resources				
Unavailable property taxes	16,702	8,372	-	25,074
Unavailable infrastructure tax revenue	48,755	-	-	48,755
Unavailable ambulance fees	18,812	-	-	18,812
Total deferred inflows of resources	84,269	8,372	-	92,641
Fund Balances				
Nonspendable	9,584	-	35,857	45,441
Restricted for				
Debt service	-	-	12,100	12,100
Perpetual cemetery care	-	-	57,434	57,434
Senior Center	-	-	18,249	18,249
Judicial fees (NRS 176)	-	-	17,999	17,999
Committed for				
Future community development	-	-	55,577	55,577
Recreational activities	-	-	293,478	293,478
Public safety	-	-	108,233	108,233
Assigned	-			
Subsequent year operations	991,312	-	-	991,312
Other purposes	-	632,034	302,959	934,993
Unassigned	4,429,456	-	-	4,429,456
Total fund balances	5,430,352	632,034	901,886	6,964,272
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	\$ 5,683,865	\$ 888,177	\$ 933,462	\$ 7,505,504

City of Carlin

Reconciliation of the Governmental Funds Balance Sheet to the Statement of Net Position

June 30, 2019

Amounts reported for governmental activities in the statement of net position are different because:

Total fund balances - governmental funds	\$	6,964,272
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The net investment in capital assets is not reported in the governmental funds financial statements because they are not current financial resources, but they are reported in the statement of net position.

Capital assets	\$ 11,884,572		
Less accumulated depreciation	<u>(8,245,897)</u>		
		3,638,675	

Capital assets, not being depreciated	<u>1,525,093</u>		1,525,093
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Unavailable revenue represents amounts that are not available to fund current expenditures, and therefore, are not reported as revenue in the governmental funds			92,641
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Long-term liabilities are not due and payable in the current period and therefore are not reported in the governmental funds.

Net pension liability	(1,735,305)		
Notes payable	(131,287)		
Other postemployment benefits	(285,880)		
Compensated absences	<u>(92,628)</u>		
		(2,245,100)	

Deferred outflows and inflows of resources related to pensions and other postemployment benefits are applicable to future periods and, therefore, are not reported in the governmental funds.

Deferred outflows of resources related to pensions	271,398		
Deferred inflows of resources related to pensions	(408,416)		
Deferred outflows of resources related to other postemployment benefits	<u>13,134</u>		
		(123,884)	

Net position of governmental activities	\$	<u><u>9,851,697</u></u>
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City of Carlin

Statement of Revenues, Expenditures, and Changes in Fund Balances – Governmental Funds
Year Ended June 30, 2019

	General	Capital Projects Fund	Other Governmental Funds	Total Governmental Funds
Revenues				
Taxes	\$ 402,348	\$ 24,958	\$ 40,490	\$ 467,796
Licenses, permits and fees	66,583	-	-	66,583
Intergovernmental	2,351,173	-	207,823	2,558,996
Charges for services	13,085	-	21,320	34,405
Fines and forfeits	13,742	-	-	13,742
Miscellaneous	80,511	10,692	83,604	174,807
Total revenues	2,927,442	35,650	353,237	3,316,329
Expenditures				
Current				
General government	681,904	-	-	681,904
Public safety	900,503	-	1,984	902,487
Judicial	53,764	-	7,476	61,240
Public works	167,728	-	-	167,728
Health and sanitation	73,048	-	-	73,048
Culture and recreation	19,570	-	288,162	307,732
Capital outlay	104,985	247,770	25,108	377,863
Debt service				
Principal	-	-	6,083	6,083
Interest	-	-	6,017	6,017
Total expenditures	2,001,502	247,770	334,830	2,584,102
Excess (Deficiency) of Revenues Over (Under) Expenditures	925,940	(212,120)	18,407	732,227
Other Financing Source (Uses)				
Sale of capital assets	10,000	-	-	10,000
Transfer in	15,000	250,000	105,800	370,800
Transfer out	(316,800)	-	(54,000)	(370,800)
Total other financing sources (uses)	(291,800)	250,000	51,800	10,000
Net Change in Fund Balances	634,140	37,880	70,207	742,227
Fund Balances, Beginning of Year	4,796,212	594,154	831,679	6,222,045
Fund Balances, End of Year	\$ 5,430,352	\$ 632,034	\$ 901,886	\$ 6,964,272

City of Carlin

Reconciliation of the Governmental Funds Statement of Revenues, Expenditures,
and Changes in Fund Balances to the Statement of Activities
Year Ended June 30, 2019

Amounts reported for governmental activities in the statements of activities are different because:

Net change in fund balances - total governmental funds		\$ 742,227
Capital outlays to purchase or build capital assets are reported in governmental funds as expenditures. However, those costs are shown in the statement of net position and allocated over their estimated useful lives as depreciation expense in the statement of activities. This is the amount by which depreciation exceeded capital outlays in the current period.		
Capital outlay to purchase capital assets	\$ 377,863	
Capital assets donated to the City	102,380	
Current depreciation expense	<u>(331,352)</u>	
		148,891
Revenue in the statement of activities that do not provide current financial resources are not reported as revenues in the funds.		
Change in unavailable property taxes	11,801	
Change in unavailable ambulance fees	10,211	
Change in unavailable infrastructure tax revenue	<u>2,352</u>	
		24,364
Long-term liabilities, include notes payable, that are not due and payable in current period and therefore are not reported in the governmental funds.		
Note payable - principal payments		6,083
Some expenses reported in the statement of activities do not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds.		
Current year change in compensated absences		(18,925)
Governmental funds report City PERS contributions as expenditures. However, in the statement of activities, the cost of pension benefits earned is reported as pension expense:		
City PERS contributions	111,290	
City pension expense	<u>(49,502)</u>	
		61,788
The liability for other postemployment benefits is not recorded in the governmental funds, but it is reported in the statement of net position. This is the current year change in the liability, reported as an expense in the statement of activities.		
Other postemployment benefits contributions	13,134	
Other postemployment benefits expense	<u>(35,327)</u>	
		<u>(22,193)</u>
Change in net position of governmental activities		<u>\$ 942,235</u>

City of Carlin
Statement of Net Position – Proprietary Fund
June 30, 2019

	Business-Type Activities <u>Enterprise Fund</u> <u>Utility Fund</u>
Assets	
Current Assets	
Cash	\$ 2,371,461
Accounts receivable, net	88,005
Prepaid expenses	<u>3,977</u>
Total current assets	<u>2,463,443</u>
Noncurrent Assets	
Capital assets, net of accumulated depreciation	2,749,629
Capital assets, not being depreciated	<u>78,055</u>
Total noncurrent assets	<u>2,827,684</u>
Total assets	<u>5,291,127</u>
Deferred Outflows of Resources	
Deferred outflows related to other postemployment benefits	4,180
Deferred outflows related to pensions	<u>86,114</u>
Total deferred outflows of resources	<u>90,294</u>
Liabilities	
Current Liabilities	
Accounts payable	66,578
Due to other governments	5,430
Compensated absences, current portion	32,223
Customer meter deposits	<u>12,254</u>
Total current liabilities	<u>116,485</u>
Noncurrent Liabilities	
Compensated absences	15,900
Net pension liability	519,694
Total other postemployment benefits liability	<u>72,203</u>
Total noncurrent liabilities	<u>607,797</u>
Total liabilities	<u>724,282</u>
Deferred Inflows of Resources	
Deferred inflows related to pensions	<u>132,107</u>
Net Position	
Net investment in capital assets	2,827,684
Unrestricted	<u>1,697,348</u>
Total net position	<u>\$ 4,525,032</u>

City of Carlin
Statement of Revenues, Expenses, and Changes in Net Position –
Proprietary Fund
Year Ended June 30, 2019

	Business-Type Activities Enterprise Fund <u>Utility Fund</u>
Operating Revenues	
Charges for sales and services	
Water (pledge for revenue bond coverage)	\$ 433,162
Garbage	247,211
Sewer	323,948
Street lights	<u>27,590</u>
Total operating revenues	<u>1,031,911</u>
Operating Expenses	
Salaries and wages	270,273
Employee benefits	84,133
Services and supplies	522,621
Depreciation	<u>149,806</u>
Total operating expenses	<u>1,026,833</u>
Operating Income (Loss)	<u>5,078</u>
Nonoperating Revenues (Expenses)	
Interest and penalties earned	18,264
Miscellaneous revenues	<u>2,296</u>
Total nonoperating revenues	<u>20,560</u>
Income (Loss) Before Capital Contributions	<u>25,638</u>
Capital Contributions	<u>1,000</u>
Change in Net Position	<u>26,638</u>
Net Position, Beginning of Year	<u>4,498,394</u>
Net Position, End of Year	<u><u>\$ 4,525,032</u></u>

City of Carlin
Statement of Cash Flows – Proprietary Fund
For the Year Ended June 30, 2019

	Business-Type Activities <u>Enterprise Fund</u> <u>Utility Fund</u>
Operating Activities	
Cash received from customers	\$ 1,039,643
Cash payments to employees for services and benefits	(400,415)
Cash payments to suppliers for goods and services	<u>(590,480)</u>
Net Cash from Operating Activities	<u>48,748</u>
Capital and Related Financing Activities	
Acquisition of capital assets	(7,683)
Proceeds from other governmental units	2,296
Connection fees	<u>1,000</u>
Net Cash used for Capital and Related Financing Activities	<u>(4,387)</u>
Investing Activity	
Interest on investments	<u>18,264</u>
Net Change in Cash	62,625
Cash, Beginning of Year	<u>2,308,836</u>
Cash, End of Year	<u><u>\$ 2,371,461</u></u>

City of Carlin
Statement of Cash Flows – Proprietary Fund
For the Year Ended June 30, 2019

	Business-Type Activities Enterprise Fund <u>Utility Fund</u>
Reconciliation of operating income to net cash from (used for) operating activities	
Operating income (loss)	\$ 5,078
Adjustments to reconcile operating income (loss) to net cash provided by operating activities	
Depreciation	149,806
Pension expense	17,063
City pension contributions	(38,359)
Other postemployment benefits expense	(23,931)
Changes in	
Accounts receivable	2,302
Prepaid expenses	22
Accounts payable	(68,663)
Accrued expenses	<u>5,430</u>
Total Adjustments	<u>43,670</u>
Net Cash from Operating Activities	<u><u>\$ 48,748</u></u>

Note 1 - Summary of Significant Accounting Policies

The City of Carlin (the City) was incorporated April 17, 1971 per Chapter 344, Statutes of Nevada 1971. The City is governed by an elected Council of four Councilmen and a Mayor who hold the final decision-making authority and are held primarily accountable for those decisions. The Council is responsible for approving the budget, establishing spending limitations, funding any deficits and borrowing funds and/or issuing bonds to finance City operations and construction.

The accounting policies of the City conform to accounting principles generally accepted in the United States of America as applicable to governmental entities. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing these accounting and financial principles.

The accounting and reporting framework and the more significant accounting policies are as follows:

Reporting Entity

The accompanying financial statements include all the activities that comprise the financial reporting entity of the City. The City is legally separate and fiscally independent of other governing bodies. No other governmental organizations are includable within the City's reporting entity.

Implementation of GASB Statement No. 88

In March 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements* (Codification Section 2300.106 and 1500.129). The primary objective of this statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt.

This Statement defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established.

This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines or credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses.

Additional disclosures required by this standard are included in Note 6.

The City has implemented the provisions of this statement as of July 1, 2018.

Government-Wide and Fund Financial Statements

The basic financial statements consist of government-wide statements and the fund financial statements. The government-wide financial statements include a statement of net position and a statement of activities. The government-wide statements report information on all of the activities of the City since the City does not have

any fiduciary activities. For the most part, the effect of interfund activity has been removed from these statements. Governmental activities, which normally are supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely to a significant extent on fees and charges for support.

The statement of net position presents the consolidated financial position of the City at year-end in separate columns, for both governmental and business-type activities. The statement of activities demonstrates the degree to which the direct expenses of a given function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function or segment. Program revenues include charges to patrons who use or directly benefit from goods, services, or privileges provided by a given function, and grants and contributions that are restricted to meet the operational or capital requirements of a particular function or segment. Taxes and revenues not properly included among program revenues are reported instead as general revenues. Those programs or functions with a net cost not supported by program revenues are generally dependent on general-purpose revenues, such as taxes and unrestricted interest earnings, to remain operational. When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources as they are needed.

Separate fund financial statements are provided for governmental funds, and proprietary funds. Major individual governmental funds and major individual enterprise funds are reported as separate columns in the fund financial statements. All other funds are aggregated into a single column.

Measurement Focus, Basis of Accounting, and Financial Statement Presentation

Government-Wide Financial Statements

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting, as are proprietary fund financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenue in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met. Grant revenues have been reported as unearned revenue if the funds have been received prior to meeting such requirements.

Fund Financial Statements

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered "measurable" when in the hands of intermediary collecting agents or governments. Revenues are considered available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the City considers all revenues available if they are collected within 60 days after the end of the current fiscal period. Anticipated refunds of taxes are recorded as liabilities and reductions of revenue when they are measurable and the payment seems certain. Expenditures are generally recorded when a liability is incurred, as under accrual accounting. However, debt service expenditures, as well as expenditures related to compensated absences and claims and judgments, are recorded only when payment is due.

Property taxes, franchise taxes, licenses, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. Only the portion of special assessments receivable due within the current fiscal period is considered to be susceptible to accrual as revenue of the current period. All other revenue items are considered to be measurable and available only when cash is received by the City.

The major revenue sources of the City include consolidated tax revenues, ad valorem (property) taxes, governmental services tax, interest income and various state and federal grants. Ad valorem taxes have been deferred in the governmental funds if they are not available to finance the activities of the current period.

The City's financial records are organized on the basis of funds, which are independent fiscal and accounting entities with a separate set of self-balancing accounts. Fund accounting segregates funds according to their intended purpose and is used to aid management in demonstrating compliance with finance-related legal and contractual provisions.

The City reports the following major governmental funds:

- General Fund is the primary operating fund of the City. It accounts for all financial resources and costs of operations traditionally associated with governments, which are not required to be accounted for in another fund.
- Capital Projects Fund accounts for financial resources used for the acquisition or construction of major capital assets.

The City reports the following major proprietary fund:

- Utility Fund accounts for all revenues and expenses used to provide water, sewer, garbage and street light services to the City's residents.

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services or producing and delivering goods in connection with the proprietary funds' principal ongoing operations. Revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

The City reports the following non-major governmental fund types:

- Special Revenue Funds account for specific financial resources that are legally restricted to expenditure for specific purposes.
- Debt Service Funds account for the servicing of general long-term debt not being financed by proprietary funds.
- Permanent Funds account for financial resources that are legally restricted to the extent that only earnings and not principal may be used for purposes that support the City's programs.

Budgets and Budgetary Accounting

The City adheres to the Local Government Budget Act incorporated in Section 354 of the Nevada Revised Statutes. The City is required to legally adopt budgets for all funds except fiduciary funds. The budgets are filed

as a matter of public record with the City Clerk, the County Clerk and the State Department of Taxation. The City staff use the following procedures to establish, modify, and control the budgetary information that is included in these financial statements.

1. On or before April 15, the City Council files a tentative budget with the Nevada Department of Taxation for all funds for the fiscal year beginning the following July 1. The tentative budget is prepared by fund, function and department and includes proposed expenditures and the means of financing them.
2. Public budget hearings on the tentative budget are held in May.
3. Prior to June 1, at a public hearing, the Council indicates changes, if any, to be made to the tentative budget and adopts a final budget by the majority vote of the Council. The final budget must then be forwarded to the Nevada Department of Taxation for final approval. The above dates may be adjusted as necessary during legislative years.
4. Formal budgetary integration in the financial records of all funds is employed to enhance management control during the year, however encumbrance accounting is not utilized. All appropriations lapse at the end of the fiscal year.
5. The appropriated budget amounts may be transferred between functions, funds, or contingency accounts if the transfer does not increase the total appropriations for fiscal year amounts subject to advisement of the Council at the next subsequent meeting and must be recorded in the minutes of the meeting. Budget augmentations and amendments in excess of original budgetary amounts require prior approval of the City Council following a scheduled and noticed public hearing.
6. Budgets for all funds are adopted on a basis consistent with accounting principles generally accepted in the United States of America (GAAP). Budgeted amounts reflected in the accompanying financial statements recognize budget amendments made during the year in accordance with the above procedures.
7. In accordance with state statute, actual expenditures may not exceed budgetary appropriations of the various functions of the governmental funds, except for bond repayments, short-term financing repayment and any other long-term contract expressly authorized by law, and certain other items specified in NRS 354.626. For proprietary funds, the sum of operating and nonoperating expenses may not exceed the sum of budgeted operating and nonoperating expenses.

Property Taxes

Taxes on real property are levied and the lien attached on July 1 (the levy date) of the year for which the taxes are levied. Taxes are due on the third Monday of August, however they may be paid in quarterly installments payable on the third Monday of August and the first Mondays in October, January and March. Any tax paid more than ten days late is assessed a penalty. In the event of nonpayment, a tax lien is taken on the first Monday in May, and the County Treasurer is authorized to hold the property for two additional years, subject to redemption upon payment of taxes, penalties and costs, together with interest at the rate of 10% per year from the date the taxes were due until paid. If delinquent taxes are not paid within the two-year redemption period, the County Treasurer, upon approval of the Board of County Commissioners, obtains a tax deed to the property free of all encumbrances. Upon receipt of a deed, the County Treasurer may sell the property to satisfy the tax lien.

The State of Nevada limits the total taxes levied by all overlapping governmental units within the boundaries of Elko County (i.e., the county, the state, the school district, the city, and any other city, town or special district) to an amount not to exceed \$3.64 per \$100 of assessed valuation of the property being taxed, except in cases of severe financial emergency as defined by NRS 354.705.

Property tax revenue and the related receivable have been recognized for property tax assessments in the fiscal year for which they were levied. All property taxes are collected by Elko County and remitted to the City monthly.

Cash

For purposes of the statement of cash flows, the City considers all time deposits, certificates of deposit, and all highly liquid investments, generally with original maturities of three months or less to be cash equivalents.

Cash balances from most funds are combined, held and invested by City staff. Interest earned on the cash balances is generally recognized in the fund holding the cash.

Debt loan agreements require the City to maintain a debt service reserve for each loan. These amounts are reported as restricted cash.

State statutes authorize deposits in any bank, credit union or savings and loan that are federally insured. The City may invest in the following securities:

- United States bonds and debentures, bills and notes of the United States Treasury, or obligations of the United States or a corporation sponsored by the government maturing within ten (10) years from the date of purchase.
- Certain farm loan bonds.
- Negotiable certificates of deposit from commercial banks, insured credit unions or insured savings and loan associations.
- State of Nevada Local Government Pooled Investment Fund.
- Certain securities issued by local governments of the State of Nevada.
- Certain "AAA" rated money market mutual funds that invest in federal securities.
- Other securities expressly provided by other statutes, including repurchase agreements.
- Certain banker's acceptances not to exceed 180 days maturities or 20% of the money available for investment.
- Obligations of state and local governments rated A or higher and exempt from gross income for federal income tax purposes.
- Certain corporate or depository institution commercial paper purchased from a registered broker-dealer rated A-1, P-1, or better with maturity of no more than 270 days.

Any securities purchased by or on behalf of the City must remain in the physical possession of an appropriate officer of the City or a trust department of a designated bank (federally insured) after issuing a written acknowledgment.

Accounts Receivable

Accounts receivable are reported net of an allowance of uncollectible accounts, if applicable. No allowance for uncollectible accounts has been established since management does not anticipate any material collection loss with respect to taxes and due from developer receivables. Total accounts receivable in the General Fund of \$265,178 are reported at \$68,657, net of a \$196,521 allowance for uncollectible ambulance billings and accounts receivable in the Utility Fund of \$89,642 are reported at \$88,005, net of a \$1,637 allowance for uncollectable utility billings.

Inventories

Expenditures for consumable supplies and minor equipment purchases are charged against appropriations at the time of purchase. Any inventories of such supplies at June 30 are not material to the individual funds and are not recognized in these financial statements.

Capital Assets

Capital assets, which include property, plant and equipment, and infrastructure, are recorded in the government-wide and proprietary fund financial statements. Capital assets are defined by the City as assets with an initial, individual cost of more than \$1,500 and an estimated useful life in excess of one year. These assets are recorded at historical cost if purchased or constructed. Donated capital assets are recorded at their acquisition value determined at the date of donation. Interest, if applicable, is capitalized on assets acquired with tax-exempt debt for business-type activities. The amount of interest to be capitalized is determined by offsetting interest expense incurred from the date of the borrowing until completion of the project with interest earned on invested proceeds over the same period.

Depreciation of all exhaustible capital assets is recorded as an allocated expense in the Statement of Activities and the Proprietary Fund Statement of Revenues, Expenses and Changes in Net Position, with accumulated depreciation reflected in the government-wide and proprietary fund Statement of Net Position. Depreciation is provided over the assets' estimated useful lives using the straight-line method of depreciation. The range of estimated useful lives by type of asset is as follows:

Buildings	15–100 years
Equipment and Vehicles	5-25 years
Infrastructure	5-50 years

In the fund financial statements, capital assets used in governmental fund operations are accounted for as capital outlay expenditures by the governmental fund upon acquisition. Capital assets used in proprietary fund operations are accounted for as capital assets in the Statement of Net Position – Proprietary Funds.

Compensated Absences

Employees may accumulate unused vacation time within certain limits. Unused vacation time is paid to the employee after his/her anniversary date. After five years of employment, employees will be paid for sick leave up to 480 hours at one-fourth of the regular rate of pay at separation from service. If employment termination is due to death, any unused sick leave will be paid at the regular rate of pay. Accumulated costs for unused vacation pay and sick leave are recognized currently for those retiring prior to year-end. Remaining costs of unused vacation and sick leave are not recorded in the governmental fund financial statements, but are included in the government-wide financial statements. These benefits have typically been paid from the General Fund.

Pensions

For purposes of measuring the net pension liability and pension expense, information about the fiduciary net position of the Public Employees' Retirement System of the State of Nevada (PERS) Base Plan (Base Plan) and additions to/deductions from Base Plan's fiduciary net position have been determined on the same basis as they are reported by the Base Plan. For this purpose, benefit payments (including refund or employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Other Post-Employment Benefits

In addition to pension benefits (Public Employees Retirement System) described in Note 7 and postemployment healthcare benefits described in Note 11, the City waives monthly utility bills for certain retired employees per the City's Personnel Policy Manual section 5.16. The benefit terminates upon the death of the retiree. The City funds the benefit on a current basis and, as of June 30, 2019, the City had no retirees utilizing the benefit. The City had \$0 associated with the above benefit for the year ended June 30, 2019.

Deferred Inflows and Outflows of Resources

In addition to assets, the Statements of Net Position/Governmental Funds Balance Sheet may report a separate section for deferred outflows of resources. This separate statement element represents the consumption of net position/fund balance that applies to future periods and so will not be recognized as an outflow of resources (expense/expenditure) until then. The City reported deferred outflows of resources related to other postemployment benefits resulting from the City's contributions subsequent to the measurement date of the net other postemployment liability. The City reported deferred outflows of resources related to pensions resulting from the City's contributions subsequent to the measurement date of the net pension liability, differences between expected and actual experience, changes in assumptions, and change in the City's proportion and difference between the City's contributions and the City's proportionate contributions in the Statement of Net Position.

In addition to liabilities, the Statements of Net Position/Governmental Funds Balance Sheet may report a separate section for deferred inflows of resources. This separate statement element represents an acquisition of net position/fund balance that applies to future periods and so will not be recognized as an inflow of resources (revenue) until that time. The City reflects deferred inflows of resources which are unavailable revenue reported in the governmental fund balance sheet for delinquent property taxes and other taxes received beyond 60 days of year end and uncollected ambulance fees under the modified accrual basis of accounting. The City reported deferred inflows of resources related to pensions resulting from differences between expected and actual experience, net difference between projected and actual earnings on pension plan investments, and change in the employer's proportion and differences between the employer's contributions and the employer's proportionate contributions in the Statement of Net Position.

Fund Balance/Net Position

Government-wide and Proprietary Fund Financial Statements:

The government-wide and proprietary fund Statement of Net Position utilizes a net position presentation. Net position is categorized as net investment in capital assets, restricted, and unrestricted. Net investment in capital assets is the net book value of capital assets, less related debt. Related debt is the debt outstanding that relates to the acquisition, construction, or improvement of capital assets.

Governmental Fund Financial Statements:

In the governmental fund financial statements, governmental funds report the following classifications of fund balance:

- **Nonspendable** – Amounts that cannot be spent because they are either not spendable in form or are legally or contractually required to be maintained intact.
- **Restricted** – Amounts that can be spent only for specific purposes because of constitutional provisions, enabling legislation, or because of constraints that are externally imposed by creditors, grantors, contributors, or the law or regulations of other governments.
- **Committed** – Amounts that can only be used for specific purposes. Committed fund balance is reported pursuant to resolutions passed by the City Council, the City's highest level of decision making authority. Committed amounts may only be established, amended, or rescinded pursuant to Council resolution.
- **Assigned** – Amounts that the City intends to use for a specific purpose, but do not meet the definitions of restricted or committed fund balance. Under the City's adopted policy, amounts may be assigned by the City Manager or City Clerk under the authorization of the City Council.
- **Unassigned** – Amounts that have not been assigned to other funds or restricted, committed, or assigned to a specific purpose within the General Fund. In accordance with an ordinance enacted by the City of Carlin on June 8, 2011, the City has adopted a policy to maintain a minimum level of unassigned fund balance for the General Fund of not less than 75% of the previous year's unrestricted general fund expenditures.

When an expenditure is incurred for purposes for which both restricted and unrestricted amounts are available, the City considers restricted funds to have been spent first. When an expenditure is incurred for which committed, assigned, or unassigned amounts are available, the City considers amounts to have been spent first out of committed funds, then assigned funds, and finally, unassigned funds, as needed, unless the City Council has provided otherwise in its commitment or assignment actions.

Risk Management

The City, like any governmental entity, is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries of employees; and natural disasters. The City assesses these risks and utilizes risk management provided through the Nevada Public Agency Insurance Pool (POOL) created through an inter-local cooperative agreement by participating Nevada governments. The City participated in Agency programs designed to reduce risk loss by governments. Members pay an annual premium and specific deductibles, as necessary, to POOL for its general insurance coverage. POOL is considered a self-sustaining risk pool that will provide coverage for its members for up to \$10,000,000 per event and a \$10,000,000 general aggregate per member. POOL obtains independent coverage for insured events in excess of the \$200,000 limit and claims have not exceeded these amounts during the previous three years.

The City also pays premiums based on payroll costs to the Public Agency Compensation Trust (PACT) for workers compensation coverage. PACT is considered a self-sustaining pool that will provide coverage based on established statutory limits.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from these estimates.

Comparative Data

Comparative data shown in the supplementary information sections for the prior year has been extracted from the 2017-2018 financial statements and reclassified where necessary and practical to afford better comparability between the years. It has been provided to add comparability, but is not considered full disclosure of transactions for 2017-2018. Such information can only be obtained by referring to the audited financial statements for that year.

Note 2 - Compliance with Nevada Revised Statutes and Nevada Administrative Code

The City conformed to all significant statutory constraints on its financial administration during the year.

Note 3 - Cash

As defined in Note 1, Nevada Revised Statutes (NRS 355.170) set forth acceptable investments for Nevada local governments. The City has not adopted a formal investment policy that would further limit its investment choices nor further limit its exposure to certain risks as set forth below. As of and for the year ended June 30, 2019, the City had no investments, only cash balances.

Custodial Credit Risk – Custodial credit risk is the risk that in the event of a bank failure, the City's deposits may not be returned. All deposits were collateralized under the Nevada Pooled Collateral Program or insured by the Federal Deposit Insurance Corporation (FDIC).

Cash held by the City as of June 30, 2019 are allocated to the various funds as follows:

Major governmental funds	\$ 5,861,763
Nonmajor governmental funds	847,128
Business-type activities/proprietary fund	2,371,461
Restricted:	
Nonmajor governmental funds	<u>45,104</u>
	<u><u>\$ 9,125,456</u></u>

Note 4 - Capital Assets

The amounts recorded as capital assets are summarized as follows:

Governmental Activities

	Balance July 1, 2018	Additions	Deletions	Adjustments	Balance June 30, 2019
Capital Assets, Being Depreciated					
Buildings	\$ 2,435,822	\$ 39,708	\$ -	\$ -	\$ 2,475,530
Office equipment	162,060	1,990	(11,592)	-	152,458
Other equipment	2,240,655	31,602	-	-	2,272,257
Vehicles	2,133,699	30,685	-	-	2,164,384
Infrastructure	4,449,406	370,537	-	-	4,819,943
Total capital assets, being depreciated	11,421,642	474,522	(11,592)	-	11,884,572
Less Accumulated Depreciation for					
Buildings	(939,038)	(54,040)	-	-	(993,078)
Office equipment	(141,074)	(4,603)	11,592	-	(134,085)
Other equipment	(1,469,642)	(96,116)	-	-	(1,565,758)
Vehicles	(1,732,709)	(64,700)	-	-	(1,797,409)
Infrastructure	(3,643,674)	(111,893)	-	-	(3,755,567)
Total accumulated depreciation	(7,926,137)	(331,352)	11,592	-	(8,245,897)
Total capital assets, being depreciated, net	3,495,505	143,170	-	-	3,638,675
Capital Assets, not Being Depreciated					
Land	816,723	3,696	-	-	820,419
Construction in progress	702,649	2,025	-	-	704,674
Total capital assets, not being depreciated	1,519,372	5,721	-	-	1,525,093
Governmental Activities Capital Assets, Net	\$ 5,014,877	\$ 148,891	\$ -	\$ -	\$ 5,163,768

The City received donations of capital assets totaling \$102,380, including \$95,380 in road improvements and a \$7,000 vehicle for the Senior Citizens Center.

City of Carlin
Notes to Financial Statements
June 30, 2019

Business-type Activities

	Balance July 1, 2018	Additions	Deletions	Adjustments	Balance June 30, 2019
Capital Assets, Being Depreciated					
Buildings	\$ 292,162	\$ -	\$ -	\$ -	\$ 292,162
Office equipment	21,526	-	-	-	21,526
Other equipment	489,539	7,683	-	-	497,222
Vehicles	424,545	-	-	-	424,545
Infrastructure	6,424,764	-	-	-	6,424,764
Total capital assets, being depreciated	7,652,536	7,683	-	-	7,660,219
Less Accumulated Depreciation for					
Buildings	(75,670)	(5,928)	-	-	(81,598)
Office equipment	(18,772)	(405)	-	-	(19,177)
Other equipment	(340,319)	(11,802)	-	-	(352,121)
Vehicles	(424,545)	-	-	-	(424,545)
Infrastructure	(3,901,478)	(131,671)	-	-	(4,033,149)
Total accumulated depreciation	(4,760,784)	(149,806)	-	-	(4,910,590)
Total capital assets, being depreciated, net	2,891,752	(142,123)	-	-	2,749,629
Capital Assets, Not Being Depreciated					
Land	78,055	-	-	-	78,055
Business-type Activities Capital Assets, Net	\$ 2,969,807	\$ (142,123)	\$ -	\$ -	\$ 2,827,684

Depreciation expense was charged to functions/programs of the City as follows:

Governmental Activities	
General government	\$ 17,815
Public safety	83,156
Public works	145,866
Health and sanitation	31,891
Culture and recreation	52,624
Total Depreciation Expense – Governmental Activities	<u>\$ 331,352</u>
Business-type Activities	
Water	\$ 47,720
Sewer	102,086
Total Depreciation Expense – Business-type Activities	<u>\$ 149,806</u>

The City has completed phase 1 and 2 of the 3 phases of construction on a new fire house. Phase 3 of construction was not started during the year. As of June 30, 2019, the City has not set a time frame for construction to resume and the \$704,674 for the completion of phases 1 and 2 of the fire house are reported as construction in progress in the governmental activities.

Note 5 - Cooperative Agreement

On January 9, 2002 the City of Carlin, City of Elko, and Elko County entered into a cooperative agreement to provide financial resources for a water-line extension project. The water line initially served the University of Nevada-Reno Fire Science Academy that was deemed beneficial to the economy of the three governmental entities. The water line is the property of the City of Carlin. The project was funded by a federal grant obtained by the City of Carlin. This grant required matching funds of twenty-five percent. Therefore, a loan was obtained from the U.S. Department of Agriculture, Rural Development Agency. The cooperative agreement provides that the City of Elko and Elko County will each reimburse the City of Carlin one-third of the annual loan payments the City of Carlin will be obligated to pay to the USDA. The loan carries a maximum interest rate of 5% per year, payable over a period of forty years in annual payments of \$20,398. The City of Elko and Elko County have each agreed to pay to the City of Carlin the maximum sum of \$6,800 per year until the loan is paid in full or for a maximum of forty years. The loan was paid in full during the year ended June 30, 2018.

The City of Carlin has enacted an ordinance providing for a water extension connection fee. This fee will be collected by the City of Carlin as a surcharge fee from every water user connecting to City water within the "UNR Fire Science Academy Water Extension Area" for a period of forty years after the date the extension line is connected to the City of Carlin's water system. The City of Carlin agrees the proceeds collected from this water extension connection fee will be used to reimburse equally the City of Elko and Elko County for the payments made by them prior to the collection of any connection extension fees. Any excess funds collected will be used to reduce debt incurred for the project.

The City of Carlin has received pledged revenues totaling \$80,716 since the cooperative agreement was put into place. Pledged revenues are a surcharge fee from every water user connecting to City water within the "UNR Fire Science Academy Water Extension Area". There were no connections to this section of the City's water system during the year ended June 30, 2019.

Note 6 - Long-Term Liabilities

Long-term debt as of June 30, 2019, consisted of the following:

	Balance June 30, 2019
Governmental activities	
Direct Borrowing:	
Note payable United States Department of Agriculture, Rural Development, \$12,100 annually including interest at 4.38%, maturing June 28, 2034.	
The note is for construction of a senior citizens facility and is secured by the facility.	\$ 131,287

The governmental activities notes will be repaid by the Debt Service Fund. The maturity of the notes payable for the years after June 30, 2019, based upon present arrangements, is as follows:

Fiscal Year	Government-Type Activities	
	U.S. Department of Agriculture	
	Senior Citizens Facility	
	Principal	Interest
2020	\$ 6,356	\$ 5,732
2021	6,634	5,454
2022	6,925	5,163
2023	7,227	4,859
2024	7,544	4,543
2025-2029	42,967	17,454
2030-2034	53,634	7,177
	<u>\$ 131,287</u>	<u>\$ 50,382</u>

Changes in Long-Term Liabilities

	Balance July 1, 2018	Additions	Reductions	Balance June 30, 2019	Due Within One Year
Governmental activities					
Compensated absences	\$ 73,703	\$ 76,978	\$ 58,053	\$ 92,628	\$ 62,025
Notes payable	137,370	-	6,083	131,287	6,356
	<u>\$ 211,073</u>	<u>\$ 76,978</u>	<u>\$ 64,136</u>	<u>\$ 223,915</u>	<u>\$ 68,381</u>
Business-type activities					
Compensated absences	\$ 48,905	\$ 18,433	\$ 19,215	\$ 48,123	\$ 32,223

The City was, in accordance with Nevada Revised Statutes, within the legal debt limit at June 30, 2019.

Note 7 - Defined Benefit Pension Plan

Plan Description

The City of Carlin contributes to the Public Employees' Retirement System of the State of Nevada (PERS). PERS administers a cost-sharing, multiple-employer, defined benefit public employees' retirement system which includes both Regular and Police/Fire members. PERS was established by the Nevada Legislature in 1947, effective July 1, 1948. PERS is administered to provide a reasonable base income to qualified employees who have been employed by a public employer and whose earnings capacities have been removed or substantially impaired by age or disability.

Benefits Provided

Benefits, as required by the Nevada Revised Statutes (NRS or statute), are determined by the number of years of accredited service at time of retirement and the member's highest average compensation in any 36 consecutive months with special provisions for members entering PERS on or after January 1, 2010 and July 1, 2015. Benefit payments to which participants or their beneficiaries may be entitled under the plan include pension benefits, disability benefits, and survivor benefits.

Monthly benefit allowances for members are computed as 2.5% of average compensation for each accredited year of service prior to July 1, 2001. For service earned on and after July 1, 2001, this multiplier is 2.67% of average compensation. For members entering PERS on or after January 1, 2010, there is a 2.5% multiplier and for regular members entering PERS on or after July 1, 2015, there is a 2.25% factor. PERS offers several alternatives to the unmodified service retirement allowance which, in general, allow the retired employee to accept a reduced service retirement allowance payable monthly during his or her lifetime and various optional monthly payments to a named beneficiary after his or her death.

Post-retirement increases are provided by authority of NRS 286.575 - .579.

Vesting

Regular members entering PERS prior to January 1, 2010, are eligible for retirement at age 65 with five years of service, at age 60 with ten years of service, or at any age with 30 years of service. Regular members entering PERS on or after January 1, 2010, are eligible for retirement at age 65 with five years of service, or age 62 with ten years of service, or any age with 30 years of service. Regular members entering PERS on or after July 1, 2015, are eligible for retirement at age 65 with five years of service, or at age 62 with ten years of service or at age 55 with 30 years of service or at any age with 33 1/3 years of service.

Police/Fire members entering PERS prior to January 1, 2010, are eligible for retirement at age 65 with five years of service, at age 55 with ten years of service, at age 50 with 20 years of service, or at any age with 25 years of service. Police/Fire members entering PERS on or after January 1, 2010, are eligible for retirement at 65 with five years of service, or age 60 with ten years of service, or age 50 with 20 years of service, or at any age with 30 years of service. Only service performed in a position as a police officer or firefighter may be counted towards to eligibility for retirement as Police/Fire accredited service.

The normal ceiling limitation on monthly benefits allowances is 75% of average compensation. However, a member who has an effective date of membership before July 1, 1985, is entitled to a benefit of up to 90% of average compensation. Both Regular and Police/Fire members become fully vested as to benefits upon completion of five years of service.

Contributions

The authority for establishing and amending the obligation to make contributions and member contribution rates, is set by statute. New hires, in agencies which did not elect the Employer - Pay Contribution (EPC) plan prior to July 1, 1983, have the option of selecting one of two contribution plans. One plan provides for matching employee and employer contributions, while the other plan provides for employer-pay contributions only. Under the matching Employee/Employer Contribution plan a member may, upon termination of service for

which contribution is required, withdraw employee contributions which have been credited to their account. All membership rights and active service credit in the System are canceled upon withdrawal of contributions from the member's account. If EPC was selected, the member cannot convert to the Employee/Employer Contribution plan.

PERS' basic funding policy provides for periodic contributions at a level pattern of cost as a percentage of salary throughout an employee's working lifetime in order to accumulate sufficient assets to pay benefits when due.

PERS receives an actuarial valuation on an annual basis indicating the contribution rates required to fund PERS on an actuarial reserve basis. Contributions actually made are in accordance with the required rates established by the Nevada Legislature. These statutory rates are increased/decreased pursuant to NRS 286.421 and 286.450.

The actuary funding method used is the Entry Age Actuarial Cost Method. It is intended to meet the funding objective and result in a relatively level long-term contributions requirement as a percentage of salary.

For the fiscal year ended June 30, 2019 the Statutory Employer/employee matching rate was 14.50% for Regular and 20.75% for Police/Fire. The Employer-Pay Contribution (EPC) rate for the fiscal year ending June 30, 2019, was 28.00% for Regular and 40.50% for Police/Fire.

The City's contributions were \$157,254 for the year ended June 30, 2019.

PERS Investment Policy

PERS' policies which determine the investment portfolio target asset allocation are established by the PERS Board. The asset allocation is reviewed annually and is designed to meet the future risk and return needs of the System.

The following was the PERS Board adopted policy target asset allocation as of June 30, 2018:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Expected Real Rate of Return</u>
Domestic Equity	42%	5.50%
International Equity	18%	5.75%
Domestic Fixed Income	30%	0.25%
Private Markets	10%	6.80%

As of June 30, 2018, PERS' long-term inflation assumption was 2.75%.

Net Pension Liability

At June 30, 2019, the City reported a liability of \$2,254,999 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The City's proportion of the net pension liability was based on the City's share of contributions in PERS pension plan relative to the total contributions of all participating PERS employers and members. At June 30, 2018, the City's proportion was 0.01653 percent, which is a decrease of 0.00291 from its proportion measured as of June 30, 2017 of 0.01944 percent.

Pension Liability Discount Rate Sensitivity

The following presents the net pension liability of the City as of June 30, 2018, calculated using the discount rate of 7.50%, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current discount rate.

	1% Decrease in Discount Rate (6.50%)	Discount Rate (7.50%)	1% Increase in Discount Rate (8.50%)
Net Pension Liability	\$ 3,438,782	\$ 2,254,999	\$ 1,271,344

Pension Plan Fiduciary Net Position and Additional Information

Detailed information about the pension plan's fiduciary net position and additional information is available in the PERS Comprehensive Annual Financial Report, available on the PERS website (www.nvpers.org).

Actuarial Assumptions

The City's net pension liability was measured as of June 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The total pension liability was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation Rate	2.75%
Payroll Growth	5.00% including inflation
Investment Rate of Return	7.50%
Productivity Pay Increase	0.50%
Projected Salary Increases	Regular: 4.25% to 9.15%, depending on service Police/Fire: 4.55% to 13.90%, depending on service Rates include inflation and productivity increases
Consumer Price Index	2.75%
Other Assumptions	Same as those used in the June 30, 2018 funding actuarial valuation

Mortality rates for healthy members were based on the Headcount-Weighted RP-2014 Healthy Annuitant Table projected to 2020 with Scale MP-2016, set forward one year for spouses and beneficiaries. For ages less than 50, mortality rates are based on the Headcount-Weighted RP-2014 Employee Mortality Tables. Those mortality rates are adjusted by the ratio of the mortality rate for healthy annuitants at age 50 to the mortality rate for employees at age 50. The mortality rates are then projected to 2020 with Scale MP-2016. Mortality rates for disabled were based on the Headcount-Weighted RP-2014 Disabled Retiree Table, set forward four years. Mortality rates for pre-retirement were based on Headcount-Weighted RP-2014 Employee Table, projected to 2020 with Scale MP-2016. The additional projection of six years is a provision made for future mortality improvement.

Actuarial assumptions used in the June 30, 2018 valuation were based on the results of the experience review completed in 2017.

The discount rate used to measure the total pension liability was 7.50% as of June 30, 2018. The projection of cash flows used to determine the discount rate assumed that employee and employer contributions will be made at the rate specified in statute. Based on that assumption, the pension plan's fiduciary net position at June 30, 2018, was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2018.

Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, the City recognized pension expense of \$66,565. At June 30, 2019, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 70,643	\$ 104,671
Net difference between projected and actual earnings on pension plan investments	-	10,736
Changes in assumptions	118,824	-
Changes in the employer's proportion and differences between the employer's contributions and the employer's proportionate contributions	10,791	425,116
City contributions subsequent to the measurement date	157,254	-
	<u>\$ 357,512</u>	<u>\$ 540,523</u>
Total		

The \$157,254 reported as deferred outflows of resources related to pensions resulting from City contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2020.

The average of the expected remaining service lives of all employees that are provided with pensions through PERS (active and inactive employees) determined is 6.22 years.

Other estimated amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended June 30, 2019

2020	\$ (32,889)
2021	(70,757)
2022	(121,795)
2023	(60,616)
2024	(43,597)
Thereafter	(10,611)

Additional Information

The PERS Comprehensive Annual Financial Report (CAFR) is available on the PERS website at www.nvpers.org under Quick Links – Publications.

Note 8 - Fund Equity

As defined in Note 1, fund equity may be reported in various classifications. Specific restrictions of fund balance/net position accounts are summarized below:

Unrestricted/Unassigned – Amounts that have not been assigned to other funds or restricted, committed, or assigned to a specific purpose.

Nonspendable for Perpetual Cemetery Care – In accordance with an ordinance enacted by the City on December 9, 1970, a minimum reserve of \$33,004 will be left in the Perpetual Cemetery Care Fund. The earnings can be withdrawn and deposited to the General Fund to be used for perpetual cemetery care.

Restricted for Debt Service – In accordance with the agreement from the USDA Rural Development for the loan for the Carlin Senior Center, the City is required to set-aside fund balance/net position of one-tenth of the annual payment amount for each loan until one full payment has been set-aside. The restricted debt service requirement for the year ended June 30, 2019 for the Carlin Senior Center in the Debt Service Fund is currently \$12,100.

Restricted for Perpetual Cemetery Care – In accordance with an ordinance enacted by the City on December 9, 1970, the earnings on the minimum reserve in the Perpetual Cemetery Care Fund are restricted for perpetual cemetery care.

Restricted for the Senior Center – In accordance with the donor-imposed use that the amount be used for the Senior Center.

Restricted for Judicial Fees – In accordance with Nevada Revised Statutes 176.059 and 176.0611, the administrative assessments collected under these statutes are restricted for the use outlined in each statute. The administrative assessment collected in accordance with Nevada Revised Statute 176.059 is restricted for the use of the municipal court. The administrative assessment collected in accordance with Nevada Revised Statute 176.0611 is restricted for the acquisition, construction and improvement of court facilities, acquisition of advanced technology for use in court facilities or for the payment of debt service on any bonds issued for the acquisition of land or facilities.

Committed for Future Community Development – In accordance with a revised ordinance enacted by the City on December 11, 2008, this represents the amount the City Council has specifically designated for future projects that will enhance the community.

Committed for Recreational Activities – In accordance with the Carlin City Code, this represents the amount the City Council has specifically designated for recreational purposes.

Committed for Public Safety – In accordance with the Carlin City Code, this represents the amount the City Council has specifically committed for public safety purposes.

Assigned for Subsequent Year Operations – This is the amount of the City's current year ending fund balance that the City intends to use to meet the next years' operating expenditures.

Assigned for Other Purposes – These are amount that the City intends to use in future periods for the purpose of the fund.

Unassigned – The residual classification for the General Fund that is available to spend.

The City Council has formally designated, per City Code, a portion of user charges to be set aside for major capital improvements, such as water wells and sewer improvements. These amounts do not meet the definition of restricted net position and are not included in the Statement of Net Position.

	Balance July 1, 2019	Net Change	Balance June 30, 2019
Water System	\$ 312,015	\$ -	\$ 312,015
Water Capital Improvement	54,666	-	54,666
Sewer Capital Improvement	230,396	1,000	231,396

Note 9 - Interfund Items

Interfund transfers are shown as other financing sources or uses in all governmental funds. Transfers between funds during the year ended June 30, 2019 are as follows:

	Transfer In	Transfer Out	Net
General Fund	\$ 15,000	\$ (316,800)	\$ (301,800)
Capital Projects Fund	250,000		250,000
Nonmajor Governmental Funds			
Grants Funds	10,000		10,000
Open Door Senior Citizens Center Fund	56,800		56,800
Parks and Recreation Fund		(49,000)	(49,000)
Municipal Court Building Fund	-	(5,000)	(5,000)
Parks and Recreation Fund #2	24,000	-	24,000
Equestrian Center Fund	15,000	-	15,000
	<u>\$ 370,800</u>	<u>\$ (370,800)</u>	<u>\$ -</u>

The General Fund subsidized the Open Door Senior Citizens Center Fund whose funding sources were not large enough to support the entire cost of their programs in accordance with budgetary authority. The General Fund transferred monies to the Capital Projects Fund to fund future capital projects. The General Fund transferred monies to the Grant Fund to fund future expenditures. The Parks and Recreation Fund transferred monies to the Parks and Recreation Fund #2, Equestrian Center Fund, and General Fund to reimburse for certain park improvement costs. The Municipal Court Building Fund transferred monies to the General Fund to reimburse for certain municipal court building improvement costs.

Note 10 - Enterprise Fund Revenue-Supported Debt Information

The City of Carlin maintains an Enterprise Fund that provides water, sewer, streetlight and garbage services. Selected additional revenue-supported debt information is provided for those enterprise activities with outstanding debt obligations. Information for the year ended June 30, 2019 is provided for the water service as follows:

Condensed Statement of Net Position

Assets	
Current assets	\$ 441,869
Capital assets, net of accumulated depreciation	1,924,435
Total assets	<u>2,366,304</u>
Deferred Inflows of Resources	
Deferred inflows of resources related to pensions	2,829
Deferred inflows of resources related to other postemployment benefits	56,082
Total deferred inflows of resources	<u>58,911</u>
Liabilities	
Current liabilities	110,132
Noncurrent liabilities	318,688
Total liabilities	<u>428,820</u>
Deferred Outflows of Resources	
Deferred outflows of resources related to other postemployment benefits	98,464
Net Position	
Net investment in capital assets	1,924,255
Unrestricted	(26,324)
Total net position	<u>\$ 1,897,931</u>

Condensed Statement of Activities

Operating Revenues	
Charges for services	\$ 433,162
Operating Expenses	
Depreciation	47,720
Other operating expenses	448,445
Total operating expenses	<u>496,165</u>
Operating Income	<u>(63,003)</u>
Nonoperating Revenue (Expense)	
Interest income	222
Miscellaneous income	7,573
Total nonoperating revenue/(expense)	<u>7,795</u>
Change in Net Position	(55,208)
Net Position, Beginning of Year	1,953,139
Net Position, End of Year	<u>\$ 1,897,931</u>

Condensed Statement of Cash Flows

Net cash from (used for)	
Operating activities	\$ 40,354
Capital and related financing activities	(2,351)
Investing activities	7,795
Net Increase in Cash	45,798
Cash, Beginning of Year	359,309
Cash, End of Year	<u>\$ 405,107</u>

Note 11 - Postemployment Healthcare Plan

The City provides other postemployment benefits (OPEB) for eligible retired employees through either participation in the City's health insurance program or the Nevada Public Employees' Benefits Plan (PEBP) under NRS 287.023.

Plan Descriptions – The City's defined benefit OPEB plan, City of Carlin Employee Health Benefits Plan (CCEHBP), provides OPEB for all eligible employees on retirement from the City. Additionally, the City contributes to the defined OPEB plan, Public Employees' Benefits Plan (PEBP).

CCEHBP is a single employer defined benefit OPEB plan administered by the City. In accordance with Nevada Revised Statute 287.010, the CCEHBP was adopted to provide postemployment benefits to full-time employees on retirement. Eligibility requirements, benefit levels, employee contributions, and employer contributions are governed by the City and can only be amended by the City. The City changed their health insurance plan during the year to medical premiums paid based on age and, as such, are not expected to result in an implicit subsidy liability for the City if retirees elect to continue the coverage. The result of this change in the health insurance plan is that there is no liability for CCEHBP as of June 30, 2019.

PEBP is a single employer defined benefit OPEB plan administered by a nine-member governing board. Nevada Revised Statute 287.023 allows certain retired employees of governmental entities within the State of Nevada to join the State's Public Employee Benefits Program. Nevada Revised Statute 287.023 sunsetted the option to join PEBP for City employees who retired from the City after September 1, 2008. Eligibility and subsidy requirements are governed by statutes of the State of Nevada and can only be amended through legislation. No assets are accumulated in a trust that meets the criteria in paragraph 4 of Statement 75; no separate financial reports are issued.

Benefits Provided - CCEHBP provides medical, vision, dental and life insurance for eligible retirees and their dependents. Employees retiring from the City under PERS are allowed to continue participation in the City's group health insurance program (medical, dental, vision and life insurance). Retirees are responsible for the payment of their premiums, as well as, premium for eligible dependents.

PEBP provides medical, prescription, vision, life and accident insurance, and dental for retirees. Retirees can choose between a self-funded preferred provider organization (PPO) and a health maintenance organization (HMO) plan. Retirees are responsible for payment of unsubsidized premiums. The City is required to provide a subsidy for their retirees who have elected to join PEBP. Contribution requirements for plan members and the participating employers are assessed by the PEBP Board annually. The contributions required for PEBP subsidies depend on the date of retirement and years of PERS service former employees earned in total and while working for the City. The subsidy ranges from a minimum of \$3 to a maximum of \$983 per month. Subsidies for retiree premiums participating in the PEBP are paid directly to the State when due. The City's obligation for subsidies is limited to payment of the statutorily required contribution. The statutes were revised with an effective date of November 30, 2008, to create new participation limitations so that only active members of PEBP can elect coverage after retirement. Based on the statute revision, former City employees and retirees must have retired and joined PEBP by September 1, 2008 to elect PEBP membership. Consequently, no employees retiring from the City on or after September 1, 2008 will be eligible to participate in the PEBP plan as a retiree at the City's expense.

Employee Covered by Benefit Terms – At June 30, 2018 the following employees were covered by the benefit terms:

	CCEHBP	PEBP	Total
Inactive employees or beneficiaries currently receiving benefits	-	11	11
	-	11	11

Total OPEB Liability - The City's total OPEB liability of \$358,083 was measured as of June 30, 2018, and was determined by an actuarial valuation as of that date.

	CCEHBP	PEBP	Total
Total OPEB Liability	\$ -	\$ 358,083	\$ 358,083

Assumptions and Other Inputs - The total OPEB liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions and other inputs for PEBP, applied to all periods included in the measurement, unless otherwise specified:

	CCEHBP	PEBP
Actuary Funding Method	N/A	Entry age normal, closed group, level percent of pay
General Inflation	N/A	2.75%
Salary Increases	N/A	N/A
Assumed Wage Inflation	N/A	N/A
Discount Rate	N/A	2.98%
Health Care Trend Rates	N/A	6.50% for 2018, decreasing 0.25% to 0.50% per year to an ultimate rate of 5.0% for 2023 and later years
Retirees' Share of Benefit - Related Costs	N/A	0% to 100% of premium amounts based on years of service

The discount rate for PEBP was based on the S & P General Obligation Municipal Bond 20 Year High Grade Index.

For the PEBP Plan, mortality rates for regular members were based on the RP-2014 Healthy Annuitant Table set forward one year. Morality rates for disabled regular members were based on the RP-2014 Disabled Retiree Table set forward four years. Adjustments for mortality improvements were based on applying the MacLeod Watts Scale 2018 on a generational basis from 2018 forward, based on data from the Society of Actuaries Mortality Improvement Scale MP-2017 Report and the demographic assumptions used in the 2017 Annual Report of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.

Changes in the Total OPEB Liability –

	CCEHBP	PEBP	Total
Balance at June 30, 2018	\$ 114,727	\$ 340,765	\$ 455,492
Changes for the Year			
Interest	-	10,413	10,413
Changes in benefit terms	(114,727)	-	(114,727)
Differences between expected and actual experience	-	9,443	9,443
Changes in assumptions or other inputs	-	13,631	13,631
Benefit payments	-	(16,169)	(16,169)
Net Changes	(114,727)	17,318	(97,409)
Balance at June 30, 2019	\$ -	\$ 358,083	\$ 358,083

Changes in Assumptions - CCEHBP and PEBP changes in assumptions and other inputs reflect a change in discount rate from 3.13% to 2.98%.

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate - The following presents the total OPEB liability of the City, as well as what the City's Total OPEB liability would be if it were calculated using a discount rate that is 1-percentage lower (1.98%) or 1-percentage-point higher (3.98%) than the current discount rate:

	1% Decrease in Discount Rate (1.98%)	Discount Rate (2.98%)	1% Increase in Discount Rate (3.98%)
CCEHBP OPEB Liability	\$ -	\$ -	\$ -
PEBP OPEB Liability	406,570	358,083	319,034
	\$ 406,570	\$ 358,083	\$ 319,034

Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates - The following presents the total OPEB liability of the City, as well as what the City's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage lower or 1-percentage-point higher than the current healthcare cost trend rates:

	1% Decrease in Healthcare Cost Trend Rate	Healthcare Cost Trend Rate (6.50%)	1% Increase in Healthcare Cost Trend Rate
CCEHBP OPEB Liability	\$ -	\$ -	\$ -
PEBP OPEB Liability	320,846	358,083	403,245
Total OPEB Liability	<u>\$ 320,846</u>	<u>\$ 358,083</u>	<u>\$ 403,245</u>

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB - For the year ended June 30, 2019, the City recognized OPEB expense (negative OPEB expense) of (\$81,804):

CCEHBP	\$ (115,291)
PEBP	33,487
	<u>\$ (81,804)</u>

At June 30, 2019, the City reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	CCEHBP		PEBP		Total	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Contributions Subsequent to the Measurement Date	\$ -	\$ -	\$ 17,314	\$ -	\$ 17,314	\$ -

The \$17,314 reported as deferred outflows of resources related to OPEB resulting from City contributions subsequent to the measurement date will be recognized as a reduction of the total OPEB liability in the year ending June 30, 2020.

Note 12 - Commitments and Contingent Liabilities

Legal counsel for the City is aware of one pending lawsuit. The ultimate effect to the City has not been determined.

On September 28, 2018, the City entered into a development agreement with a third party to construct and operate a grocery store in the City. The agreement requires the City to make annual payments of \$10,000 for the next five years to the owner of the grocery store as long as the grocery store continues to operate during this time period.



Required Supplementary Information
June 30, 2019

City of Carlin

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City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual – General Fund
Year Ended June 30, 2019

(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budgeted Amounts			Final Budget	
	Original	Final	Actual	Variance	2018
Revenues					
Taxes					
Ad valorem taxes	\$ 426,357	\$ 426,357	\$ 402,348	\$ (24,009)	\$ 419,320
Licenses, permits and fees					
Franchise fees	14,000	14,000	13,311	(689)	13,718
Business licenses	25,000	25,000	19,574	(5,426)	18,924
Liquor licenses	4,800	4,800	4,860	60	5,085
Local gaming licenses	8,500	8,500	8,899	399	8,210
Animal licenses	1,600	1,600	2,198	598	2,117
Building permits	12,000	12,000	15,576	3,576	34,785
Other permits and fees	2,000	2,000	2,165	165	3,187
	<u>67,900</u>	<u>67,900</u>	<u>66,583</u>	<u>(1,317)</u>	<u>86,026</u>
Intergovernmental					
Consolidated tax revenues	1,700,000	1,700,000	1,985,202	285,202	1,902,728
Motor vehicle fuel tax	53,000	53,000	52,738	(262)	53,376
Share of county gaming license	7,100	7,100	8,145	1,045	7,785
Infrastructure tax	-	-	46,403	46,403	46,403
Regional street and highway tax	-	-	258,685	258,685	-
Federal grants	-	-	-	-	47,484
	<u>1,760,100</u>	<u>1,760,100</u>	<u>2,351,173</u>	<u>591,073</u>	<u>2,057,776</u>
Charges for services					
Ambulance charges	40,000	40,000	12,287	(27,713)	1,057
Ambulance supplies	6,500	6,500	-	(6,500)	-
Facility Use Fees	-	-	798	798	-
	<u>46,500</u>	<u>46,500</u>	<u>13,085</u>	<u>(33,415)</u>	<u>1,057</u>
Fines and forfeits					
Court fines and fees	17,000	17,000	12,564	(4,436)	16,387
Animal fines and fees	3,000	3,000	1,178	(1,822)	4,713
Other	-	-	-	-	14,045
	<u>20,000</u>	<u>20,000</u>	<u>13,742</u>	<u>(6,258)</u>	<u>35,145</u>
Miscellaneous					
Interest income	4,500	4,500	8,338	3,838	6,343
Other income	5,500	5,500	58,108	52,608	28,524
Sales and rentals	-	-	464	464	385
Leases and contracts	18,000	18,000	13,601	(4,399)	10,950
Local grants	2,000	2,000	-	(2,000)	-
	<u>30,000</u>	<u>30,000</u>	<u>80,511</u>	<u>50,511</u>	<u>46,202</u>
Total revenues	<u>2,350,857</u>	<u>2,350,857</u>	<u>2,927,442</u>	<u>576,585</u>	<u>2,645,526</u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual – General Fund
Year Ended June 30, 2019

(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budgeted Amounts			Final Budget	
	Original	Final	Actual	Variance	2018
Expenditures					
Current					
General government					
Finance administration					
Salaries and wages	\$ 142,600	\$ 142,600	\$ 142,365	\$ 235	\$ 137,621
Employee benefits	81,000	81,000	81,905	(905)	70,112
Services and supplies	20,850	20,850	16,539	4,311	17,731
Capital outlay	10,100	10,100	1,990	8,110	8,124
	<u>254,550</u>	<u>254,550</u>	<u>242,799</u>	<u>11,751</u>	<u>233,588</u>
Legislative					
Salaries and wages	14,500	14,500	13,020	1,480	13,090
Employee benefits	7,000	7,000	4,336	2,664	4,033
Services and supplies	4,500	4,500	2,689	1,811	2,706
	<u>26,000</u>	<u>26,000</u>	<u>20,045</u>	<u>5,955</u>	<u>19,829</u>
Other					
Services and supplies	592,754	592,754	388,070	204,684	459,541
Capital outlay	-	-	3,696	(3,696)	-
	<u>592,754</u>	<u>592,754</u>	<u>391,766</u>	<u>200,988</u>	<u>459,541</u>
City manager					
Salaries and wages	79,450	61,450	20,307	41,143	66,278
Employee benefits	33,113	26,113	9,314	16,799	17,914
Services and supplies	5,000	5,000	3,359	1,641	1,691
Capital outlay	-	25,000	23,685	1,315	-
	<u>117,563</u>	<u>117,563</u>	<u>56,665</u>	<u>60,898</u>	<u>85,883</u>
Total general government	<u>990,867</u>	<u>990,867</u>	<u>711,275</u>	<u>279,592</u>	<u>798,841</u>
Public safety					
Police					
Salaries and wages	396,000	396,000	375,478	20,522	349,551
Employee benefits	278,851	278,851	204,606	74,245	177,831
Services and supplies	121,108	121,108	113,275	7,833	115,448
Capital outlay	-	-	2,450	(2,450)	28,326
	<u>795,959</u>	<u>795,959</u>	<u>695,809</u>	<u>100,150</u>	<u>671,156</u>
Animal control					
Salaries	32,000	32,000	31,298	702	30,985
Employee benefits	22,000	22,000	20,092	1,908	18,574
Services and supplies	1,500	1,500	332	1,168	436
Capital outlay	-	-	-	-	291
	<u>55,500</u>	<u>55,500</u>	<u>51,722</u>	<u>3,778</u>	<u>50,286</u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual – General Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budgeted Amounts			Final Budget	
	Original	Final	Actual	Variance	2018
Fire and ambulance					
Salaries	\$ 60,000	\$ 60,000	\$ 52,651	\$ 7,349	\$ 16,417
Employee benefits	40,000	40,000	30,628	9,372	5,968
Services and supplies	113,750	113,750	72,143	41,607	59,029
Capital outlay	79,000	79,000	12,945	66,055	17,635
	<u>292,750</u>	<u>292,750</u>	<u>168,367</u>	<u>124,383</u>	<u>99,049</u>
Total public safety	<u>1,144,209</u>	<u>1,144,209</u>	<u>915,898</u>	<u>228,311</u>	<u>820,491</u>
Judicial					
Municipal court					
Salaries and wages	37,500	41,500	31,000	10,500	37,198
Employee benefits	14,970	16,470	14,484	1,986	14,644
Services and supplies	12,800	12,800	8,280	4,520	2,702
Total judicial	<u>65,270</u>	<u>70,770</u>	<u>53,764</u>	<u>17,006</u>	<u>54,544</u>
Public works					
Highways and streets					
Salaries and wages	43,307	43,307	40,624	2,683	39,248
Employee benefits	24,500	24,500	22,587	1,913	23,300
Services and supplies	180,200	180,200	104,517	75,683	156,608
Capital outlay	500	10,500	30,948	(20,448)	202,644
Total public works	<u>248,507</u>	<u>258,507</u>	<u>198,676</u>	<u>59,831</u>	<u>421,800</u>
Health and sanitation					
Public health administration					
Services and supplies	15,000	15,000	4,704	10,296	5,292
Cemetery					
Salaries and wages	36,640	36,640	34,338	2,302	32,292
Employee benefits	21,700	21,700	22,689	(989)	19,777
Services and supplies	8,000	12,000	11,317	683	5,301
	<u>66,340</u>	<u>70,340</u>	<u>68,344</u>	<u>1,996</u>	<u>57,370</u>
Total health and sanitation	<u>81,340</u>	<u>85,340</u>	<u>73,048</u>	<u>12,292</u>	<u>62,662</u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual – General Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budgeted Amounts			Final Budget	
	Original	Final	Actual	Variance	2018
Culture and recreation					
Parks					
Salaries and wages	\$ 1,000	\$ 1,000	\$ -	\$ 1,000	\$ -
Employee benefits	500	500	-	500	-
Services and supplies	23,000	23,000	16,822	6,178	18,442
Capital outlay	24,000	34,000	29,271	4,729	-
	<u>48,500</u>	<u>58,500</u>	<u>46,093</u>	<u>12,407</u>	<u>18,442</u>
Library					
Services and supplies	<u>2,500</u>	<u>2,500</u>	<u>2,748</u>	<u>(248)</u>	<u>2,685</u>
Total culture and recreation	<u>51,000</u>	<u>61,000</u>	<u>48,841</u>	<u>12,159</u>	<u>21,127</u>
Total expenditures	<u>2,581,193</u>	<u>2,610,693</u>	<u>2,001,502</u>	<u>609,191</u>	<u>2,179,465</u>
Excess (Deficiency) of Revenues over (under) Expenditures	<u>(230,336)</u>	<u>(259,836)</u>	<u>925,940</u>	<u>1,185,776</u>	<u>466,061</u>
Other Financing Sources (Uses)					
Sale of capital assets	-	-	10,000	10,000	-
Transfers in	15,000	15,000	15,000	-	15,000
Transfers out	(316,800)	(316,800)	(316,800)	-	(326,710)
Contingency	<u>(75,916)</u>	<u>(46,416)</u>	<u>-</u>	<u>46,416</u>	<u>-</u>
Total other financing sources (uses)	<u>(377,716)</u>	<u>(348,216)</u>	<u>(291,800)</u>	<u>56,416</u>	<u>(311,710)</u>
Net Change in Fund Balance	<u>(608,052)</u>	<u>(608,052)</u>	<u>634,140</u>	<u>1,242,192</u>	<u>154,351</u>
Fund Balance, Beginning of Year	<u>4,011,244</u>	<u>4,011,244</u>	<u>4,796,212</u>	<u>784,968</u>	<u>4,641,861</u>
Fund Balance, End of Year	<u>\$ 3,403,192</u>	<u>\$ 3,403,192</u>	<u>\$ 5,430,352</u>	<u>\$ 2,027,160</u>	<u>\$ 4,796,212</u>

City of Carlin

Schedule of Changes in the City's Total OPEB Liability and Related Ratios – City of Carlin Employee Health Benefit Plan (CCEHBP)
June 30, 2019

	2018	2019
Total OPEB Liability		
Service Cost	\$ 18,849	\$ -
Interest	3,106	-
Changes in Benefit Terms	-	(114,727)
Changes of Assumptions or Other Inputs	(3,629)	-
Benefit Payments	(1,282)	-
Net Change in Total OPEB Liability	17,044	(114,727)
Total OPEB Liability, July 1	97,683	114,727
Total OPEB Liability, June 30	<u>\$ 114,727</u>	<u>\$ -</u>
Covered Payroll	\$ 897,280	\$ -
Total OPEB Liability as a Percentage of Covered Payroll	12.79%	N/A

Notes to Schedule:

Changes of Assumptions: The City changed their health insurance plan during the year to medical premiums paid based on age and, as such, are not expected to result in an implicit subsidy liability for the City if retirees elect to continue the coverage. The result of this change in the health insurance plan is that there is no liability for CCEHBP as of June 30, 2019.

The City adopted GASB Statement No.75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, for the year ended June 30, 2018. GASB Statement No. 75 requires ten years of information to be presented in this table. However, until ten years of data is available, the City will present information only for those years for which information is available.

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

City of Carlin

Schedule of Changes in the City's Total OPEB Liability and Related Ratios – State of Nevada Public Employees'
Benefit Plan (PEBP)
June 30, 2019

	2018	2019
Total OPEB Liability		
Interest	\$ 9,634	\$ 10,413
Difference between Expected and Actual Experience	-	9,443
Changes of Assumptions or Other Inputs	(20,789)	13,631
Benefit Payments	<u>(15,085)</u>	<u>(16,169)</u>
Net Change in Total OPEB Liability	(26,240)	17,318
Total OPEB Liability, July 1	<u>367,005</u>	<u>340,765</u>
Total OPEB Liability, June 30	<u>\$ 340,765</u>	<u>\$ 358,083</u>
Covered Payroll	N/A	N/A
Total OPEB Liability as a Percentage of Covered Payroll	N/A	N/A

Notes to Schedule:

Changes of Assumptions: Changes of assumptions and other inputs reflect updated mortality assumptions and change in discount rate from 3.13% to 2.98%.

The City adopted GASB Statement No.75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, for the year ended June 30, 2018. GASB Statement No. 75 requires ten years of information to be presented in this table. However, until ten years of data is available, the City will present information only for those years for which information is available.

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

City of Carlin
Schedule of City's Share of Net Pension Liability
Public Employees' Retirement System of Nevada (PERS)
Last Ten Fiscal Years*

<u>Fiscal Year Ending</u>	<u>City's Portion of the Net Pension Liability</u>	<u>City's Proportionate Share of the Net Pension Liability</u>	<u>City's Covered Payroll</u>	<u>Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll</u>	<u>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</u>
2014	0.02057%	\$ 2,143,875	\$ 1,061,682	201.93%	76.30%
2015	0.02078%	2,381,517	1,141,555	208.62%	75.13%
2016	0.01992%	2,680,474	1,013,684	264.43%	72.23%
2017	0.01944%	2,586,083	1,125,719	229.73%	74.42%
2018	0.01653%	2,254,999	1,063,064	212.12%	75.24%

* GASB Statement No. 68 requires ten years of information to be presented in this table. However, until a full 10-year trend is compiled, the City will present information for those years for which information is available.

City of Carlin
Schedule of City's Contributions
Public Employees' Retirement System of Nevada (PERS)
Last Ten Fiscal Years*

<u>Fiscal Year Ending</u>	<u>Statutorily Required Contribution **</u>	<u>Contributions in Relation to the Statutorily Required Contribution**</u>	<u>Contribution Deficiency (Excess)</u>	<u>City's Covered Payroll</u>	<u>Contributions as a Percentage of Covered Payroll</u>
2015	\$ 160,391	\$ 160,391	\$ -	\$ 1,141,555	14.05%
2016	168,881	168,881	-	1,013,684	16.66%
2017	174,622	174,622	-	1,125,719	15.51%
2018	161,000	161,000	-	1,063,064	15.14%
2019	157,254	157,254	-	1,033,736	15.21%

* GASB Statement No. 68 requires ten years of information to be presented in this table. However, until a full 10-year trend is compiled, the City will present information for those years for which information is available.

** All contributions shown reflect employer-paid contributions only. Member contributions are excluded.



Supplementary Information
June 30, 2019

City of Carlin

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City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances –
 Budget and Actual – Capital Projects Fund
 Year Ended June 30, 2019
 (With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budgeted Original	Amounts Final	Actual	Final Budget Variance	2018
Revenues					
Taxes					
Ad valorem taxes	\$ 28,000	\$ 28,000	\$ 24,958	\$ (3,042)	\$ 34,579
Miscellaneous Donations	-	-	10,692	10,692	5,078
Total revenues	28,000	28,000	35,650	7,650	39,657
Expenditures					
Public works					
Highway and streets Capital outlay	850,000	850,000	247,770	602,230	-
Total expenditures	850,000	850,000	247,770	602,230	-
Excess (Deficiency) of Revenues over (under) Expenditures	(822,000)	(822,000)	(212,120)	609,880	39,657
Other Financing (Uses)					
Transfers in	250,000	250,000	250,000	-	250,000
Net Change in Fund Balance	(572,000)	(572,000)	37,880	609,880	289,657
Fund Balance, Beginning of Year	582,497	582,497	594,154	11,657	304,497
Fund Balance, End of Year	\$ 10,497	\$ 10,497	\$ 632,034	\$ 621,537	\$ 594,154

Special Revenue Funds					
	Grants Fund	Open Door Senior Citizens Center Fund	Parks and Recreation Fund	Municipal Court Building Fund	Administrative Assessment Fund
Assets					
Cash	\$ 68,329	\$ 131,160	\$ 257,466	\$ 8,735	\$ 8,945
Accounts receivable, net	-	5,273	2,636	110	557
Due from other governments	-	29,801	-	-	-
Prepaid expenses	-	2,853	-	-	-
Restricted cash	-	-	-	-	-
Total assets	<u>\$ 68,329</u>	<u>\$ 169,087</u>	<u>\$ 260,102</u>	<u>\$ 8,845</u>	<u>\$ 9,502</u>
Liabilities					
Accounts payable	\$ -	\$ 3,176	\$ -	\$ -	\$ -
Due to other governments	-	-	570	-	348
Unearned revenue - grants	13,361	-	-	-	-
Total liabilities	<u>13,361</u>	<u>3,176</u>	<u>570</u>	<u>-</u>	<u>348</u>
Fund Balance					
Nonspendable	-	2,853	-	-	-
Restricted for					
Debt service	-	-	-	-	-
Perpetual cemetery care	-	-	-	-	-
Senior center	15,491	2,758	-	-	-
Court facilities fees (NRS 176.0611)	-	-	-	8,845	-
Judicial fees (NRS 176.059)	-	-	-	-	9,154
Committed for					
Future community development	-	-	55,577	-	-
Recreational activities	-	-	203,955	-	-
Public safety	-	-	-	-	-
Assigned					
Other purposes	39,477	160,300	-	-	-
Total fund balance	<u>54,968</u>	<u>165,911</u>	<u>259,532</u>	<u>8,845</u>	<u>9,154</u>
Total Liabilities and Fund Balance	<u>\$ 68,329</u>	<u>\$ 169,087</u>	<u>\$ 260,102</u>	<u>\$ 8,845</u>	<u>\$ 9,502</u>

City of Carlin
Combining Balance Sheet – Nonmajor Governmental Funds
June 30, 2019

Special Revenue Funds				Permanent Fund	
Parks and Recreation Fund #2	Equestrian Center Fund	Police Forfeiture	Debt Service Fund	Perpetual Cemetery Care Fund	Total
\$ 89,625	\$ 63,975	\$ 108,233	\$ 53,226	\$ 57,434	\$ 847,128
-	-	-	-	-	8,576
-	-	-	-	-	29,801
-	-	-	-	-	2,853
-	-	-	12,100	33,004	45,104
<u>\$ 89,625</u>	<u>\$ 63,975</u>	<u>\$ 108,233</u>	<u>\$ 65,326</u>	<u>\$ 90,438</u>	<u>\$ 933,462</u>
\$ 102	\$ 1,919	\$ -	\$ 12,100	\$ -	\$ 17,297
-	-	-	-	-	918
-	-	-	-	-	13,361
<u>102</u>	<u>1,919</u>	<u>-</u>	<u>12,100</u>	<u>-</u>	<u>31,576</u>
-	-	-	-	33,004	35,857
-	-	-	12,100	-	12,100
-	-	-	-	57,434	57,434
-	-	-	-	-	18,249
-	-	-	-	-	8,845
-	-	-	-	-	9,154
-	-	-	-	-	55,577
89,523	-	-	-	-	293,478
-	-	108,233	-	-	108,233
-	62,056	-	41,126	-	302,959
<u>89,523</u>	<u>62,056</u>	<u>108,233</u>	<u>53,226</u>	<u>90,438</u>	<u>901,886</u>
<u>\$ 89,625</u>	<u>\$ 63,975</u>	<u>\$ 108,233</u>	<u>\$ 65,326</u>	<u>\$ 90,438</u>	<u>\$ 933,462</u>

	Special Revenue Funds				
	Grants Fund	Open Door Senior Citizens Center Fund	Parks and Recreation Fund	Municipal Court Building Fund	Administrative Assessment Fund
Revenues					
Taxes	\$ -	\$ -	\$ 40,490	\$ -	\$ -
Intergovernmental	15,491	192,332	-	-	-
Charges for services	-	21,320	-	-	-
Miscellaneous	-	24,779	-	1,465	8,746
Total revenues	15,491	238,431	40,490	1,465	8,746
Expenditures					
Current					
Public safety	1,984	-	-	-	-
Judicial	-	-	-	-	7,476
Culture and recreation	-	237,828	3,888	-	-
Capital outlay	-	-	-	-	-
Debt service					
Principal	-	-	-	-	-
Interest	-	-	-	-	-
Total expenditures	1,984	237,828	3,888	-	7,476
Excess (Deficiency) of Revenues Over Expenditures	13,507	603	36,602	1,465	1,270
Other Financing Sources (Uses)					
Transfers in	10,000	56,800	-	-	-
Transfers out	-	-	(49,000)	(5,000)	-
Total other financing sources (uses)	10,000	56,800	(49,000)	(5,000)	-
Net Change in Fund Balance	23,507	57,403	(12,398)	(3,535)	1,270
Fund Balances, Beginning of Year	31,461	108,508	271,930	12,380	7,884
Fund Balances, End of Year	\$ 54,968	\$ 165,911	\$ 259,532	\$ 8,845	\$ 9,154

City of Carlin

Combining Statement of Revenues, Expenditures, and Changes in Fund Balances –
Nonmajor Governmental Funds
Year Ended June 30, 2019

Special Revenue Funds				Permanent Fund	
Parks and Recreation Fund #2	Equestrian Center Fund	Police Forfeiture	Debt Service Fund	Perpetual Cemetery Care Fund	Total
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,490
-	-	-	-	-	207,823
-	-	-	-	-	21,320
14,988	31,464	-	-	2,162	83,604
14,988	31,464	-	-	2,162	353,237
-	-	-	-	-	1,984
-	-	-	-	-	7,476
11,564	34,882	-	-	-	288,162
25,108	-	-	-	-	25,108
-	-	-	6,083	-	6,083
-	-	-	6,017	-	6,017
36,672	34,882	-	12,100	-	334,830
(21,684)	(3,418)	-	(12,100)	2,162	18,407
24,000	15,000	-	-	-	105,800
-	-	-	-	-	(54,000)
24,000	15,000	-	-	-	51,800
2,316	11,582	-	(12,100)	2,162	70,207
87,207	50,474	108,233	65,326	88,276	831,679
\$ 89,523	\$ 62,056	\$ 108,233	\$ 53,226	\$ 90,438	\$ 901,886

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Grants Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Revenues				
Intergovernmental				
Grants	\$ 825,000	\$ 15,491	\$ (809,509)	\$ 84,417
Expenditures				
Current				
Public Safety				
Services and supplies	35,000	1,984	33,016	36,185
Capital outlay	800,000	-	800,000	34,899
Total expenditures	835,000	1,984	833,016	71,084
Excess (Deficiency) of Revenues over (under) Expenditures	(10,000)	13,507	23,507	13,333
Other Financing Sources (Uses)				
Transfers in	10,000	10,000	-	27,000
Net Change in Fund Balance	-	23,507	23,507	40,333
Fund Balance (Deficit), Beginning of Year	21,358	31,461	10,103	(8,872)
Fund Balance, End of Year	\$ 21,358	\$ 54,968	\$ 33,610	\$ 31,461

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Open Door Senior Citizens Center
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Revenues				
Intergovernmental				
Federal grants	\$ 55,000	\$ 56,982	\$ 1,982	\$ 51,577
Cash match	126,000	122,785	(3,215)	100,795
USDA	8,000	12,565	4,565	6,768
	<u>189,000</u>	<u>192,332</u>	<u>3,332</u>	<u>159,140</u>
Charges for services	<u>19,200</u>	<u>21,320</u>	<u>2,120</u>	<u>22,244</u>
Miscellaneous				
Contributions	-	23,697	23,697	12,862
In-kind revenue	2,000	1,082	(918)	2,077
	<u>2,000</u>	<u>24,779</u>	<u>22,779</u>	<u>14,939</u>
Total revenues	<u>210,200</u>	<u>238,431</u>	<u>28,231</u>	<u>196,323</u>
Expenditures				
Current				
Culture and recreation				
Salaries and wages	109,000	108,106	894	100,980
Employee benefits	85,000	63,545	21,455	51,794
Services and supplies	73,000	66,177	6,823	74,424
Total expenditures	<u>267,000</u>	<u>237,828</u>	<u>29,172</u>	<u>227,198</u>
Excess (Deficiency) of Revenues over (under) Expenditures	<u>(56,800)</u>	<u>603</u>	<u>57,403</u>	<u>(30,875)</u>
Other Financing Sources (Uses)				
Transfers in	<u>56,800</u>	<u>56,800</u>	<u>-</u>	<u>49,710</u>
Net Change in Fund Balance	-	57,403	57,403	18,835
Fund Balance, Beginning of Year	<u>90,173</u>	<u>108,508</u>	<u>18,335</u>	<u>89,673</u>
Fund Balance, End of Year	<u>\$ 90,173</u>	<u>\$ 165,911</u>	<u>\$ 75,738</u>	<u>\$ 108,508</u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Parks and Recreation Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Revenues				
Taxes				
Room tax revenues	\$ 37,550	\$ 40,490	\$ 2,940	\$ 53,040
Expenditures				
Current				
Culture and recreation				
Services and supplies	8,000	3,888	4,112	4,334
Excess (Deficiency) of Revenues over (under) Expenditures	29,550	36,602	7,052	48,706
Other Financing Sources (Uses)				
Transfers out	(49,000)	(49,000)	-	(62,500)
Net Change in Fund Balance	(19,450)	(12,398)	7,052	(13,794)
Fund Balance, Beginning of Year	265,584	271,930	6,346	285,724
Fund Balance, End of Year	\$ 246,134	\$ 259,532	\$ 13,398	\$ 271,930

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Municipal Court Building Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>2018</u>
Revenues				
Miscellaneous				
Building assessments	<u>\$ 2,500</u>	<u>\$ 1,465</u>	<u>\$ (1,035)</u>	<u>\$ 2,935</u>
Other Financing Sources (Uses)				
Transfers out	<u>(5,000)</u>	<u>(5,000)</u>	<u>-</u>	<u>(5,000)</u>
Excess (Deficiency) of Revenues over (under) Expenditures	<u>5,000</u>	<u>5,000</u>	<u>-</u>	<u>5,000</u>
Net Change in Fund Balance	<u>(2,500)</u>	<u>(3,535)</u>	<u>(1,035)</u>	<u>(2,065)</u>
Fund Balance, Beginning of Year	<u>11,445</u>	<u>12,380</u>	<u>935</u>	<u>14,445</u>
Fund Balance, End of Year	<u><u>\$ 8,945</u></u>	<u><u>\$ 8,845</u></u>	<u><u>\$ (100)</u></u>	<u><u>\$ 12,380</u></u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Administrative Assessment Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>2018</u>
Revenues				
Miscellaneous				
Administrative				
assessments	<u>\$ 16,000</u>	<u>\$ 8,746</u>	<u>\$ (7,254)</u>	<u>\$ 13,488</u>
Expenditures				
Current				
Judicial				
Services and supplies	<u>16,000</u>	<u>7,476</u>	<u>8,524</u>	<u>12,480</u>
Excess (Deficiency) of Revenues over (under) Expenditures	<u>-</u>	<u>1,270</u>	<u>1,270</u>	<u>1,008</u>
Net Change in Fund Balance	<u>-</u>	<u>1,270</u>	<u>1,270</u>	<u>1,008</u>
Fund Balance, Beginning of Year	<u>6,876</u>	<u>7,884</u>	<u>1,008</u>	<u>6,876</u>
Fund Balance, End of Year	<u><u>\$ 6,876</u></u>	<u><u>\$ 9,154</u></u>	<u><u>\$ 2,278</u></u>	<u><u>\$ 7,884</u></u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Parks and Recreation Fund #2
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>2018</u>
Revenues				
Miscellaneous				
Other income	<u>\$ 15,500</u>	<u>\$ 14,988</u>	<u>\$ (512)</u>	<u>\$ 27,258</u>
Expenditures				
Current				
Culture and recreation				
Parks				
Services and supplies	<u>15,000</u>	<u>11,564</u>	<u>3,436</u>	<u>12,666</u>
Capital outlay	<u>27,000</u>	<u>25,108</u>	<u>1,892</u>	<u>9,358</u>
Total expenditures	<u>42,000</u>	<u>36,672</u>	<u>5,328</u>	<u>22,024</u>
Excess (Deficiency) of Revenues over (under) Expenditures	<u>(26,500)</u>	<u>(21,684)</u>	<u>4,816</u>	<u>5,234</u>
Other Financing Sources				
Transfers in	<u>24,000</u>	<u>24,000</u>	<u>-</u>	<u>37,500</u>
Net Change in Fund Balance	<u>(2,500)</u>	<u>2,316</u>	<u>4,816</u>	<u>42,734</u>
Fund Balance, Beginning of Year	<u>87,207</u>	<u>87,207</u>	<u>-</u>	<u>44,473</u>
Fund Balance, End of Year	<u><u>\$ 84,707</u></u>	<u><u>\$ 89,523</u></u>	<u><u>\$ 4,816</u></u>	<u><u>\$ 87,207</u></u>

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Equestrian Center Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Revenues				
Miscellaneous				
Other income	\$ 50,000	\$ 31,464	\$ (18,536)	\$ 35,665
Expenditures				
Current				
Culture and recreation				
Parks				
Services and supplies	42,000	34,882	7,118	38,528
Capital outlay	27,000	-	27,000	56,441
Total expenditures	69,000	34,882	34,118	94,969
Excess (Deficiency) of Revenues over (under) Expenditures	(19,000)	(3,418)	15,582	(59,304)
Other Financing Sources				
Transfers in	15,000	15,000	-	15,000
Net Change in Fund Balance	(4,000)	11,582	15,582	(44,304)
Fund Balance, Beginning of Year	37,778	50,474	12,696	94,778
Fund Balance, End of Year	\$ 33,778	\$ 62,056	\$ 28,278	\$ 50,474

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Police Forfeiture Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Revenues				
Fines and forfeits				
Forfeitures	\$ 10,000	\$ -	\$ (10,000)	\$ -
Expenditures				
Current				
Public safety				
Police				
Services and supplies	\$ 12,000	\$ -	\$ 12,000	\$ 9,463
Capital outlay	20,000	-	20,000	6,286
Total expenditures	32,000	-	32,000	15,749
Exceeds (Deficiency of Revenues over (under) Expenditures	(22,000)	-	(42,000)	(15,749)
Net Change in Fund Balance	(22,000)	-	22,000	(15,749)
Fund Balance, Beginning of Year	82,982	108,233	25,251	123,982
Fund Balance, End of Year	\$ 60,982	\$ 108,233	\$ 47,251	\$ 108,233

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
Debt Service Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Expenditures				
Debt service				
Principal	\$ 6,101	\$ 6,083	\$ 18	\$ 5,597
Interest	5,999	6,017	(18)	6,503
Total expenditures	12,100	12,100	-	12,100
Excess (Deficiency of Revenues over (under) Expenditures	12,100	12,100	-	12,100
Net Change in Fund Balance	(12,100)	(12,100)	-	(12,100)
Fund Balance, Beginning of Year	65,326	65,326	-	77,426
Fund Balance, End of Year	\$ 53,226	\$ 53,226	\$ -	\$ 65,326

City of Carlin

Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
 Perpetual Cemetery Care Fund
 Year Ended June 30, 2019
 (With Comparative Actual Amounts for the Year Ended June 30, 2018)

	<u>Budget</u>	<u>Actual</u>	<u>Variance</u>	<u>2018</u>
Revenues				
Miscellaneous				
Contributions from individuals	\$ 500	\$ 1,950	\$ 1,450	\$ 3,050
Interest income	<u>50</u>	<u>212</u>	<u>162</u>	<u>104</u>
Total revenues	550	2,162	1,612	3,154
Exceeds (Deficiency of Revenues over (under) Expenditures	<u>550</u>	<u>2,162</u>	<u>1,612</u>	<u>3,154</u>
Net Change in Fund Balance	550	2,162	1,612	3,154
Fund Balance, Beginning of Year	<u>85,227</u>	<u>88,276</u>	<u>3,049</u>	<u>85,122</u>
Fund Balance, End of Year	<u>\$ 85,777</u>	<u>\$ 90,438</u>	<u>\$ 4,661</u>	<u>\$ 88,276</u>

City of Carlin

Schedule of Revenues, Expenses, and Changes in Net Position – Budget and Actual –
Utility Fund
Year Ended June 30, 2019
(With Comparative Actual Amounts for the Year Ended June 30, 2018)

	Budget	Actual	Variance	2018
Operating Revenues				
Utility fees				
Water	\$ 351,500	\$ 433,162	\$ 81,662	\$ 418,121
Garbage	208,000	247,211	39,211	243,091
Sewer	273,883	323,948	50,065	325,128
Street lights				
Use fees	28,000	27,590	(410)	27,574
Total operating revenues	<u>861,383</u>	<u>1,031,911</u>	<u>170,528</u>	<u>1,013,914</u>
Operating Expenses				
Water				
Salaries and wages	195,000	182,915	12,085	173,529
Employee benefits	91,500	61,687	29,813	72,556
Services and supplies	2,938,000	92,185	2,845,815	86,223
	<u>3,224,500</u>	<u>336,787</u>	<u>2,887,713</u>	<u>332,308</u>
Garbage				
Services and supplies	88,550	92,592	(4,042)	99,625
Sewer				
Salaries and wages	139,247	87,358	51,889	125,186
Employee benefits	75,000	22,446	52,554	47,627
Services and supplies	71,400	71,844	(444)	67,005
	<u>285,647</u>	<u>181,648</u>	<u>103,999</u>	<u>239,818</u>
General				
Services and supplies	306,936	266,000	40,936	252,574
Depreciation	170,000	149,806	20,194	166,982
	<u>476,936</u>	<u>415,806</u>	<u>61,130</u>	<u>419,556</u>
Total operating expenses	<u>4,075,633</u>	<u>1,026,833</u>	<u>3,048,800</u>	<u>1,091,307</u>
Operating Income (Loss)	<u>(3,214,250)</u>	<u>5,078</u>	<u>3,219,328</u>	<u>(77,393)</u>
Nonoperating Revenues (Expenses)				
Interest and penalties earned	33,845	18,264	(15,581)	18,722
Miscellaneous income	13,598	2,296	(11,302)	14,597
Interest expense	-	-	-	(867)
Total nonoperating revenues (expenses)	<u>47,443</u>	<u>20,560</u>	<u>(26,883)</u>	<u>32,452</u>
Income (Loss) Before Capital Contributions	<u>(3,166,807)</u>	<u>25,638</u>	<u>3,192,445</u>	<u>(44,941)</u>
Capital contributions	<u>-</u>	<u>1,000</u>	<u>1,000</u>	<u>20,424</u>
Change in Net Position	<u>\$ (3,166,807)</u>	<u>26,638</u>	<u>\$ 3,193,445</u>	<u>(24,517)</u>
Net Position, Beginning of Year		<u>4,498,394</u>		<u>4,522,911</u>
Net Position, End of Year		<u>\$ 4,525,032</u>		<u>\$ 4,498,394</u>

City of Carlin
Schedule of Fees Imposed Subject to the Provisions of NRS 354.5989
Year Ended June 30, 2019

Flat Fixed Fees

Business license revenue for the year ended June 30, 1991 (base year) adjusted through June 30, 2018	<u>\$ 36,477</u>
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Adjustment of Base

Base year

1. Percentage increase in population of local government	14.8%	
2. Percentage increase in the Consumer Price Index for the year ending on December 31 next preceding the year for which the limit is being calculated	<u>2.9%</u>	<u>17.7%</u>

6,448

Adjusted base at June 30, 2019

42,925

Actual revenue

19,574

Amount under allowable amount

\$ 23,351

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Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Honorable Mayor and Council
City of Carlin
State of Nevada

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of the City of Carlin, State of Nevada (the City), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the City's basic financial statements, and have issued our report thereon dated December 11, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control over financial reporting that might be material weakness or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. However, as described in the accompanying schedule of findings and responses as items, we identified certain deficiencies in internal control that we consider to be material weaknesses and significant deficiencies.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the City's financial statements will not be prevented, or detected and corrected on a timely basis. We consider the deficiency described in the accompanying schedule of findings and responses to be a material weakness (2019-A).

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A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the deficiencies described in the accompanying schedule of findings and responses to be significant deficiencies (2019-B and 2019-C).

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the City's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

City of Carlin's Response to Findings

The City's response to the findings identified in our audit is described in the accompanying schedule of findings and responses. The City's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Eide Bailly LLP". The signature is written in a cursive, flowing style.

Elko, Nevada
December 11, 2019

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**2019-A Report Preparation
Material Weakness**

<i>Criteria:</i>	Management of the City of Carlin (the City) is responsible for establishing and maintaining an effective system of internal control over financial reporting. One of the key components of an effective system of internal control is a finance staff with adequate resources available to prepare the financial statements in accordance with generally accepted accounting principles.
<i>Condition:</i>	<p>Based on audit procedures performed as of June 30, 2019, we proposed the following audit adjustments to properly state various account balances in order to fairly present the financial statements in accordance with generally accepted accounting principles:</p> <ul style="list-style-type: none">• Donated capital assets were incorrectly recorded in the governmental funds totaling \$95,380.
<i>Cause:</i>	Given the daily responsibilities of management, the resources of time and training necessary to prepare the City's financial statements in accordance with generally accepted accounting principles are not available. As a result, the City has chosen to contract with Eide Bailly LLP to prepare the financial statements. This circumstance is not unusual in an organization of this size, due to time constraints of management and costs associated with compliance of the standards.
<i>Effect:</i>	The City's financial records required audit adjustments in order to be in accordance with generally accepted accounting principles.
<i>Recommendation:</i>	Management should perform a detailed review of all financial statements and fund trial balances throughout the year to ensure that all significant transactions have been appropriately reported. In addition, management and those charged with governance should annually make the decision to accept the degree of risk associated with this condition because of costs or other considerations.
<i>Management's Response:</i>	We agree with the finding and the City believes the most cost-effective approach is to outsource the financial preparation function to the external auditors.

**2019-B Ambulance Billings
 Significant Deficiency**

<i>Criteria:</i>	Management is responsible for establishing and maintaining an effective system of internal controls over financial reporting. One of the key components of an effective system of internal control is the ability to ensure that accounting records accurately reflect the activities and transactions of the City.
<i>Condition:</i>	During our audit procedures, we noted that the City has not implemented a system of internal controls to ensure that all billable ambulance calls are reported to the third party biller for billing and to ensure that receivables are reconciled to the records from the third party biller. City staff had designed a system of internal controls to ensure that all billable ambulance calls are reported to the third party biller for billing and that receivables are reconciled to the records from the third party biller during the year. However, the system of internal controls was not implemented during the year.
<i>Cause:</i>	Internal controls in place were not sufficient to ensure that all billable ambulance calls are billed in a timely manner and that ambulance receivables were reconciled to the reports provided by the third party.
<i>Effect:</i>	Improper reporting of ambulance revenue and receivables.
<i>Recommendation:</i>	We recommend that the City enhance internal controls over ambulance billing to ensure that all ambulances calls are billed in a timely manner and that the City's accounting records are reconciled to the reports provided by the third party.
<i>Management's Response:</i>	Management understands the importance of correcting the deficiency. The City did design the necessary system of internal control and implemented them up until the City's third-party biller terminated its contract with the City in May 2019. The City, as of October 2019, has signed an agreement with another third-party biller who will be taking over where the prior biller left off.

**2019-C Utility Revenue
 Significant Deficiency**

<i>Criteria:</i>	Management is responsible for establishing and maintaining an effective system of internal controls over financial reporting. One of the key components of an effective system of internal control is the ability to ensure that accounting records accurately reflect the activities and transactions of the City.
<i>Condition:</i>	During our audit procedures, we noted that the internal control procedures to ensure that all changes to customer utility accounts (water, sewer, and garbage service) in the billing system is not being documented. The City maintains an index card for each account, on which changes to the account are noted. When the City is notified of a change to an account, such as change in property owner or number of garbage bins, the change is noted on the index card for the account and the index card is set aside for the change to be made in the billing system. However, there is currently no documentation that these procedures are being performed or that the procedures are operating as designed.
<i>Cause:</i>	Internal controls in place were not sufficient to ensure that utility revenue is accurately billed.
<i>Effect:</i>	Misstatement of utility revenue, including charges for water, sewer, and garbage fees.
<i>Recommendation:</i>	We recommend that the City enhance internal controls over utility billing to ensure that all changes to utility accounts are made in the billing system and that the performance of these internal control procedures are documented.
<i>Management's Response:</i>	Management understands the importance of correcting this deficiency. Staff will be provided additional training in the current fiscal year relating to proper documentation to support all changes to utility accounts are made in the billing system and documented.

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Auditor's Comments

To the Honorable Mayor and Council
City of Carlin
Carlin, Nevada

In connection with our audit of the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Carlin (the City) as of and for the year ended June 30, 2019, and the related notes to the financial statements, nothing came to our attention that caused us to believe that the City failed to comply with the specific requirements of Nevada Revised Statutes other than those cited below. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding the City's noncompliance with the requirements of Nevada Revised Statutes cited below, insofar as they relate to accounting matters.

Current Year Statute Compliance

Compliance with Nevada Revised Statutes is contained in Note 2 of the financial statements.

Progress on Prior Year Statute Compliance

In the prior year, there was an apparent violation of NRS 354.6245. There was no apparent violation of NRS 354.6245 noted in the current year.

Disposition of Prior Year Recommendations

Prior year audit findings were implemented, with the exception of finding 2018-A and 2018-B which are included in the current year as findings 2019-A and 2019-B.

Current Year Audit Recommendations

See items noted in the Schedule of Findings and Responses.

A handwritten signature in cursive script that reads 'Eide Bailly LLP'.

Elko, Nevada
December 11, 2019

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City of Carlin

WATER SYSTEM SHORT LIVED ASSETS - 2020

COMPONENT	Unit Cost	# of Units	Total Cost	Est. Equip Life years	Annual Depreciation (S.L.)
<u>Well Pump</u>					
Pump	<u>\$50,000</u>	1	\$50,000	15	<u>\$3,333</u>
Motor	<u>\$50,000</u>	1	\$50,000	15	<u>\$3,333</u>
Transducer	<u>\$2,500</u>	1	\$2,500	10	<u>\$250</u>
Sensors	<u>\$5,000</u>	<u>1</u>	\$5,000	10	<u>\$500</u>
SCADA	<u>\$25,000</u>	<u>1</u>	\$25,000	15	<u>\$1,667</u>
<u>Distribution System</u>					
Water Meters	<u>\$2,500</u>	10	\$25,000	15	<u>\$1,667</u>
SCADA	<u>\$25,000</u>	<u>1</u>	\$25,000	15	<u>\$1,667</u>
Booster Pumps	<u>\$30,000</u>	<u>3</u>	\$90,000	15	<u>\$6,000</u>
Backflow Devices	<u>\$1,500</u>	<u>5</u>	\$7,500	15	<u>\$500</u>
<u>Water Distribution</u>					
Air Release Valves	<u>\$10,000</u>	5	\$50,000	15	<u>\$3,333</u>
<u>Water System Tools & Equipment</u>					
Trash Pumps	<u>\$2,000</u>	<u>2</u>	\$4,000	7	<u>\$571</u>
Concrete Saw	<u>\$6,500</u>	<u>1</u>	\$6,500	15	<u>\$433</u>
Saw Blades	<u>\$500</u>	<u>3</u>	\$1,500	3	<u>\$500</u>
Shop Parts	<u>\$20,000</u>	<u>1</u>	\$20,000	10	<u>\$2,000</u>
Shop Tools	<u>\$2,500</u>	<u>1</u>	\$2,500	10	<u>\$250</u>
Hardware & Software	<u>\$20,000</u>	<u>1</u>	\$20,000	10	<u>\$2,000</u>
Office Furniture	<u>\$5,000</u>	<u>1</u>	\$5,000	10	<u>\$500</u>
1-5 Year Annual Cost					\$500.00
6-10 Year Annual Cost					\$6,071.43
11-15 Year Annual Cost					\$21,933.33
SHORT LIVED ASSET TOTAL	\$258,000		\$389,500		\$28,505

City of Carlin

WATER SYSTEM SHORT LIVED ASSETS - After Improvements

COMPONENT	Unit Cost	# of Units	Total Cost	Est. Equip Life years	Annual Depreciation (S.L.)
<u>Well Pump</u>					
Pump	<u>\$50,000</u>	1	\$50,000	15	<u>\$3,333</u>
Motor	<u>\$50,000</u>	1	\$50,000	15	<u>\$3,333</u>
Transducer	<u>\$2,500</u>	1	\$2,500	10	<u>\$250</u>
Sensors	<u>\$5,000</u>	1	\$5,000	10	<u>\$500</u>
SCADA	<u>\$25,000</u>	1	\$25,000	15	<u>\$1,667</u>
<u>Distribution System</u>					
Water Meters	<u>\$2,500</u>	510	\$1,275,000	15	<u>\$85,000</u>
SCADA	<u>\$25,000</u>	1	\$25,000	15	<u>\$1,667</u>
Booster Pumps	<u>\$30,000</u>	3	\$90,000	15	<u>\$6,000</u>
Backflow Devices	<u>\$1,500</u>	5	\$7,500	15	<u>\$500</u>
<u>Water Distribution</u>					
Air Release Valves	<u>\$10,000</u>	5	\$50,000	15	<u>\$3,333</u>
<u>Water System Tools & Equipment</u>					
Trash Pumps	<u>\$2,000</u>	2	\$4,000	7	<u>\$571</u>
Concrete Saw	<u>\$6,500</u>	1	\$6,500	15	<u>\$433</u>
Saw Blades	<u>\$500</u>	3	\$1,500	3	<u>\$500</u>
Shop Parts	<u>\$20,000</u>	1	\$20,000	10	<u>\$2,000</u>
Shop Tools	<u>\$2,500</u>	1	\$2,500	10	<u>\$250</u>
Hardware & Software	<u>\$20,000</u>	1	\$20,000	10	<u>\$2,000</u>
Office Furniture	<u>\$5,000</u>	1	\$5,000	10	<u>\$500</u>
1-5 Year Annual Cost					\$500.00
6-10 Year Annual Cost					\$6,071.43
11-15 Year Annual Cost					\$105,266.67
SHORT LIVED ASSET TOTAL	\$258,000		\$1,639,500		\$111,838

APPENDIX F

BROWNFIELD STUDIES



TECHNICAL MEMORANDUM #1

CITY OF CARLIN

BROWNFIELD FEASIBILITY ANALYSIS

Prepared For: Converse Consultants
Prepared By: Jennifer Heeran, P.E.
Reviewed By: Lucas Tipton, P.E.
Date: March 16, 2018
Subject: Brownfield Feasibility Analysis

1.0 INTRODUCTION

Farr West Engineering has been asked to evaluate the feasibility of serving existing undeveloped Brownfield sites with public water and sewer service by the City of Carlin.

Converse Consultants selected the sites. Farr West Engineering has provided an engineering analysis and cost estimate for extending water and sewer utilities to the sites and the impact to the existing system due to the increased water demand and sewer load.

2.0 SITE ANALYSIS

2.1 SITE 1 – INDUSTRIAL PARK

2.1.1 Description

The first site is comprised of five parcels near Griffin Street and Spruce Road, to the west of Newmont Road/SR 766. In total, the five parcels have a combined acreage of 93.717 acres. The parcels are relatively level and are readily accessible by paved or dirt roads. Water and sewer services are available to all five parcels and will require separate connections at a minimum of three locations.

2.1.2 Water Demand

The water demand for Site 1 is 93,717 gpd or 65.08 gpm, calculated with an efficiency factor of 1.0 for Industrial Land Use at 1,000 gpd/acre.

2.1.3 Sewer Load

The sewer load for Site 1 is 42,829 gpd or 29.74 gpm, calculated with an efficiency factor of 1.0 for Industrial Land Use at 457 gpd/acre.

2.1.4 Cost Estimate

The total cost for extending water service to this site is \$430,000.00 which includes 12-inch C900 PVC pipe, butterfly valves, combination air valve assemblies, fire hydrant and fire service assemblies, and 3-inch water service assemblies.

The total cost for extending sewer facilities to this site is \$370,000.00 which includes 8-inch SDR 35 pipe, manholes, and service connections with laterals. This cost also includes a small lift station and approximately 1,400 LF of 3" force main.

The total cost for extending water and sewer service to these parcels is \$1,058,000.00 and includes mobilization, temporary erosion control and pavement patching for both the water and sewer facilities as well as design and contingency costs.

Table 1: Engineer's Opinion of Probable Construction Costs – Site 1: Industrial Site

Item	Description	Qty Total	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization	1	LS	\$ 40,000.00	\$ 40,000.00
2	Temporary Erosion Control	1	LS	\$ 20,000.00	\$ 20,000.00
3	Water Main	2,430	LF	\$ 175.00	\$ 430,000.00
4	Sewer Main	975	EA	\$ 150.00	\$ 150,000.00
5	Lift Station	1	EA	\$ 150,000.00	\$ 150,000.00
6	3" Force Main	1,400	LF	\$ 50.00	\$ 70,000.00
7	Pavement	1,900	SF	\$ 3.50	\$ 7,000.00
Construction Subtotal:					\$ 867,000.00
Design (12%):					\$ 104,000.00
Contingency (10%):					\$ 87,000.00
TOTAL COST:					\$ 1,058,000.00

2.1.5 Impact to Existing System

The existing Industrial Park Lift Station is currently at capacity. The addition of approximately 30 gallons per minute of industrial sewer at Site 1 would require an upsize of the current lift station.

2.2 SITE 2 – TOMERA RANCH ROAD & SR 278

2.2.1 Description

The second site is comprised of one 39.991-acre parcel at the northeast corner of Tomera Ranch Road and SR 278. The lot is relatively level and is readily accessible by paved road.

2.2.2 Water Demand

The water demand for Site 2 is 39,991 gpd or 27.77 gpm, calculated with an efficiency factor of 1.0 for Industrial Land Use at 1,000 gpd/acre.

2.2.3 Sewer Load

The sewer load for Site 2 is 18,276 gpd or 12.69 gpm, calculated with an efficiency factor of 1.0 for Industrial Land Use at 457 gpd/acre.

2.2.4 Cost Estimate

The total cost for extending water service to this site is \$680,000.00 which includes 12-inch C900 PVC pipe, butterfly valves, combination air valve assemblies, fire hydrant and fire service assemblies, and 3-inch water service assemblies.

The total cost for extending sewer facilities to this site is \$404,000.00 which includes 8-inch SDR 35 pipe, manholes, and service connections with laterals. This cost also includes a small lift station and approximately 2,600 LF of 2" force main.

The total cost for water and sewer service to these parcels is \$1,445,000.00 and includes mobilization, temporary erosion control and pavement patching for both the water and sewer facilities as well as design, NDOT permitting, and contingency costs.

Table 2: Engineer's Opinion of Probable Construction Costs - Site 2: Tomera Ranch Rd & SR 278

Item	Description	Qty Total	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization	1	LS	\$ 56,000.00	\$ 56,000.00
2	Temporary Erosion Control	1	LS	\$ 30,000.00	\$ 30,000.00
3	Water Main Pipe	3,600	LF	\$ 175.00	\$ 630,000.00
4	Jack and Bore	1	EA	\$ 50,000.00	\$ 50,000.00
5	Sewer Main	1,000	EA	\$ 150.00	\$ 150,000.00
6	Lift Station	1	EA	\$ 150,000.00	\$ 150,000.00
7	2" Force Main	2,600	LF	\$ 40.00	\$ 104,000.00
8	Pavement	3,600	SF	\$ 3.50	\$ 13,000.00
Construction Subtotal:					\$ 1,183,000.00
Design (12%):					\$ 142,000.00
Permitting - NDOT for SR 278 crossing:					\$ 2,000.00
Contingency (10%):					\$ 118,000.00
TOTAL COST:					\$ 1,445,000.00

2.2.5 Impact to Existing System

There will be no significant impact to the existing systems by extending water and sewer service to this site.

2.3 SITE 3 – CARLIN CROSSING PHASE 1

2.3.1 Description

The third site is comprised of one 187.34-acre parcel to the west of Newmont Road, north of Interstate 80. The parcel is not consistently level and has a series of ridges and valleys running east to west. In general, the site falls in elevation from west to east, with a sharp drop on the east boundary as it approaches the adjacent valley. The parcel has a series of dirt roads surrounding the outer boundaries of the parcel.

2.3.2 Water Demand

The water demand for Site 3 is 187,340 gpd or 130.10 gpm, calculated with an efficiency factor of 1.0, for Industrial Land Use at 1,000 gpd/acre.

2.3.3 Sewer Load

The sewer load for Site 3 is 85,614 gpd or 59.45 gpm, calculated with an efficiency factor of 1.0 for Industrial Land Use at 457 gpd/acre.

2.3.4 Cost Estimate

The total cost for extending water service to this site is \$140,000.00 which includes 12-inch C900 PVC pipe, butterfly valves, combination air valve assemblies, fire hydrant and fire service assemblies, and 3-inch water service assemblies. This cost also includes a jack and bore to extend water service under SR 766.

The total cost for extending sewer facilities to this site is \$285,000.00 which includes 8-inch SDR 35 pipe, manholes, and service connections with laterals. This cost also includes a small lift station and approximately 1,500 LF of 4" force main.

The total cost for water and sewer service to these parcels is \$575,000.00 and includes mobilization, temporary erosion control, and pavement patching for both the water and sewer facilities as well as design, NDOT permitting, and contingency costs. An NDOT permit for the water crossing at SR 766 will be required, as well as an NDOT permit for the sewer main in NDOT's I-80 right of way.

Table 3: Engineer's Opinion of Probable Construction Costs - Site 3: Carlin Crossing Ph 1

Item	Description	Qty Total	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization	1	LS	\$ 22,000.00	\$ 22,000.00
2	Temporary Erosion Control	1	LS	\$ 15,000.00	\$ 15,000.00
3	Water Main	300	LF	\$ 300.00	\$ 90,000.00
4	Jack and Bore	1	EA	\$ 50,000.00	\$ 50,000.00
5	Sewer Main	300	EA	\$ 150.00	\$ 45,000.00
6	Lift Station	1	EA	\$ 150,000.00	\$ 150,000.00
7	4" Force Main	1500	LF	\$ 60.00	\$ 90,000.00
8	Pavement	1800	EA	\$ 3.50	\$ 6,000.00
Construction Subtotal:					\$ 468,000.00
Design (12%):					\$ 56,000.00
Permitting - NDOT for I-80, SR 766 @ \$2,000 per permit:					\$ 4,000.00
Contingency (10%):					\$ 47,000.00
TOTAL COST:					\$ 575,000.00

2.3.5 Impact to Existing System

There will be no significant impact to the existing systems by extending water and sewer service to this site.

2.4 SITE 4: INTERCHANGE OF INTERSTATE 80 AND SR 278

2.4.1 Description

The fourth site is comprised of one 16.95-acre parcel on the west side SR 278, north of the I-80 westbound on-ramp. The parcel is relatively level and is readily accessible by paved and dirt roads.

2.4.2 Water Demand

The water demand for Site 4 is 16,950 gpd or 14.17 gpm, calculated with an efficiency factor of 1.0, for Industrial Land Use at 1,000 gpd/acre.

2.4.3 Sewer Load

The sewer load for Site 4 is 9,327 gpd or 6.48 gpm, calculated with an efficiency factor of .1.0 for Industrial Land Use at 457 gpd/acre.

2.4.4 Cost Estimate

The total cost for extending water service to this site is \$910,000.00 which includes 12-inch C900 PVC pipe, butterfly valves, combination air valve assemblies, fire hydrant and fire service assemblies, and 3-inch water service assemblies.

The total cost for extending sewer facilities to this site is \$825,500.00 which includes 8-inch SDR 35 pipe, manholes, and service connections with laterals. This cost also includes a small lift station and approximately 950 LF of 2" force main.

The total cost for water and sewer service to these parcels is \$2,303,500.00 and includes mobilization, temporary erosion control and pavement patching for both the water and sewer facilities as well as design, NDOT permitting, and contingency costs. The two NDOT permits will likely be extensive due to the close proximity to the interchange and crossings at SR 278 and I-80.

Table 4: Engineer's Opinion of Probable Construction Costs - Site 4: Interchange of I-80/SR 278

Item	Description	Qty Total	Unit	Unit Cost	Total
1	Mobilization/Demobilization	1	LS	\$ 90,000.00	\$ 90,000.00
2	Temporary Erosion Control	1	LS	\$ 40,000.00	\$ 40,000.00
3	Water Main	5,200	LF	\$ 175.00	\$ 910,000.00
4	Sewer Main	4,250	EA	\$ 150.00	\$ 637,500.00
5	Lift Station	1	EA	\$ 150,000.00	\$ 150,000.00
6	2" Force Main	950	LF	\$ 40.00	\$ 38,000.00
7	Pavement	2,100	EA	\$ 3.50	\$ 7,000.00
Construction Subtotal:					\$ 1,872,500.00
Design (12%):					\$ 225,000.00
Permitting - NDOT for SR 278/I-80 (1%):					\$ 19,000.00
Contingency (10%):					\$ 187,000.00
TOTAL COST:					\$ 2,303,500.00

2.4.5 Impact to Existing System

There will be no significant impact to the existing systems by extending water and sewer service to this site.

3.0 OVERALL IMPACT TO SYSTEM

If all four sites are developed as industrial properties, an additional 360,000 gpd of water demand and 165,000 gpd of sewer loading will be added to the existing infrastructure. An engineering analysis confirms there is capacity in the existing water supply and storage facilities to accommodate the demands added by the development of these sites. Additionally, the primary sewer lift station and force main have the capacity

to pump the additional wastewater flows. However, the wastewater treatment facility only has the excess capacity to treat up to an additional 125,000 gpd. Therefore, future development must be limited to no more than 125,000 gpd until improvements can be made to the wastewater treatment facility.

BROWNFIELD FEASIBILITY ANALYSIS

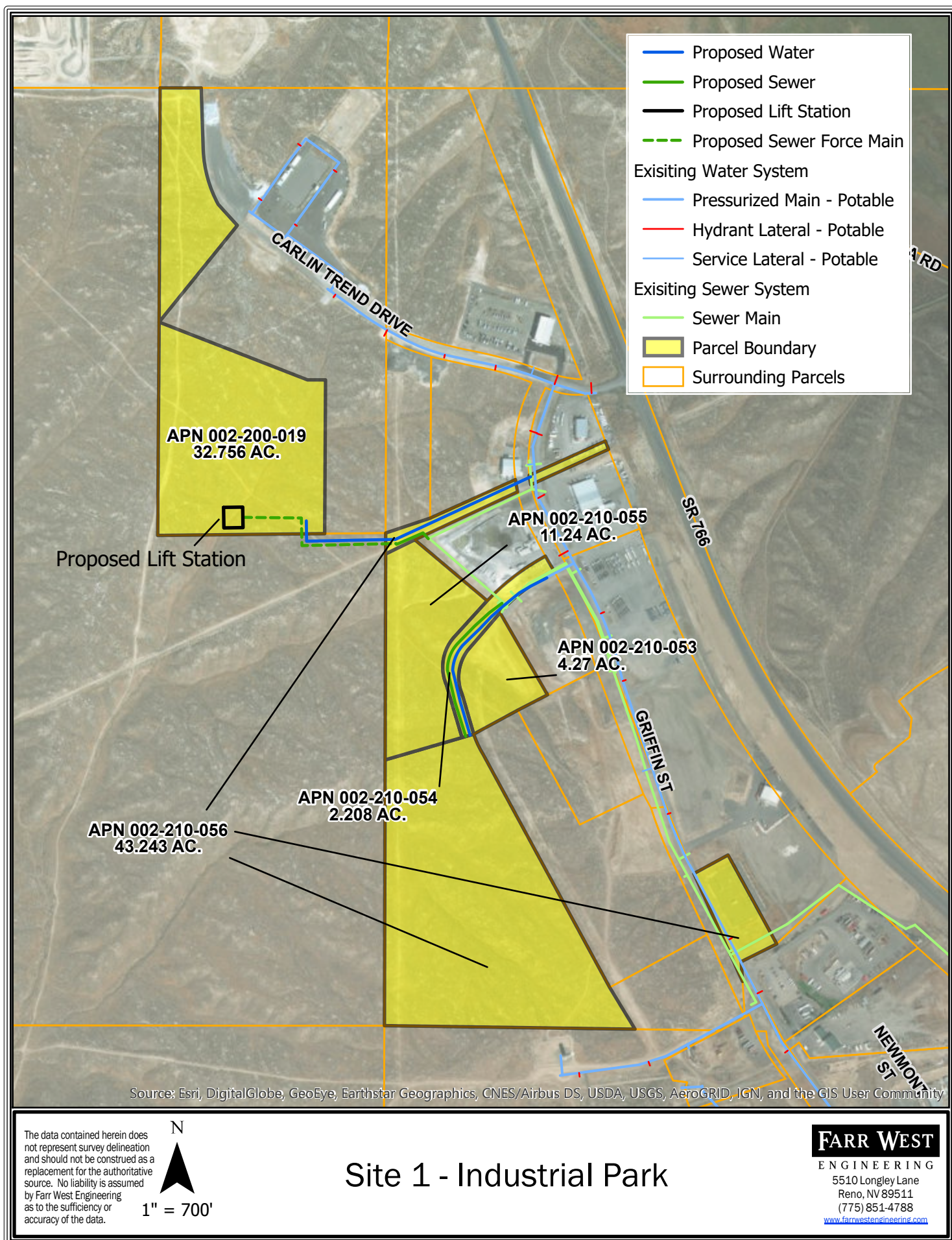
SITE FIGURES

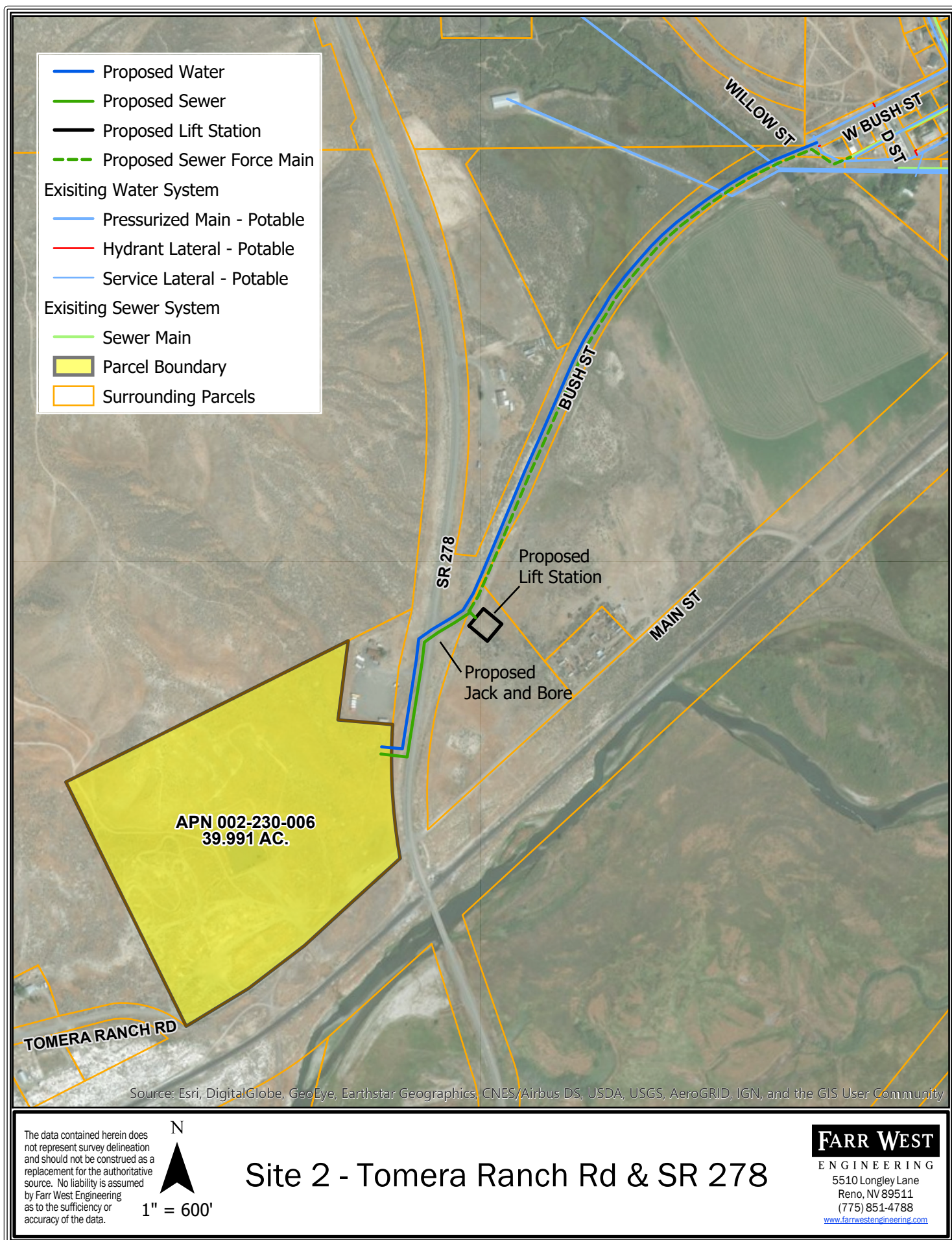
Site 1 – Industrial Park

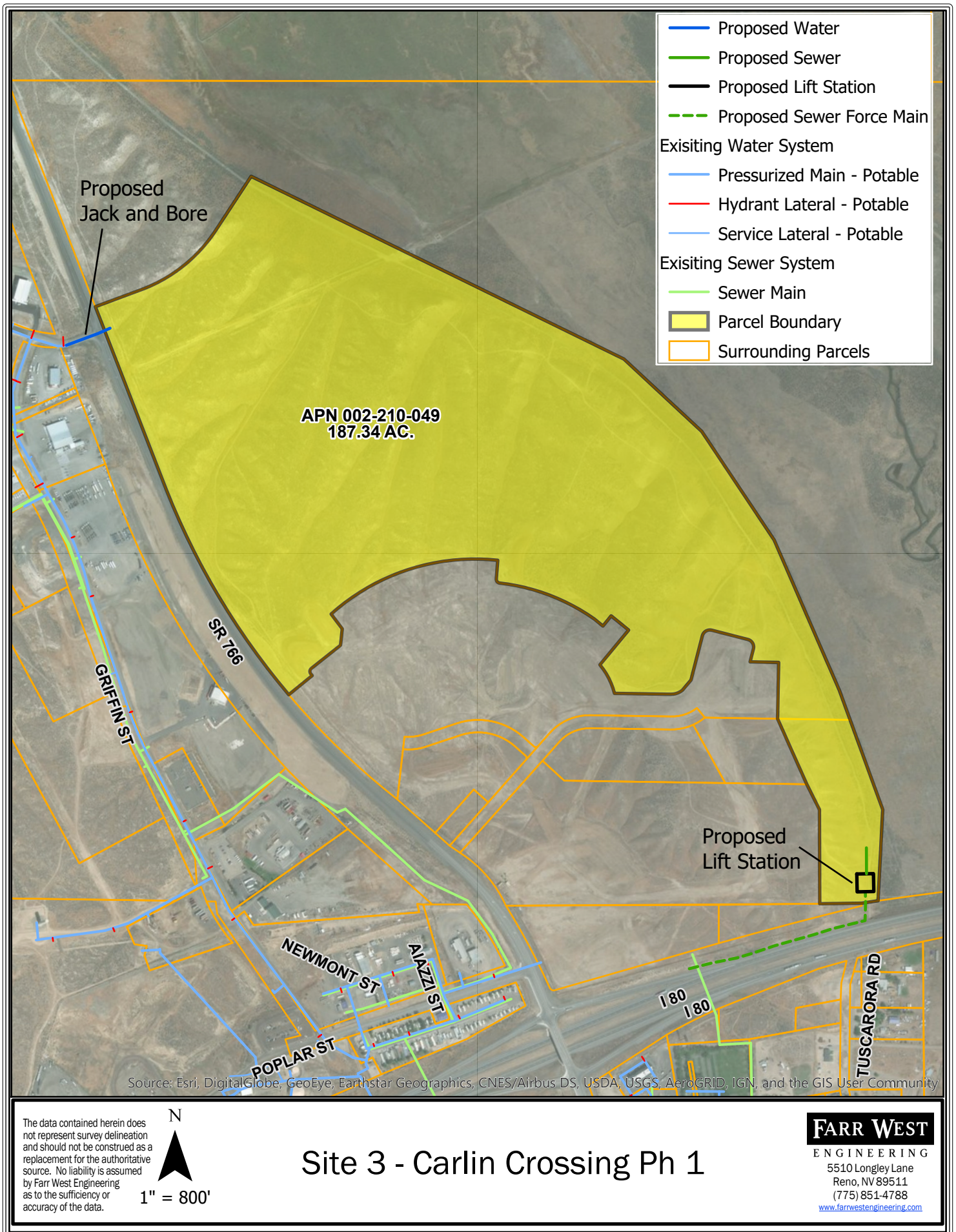
Site 2 – Tomera Ranch Rd & SR 278

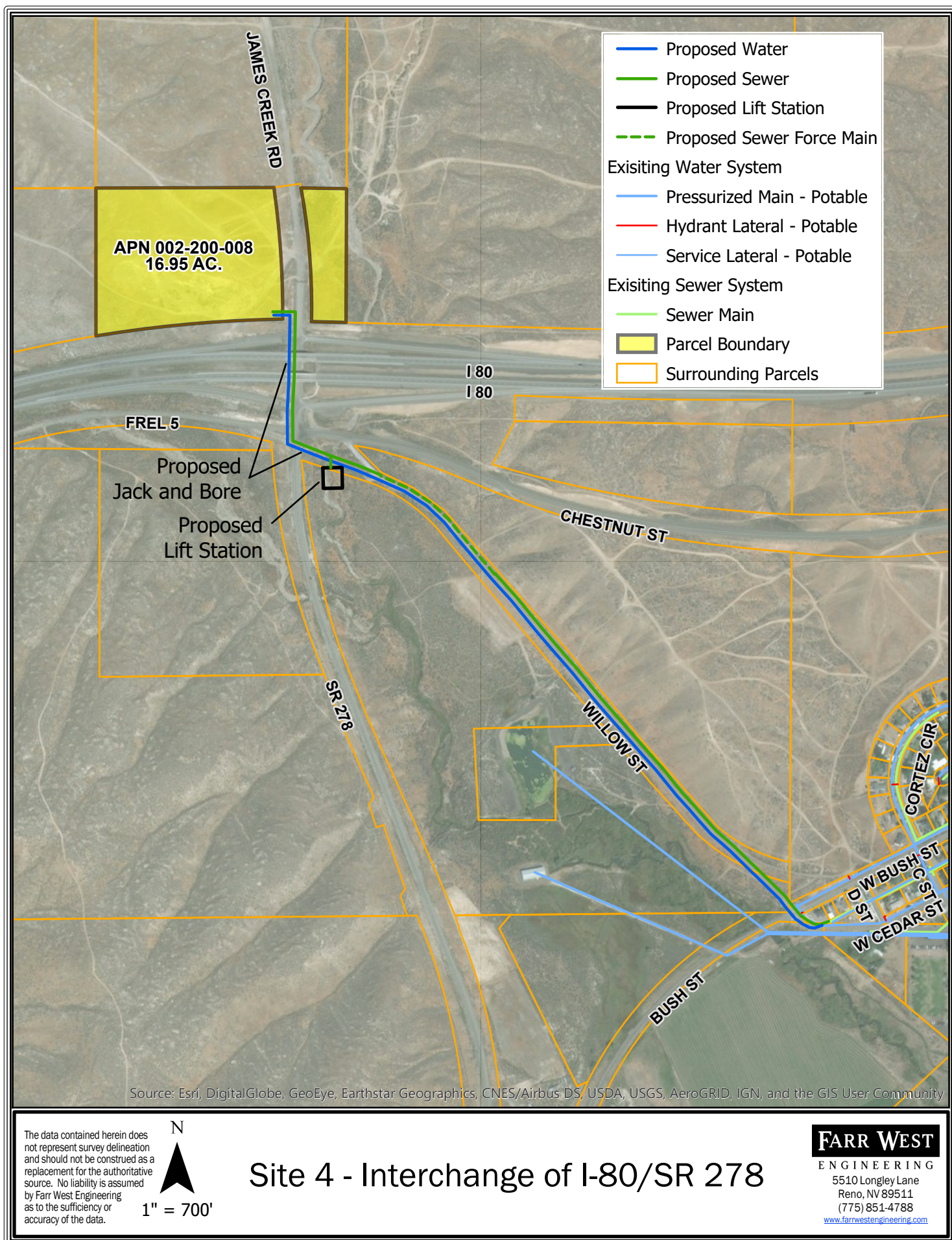
Site 3 – Carlin Crossing Phase 1

Site 4 – Interchange of I-80/SR 278









BROWNFIELD FEASIBILITY ANALYSIS

APPENDIX A

System Storage Calculations

City of Carlin System Storage Calculations Brownsfield Sites

Sizing Analysis Scenarios

1. MDD + Fire Flow with all supply facilities operational
 - a. Operating Storage = 25% of Max Day Demand
 - b. Emergency Storage = 75% Operating Storage
2. ADD + Fire Flow with largest supply out of service
 - a. Operating Storage = 25% of Max Day Demand
 - b. Emergency Storage = 75% Operating Storage

Demand Data

	No. Lots	Demands (gpm)		
		ADD	MDD	PHD
Existing System Connections	841	400	800	-
New Lots	5	249	498	-
Totals	846	649	1,298	-

Total Supply

Well	System Pump Capacity (gpm)
Hilltop Well	277
Authur Spring/SP Spring	173
Total	450
Total without Largest Well	173

Fire Flow Demand

	Flow (gpm)	Duration (hr)	Volume (gal)
Fire Demand (gpm)	2,500	2	300,000

Storage Volume (gal)

Total	2,634,000
--------------	------------------

Table 1. City of Carlin System Existing Condition

Storage Type	MDD + Fire w/all sources		ADD + Fire w/o largest source	
	Storage Requirement (gal)	Storage Balance (gal)	Storage Requirement (gal)	Storage Balance (gal)
Full Tank		2,634,000		2,634,000
City of Carlin Supply		-504,183		-326,972
Daily Capacity		2,129,817		2,307,028
Fire Storage	300,000	1,829,817	300,000	2,007,028
Operating Storage	288,046	1,541,771	288,046	1,718,982
Emergency Storage	216,034	1,325,736	216,034	1,502,948

Table 2. City of Carlin System w/ Brownsfield Sites Condition

Storage Type	MDD + Fire w/all sources		ADD + Fire w/o largest source	
	Storage Requirement (gal)	Storage Balance (gal)	Storage Requirement (gal)	Storage Balance (gal)
Full Tank		2,634,000		2,634,000
Lyon County Supply		-1,221,303		-685,532
Daily Capacity		1,412,697		1,948,468
Fire Storage	300,000	1,112,697	300,000	1,648,468
Operating Storage	467,326	645,371	467,326	1,181,142
Emergency Storage	350,494	294,876	350,494	830,648

City of Carlin System Storage Calculations Brownsfield Sites

WWTF lagoons permit limits = 500,000 gpd average, daily max = 900,000 gpd

Influent average of consistent* data available:

WW data average influent = 399,000 gpd**

Drinking water winter average usage = 363,000 gpd**

*Inconsistencies in hand-written records of influent volume data

** Difference attributed in part to several basement sump pumps within City that discharge into the sewer system an unknown volume

WWTF available capacity = 100,000 gpd*

*Conservative for reliable operation of the lagoons,
with more accurate meter readings, likely an additional 25,000 gpd