FINAL
ENVIRONMENTAL ASSESSMENT

WATER AND WASTEWATER IMPROVEMENT PROJECT
EUREKA CITY, UTAH

September 2014

US Army Corps of Engineers ®
Sacramento District

USDA

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DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
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SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

SEP 15 2014

FINDING OF NO SIGNIFICANT IMPACT

Water and Wastewater Improvement Project
Eureka City, Utah

I have reviewed and evaluated the information in this Environmental Assessment (EA) for the Water and Wastewater Improvement Project, Eureka City, Utah. This project would involve improving the City's existing culinary water supply and wastewater treatment systems. Improvements would include a new well and well house; water storage tank; booster station; water distribution and wastewater collection pipelines; maintenance building; and upgraded infrastructure for both systems. These improvements would help to ensure the health and safety of both Eureka's residents and the environment. This project is authorized by Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53).

During this review, the possible consequences of the work described in the EA have been studied with consideration given to environmental, cultural, and engineering feasibility. In evaluating the effects of the project, specific attention has been given to those environmental resources such as vegetation and wildlife, cultural resources, and hazardous waste that could be affected. I have also considered the views and needs of other government agencies, organizations, individuals, and Tribes concerning the proposed project. No threatened or endangered species or suitable habitat has been identified in the project area.

Most of the project area is located within the boundaries of the Eureka Historic District, which was listed on the National Register of Historic Places in 1979. Numerous cultural sites and historic buildings have been identified in the area that contribute to the integrity of the historic district. However, the Corps has determined that construction of the project would not adversely affect any historic properties or the integrity of the Eureka Historic District. In a letter dated February 25, 2014, the Utah State Historic Preservation Officer concurred with the Corps' determination of no effect on historic properties.

Most of the project area is also located within the boundaries of the remediated Eureka Mills Superfund Site. Lead contamination from past mining activities is still found in soils in Eureka and surrounding areas. The City would secure all U.S. Environmental Protection Agency and/or Utah Department of Environmental Quality permits/approvals and meet all requirements to ensure that the work would not cause any hazardous material to endanger public health or the environment. In addition, the construction contractor would be required to comply with the City's Land Use Ordinance pertaining to excavation, development, or other construction that may disturb contaminated soil within the Superfund site. These actions would reduce any effects on hazardous material sources or exposure to less than significant.

Based on my review of the EA and my knowledge of the project area, I am convinced that the proposed project is a logical and desirable alternative. Furthermore, I have determined that the project would have no significant effects on the environment. All construction, operation, and maintenance will be implemented in compliance with Federal, State, and local laws and permits. Based on the results of the environmental evaluation and completion of agency coordination, I have determined that the EA and Finding of No Significant Impact provide adequate documentation and that no further environmental document is required.

15 SEP 14
Date

Michael J. Farrell
Colonel, U.S. Army
District Engineer

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1.0 PURPOSE AND NEED

1.1 Proposed Action

The City of Eureka in Juab County, Utah, is proposing to improve the City's existing culinary water supply and wastewater treatment systems. The work would include a new well; well house; water storage tank; booster station; water distribution and wastewater collection pipelines; maintenance building; and upgraded infrastructure, operation, and maintenance. These improvements would increase water supply and storage capacity, meet State of Utah drinking water standards, prevent groundwater contamination, and improve the functioning of the treatment facility. The proposed action would help to ensure the health and safety of both Eureka's residents and the environment. The U.S. Army Corps of Engineers (Corps) is assisting the City by providing partial reimbursement of project costs for design and construction.

1.2 Location of the Project Area

Eureka is a very small city located along U.S. Highway 6 (US-6), approximately 70 miles southwest of Salt Lake City in western Utah. The city is situated in a southwest trending valley on the west side of the East Tintic Mountains at elevations ranging from 6,300 to 6,500 feet above mean sea level. Large waste rock piles from mining operations are primarily located on the south sides of the valley adjacent to the city; many have undergone remedial action and are capped with rock. The area is influenced by low precipitation (annual average of 17 inches), extreme temperatures (ranging from below freezing to close to 100 degrees Fahrenheit), and a long history of mining activity.

The project area includes the developed area within the city limits and several small areas of City, unincorporated County, and private land outside the city limits (Plate 1). The proposed work areas within the project area include the new well site near Tintic Junction, new water storage tank site, new booster station site, maintenance building site, paved and unpaved city streets and open areas in Eureka, right-of-way areas along US-6, and infrastructure at the wastewater treatment facility. Most of the project area is located within the remediated Eureka Mills Superfund Site. This location limits any type of work involving soil movement, excavation, and/or treatment in the project area as discussed in Section 3.11.

1.3 Description of Existing Systems

Eureka's existing culinary water and wastewater systems are two separate networks of underground pipelines and associated facilities that provide water and sewer service to residential and commercial users. The City employs a water and sewer operator who is licensed to operate both systems. Inspection and maintenance access is via US-6, paved roadways in the city, and dirt and/or gravel roads along fields and open areas.

The City's existing water system is composed of supply, storage, and distribution components. The oldest portions of the existing water system were installed in the 1930's and 40's (Albrecht, 2013). Most of the system is located within the city limits, including a 500-gallon steel storage tank; 2- , 4- , 6- , and 8-inch waterlines (Plate 2); and 62 fire hydrants for access to water supply during local fires. The remaining components, including several miles of waterline, all six of the water supply wells, and a booster station, are located on County land outside the city. The five wells east of the city provide approximately 25 percent of the City's

water supply, and the Tintic Junction well to the west supplies 75 percent. The booster station is required to transport the well water to Eureka.

The City's wastewater system is composed of collection, treatment, and discharge components. Similar to the water system, most of the 4- , 6- , 8- , and 10- inch sewer lines are located within the city limits (Plate 3), while several miles of sewer line and the wastewater treatment facility are located on County land. The treatment portion of the facility consists of a three-cell, aerated lagoon system with permitted discharge to Eureka Creek. In March 2011, the Utah Division of Water Quality (UDWQ) issued a "permit by rule" to Eureka, allowing the use of the effluent from the lagoons for irrigation of the adjacent property as a new wildlife habitat area. Treated discharge is currently being applied to the adjacent property although Eureka continues to maintain its current discharge permit (UPDES Permit No. UT0024601) because of the amount of flow entering the lagoons. Electrical monitors, controls, and other operation and maintenance equipment are housed in a small maintenance building adjacent to the lagoons.

1.4 Need for Proposed Action

Both the City's existing culinary water supply and wastewater treatment systems have deficiencies and/or pose risks to the residents and the environment. These deficiencies and risks are discussed below.

1.4.1 Culinary Water System

Eureka's aging culinary water system, originally built in 1930's and1940's, presents public health, safety, and operation and maintenance problems for the City. Some of the old distribution waterlines are constructed of asbestos material, which can enter the drinking water as the pipes decay. Asbestos is known to be carcinogenic to humans when inhaled, and long-term ingestion can increase the risk of developing benign intestinal polyps and other digestive issues (U.S. EPA, 2013a).

These old pipes are of various sizes, lack valves, and may no longer seal properly, allowing water to leak out into the surrounding soil. Unfortunately, the water use metering system does not provide reliable accurate information to verify the amounts of water leaking from the pipes. As a result, the system cannot be maintained properly. When water lines break, most of the City's water system has to be shut down to isolate and repair the problem.

In addition, Eureka's culinary water system does not currently comply with several State requirements for drinking water systems as expressed in Utah Administrative Code (UAC) R309, Rules for Public Drinking Water Systems. First, the number of user connections has been increasing due to new construction over the last 10 years. Without a new well, the City will soon lack sufficient water supply to meet the required capacity standard per residential connection for indoor water use (City of Eureka, 2012). The additional water supply and booster station are also needed to increase the flow rate in the waterlines to meet the required rate at selected points in the distribution system.

Prior to 2007, the State required that water systems with fire hydrants ensure a minimum water pressure of 20 pounds per square inch (psi) when fire flows are added to peak day demands (flows) in the distribution system. As of January 1, 2007, the rules were revised per UAC R309-105-9(2) to ensure public safety and now require that new systems have minimum pressures of 20 psi during conditions of fire flow and fire demand experienced during peak day demand, 30 psi during peak instantaneous demand, and 40 psi under peak day demand. The

State encourages existing systems such as Eureka's to meet this revised requirement, when possible. A number of connections on the south side of the City do not currently meet the requirement.

1.4.2 Wastewater System

Eureka's wastewater system, originally built in 1910 of clay pipe, has experienced widespread failures. Video analysis conducted between 2005 and 2007 reveals that most of the sewer lines have cracks, holes, root infiltration, debris, crushed spots, and low spots with standing water (City of Eureka, 2013a). The low spots in the sewer lines cause solids to settle out and accumulate in those areas. Once the solids begin to settle out, they can start to solidify in the problem area, thus restricting the amount of flow available in the pipeline and creating an area susceptible to total blockage. Total blockage in a gravity sewer line usually goes unnoticed until the sewage backs up into the basements of upstream connections, leading to human health risks and property damage. Many of the manholes are also buried or inaccessible for maintenance, precluding easy access for inspection and/or repairs.

The existing wastewater collection system failures have resulted in very high amounts of infiltration into the system. The amount of wastewater entering the treatment facility is three times the expected amount based on State averages for per capita discharge per UAC R317-3-2.2-B-1, and more than double the quantity of culinary water being provided through the water system. As a result, the treatment facility is receiving higher daily average and peak loadings (gallons per day per square foot) than it was designed to treat. The wastewater treatment facility also lacks a functioning chlorine gas detector, which presents a safety hazard to the workers.

The transport of wastewater through a leaky system poses a risk of ground water contamination by infiltration of sewage into the surrounding soils. Exposure to untreated wastewater is a serious health risk, and increases the opportunities for the spread of disease. These potential risks require improvements to the existing wastewater collection system, replacement of the maintenance building, construction of new wastewater infrastructure facilities, and upgrade of the current operational system.

1.5 Project Authorization

This project is authorized by Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53), as amended, which authorized the U.S. Army Corps of Engineers to participate in environmental infrastructure projects in Idaho, Montana, rural Utah, Nevada, and New Mexico. The Corps is the Federal lead agency, and the City of Eureka is the local sponsor for the project.

1.6 Purpose of the Environmental Assessment

This Environmental Assessment (EA) discusses the environmental resources in the project area; evaluates the short-term (direct), long-term (indirect), and cumulative effects of the alternatives (including the proposed action) on the resources; and proposes measures to avoid, minimize, or mitigate any adverse effects to less than significant. This EA is in compliance with the National Environmental Policy Act (NEPA) and provides full public disclosure of the effects of the proposed action.

The City of Eureka has requested partial funding for the project from the U.S. Department of Agriculture, Rural Development, Rural Utilities Service (USDA). This Federal agency is also required to comply with NEPA as part of their funding program. USDA is

coordinating with the Corps and may adopt the Corps' EA as part of their NEPA compliance work. Questions regarding USDA funding may be addressed to USDA Rural Development, Attn: Amy Ivie, Community Facility Specialist, 125 S State Street, Room 4311, Salt Lake City, Utah 84138 (Bulkeley, 2014).

The City of Eureka has also requested partial funding from the Utah Water Quality Board (UWQB). The UWQB is required to comply with a NEPA-like review as part of their funding. UWQB is coordinating with Corps and may adopt the Corps' EA as part of their NEPA compliance work. Questions regarding UWQB funding may be addressed to Utah Division of Water Quality, Attn: Bill Damery, P.O. Box 144870 Salt Lake City 84114-4870 (Damery, 2014).

2.0 ALTERNATIVES

2.1 Alternatives Not Considered Further

Initially, Eureka explored the possibility of other ways to provide culinary water and sewer service to residents and businesses other than improving the existing systems. They quickly determined that ideas such as importing and exporting by truck, as well as connecting to other community systems, were not feasible due the City's size, arid climate, and remote location.

The City then considered possible locations and sizes for improvements to the existing water and wastewater systems. These included new well and tank sites, sections of pipeline and manholes to be replaced or constructed, and construction of a new lagoon or winter storage pond. Potential designs were based on existing system conditions and connections, projected water supply and sewer needs, land ownership, potential adverse environmental effects, and cost factors (City of Eureka, 2012; 2013a). The City's selected design (preferred alternative) is described in detail in Section 2.3.

2.2 No Action

Under no action, the City would not make any improvements to the existing culinary water supply and wastewater treatment systems. The residents and businesses would continue to rely on the existing deficient City systems for water and sewage service. Asbestos would continue to be released during decay of old waterlines, posting a health risk to public and environmental health. Additional water supply for residential and commercial uses would not be available for current and future local development and reliable fire protection.

Aging pipes would continue to leak culinary water into the surrounding soil, and the City would still not be able to monitor and maintain the system without an accurate water use metering system. Without additional water storage, flow capacity, and water pressure, the City would continue to be in non-compliance with UAC R309, Rules for Public Drinking Water Systems. Under no action, the State would likely impose fines on the City for violations and require that the public water system be brought into compliance to provide sufficient fire flows to ensure public safety.

In addition, the wastewater collection system would continue to experience leaks, blockages, and widespread failures due to the extremely poor condition of the old sewer lines. Continuing infiltration of sewage into the surrounding soils and underlying groundwater could lead to contamination of the City's water supply. Sewer line blockages and backup into homes would likely increase as sewer lines continue to degrade and fail, and residents would continue to

be at risk of exposure to untreated sewage and disease. Without new and replacement manholes, access for inspection and repair of system leaks and failures would continue to be difficult.

Under no action, groundwater would also continue to infiltrate into the collection system through the cracks, holes, and breaks in the old sewer lines. As a result, the volume of wastewater entering the treatment facility would continue to exceed the daily average and peak loadings (gallons per day per square foot) used to design the size and operation of the facility. Without updated aeration, the treatment process would continue to be inefficient with these high loads. In addition, without a new chlorine gas detector, the facility workers would continue to be at risk from accidental exposures to toxic chlorine gas.

Finally, operation and maintenance of the existing systems under no action would continue to be inefficient and often ineffective due to the ongoing deterioration of the old pipelines and other infrastructure. The City would operate the systems to try and optimize performance using the outdated and inadequate equipment. Maintenance would be limited primarily to repairing localized pipeline blockages and breaks, as well as repairing or replacing deteriorating or broken equipment at individual wells or treatment facility, as necessary. Clearly, the proposed improvements are needed to ensure the health and safety of Eureka's residents and the environment.

2.3 Water and Wastewater Systems Improvements (Preferred Alternative)

2.3.1 Overview

The preferred alternative consists of installing new or replacement of underground water and sewer pipelines along separate alignments in both developed and undeveloped parts of Eureka. These pipelines would connect with the City's existing water supply and wastewater collection systems. The water system work also includes a new well, well house, water storage tank, and booster station (Plates 4 and 5). The wastewater system also includes new and replacement manholes and upgraded components at the treatment facility (Plate 6). Operation of both systems would be upgraded with a supervisory control and data acquisitions (SCADA) system.

This alternative would increase water supply and storage capacity, comply with State of Utah drinking water standards, minimize groundwater contamination, and improve the operation of the treatment facility and overall systems. These improvements would effectively address the deficiencies in the current water supply and wastewater systems, while avoiding or minimizing adverse effects on environmental resources. As a result, the alternative would help to ensure the current and future health and safety of both Eureka's residents and the environment.

2.3.2 Pre-Construction Activities

Permits, Approvals, and Utilities

Prior to initiation of construction, the construction contractor (contractor) would be required to obtain all Federal, State, and County permits and approvals necessary to perform the work, including those related to well drilling, water rights, stormwater discharge, fugitive dust, US-6 and traffic safety, and ground disturbance within the Superfund site. All plans and specifications for work on the water system would be reviewed and approved by the Utah Division of Drinking Water. The contractor would also be required to meet with the Utah Department of Environmental Quality (UDEQ), who oversees the Superfund site, to go over the requirements for disposing of contaminated material (U.S. EPA, 2009).

The contractor would also be required to verify the depths and locations of all existing utilities in the project area. Potentially affected utility companies would be notified and coordinated with concerning the timing and scope of the proposed work. In addition to the City's water and sewer service, these utilities could include Rocky Mountain Power Company and Centracom (phone and internet).

The pipeline installation work would require short-term interruptions in the City's water and sewer service to residents and businesses. To minimize any inconvenience, the City would work with the contractor to prepare a plan to ensure that all residents and businesses are informed about the construction schedule and notified at 24 hours in advance when their water or sewer service would be interrupted. In any case, no user would be without water or sewer service overnight.

Access, Staging, and Mobilization

Access to the main staging area and pipe alignments would be via existing paved and unpaved roadways in the project area. Short sections of new permanent roadway would be constructed to access the work sites for the new well, storage tank, and booster station. The work would include grading and surfacing the new roadways with road base and installing culvert crossings for drainage, as needed. The new sections of roadway would each be less than 100 feet long and would connect the well and storage tank sites to existing gravel or paved roads. Twelve- to 14-inch corrugated metal pipe culverts would be placed at the flow line of the drainage swales on the edge of the roadways and covered with 8 to 12 inches of road base.

The main staging area for the project would be located on City property along Centennial Road just west of the road's intersection with West Main Street (US-6). The staging area would encompass approximately 2.1 acres of gravel-capped area. Because of the distance between the main staging area and the new well, water tank, and parts of the pipeline alignment, equipment and materials would also be staged at the work sites for these features during construction. All such areas used for staging would be highly disturbed areas devoid of vegetation or covered in concrete, asphalt, or gravel within the construction footprint.

During mobilization, construction equipment would be moved via US-6 and/or Centennial Road to the main staging area, along with piping, gravels, and other construction materials. Types of equipment could include hydraulic excavators, front end loaders, dump trucks, haul trucks, a compactor, a drill rig, concrete trucks, pumping trucks, and water trucks. The staging area would also include areas for an administrative trailer and worker vehicle parking. Prior to construction, the staging area would be fenced to ensure public safety and prevent vandalism or theft. The type of equipment and construction materials moved to each work site would depend on the project feature.

Groundwater Dewatering

According to the City (2013a), the area north of Main Street has high groundwater levels, leading to flooded basements on a regular basis. Since the new or replacement pipeline needs to be installed under dry conditions, work in those areas would include dewatering to temporarily lower the groundwater levels prior to installation of the pipeline. However, the groundwater levels can vary greatly by season, so the area needing dewatering would be determined by the contractor at the time of excavation. Dewatering would be used whenever there is more than a foot of standing groundwater in the pipeline trench or other excavated area.

The contractor would use the sump method of dewatering to temporarily lower the groundwater levels. This method involves pumping from perforated drums or casings in a nearby gravel-filled backhoe pit. The sump collects, filters, and removes the groundwater, providing localized, very shallow dewatering (usually less than 3 feet) at the work site (Nemati, 2007). The removed groundwater would be discharged onto the surface at a point where the water would run away from the work site and into the stormwater system. This discharge point could be a curb and gutter or a natural drainage in the vicinity. Dewatering at all other work sites would not be needed since groundwater levels in those areas are deeper than proposed excavation depths.

2.3.3 Construction Details

New features of the water system would include a well, well house, water storage tank, and booster station, while the wastewater system would include manholes and treatment plant infrastructure upgrades. Both systems would include new and replacement distribution pipeline, as well as updated operation via a SCADA system. Details of the construction of these features are provided below.

Tables 1 and 2 summarize the features, land jurisdiction, and approximate surface disturbance of the work. Access to the new well house, storage tank, and booster station would be across private lands, requiring purchase in fee title or easements from the landowners.

Water Well and Well House

In the State of Utah, wells regulated by the State Engineer, such as a public water system supply well, that will be greater than 30 feet in depth must be constructed by a currently licensed Utah licensed well driller. Moreover, a Utah licensed well driller or a Utah licensed pump installer must install and repair pumps on wells regulated by the State Engineer (Utah Division of Water Rights, 2013). Prior to drilling the new well, the contractor would be required to secure all necessary approvals from the State Engineer and the Utah Division of Drinking Water, including provisional approval to drill the well and an approved Change in Point of Diversion.

The new culinary water well would be located approximately 0.25 mile east of the existing Tintic Junction well on City-owned land outside the Superfund site. Access to the work site would be via US-6 and State Route 36 (SR-36), past Tintic Junction, onto an unpaved road. Construction equipment would include a drill rig, flatbed truck and/or trailer, and support truck. The new well would be drilled to a depth of 450 feet, and a 12-inch-diameter casing with grout and proper screening would be installed as required by the State.

As part of the design work, the City completed a test well at the site in May 2014. The work included drilling a test well to assess water quality and flow conditions. Groundwater samples were collected and evaluated, and aquifer flow tests were conducted to verify that the new well would be capable of supplying an adequate volume of good quality groundwater at an acceptable flow rate (300 gallons per minute). The test well was then capped, pending

Table 1. Features and Surface Disturbance of Water System Improvements

Project Feature	Land Jurisdiction	Dimensions of Disturbance	Construction Disturbance (acres)	Permanent Disturbance (acres)
Well and well house	County	200- by 200-foot construction area; 100- by 100-foot permanent area	1.00	0.25
Pipeline from new well to existing pipeline	City	1,200 linear feet of 20-foot right-of-way or easement	0.55	0.00
Booster station	City	150- by 150-foot construction area; 100- by 100-foot permanent area	0.50	0.25
Storage tank	City	300- by 300-foot construction area; 150- by 150-foot permanent area	2.10	0.52
Distribution pipeline	City, County	36,100 linear feet by 20-foot right-of-way or easement	16.57	0.00
Fire hydrants	City, County	30 fire hydrants; 5-foot radius each	0.05	0.05
Access roads to storage tank, booster station, and well house	City, County, Private	3 new access roads; 100 feet long by 20 feet wide each	0.14	0.14
Totals			20.91	1.21

Table 2. Features and Surface Disturbance of Wastewater System Improvements

Project Feature	Land Jurisdiction	Dimensions of Disturbance	Construction Disturbance (acres)	Permanent Disturbance (acres)
Collection pipeline	City, County	34,188 linear feet by 20-foot right-of-way or easement	15.70	0.00
Manholes	City, County	160 manholes (90 new; 70 replacement); 20-foot-diameter construction each	1.15	0.05
Maintenance building, infrastructure	County	150- by 150-foot construction area; 30- by 40-foot permanent area; 500 linear feet by 20-foot right-of-way	0.52 0.23	0.028
Totals			17.60	0.778

completion of environmental studies and initiation of construction of the project. All excavated material resulting from installation/construction of the test well, developed well, and well house would be sampled for lead contamination and then disposed of according to the City's Land Use Ordinance, Chapter 13 Special Regulations - Eureka Mills Superfund Site (Appendix A).

A new 13- by 26-foot concrete well house would be constructed (Plate 7) at the work site to house the well, pumping and chlorination equipment, and controls necessary to monitor and manage the flow rate of the water from the well. Once the work site has been cleared and

graded, the pad area for the new building would be excavated, and 2 feet of structural fill would be placed in the excavated area and compacted. The piping and plumbing would be installed; the footings would be placed; and then the concrete would be poured to form the floor. The contractor would construct the concrete walls and roof once the floor has properly cured.

A new gas chlorination system would be installed in the well house so that the City would have the ability to disinfect the water, if needed, as required by the State. The gas chlorination equipment includes piping, valves, main line taps, and the chlorine injection bypass line(s). In addition, the existing chlorination system at the Tintic Junction well would be upgraded to fix a leak, and the existing hypochlorite system in the existing well house would be replaced with a new gas chlorination system. This work would help ensure that the quality of the water supply from the Tintic Junction well and the new well would be consistent.

Approximately 1,200 feet of new 8-inch high-pressure waterline would be installed across undeveloped land from the new well to the existing waterline along Cherry Creek Road. This would connect the well to the City's existing water supply system. Details of the pipeline installation process are provided under "Water and Wastewater Pipelines" below. Even with the new well, the City would continue to use all of the existing wells. The two west wells (Tintic Junction well and the new well) would be the primary wells, and the five east wells would provide a back-up water source during high demand.

Water Storage Tank

The new underground storage tank would be located on a hillside parcel of City-owned land south of Eureka and nearly opposite from the existing 500,000-gallon tank on the north side of the city. The 0.7-acre parcel has not been annexed into the City, but rather remains under the jurisdiction of Juab County.

Access to the new water storage tank site during construction would be via Reservoir Road onto an unpaved road. Construction of the tank would include clearing, grading, and excavating the site; installing associated piping, valves, and other infrastructure; and constructing the tank structure in place using forms and concrete. The construction area for the tank would be approximately 300 feet by 300 feet, and the excavated area would be approximately 150 feet by 150 feet. The finish cuts would have a minimum 2H:1V slope, where feasible, and fill slopes would be held to 2.5H:1V.

The excavated material would be placed north to northeast of the proposed tank site during excavation and sampled for lead contamination in accordance with the City's Land Use Ordinance to determine whether the material is suitable for reuse as fill around the tank or whether it would need to be hauled to the Open Cell Repository. If the material is unsuitable for reuse (lead concentration exceeds 231 ppm), clean fill material would be purchased and imported from an existing approved source. Per the City's Land Use Ordinance, all imported soil/fill material used as a protective cap (soil barrier over contaminated soil) would be required to have a lead concentration of 100 ppm or less. The new concrete tank would be approximately 18 feet high and 62 feet in diameter (Plate 8). The work site would be fenced using 6-foot-high chain link and barbed wire fence to ensure security and public safety.

After allowing the tank to sit for 28 days, the tank would then be filled with water to check for possible leaks in the concrete. Once the integrity of the tank has been verified, the area around the tank would be filled with either suitable excavated material or imported soil material

and reseeded to help protect the slopes from erosion. The contractor would likely obtain the clean fill material from a nearby approved source to lower transport costs. The material would be hauled by large trucks first to the staging area and then by smaller trucks to the work sites. Only the top 2 feet of the tank would be above ground to minimize exterior maintenance, as well as protect the structure from extreme weather, cold temperatures, and potential vandalism. Routine maintenance would include occasional cleaning of sand and debris from the tank's interior. The tank's roof would include venting and access hatches for interior maintenance.

Approximately 1,500 feet of new 8-inch waterline would be installed from the new storage tank to the existing water system near the new booster station. This new distribution line would be used to both supply water from the tank to the City water system, as well as fill the tank using the new booster station when the storage in the existing 500,000-gallon storage tank is above two-thirds full. The alignment for this section of waterline would run northwest from the tank along an existing gravel road, turn west and cross 170 feet of open area, and connect to the existing water line at the south end of Beck Street. Details of the pipeline installation process are provided under "Water and Wastewater Pipelines" below. The new tank would provide 300,000 gallons of water storage capacity, for a total storage capacity together with the existing 500,000-gallon tank of 800,000 gallons.

Booster Station

The new booster station would be located on a 0.09-acre parcel of undeveloped City land near the intersection of Beck and Chief Streets on the southeast side of the City. Access to the work area would be provided via Beck Street. The new concrete structure would be 13 feet wide, 18 feet long, and 8 feet high (Plate 9). Construction would include clearing and grading the site, excavating the pad area, and placing and compacting 2 feet of structural fill in the excavated area, installing the piping and plumbing, placing the footings, and pouring the concrete to form the floor. Once the floor has cured, the contractor would construct the concrete walls and roof. The new booster station would house two pumps, electrical equipment, and controls needed to pump water to the new storage tank.

In addition, the existing booster station would be upgraded to accommodate the additional water provided by the new well. This station is located just outside of the security fence at the City's sewage lagoons. The upgrades to the station would include two additional pumps, electrical equipment, and controls. The new pumps would be buried adjacent to the existing pump located underground just north of the booster station building. All of the controls for the pumps would be inside the building structure. Two of the three pumps would operate at one time to pump water to the storage tanks. The existing building is of sufficient size to house the additional controls and electrical equipment to operate the additional pumps.

Water and Wastewater Pipelines

Approximately 71,488 feet (13.5 miles) of new or replacement, underground water or sewer polyvinyl chloride (PVC) pipeline would be installed, mainly along or under existing roadways. All work sites would either be owned by the City, or the City would secure easements or rights-of-way to use the sites prior to initiation of construction. The new pipeline would include approximately 37,300 feet (7.0 miles) of water line and 34,188 feet (6.5 miles) of sewerline (Table 3). The diameter of the new waterline would be 4, 6, or 8 inches, depending on

Table 3. Pipeline Size and Quantities

Water Line Quantities (Linear Feet)				
Size	**Replaced Distribution Lines**	**New Distribution Lines**	**Well Line**	**Total Pipeline**
8-inch AWWA C900	23,760	6,100	1,200	31,060
6-inch AWWA C900	5,400	600	-	6,000
4-inch AWWA C900	240	-	-	240
Totals	29,400	6,700	1,200	37,300

Sewer Line Quantities (Linear Feet)			
Size	**Replaced Lines**	**New Lines**	**Total Pipeline**
8-inch PVC Sewer Pipe (SDR 35)	18,793	15,099	33,892
6-inch PVC Sewer Pipe (SDR 35)	296	0	296
Totals	19,089	15,099	34,188

the location in the system (larger main and smaller laterals). All but 296 linear feet of the new PVC sewerline would be 8 inches in diameter.

The basic installation process for all sections of new and replacement pipeline would be the same for both water and sewer lines. However, the connections, bends, valves, and other associated features such as manholes would vary because of the differences in function and operation of the two systems. The depth of the trenches would vary according to the type of pipeline to be installed. In addition, all trench excavation would be conducted in accordance with the U.S. EPA guidelines for trenching and backfilling. In any case, there would always be separate trenches for the two types of pipelines, and the distance between all parallel water and sewer pipelines installed along the same alignment would be a minimum of 10 feet as required by State law.

Installation of pipeline under the paved roads and streets would include (1) clearing the roadway surface of asphalt and aggregate base; (2) excavating the trench to a depth of at least 4 feet; (3) stockpiling the excavated material within the work area; (4) laying bedding material; (5) placing and connecting the pipeline in the trench; (6) covering the pipeline with bedding material; and (7) backfilling with excavated soil material and compacting the surface of the excavated area. Once installation is complete, the roads and streets would be repaved with a hard surface cover a minimum of 2 inches thick. All excess excavated material either

contaminated with, or with unknown concentrations of, lead would be transported by truck and disposed at the Open Cell Repository (Plate 10).

The new and replacement pipeline would cross under U.S. Highway 6 in several locations. Utility work under Federal highways is often conducted using directional boring equipment and methods to avoid effects on the roadway surface and disruption to the flow of traffic. In Utah, the State Department of Transportation (UDOT) is responsible for reviewing and approving proposed utility work within rights-of-way of State highways in accordance with State and Federal law. After initial conversations with UDOT, the local sponsor plans to install pipeline across the highway using the same surface trenching process, subject to UDOT's encroachment permit for the work (Ralphs, 2014)

Installation of pipeline under roadway shoulders and gravel roads would include (1) clearing the surface of gravel and any ruderal vegetation; (2) excavating the trench; (3) stockpiling the excavated material within the work site; (4) laying bedding material; (5) placing and connecting the pipeline in the trench; (6) covering the pipeline with bedding material; (7) backfilling and placing a protective cap at least18 inches thick, if necessary; (8) backfilling with clean material and compacting the surface of the excavated area; and (9) grading to the original contour elevations and covering with gravel. All excess excavated material either contaminated with, or with unknown concentrations of, lead would be transported by truck and disposed at the Open Cell Repository.

Installation of pipeline under open, undeveloped areas would include (1) clearing and grubbing surface vegetation and organic matter, (2) excavating the trench, (3) stockpiling the excavated material within the work site; (4) laying bedding material, (5) placing and connecting the pipeline in the trench, (6) covering the pipeline with bedding material, (7) backfilling and placing a protective cap at least 18 inches thick, if necessary; (8) backfilling with clean soils and compacting the surface of the excavated area; and (9) grading to the original contour elevations and reseeding the disturbed area with a certified weed-free plant mix typical of the area. All excess excavated material either contaminated with, or with unknown lead concentrations of, lead would be transported by truck and disposed at the Open Cell Repository per the special regulations for the Superfund site.

Metering System and SCADA

A new metering system would be installed as part of the water system improvements. All service meters would be replaced with radio-read meters. New meters would also be placed at the City's water sources in order to manage the City's water rights and to properly report water use to the State. The new metering system would allow the City to better manage the system by monitoring actual water use by residents and businesses. As a result, the City could assess and collect fees based on accurate metering. In addition, both the water and wastewater systems would be integrated into a new computerized SCADA system designed to remotely monitor and assist the operator control the real-time operation of the water supply and wastewater collection systems.

Sewer Manholes

A total of 160 manholes of 48-inch-diameter precast concrete would be installed on existing paved streets along the sewer pipeline alignment. Of these 90 would be new and 70 would be replacements. The basic components of each manhole would include a pre-cast reinforced concrete vertical pipe section, precast concrete grade rings, metal manhole frame, and an iron lid. Pipe transitions and sewer couplings would be used to connect the manhole to the sewer line. After final backfilling, the disturbed paved roadway surface around the manhole lid would be patched and sealed. All excess excavated material either contaminated with, or with unknown concentrations of, lead would be transported by truck and disposed of at the Open Cell Repository. The manholes would provide access for inspection and maintenance of the wastewater collection system.

Wastewater Treatment Facility Infrastructure

Improvements to the treatment facility would include replacing the existing maintenance building with a larger structure, upgrading the infrastructure currently located in the existing building, and installing new operation and aeration systems. The infrastructure upgrades include replacing the chlorine gas detector, relocating the respiratory equipment to a weather-rated cabinet on the exterior of the building, installing a power filter on the incoming power to the building; and replacing the aerator motor control center with a modernized control panel for the aerators. These improvements would increase the efficiency and effectiveness of the City's wastewater treatment system.

The existing maintenance building is currently too small to house the upgraded infrastructure and new systems. As a result, the building would be demolished, and the new building would be constructed on the same site. The new 20- by 36-foot structure would have three rooms, including a blower room, chlorination room, and wash room. The building would be a masonry block structure with a truss roof and a concrete slab-on-grade floor. The pad area for the building would be excavated, and 2 feet of structural fill would be placed in the excavated area and compacted. The new and upgraded infrastructure would be installed; the footings would be placed; and then the concrete would be poured to form the floor. The contractor would construct the masonry block walls and roof once the floor has properly cured.

The larger maintenance building would also house the blowers for the new Biolac compressed air aeration system, as well as the new chlorination and computerized SCADA equipment. Approximately 500 feet of ductile iron pipe would connect the blowers to the primary lagoon where the Biolac system would replace the existing aeration system. The SCADA system would allow the operator to view the status of the aerators and chlorine gas injector. The existing piping and valving would remain in place to allow the operators to use the treated effluent for land application on adjacent property during the summer months, as allowed by the "permit by rule" issued by UDWQ in March 2011. Since the storage capacity of the lagoons would not be increased, the City's current discharge permit would be maintained.

2.3.4 Borrow, Stockpiling, and Disposal

Borrow Materials and Sources

Borrow materials would include drain rock, aggregate base, gravel, and sand to be used as layering materials for trenches or unpaved road surfaces. Concrete and asphalt would also be needed to construct the new water tank pad, as well as to resurface or repair local paved

roadways, curbs, and sidewalks, as needed. These materials would be obtained and transported to the staging or stockpiling areas via truck from local commercial sources in the Provo/Orem/ Salt Lake City area. Clean soil material needed to replace contaminated soil disposed at the Open Cell Repository would be purchased and transported to the staging area from a private source outside the Superfund site boundary. This soil material to be used as a protective cap would be required to have a lead concentration of 100 ppm or less per the City's Land Use Ordinance.

Stockpiling and Disposal Areas

The main stockpiling area for the borrow materials, clean soil material, and other materials needed for the project would be at the main staging area along Centennial Road. Because of the distance between the main staging area and the new well, water tank, and parts of the pipeline alignment, both borrow materials and reusable excavated soil material would also be stockpiled temporarily within the construction footprint at the work sites for these features. All such areas used for stockpiling would be highly disturbed areas devoid of vegetation or covered in concrete, asphalt, or gravel within the construction footprint. Any excess soil material either contaminated with, or with unknown lead concentrations of, lead would be considered unusable and removed immediately from the site, rather than being stockpiled.

Disposal of unwanted or unusable materials would depend on the type of material. All cleared brush, concrete and asphalt waste, and other debris would be transported off site via truck and disposed of at an approved disposal site based on the type of material. Juab Rural Development Agency operates a landfill near Nephi, approximately 35 miles southeast of Eureka. This landfill accepts non-hazardous solid waste, including construction/demolition waste (DSHW, 2000). In addition, the Springville Transfer Station is located in Springville, approximately 36 miles northeast of Eureka (SUVSWD, 2013).

All excess soil material contaminated with, or with unknown concentrations of, lead would not be stockpiled, but would be transported immediately by truck to the Open Cell Repository in southwest Eureka for disposal. Constructed as part of U.S. EPA's Superfund site project, the repository is used as a long-term repository for lead-contaminated soils generated by the community. Only lead-contaminated soils or soils suspected to be lead contaminated from sources within the limits of the Superfund site may be placed in the Open Cell Repository. Sources of contaminated soils include, but are not limited to, road repairs, underground utility repairs, and new underground utilities. Use of the repository is regulated by the City via the Eureka City Land Use Ordinance, Chapter 13 Special Regulations - Eureka Mills Superfund Site.

Contaminated soils transported to the Open Cell Repository would be placed in accordance with Section 8.2.1 of the U.S. EPA's Operation and Maintenance Manual (O&M) (U.S. EPA, 2009). This section requires the contractor to place the material at specified lifts in the Open Cell Repository and grade, compact, and maintain the drainage structure at the west end of the repository. The drainage structure would need to be raised throughout the project as the Open Cell Repository is filled with new material. Once the placement work is completed, the contractor would be required to proceed to the decontamination station adjacent to the entrance road to the repository and remove any remaining soils from the exterior of the truck. The vehicle would also be visually inspected before leaving the decontamination station to ensure the no visible soils remain on the vehicle.

2.3.5 Project Schedule

The current project schedule is shown in Table 4:

Table 4. Project Schedule

	Task	Start	End
1	Draft Preliminary Engineering Reports	1 Sept 12	1 Apr 13
2	Engineering Design (35%)	1 Feb 13	1 July 13
3	Engineering Design (35%) Review	1 July 13	1 Aug 13
4	Environment Assessment (Corps)	1 July 13	1 Sept 14
5	Finding of No Significant Impact (Corps)	1 Aug 14	14 Sept 14
6	Final Preliminary Engineering Reports	1 Jan 14	1 Apr 14
7	Engineering Design (65%)	1 Aug 13	31 Dec 13
8	Engineering Design Review (65%)	1 Jan 14	1 Feb 14
9	Engineering Design (95%)	1 Feb 14	1 Aug 14
10	Engineering Design Review (95%)	1 Aug 14	1 Sept 14
11	Final Design and Bid Documents	1 Sept 14	15 Sept 14
12	Project Bid Advertisement	15 Sept 14	15 Oct 14
13	Bid Opening	15 Oct 14	16 Oct 14
14	Loan Closings	1 Nov 14	1 Nov 14
15	Execute Construction Contract	15 Nov 14	20 Nov 14
16	Mobilization	20 Nov 14	31 Dec 14
17	Construction (Water and Wastewater)	1 Jan 15	1 July 16
18	Substantial Completion	1 July 16	1 Aug 16
19	Project Completion	1 Aug 16	30 Sept 16

Depending on the work schedule, from four to six crews of workers could be used during construction. An estimated daily average of 10 to 12 worker vehicles and 4 to 6 trucks such as dump trucks, haul trucks, concrete trucks, and watering trucks could be onsite at any one time during the construction season. Other more specialized vehicles and equipment such as frontend loaders, hydraulic excavators, compactors, and drill rig would be transported to the work sites via truck and trailer, as needed. The contractor would install fencing around equipment at the work sites to ensure security during non-work hours.

Work during most of the year would be conducted in 10-hour shifts from 7:00 a.m. to 5:30 p.m., Monday through Thursday. During the winter months, work would be conducted in 8-hour shifts from 7:00 a.m. to 3:30 p.m., Monday through Friday. No work would be conducted on weekends or during late evening or night hours.

2.3.6 Post-Construction Activities

Demobilization and Clean Up

Once all features of the project are completed, all construction equipment, administrative trailer, unused materials, and debris would be removed from the main staging area. This gravel-capped area would remain as is for City use. In addition, all access routes and work sites would be cleaned of all debris and rubbish, and left in a neat and presentable condition. Any remaining

disturbed areas previously covered in vegetation would be restored via reseeding with a certified weed-free seed mix typical of the area.

Operation and Maintenance

After completion of construction, the project would be operated and maintained by the City. Both the water and wastewater systems would be operated using the new SCADA system designed to more accurately collect data and monitor the systems. The water and sewer operator would make regular inspections and repairs, as needed, to ensure the integrity and proper functioning of the two systems. While the number of inspections could increase because of the new structures, fewer repairs and replacements are anticipated for the improved water and wastewater systems.

3.0 AFFECTED RESOURCES AND ENVIRONMENTAL EFFECTS

Initially, the project features and environmental resources in and surrounding the project area were considered to determine (based on best professional judgment and experience with similar projects in Utah) the significant environmental resources to be evaluated in detail. These resources, as well as any short-term (direct) and long-term (indirect) effects of the alternatives on those resources, are discussed in Sections 3.2-3.11 below. When necessary, mitigation measures are proposed to avoid, minimize, or reduce any effects to less than significant.

3.1 Resources Not Considered in Detail

The resources not evaluated in detail were then considered further. Based on the regional nature of climate, geology and seismicity, topography, and regional soils, the alternatives would not be expected to affect these resources. In addition, there are no prime and unique farmlands, minority groups that would be disproportionately affected (environmental justice), or changes in City and County zoning in the project area.

3.1.1 Land Use

Eureka completed a Master Plan in 1996 to help guide and manage the growth in the area (City of Eureka, 2001). The plan was amended most recently in 2001 (City of Eureka, 2001). The Master Plan identified current and future infrastructure developments and updated the City's zoning to reflect the developments. The Juab County Land Use Codes (2007) provide management for those lands outside the City boundary.

Most of the City land in the project area is currently being used for residences, public facilities, businesses, and recreational facilities. The City's existing water storage tank, water wells, and wastewater treatment facility are also located within the project area. These current land uses would not change. The remaining land in the City, as well as the few areas of project land managed by the County, are currently open and undeveloped.

Development of the new well, as well as construction of the well house, water storage tank, booster station, and access, would result in 1.16 total acres of open, undeveloped area in the City and County being converted permanently to these public facilities. However, this work would be consistent with the City's amended Master Plan and the County's land use codes. As a result, the conversion would not be considered to affect land use.

3.1.2 Recreation

The Eureka area offers residents and visitors various opportunities for outdoor recreation. The Little Sahara Recreation Area located approximately 20 miles southwest of the city offers camping (primitive to developed), off-highway vehicle (OHV)/off-road riding, hiking, picnicking, and sightseeing (Tintic Goldminers Inn, 2013). Nearby ghost towns include Diamond, Iron Town, Mammoth, and Silver City (Ghost Towns, 2013).

Eureka is a historic mining town listed on the National Register of Historic Places. The city has intact mining features and structures that still project the feel of the Old West, making it a tourist destination. Visits to the Tintic Mining Museum, Eagle Bluebell Mine ruins, and historic cemetery within 5 miles of downtown Eureka offer displays, artifacts, and graves dating back to the late 1800's. None of these attractions are located in or near any of the project work sites. In addition, roadway access for visitors would not be affected by the installation of new or replacement pipelines in the city.

Other local recreational facilities, including dirt tracks and ball fields, are located at Tintic Elementary School and Tintic High School. Although neither of these schools is located in or adjacent to any of the work sites, new and replacement pipeline would be installed along city streets near these schools. However, at least one traffic lane would remain open during construction to ensure continued access to the facilities. In addition, there would be no construction on weekends when most residents and visitors use these ball fields for recreation. As a result, the project would not be expected to affect recreation.

3.1.3 Socioeconomics

Eureka is located in a rural area of eastern Juab County. The population of the city was 669 in 2010, a decrease of 97 residents since 2000 (CensusViewer, 2013). The ethnic makeup in 2010 was 98.4 percent white and 1.6 percent other races (U.S. Census Bureau, 2010). Since the project has been designed to provide the same improvements to the water supply and wastewater treatment services for all City residents, there would be no disproportionate effects on any minority or low-income populations in Eureka.

The local economy is based largely on social services (such as education and health), the construction industry, manufacturing, retail trade, and professional services (American Community Survey, 2013). Most of the workers in Eureka are employed in sales and office occupations; natural resources, construction, and maintenance occupations; and production, transportation, and moving occupations (USACityFacts.com , 2012). The average commute time to work is 38.5 minutes, indicating that many workers commute to other locations (American Community Survey, 2013). In 2010, the median household income in Eureka was $42,250 per year; the poverty rate was 6.4 percent; and the unemployment rate was 2.4 percent (USACityFacts.com, 2012).

The project would not be expected to affect the overall socioeconomic conditions in the city. The purpose of the project is to improve the existing water supply and wastewater treatment systems, including determining and assessing accurate water and sewer rates (Eureka City Council, 2013). Growth rates and population projections in the City's amended Master Plan (City of Eureka, 2001) were used during the design of the project. The population growth, ethnic makeup, income, and poverty rate would continue to depend on factors such as social trends and overall economic conditions.

3.2 Vegetation and Wildlife

3.2.1 Existing Conditions

Vegetation

The native shrub-steppe vegetation in the Eureka area is typical of the west high-desert portion of Utah's basin and range country. Vegetation includes expanses of dry sagebrush and pinyon-juniper stands in lower elevations near the city, with thick mountain scrublands and wooded areas of deciduous and mixed coniferous trees in surrounding higher elevations. The plant communities found in the project area include sagebrush shrub, pinyon-juniper, urban landscaping, revegetated Superfund areas, and ruderal vegetation. There are no wetland areas in or near any of the work sites.

The sagebrush shrub land community is dominated by mountain sagebrush and often includes bitterbrush, rabbitbrush, and horsebrush. Numerous species of grasses and forbs occur as understory plants. This community is found in the fairly flat undeveloped areas and gentle slopes in Eureka. Work sites with this type of surface vegetation are the new well and well house, part of the pipeline alignment from the new well to the existing water system, storage tank, and a small part of the pipeline alignment from the tank to the booster station.

The pinyon-juniper woodland community is dominated by scattered pinyon pine and juniper trees, with sagebrush, rabbitbrush, and various grasses and forbs in the understory. This community is found on the rising slopes above the city. The only work site with this type of surface vegetation is part of the pipeline alignment from the new well to the existing water system.

Urban landscaping includes nonnative ornamental trees, shrubs, and lawns common in the residential and commercial areas of Eureka. Since most of the city streets do not have curbs and gutters, a few areas with urban landscaping are adjacent to the pavement, encroaching into the streets' rights-of-way. Work sites with this type of surface vegetation are very small parts of the alignments for both the new and replacement water distribution and wastewater collection pipelines.

Parts of the project area previously reclaimed as part of the Superfund work were recently covered with clean soil and revegetated with urban landscaping. In addition, mine waste piles were revegetated with native plant species (U.S. EPA, 2011a). Work sites with this type of surface vegetation are some new and replacement manholes and small parts of the alignments for both the new and replacement water distribution and wastewater collection pipelines.

Ruderal vegetation include nonnative weedy species that inhabit highly disturbed areas such as dirt access roads and paved roadway shoulders. Work sites with this type of surface vegetation are the new booster station, maintenance building at the treatment facility, and most of the alignments for both the new and replacement water distribution and wastewater collection pipelines. Tables 5 and 6 include the types of the surface cover at the project features.

Wildlife

Because Eureka is surrounded by miles of open rugged terrain, parts of the project area could provide suitable habitat for large mammals, including big game such as deer and elk; small

Table 5. Surface Cover and Effect on Vegetation - Water System Improvements

Project Feature	Existing Surface Cover	Temporary Surface Disturbance (acres)	Short-Term Effects on Vegetation (acres)[1]		Permanent Surface Disturbance (acres)	Long-Term Effects on Vegetation (acres)[1]	
			Sagebrush Shrub	Pinyon-Juniper		Sagebrush Shrub	Pinyon-Juniper
Well and well house	Sagebrush shrub, ruderal	1.00	0.50	0.00	0.25	0.25	0.00
Pipeline from new well to existing pipeline	Sagebrush shrub, pinyon-juniper, ruderal	0.55	0.20	0.20	0.00	0.00	0.00
Booster station	Ruderal	0.50	-	-	0.25	-	-
Storage tank	Sagebrush shrub	2.10	2.10	-	0.52	0.52	-
Distribution pipeline	Ruderal, asphalt or gravel	16.57	-	-	0.00	-	-
Fire hydrants	Ruderal	0.05	-	-	0.05	-	-
Access roads	Ruderal, gravel	0.14	-	-	0.14	-	-
		20.91	2.80	0.20	1.21	0.77	0.00

[1]The affected acreages of ruderal vegetation are not included because this community has negligible habitat value for wildlife.

mammals such as foxes and jack rabbits; reptiles; and a variety of resident and migratory birds including raptors (UACD, 2013). Wildlife or signs of wildlife observed during two field visits by a JBR biologist in April and June 2013 included mule deer, elk, grey squirrel, lizards, hawks, and songbirds (Appendix B).

The sagebrush shrub land community is typically considered to have moderate to high value for wildlife forage, cover, and nesting, depending on location. The sagebrush shrub lands in the project area, however, are considered low to moderate in value because of their proximity to developed and previously disturbed areas. Surrounding sagebrush lands farther from the city have higher habitat value because of the broad expanses of habitat. Antelope, elk, deer, sharp-tailed grouse, jackrabbits, and many other species of small mammals and birds eat sagebrush or use it for nesting cover at various times of the year. Of these, small mammals and birds would be most likely to frequent the sagebrush lands adjacent to the city.

Table 6. Surface Cover and Effect on Vegetation - Wastewater System Improvements

Project Feature	Existing Surface Cover	Temporary Surface Disturbance (acres)	Short-Term Effects on Vegetation[1] (acres)	Permanent Surface Disturbance (acres)	Long-Term Effects on Vegetation[1] (acres)
Collection pipeline	Landscaping, ruderal, asphalt or gravel	15.70	-	0.00	-
Manholes	Sagebrush shrub, ruderal, asphalt or gravel	1.15	0.014	0.05	0.0006[2]
Maintenance building, infrastructure	Ruderal	0.52 0.23	-	0.028	-
Total		17.60	0.014	0.078	0.0006

[1]The affected acreages of landscape and ruderal vegetation are not included because these two communities have negligible habitat value for wildlife.

[2] Two new manholes would be installed in a vegetated area without associated pipeline replacement work.

The pinyon-juniper woodland community is typically considered to have moderate to high value for wildlife forage, cover, nesting, and roosting, depending on extent and location. However, the pinyon-juniper woodland along the new pipeline alignment from the well to the existing water system is considered low in value because it is relatively small, as well as surrounded on all sides by roadways and a railroad line. Wildlife including larger mammals such as elk and deer prefer the expanses of higher-value pinyon-juniper woodland in the more remote surrounding areas. Along the pipeline alignment, birds and small mammals such as jackrabbits, pinyon mouse, and woodrats would most likely use the habitat for forage and cover.

The urban landscaping, reclaimed areas, and ruderal vegetation communities are considered to have negligible habitat value for wildlife because of presence of nonnative weedy species, lack of diversity, and proximity to human activity. Also, the revegetated mine waste piles have very low value at this time because of the immature stage of the recently planted vegetation (U.S. EPA, 2010). As the vegetation matures, the habitat value will likely increase, depending on the type and variety of native plantings. Types of associated wildlife include domestic animals, occasional lizards, and a few birds.

3.2.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on vegetation and wildlife if it would (1) result in the substantial loss or degradation of any plant community providing moderate or high value or (2) permanently displace substantial numbers of resident or migratory wildlife species.

No Action

This alternative would have no effects on existing vegetation or wildlife in the project area. The types of plant communities and associated wildlife would be expected to remain the same. In addition, the relative values of these plant communities would be expected to remain the same except for the revegetated mine waste piles as discussed under "Wildlife" in Section 3.2.1.

Water and Wastewater Systems Improvements

Vegetation

As also shown on Tables 5 and 6, this alternative would have both short-term and long-term effects on vegetation. Short-term effects would include disturbance and removal of approximately 3.01 acres (rounded) of low- to moderate-value native vegetation during site preparation and construction. This would include 2.81 acres of sagebrush shrub and 0.20 acre of pinyon-juniper vegetation. However, once construction is completed, these temporarily disturbed areas would be contoured to pre-project conditions and reseeded with a certified weed-free plant mix typical of the area.

Long-term effects would include the permanent removal of approximately 0.77 acre (rounded) of low- to moderate-value sagebrush shrub to construct the new well, well house, and water storage tank. However, this loss would not be considered to be substantial because of the thousands of acres of higher value sagebrush shrub in the surrounding area. As a result, the effects of the project on vegetation would be considered less than significant.

Wildlife

This alternative could have short-term effects, but no long-term effects, on wildlife species in or near the project area. These effects could include disturbance and/or displacement of wildlife by noise and construction activities. Once construction is completed, however, noise and activity would return to pre-project conditions, and any displaced wildlife species would be expected to return to the area. In addition, the permanent loss of only 0.77 acre of low- to moderate-value sagebrush shrub habitat would not displace substantial numbers of resident or migratory wildlife species. In addition, thousands of acres of higher value sagebrush shrub habitat are available in the surrounding area. As a result, any effects on wildlife would be considered less than significant.

When possible, construction would be scheduled from August 1 to March 31 to avoid disturbing or destroying any active nests during the breeding season for migratory birds. Prior to any construction from April 1 to July 30, the contractor would be required to have a qualified biologist survey any areas with migratory bird habitat that could be disturbed to ensure that there are no active nests in the areas. If such nests are found, the contractor would be required to contact the Corps prior to initiating any work to determine how to proceed.

3.2.3 Mitigation

Since there would be no significant effects on vegetation and wildlife, no mitigation would be required.

3.3 Threatened and Endangered Species

3.3.1 Existing Conditions

A current list of Federally listed threatened, endangered, and proposed species for Juab County, Utah, was obtained from the USFWS's website on July 31, 2014 (Appendix C). The Federally listed species include the threatened Ute ladies'-tresses (plant) (*Spiranthes diluvialis*) and proposed threatened yellow-billed cuckoo (bird) (*Coccyzus americanus*). The list also includes two candidate species: greater sage-grouse (bird) (*Centrocercus urophasianus)* and least chub (*Iochtichthys phlegethontis*) (fish). There are no areas of designated critical habitat in or near the project area.

Based on habitat requirements, neither of the Federally listed or proposed species has the potential to occur in or near the project area. The threatened Ute ladies'-tresses is a rare species of orchid native to the western U.S. The plant grows in moist habitats, including wet meadows, streambanks, abandoned oxbow meanders, marshes, bogs, and desert springs. None of the work sites in this high dry desert area includes any of these moist habitats.

Habitat for the proposed yellow-billed cuckoo bird in the West is limited to riparian habitat along streams or rivers, with tall cottonwoods and willows in at least 25-acre patches. There are no rivers in or near the project area. The only existing stream flows downstream of the wastewater treatment plant. While this stream does support some riparian vegetation along its banks, there are no large areas of tall cottonwoods and willows.

Based on two field visits by a JBR biologist in April and June 2013, there is potentially suitable habitat for the candidate greater sage-grouse, but no spring-fed pool habitat for the candidate least chub, in or near the project area. This large grouse inhabits the sagebrush ecosystem, usually sagebrush-grassland or juniper sagebrush-grassland communities. The east edge of the mapped winter range for the bird is just west of the new well site. However, no grouse or signs of grouse use were noted during these field visits in or near the access routes or work areas. Since the biologist did not find any evidence of use by this candidate species, species-specific surveys were deemed not to be warranted at this time.

3.3.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect if it would (1) result in the take of a Federally listed threatened, endangered, or proposed species, or (2) adversely affect a species' designated critical habitat.

No Action

This alternative would have no effect on Federally listed threatened, endangered, proposed, or candidate species or their habitat. Existing conditions for the candidate species greater sage-grouse would be expected to remain the same.

Water and Wastewater Systems Improvements

Since there is no suitable habitat for either the threatened Ute ladies'-tresses or the proposed yellow-billed cuckoo in or near the project area, this alternative would not result in the take of a Federally threatened, endangered, or proposed species or their habitat.

3.3.3 Mitigation

Since there would be no take of Federally listed species, no mitigation would be required.

3.4 Air Quality

3.4.1 Existing Conditions

Air Quality Management

The Utah Division of Air Quality (UDAQ) is responsible for ensuring compliance with Federal and State air quality regulations in all Utah counties. The UDAQ is divided into the Permitting, Planning, and Compliance Branches. The Permitting Branch issues construction and operating permits, while the Planning Branch develops comprehensive plans to reduce air pollution. The Compliance Branch ensures that industries and residents comply with all Utah air quality requirements.

The Compliance Branch also monitors mitigation activities associated with hazardous air pollutants (HAP's), including asbestos and lead. In Utah, the HAPS section of the branch develops and implements lead certification and abatement regulations for child-occupied facilities and target housing, as mandated by UAC R307-840, Lead-Based Paint Program. Specifically, the rules govern the inspection and assessment of lead-based paint hazards, lead-contaminated soil, and lead-contaminated dust; and establish requirements and standards for the abatement of lead-based paint hazards.

The State has adopted the U.S. EPA's National Ambient Air Quality Standards to determine compliance. According to the UDAQ (2013), the project area is classified as "attainment/ unclassifiable" for all required pollutants, including carbon monoxide, ozone, and particulate matter (PM_{10} and $PM_{2.5}$). In the project area, particulate matter is regulated under UAC R307-205, Emission Standards: Fugitive Emissions and Fugitive Dust.

Pollutants and Sensitive Receptors

The primary source of hydrocarbon emissions and particulate matter in and near the project area is the operation of vehicles. Windborne dust and occasional regional wildfires during the summer can also degrade the air quality. Sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in air quality due to emissions and fugitive dust from the project. Air quality sensitive land uses in or near the project area include residences and schools, and sensitive receptors include residents, visitors, students, and wildlife.

3.4.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on air quality if it would (1) violate any National Ambient Air Quality Standard, (2) contribute on a long-term basis to an existing air quality violation, or (3) expose sensitive receptors to substantial pollutant concentrations.

No Action

This alternative would have no effect on existing air quality in the project area. Air quality would continue to be influenced by climatic conditions, occasional seasonal wild fires, windborne dust, and local emissions from vehicles.

Water and Wastewater Systems Improvements

This alternative would have short-term effects on air quality during construction of the project. The operation of vehicles and heavy equipment would produce emissions as hydrocarbon exhaust and particulate matter. In addition, there would be short-term increases in particulate matter as fugitive dust during soil excavation and operation of vehicles and heavy equipment. However, based on similar types of pipeline projects in rural Utah, these short-term emissions are not expected to violate any Federal Ambient Air Quality Standards.

Sensitive receptors along the pipeline alignment could experience an increase in local dust during construction. However, the contractor would be required to implement best management practices (BMP's) to minimize dust, thereby avoiding exposure to substantial pollutant concentrations. These BMP's could include watering disturbed soils, covering backfill piles with mulch, and using wind breaks. As a result, any short-term effects of fugitive dust on sensitive receptors would be considered less than significant.

In addition, the replaced piping made with asbestos would be left in place, where feasible, rather than removed and disposed in order to avoid potential air quality issues due to airborne asbestos fibers. Although unanticipated, any disturbance or removal of asbestos piping would be conducted in accordance with Federal (40 CFR Part 61 Sub-part M) and State (UAC R307-801) regulations for handling this type of piping. When soil testing indicates that excavated material is contaminated with lead, chemical dust suppressants could be used to minimize air-borne lead during transfer of contaminated soil to the Open Cell Repository. Once the project is completed, the air quality would return to pre-project conditions, so the project would have no long-term effects on regional air quality.

3.4.3 Mitigation

Since the project would have no significant effects on air quality, no mitigation would be required. However, the contractor would be required to obtain all needed Federal or State permits and approvals, as well as comply with State statutes and codes intended to protect air resources, as discussed below.

Utah Administrative Code Rule R307-205-5, requires that BMP's be implemented to reduce fugitive dust during construction when the area of disturbance is greater than 0.25 acre in size. Since this project disturbs approximately 38.51 acres, the contractor would be required to develop and implement appropriate BMP's to control fugitive dust and minimize any air quality effects. These BMP's could include watering disturbed soils, covering backfill piles with mulch, and using wind breaks.

In addition, in accordance with Eureka City's Land Use Ordinance, Chapter 13, Special Regulations - Eureka Mills Superfund Site, the application of chemical dust suppressants can be used on soils containing lead. These suppressants include magnesium chloride or calcium chloride, or an acrylic polymer such as "EnviroTach."

3.5 Water Resources

3.5.1 Existing Conditions

Surface Water

Eureka is located within the Lower Sevier River Drainage Basin (UDEQ, 2013). The only surface water in the project area is Eureka Creek, an ephemeral stream that runs alongside and north of US-6 through the middle of the city. The timing and volume of flows in the creek depend on rainfall, snowmelt, and discharge of treated effluent from the City's wastewater treatment facility. Because much of the creek remains dry for long periods, it is not considered to be viable aquatic habitat or usable for recreation (U.S. EPA, 2011a).

Within the city, Eureka Creek is commonly known as upper (eastern portion) and lower (western portion) Eureka Gulch. The creek is directed through the residential portion of Eureka via a series of lined ditches and culverts maintained by the City until it empties into an open channel on the Eureka Mills Superfund Site (U.S. EPA, 2009). The portion of Eureka Creek that flows through the Superfund site is lined with riprap, while no alterations to the creek have been made west of the site boundary. The unaltered portions of Eureka Creek maintain a natural, cobbled bottom (U.S. EPA, 2010).

After leaving the Superfund site, Eureka Creek flows west/southwest and eventually joins Tanner Creek about 6.5 miles south of the City (U.S. EPA, 2010). As a tributary, Eureka Creek is classified as having 2B, 3E, and D beneficial use classes per the Utah Water Quality Standards (UAC R317-2-13). However, the actual flow into Tanner Creek is unknown because any flow in Eureka Creek either evaporates into the atmosphere or percolates into the soil before reaching Tanner Creek except in extremely wet years. Based on U.S. Geological Survey topographic maps, there appears to be no connection between Tanner Creek and the Sevier River, which is located at least 25 miles south of Eureka City (Utah Geological Survey, 2013).

The two manmade lagoons in the City's wastewater treatment facility are also located in the project area. The treated effluent from the facility can either be used for irrigation of the adjacent land or released into the Eureka Creek. If released to Eureka Creek, the effluent eventually percolates into the streambed or evaporates. As part of the discharge permit, the City is required to monitor the effluent entering the creek (City of Eureka, 2013a). There are no jurisdictional wetlands or other Waters of the U.S. in the project area.

Groundwater

The Eureka area is underlain by two groundwater aquifers. The City obtains its municipal water supply by pumping from a shallow aquifer, which is found in unconsolidated alluvium and weathered bedrock. In some areas, this aquifer is located only 35 feet below the surface (Utah Division of Water Rights, 1986). A deeper aquifer also exists in lower sedimentary bedrock. The depth to the lower aquifer is between 1,500 and 2,000 feet below ground surface (U.S. EPA, 2011a).

The sources of groundwater recharge in this area are streams along the bordering mountain fronts, unconsumed irrigation water, subsurface inflow from consolidated rocks of mountain areas, and subsurface inflows from adjoining areas (U.S. EPA, 2011a). Groundwater flow is generally down-gradient from east to west, following areal topography (U.S. EPA, 2011a).

Eureka City relies on pumping groundwater for its municipal water supply. The City currently has five active water rights to pump over 600 acre-feet annually (Table 7). A sixth water right 68-1854 has lapsed and is no longer accounted for (City of Eureka, 2012). The City may decide to apply to the Division of Water Rights to reinstate this lapsed water right. Since the Sevier River Basin has been closed to new appropriations of groundwater since 1997 (Utah Division of Water Rights, 2011), development of the new well was applied for by adding a new point of diversion to the active water rights (Albrecht, 2014).

Table 7. Eureka City Water Rights

Water Right #	Description	Quantity (cfs)	Quantity (gpm)	Quantity (ac-ft)
68-3052	Underground Well	0.286	128.37	207.05
68-1766	Four Wells	0.290	130.16	209.95
53s	Underground Wells	0.176	79.08	127.56
68-1163	Underground Well	0.074	33.21	53.57
68-2405	Underground Well	0.015	6.73	9.58
68-1854	Lapsed	0.84	377.56	598.14

3.5.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on water resources if it would (1) substantially reduce surface or groundwater resources, (2) interfere with groundwater recharge, or (3) exceed or interfere with existing water rights.

No Action

This alternative would have no effect on surface water resources, groundwater recharge, or existing water rights in or near the project area. However, additional water supply for residential and commercial uses, increased water pressure needs, and fire protection would not be available. Moreover, groundwater would continue to infiltrate the wastewater treatment system, inundating the system with more influent than it was designed to treat.

Water and Wastewater Systems Improvements

This alternative would have no effects on surface water resources, groundwater recharge, or existing water rights in the Eureka area. The volume of discharge into Eureka Creek would remain consistent with the requirements of the existing permit, and the water rights held by the City would not change. Even with the new well, the maximum volume of ground water pumped by the City would not change until the City secures additional water rights from the State. As a result, the alternative would not exceed or interfere with existing water rights.

However , the alternative would have both short-term and long-term effects on groundwater resources. Dewatering prior to installation of new or replacement pipeline as described in Section 2.3.2 would have a short-term effect on groundwater resources. However, dewatering would only be needed on the north side of the city, and the groundwater level would only need to be lowered by a maximum of 3 feet. In addition, most of the groundwater discharged onto the surface would run into the stormwater system, be treated, and eventually

percolate back into the groundwater. As a result, this short-term effect on groundwater resources would be less than significant.

Consistent with the project purpose, this alternative would benefit the City in the long-term by providing additional water supply for residential and commercial uses, water pressure needs, and fire protection. Moreover, culinary water would no longer be lost due to leaks in the distribution lines, and groundwater would no longer infiltrate into the wastewater collection lines, inundating the wastewater treatment facility. Operation and maintenance would also be more accurate and efficient with the installation of new water meters and addition of a SCADA system. Since the maximum volume of groundwater pumped by the City would not change, there would be no long-term adverse effects on groundwater resources.

3.5.3 Mitigation

Since the project would have no significant effects on water resources, no mitigation would be required. However, the contractor would be required to obtain all needed Federal or State permits and approvals, as well as comply with State statutes and codes intended to protect water resources, as discussed below.

Since the storage capacity of the lagoons would not be increased, the City would maintain its current discharge permit (UPDES Permit No. UT0024601) with UDWQ. In addition, the contractor would be required to comply with all applicable provisions of UAC R655, Natural Resources, Water Rights; R309, Rules for Public Drinking Water Systems; and Title 73, Water and Irrigation.

3.6 Water Quality

3.6.1 Existing Conditions

Surface Water

The only natural surface water in the project area is Eureka Creek, an ephemeral stream. The quality of the water in the creek depends mainly on the quantity and quality of upstream inflow, surface runoff from urban and irrigated areas, and discharge of treated effluent from the City's wastewater treatment facility. The quality of the water in the creek upstream of the treatment facility varies throughout the year, depending on rainfall, snowmelt, temperature, and land uses.

The City discharges treated wastewater into Eureka Creek under UPDES Permit UT0024601. Monthly monitoring of the effluent for specific physical and chemical parameters is required under this permit. These parameters include total suspended solids, biochemical oxygen demand, E. coli, pH, total residual chlorine, and oil and grease. Currently, discharge from the treatment system is also being used to irrigate an adjacent property as a new wildlife habitat area under a "permit by rule" issued by UDWQ. All effluent discharged for irrigation must meet the environmental requirements set forth in this UPDES permit.

Groundwater

In 2007-2010, the U.S. EPA collected groundwater samples from existing wells and monitoring wells around the city. Based on the results of the analysis of the samples, there did not appear to be a defined plume of groundwater contaminants related to the Eureka Mills Superfund Site. However, isolated occurrences of elevated levels of lead, arsenic, manganese, iron, and zinc were noted in the analyses (HDR Engineering, Inc., 2010). Currently, untreated

wastewater leaks from cracks and holes in the collection system into the surrounding soil (City of Eureka, 2013a). This wastewater poses a risk of contamination to the groundwater underlying the city.

3.6.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on water quality if it would (1) substantially degrade the quality of surface water resources, (2) contaminate a public water supply, or (3) substantially degrade the quality of groundwater resources.

No Action

This alternative would have no effect on surface or groundwater quality in or near the project area. However, untreated wastewater would continue to leak from cracks and holes in the collection system into the surrounding soil, potentially contaminating the groundwater.

Water and Wastewater Systems Improvements

This alternative would have no effects on the quality of the public water supply in Eureka. The water pumped from the City's wells would continue to be treated before distribution to ensure that the quality meets State standards.

However, construction could have short-term effects on the quality of surface water resources. During dewatering and excavation, disturbed soils or contaminants could move into surface or stormwater runoff and be carried into Eureka Creek, increasing turbidity and degrading the quality. However, as discussed in Section 3.6.3, the contractor would be required to implement BMP's during construction to avoid or minimize any adverse effects of construction on the quality of surface waters. As a result, any short-term effects on the quality of surface water resources would be less than significant.

Consistent with the project purpose, this alternative would benefit the City in the long-term by reducing or eliminating leaks, blockages, and widespread failures in the wastewater collection system. Residents would no longer be at risk from sewer system backups and possible exposure to untreated sewage and disease. Replacement of the old pipelines would reduce or eliminate contamination of groundwater from leaks of raw sewage into the surrounding soil. Operation, maintenance, and repair of the collection system would also be more accurate and efficient with the addition of a SCADA system and the installation of new and replacement manholes. In addition, replacement of the maintenance building to house the upgraded chlorine gas detector, as well as the addition of a SCADA system, would facilitate the safer and more efficient operation of the wastewater treatment facility.

Once construction is completed, there would be no further risk of work-related contamination of surface water resources. In addition, the City would continue to maintain upper and lower Eureka Gulch, including erosion control and soil containment measures to avoid downstream transport of sediments and blockages to flow. Permitting and discharge requirements at the wastewater treatment facility would remain the same; both the UPDES permit and the discharge permit by rule would be maintained with the UDWQ. Continued monitoring of the water quality of effluent would be required. As a result, there would be no long-term adverse effects on the quality of either surface or groundwater resources.

3.6.3 Mitigation

Since the project would have no significant effects on water quality, no mitigation would be required. However, the contractor would be required to obtain all needed Federal or State permits and approvals, as well as comply with State statutes and codes, intended to protect water resources, as discussed below.

Construction of the project could disturb approximately 38.51 acres of ground surface. As a result, the UDWQ would require the City to obtain an NPDES permit in accordance with the Clean Water Act, as amended. This permit is required for construction activities that disturb 1 or more acres of land and involve possible storm water discharge to surface waters. Prior to construction, the contractor would prepare a Storm Water Pollution Prevention Plan, which would identify best management practices (BMP's) to avoid or minimize any adverse effects of construction on surface waters. The contractor would be required to implement these BMP's during construction in accordance with the NPDES permit.

Since the water quality of the effluent discharge would not change, the City would maintain its current discharge permit (UPDES Permit No. UT0024601) with UDWQ. In addition, the contractor would be required to comply with all applicable provisions of UAC R317, Environmental Quality, Water Quality, and R317-6, Ground Water Quality Protection.

3.7 Traffic

3.7.1 Existing Conditions

Regional and Local Roadways

The main thoroughfare through the Eureka area is US-6, which is also Main Street within the City limits. This two-lane, paved highway runs west to east from the Nevada-Utah border as Interstate-50, splits off in Delta, heads north and east through Eureka to Spanish Fork, continues southeast to Price, and finally merges with Interstate-70 near Green River, Utah. The nearest major north-to-south highway is Interstate-15, located approximately 20 miles east of Eureka.

The local roadways in the Eureka area include paved and unpaved County roads, City streets, and utility access and farming roads. Within the project area, paved City streets provide two-way traffic flow to and from commercial areas, public facilities, and residences. Dirt and/or gravel streets with one or two lanes often serve as alleys between buildings and driveways to residences in less developed portions of the City. Only occasional maintenance vehicles and farm vehicles use the dirt and/or gravel utility and farming roads, respectively.

Traffic Types and Volumes

Since the City roadways in the project area are primarily for local and residential use, vehicle traffic consists mostly of cars, small utility vehicles, and pickup trucks. Traffic on US-6 (Main Street) passing through the city also includes commuters, travelers, and long-distance haulers. These types of transient vehicles include buses, recreational vehicles, large trucks, and motorcycles.

The UDOT records and compiles annual average daily traffic (AADT) volumes along the highways and many roadways in Utah. The AADT represents traffic in both directions of travel and is the average for that particular section of route. Table 8 shows the most recent (2009-2011) AADT at locations along US-6 near the project area (UDOT, 2011a).

Table 8. Traffic Volumes on US-6 in and Near the Project Area, 2009-2011

Route	Mileage Beg	Mileage End	Location Description	2011 AADT	2010 AADT	2009 AADT
US-6	136.645	138.403	SR 36 to Tooele City South Leg Tintic	675	325	320
US-6	138.403	139.880	SR 36 North Leg Tintic	675	680	665
US-6/ Main Street	139.880	140.321	Church Street Eureka	1,125	730	720
US-6/ Main Street	140.321	141.012	Center Street Eureka	1,450	1,455	1,425
US-6	141.012	149.902	Juab/Utah County Line	1,360	1,315	1,335

AADT = average annual daily traffic.
Source: UDOT, 2011a.

The UDOT also provides statistics on truck traffic for US-6 through the project area. Table 9 presents the percentages of single unit (truck) and combo (truck with trailer) commercial truck traffic based on the 2011 AADT for US-6. As shown in the table, a total of approximately 25 percent of the traffic along US-6/Main Street through Eureka is commercial truck traffic.

Table 9. Truck Traffic Percentages Near and Through the Project Area 2011

Route	Location Description	2011 AADT	Single	Combo
US-6	SR 36 to Tooele City South Leg Tintic	675	14%	16%
US-6	SR 36 North Leg Tintic	675	16%	13%
US-6/ Main Street	Church Street Eureka	1,125	18%	10%
US-6/ Main Street	Center Street Eureka	1,450	15%	9%
US-6	Juab/Utah County Line	1,360	8%	6%

Source: UDOT, 2011b.

The daily volume of traffic on US-6 (Main Street) and City streets tends to increase during weekday commute hours, as well as weekends during the summer recreation season. Normally, traffic flows freely in the project area although occasional severe weather, roadway accidents, roadway maintenance, or special events in the City can cause temporary minor congestion or traffic delays.

3.7.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on traffic if it would cause (1) an increase in vehicular traffic that is substantial in relation to the existing traffic on a roadway, (2) major delays or substantially disrupt traffic flow, or (3) substantial deterioration of the physical condition of area roadways.

No Action

This alternative would have no effects on existing traffic in the project area. The volume of traffic in and near the Eureka could increase in the future, depending on the type and amount of new development in the area.

Water and Wastewater Systems Improvements

This alternative would have short-term effects on traffic in the project area. Construction activities would affect the types, volumes, and flow of traffic, as well as disturb access roads and some roadway surfaces. However, once the project is completed, traffic and all disturbed access roads and roadway surfaces would return to pre-project conditions. As a result, there would be no long-term effects on traffic.

During construction, worker vehicles, haul trucks, and other equipment would use local paved, dirt, and gravel City streets, as well as utility roads, to access the staging area and work sites. Haul trucks would also use US-6, County roads, and City streets to transport construction materials, as well as remove and dispose of any unsuitable soils and other waste materials. Based on the discussion in Section 2.3.5, worker vehicles would add an estimated 24 trips per day on US-6 during commute hours, while trucks would add an estimated 12 truck trips during the day on the same roadway. Compared to the 2011 AADT in Table 7, 36 total trips per day would represent increases of 3.2 and 2.3 percent on US-6 (Main Street) locations and 5.3 and 2.6 percent on US-6 locations outside the city. Since these increases would not be substantial as compared to existing traffic, they would not be considered significant.

Installation of pipelines along US-6 (Main Street) and City streets could delay or disrupt traffic flow as construction equipment operates in and along the alignments. Two-lane streets would likely be restricted to one lane of traffic, and one-lane streets could be closed temporarily during installation. Driveways along residential streets would likely be inaccessible for short periods. However, access for emergency vehicles and personnel would be maintained at all times. In addition, detours and reroutes would be clearly marked to minimize traffic delays, especially during commute hours. The contractor would be required to notify residents and coordinate with local police, fire, and emergency services prior to, and during, work activities to minimize inconvenience and ensure public safety. As a result, any effects on traffic flow would be reduced to less than significant.

The physical condition of US-6 (Main Street) and City streets would be affected during installation of the pipelines. During excavation of the trenches, the surface materials (concrete, asphalt, gravel, and/or soil) would be removed and disposed. Trucks transporting excavated contaminated soil material to the Open Cell Repository for disposal would also disturb the surface of the access road. However, once the installation and disposal work is completed, the surfaces of the streets would be returned to pre-project conditions. That is, they would be repaired and resurfaced with either asphalt, gravel, or dirt. In addition, any surface damage due to movement of construction vehicles or equipment would be repaired, and damaged driveways, curbs, and sidewalks would be repaired or replaced. As a result, the project would not contribute to any deterioration of any access roads or roadway surfaces.

3.7.3 Mitigation

Since the project would have no significant effects on traffic, no mitigation would be required. However, the contractor would be required to obtain all needed Federal or State permits and approvals, as well as comply with State and County traffic regulations, intended to ensure traffic safety and protect the integrity of the roadways, as discussed below.

Prior to initiation of construction, the contractor would be required to obtain an encroachment permit from UDOT for utility construction within the US-6 right-of-way. During pipeline installation, the contractor would follow the conditions in UDOT's Permit Excavation Handbook (2012), as well as all transportation environmental protection measures required by UDOT. In addition, the contractor would be required to obtain a Juab County Utility and Excavation permit from Juab County for all work under the County roadways and right-of-way areas. These permits would ensure that all disturbed roadway surfaces are repaired and restored properly once construction is completed. .

The contractor would also adhere to the Manual on Uniform Traffic Control Devices (MUTC), Part VI, of the U.S. Department of Transportation Federal Highway Administration, which requires smooth and safe traffic control through utility work zones; protecting not only vehicles and their occupants, but also pedestrians, workers, and the utility facilities. The contractor would also comply with all requirements related to construction traffic within the Superfund site

3.8 Noise

3.8.1 Existing Conditions

Noise Management

Noise can be defined as unwanted or excessive sound, and effects are interpreted in relationship to local noise ordinances and standards intended to protect quality of life of residents. Eureka City's Noise Ordinance No. 05-14-1-13-1 limits noise related to construction equipment and activities to between 6:00 a.m. and 10:00 p.m. on Monday through Friday, and 8:00 a.m. and 6:00 p.m. on Saturday and Sunday.

In addition, the Juab County Land Use Code (2007) includes noise standards to protect county residents from noise. The maximum permissible noise level is 85 decibels as measured at the boundary of the property and 55 decibels averaged over the day and night. However, the land use code contains exceptions to these permissible levels, including noise from construction equipment, provided all motorized equipment used in such activity is equipped with functioning mufflers (Juab County, 2007).

Noise Sources and Sensitive Receptors

The primary sources of ambient (background) noise in the project area are motor vehicles, human activities such as school activities, and natural sounds such as wind and wildlife. The level of noise varies, depending on the time of day, type of noise, and distance from the source. The level is highest along US-6 (Main Street) due to traffic, especially during commute hours. Vehicle noise levels decrease along less traveled roadways. In the project area, typical noise levels in decibels range from the 30's in remote undeveloped areas to 70's on busy streets to 80's plus at construction sites (Perdue, 2013).

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. The noise-sensitive land uses in the project area are residential areas, businesses, and schools; sensitive receptors include residents, visitors, students, and wildlife.

3.8.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on noise if it would (1) substantially increase ambient noise levels or (2) be constructed outside permissible hours defined in the Eureka City Noise Ordinance.

The significance of increases in ambient noise is evaluated with reference to the distance from the noise source and the number of sensitive receptors affected. The effects of noise decrease as the distance from the source increases due to attenuation of sound. At the same time, the effects increase as the number of sensitive receptors increases.

No Action

This alternative would have no effects on existing noise in the project area. Existing sources and levels of noise would be expected to remain the same. The City would continue to manage excessive noise per the Eureka City Noise Ordinance.

Water and Wastewater Systems Improvements

This alternative would have short-term effects on the sources and levels of noise in the project area. However, once the project is completed, noise sources and levels would return to pre-project conditions. As a result, there would be no long-term effects on noise.

During construction, the operation of worker vehicles, trucks, and heavy equipment would generate intermittent or constant noise, increasing ambient noise levels in the area. In addition, there would be short-term increases in noise from worker activities such as moving supplies, installing pipe connections, and cleaning up work areas. Construction equipment and activities typically generate noise levels ranging from 80 to 85 decibels (U.S. Federal Highway Administration, 2011). This level of noise could disturb nearby sensitive receptors and/or disrupt ongoing recreation or school activities. However, the effects and significance of this noise would vary, depending on the location of the work site.

Increases in ambient noise at the work sites away from the developed areas of the City would be considered less than significant because sensitive receptors would be limited to only a few wildlife. These work sites include the new well and well house, water storage tank, maintenance building, and connecting pipelines between well and existing water system and tank and new booster station. While the booster station site would be located in a more developed area on the south edge of the City, the nearest sensitive receptors would still be sufficiently distant that any noise effects would be less than significant.

Increases in ambient noise during installation of the new and replacement water and wastewater pipelines along US-6 (Main Street) and other residential City streets could be considered substantial because of the proximity of potentially affected sensitive land uses and receptors. Residents, visitors, and students could be disturbed by the construction noise, especially when the work is being conducted nearby. In addition, recreation and school activities

such as outdoor sports or events could be disrupted. The contractor would be required to notify residents, businesses, and schools prior to the work along their streets.

Although the City does not consider construction noise to be a nuisance because the work is intended to improve utility service, they would require that the contractor minimize any effects by (1) equipping construction equipment with mufflers; (2) limiting days and hours of construction near residential areas, parks, and schools; (3) limiting haul truck speeds on roads adjacent to residences, and (4) scheduling work to avoid the summer recreation season, when possible. As discussed in Section 2.3.5, this alternative has been scheduled to be constructed within permissible hours as defined in the Eureka City Noise Ordinance. As a result, any short-term effects on noise would be considered less than significant.

3.8.3 Mitigation

Since the project would have no significant effects on noise, no mitigation would be required.

3.9 Esthetics

3.9.1 Existing Conditions

Esthetic resources are those natural resources, landforms, vegetation, and manmade structures in the regional and local environment that generate one or more sensory reactions and evaluations by viewers. Potential viewers in the project area include residents, visitors, occasional recreationists, and motorists on US-6 and City streets.

The regional landscape is typical of the west desert Basin and Range Province. The topography is characterized by abrupt changes in elevation, alternating between narrow mountain ranges and flat arid valleys (Milligan, 2000). Eureka sits in a valley between high ridges of the Tintic Mountains to the south and foothills to the north. Regional views from the City include open areas of sagebrush and pinyon-juniper on nearby foothills, with thicker shrubs and wooded areas on more distant mountain ridges. Large waste rock piles from past mining operations can also be seen on the south side of the valley.

Local views are typical of a small, rural community with a long history of extensive mining activity in this part of Utah. Paved streets are lined with both modern and historic public and commercial buildings, private residences, and landscaped yards. Some of the more visually interesting historic building include City Hall, the Gatley Building, and the BPOE Block. Gravel and dirt roads are seen between buildings, as well as leading to outbuildings, headframes, and remnants of historic mining equipment and structures. Other sights include large remediated mining areas now capped with rock and long expanses of paved roadway leading away from the City.

3.9.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect on esthetics if long-term changes in landforms, vegetation, or structural features substantially increase levels of visual contrast as compared to surrounding conditions. The significance of the effects is evaluated with reference to the number of viewers affected; i.e., the effects increase as the number of viewers increases.

No Action Alternative

This alternative would have no effect on existing esthetics in the project area. The regional landscape and local views in the Eureka area would be expected to remain the same.

Water and Wastewater Systems Improvements

This alternative would have both short-term and long-term effects on esthetics. The short-term effects would include changes in local views during construction of the project. The movement and storage of equipment and materials, as well as the operation of worker vehicles and construction equipment, would contrast with normal weekday activities in the City. This contrast in resulting views would be apparent to numerous residents, visitors, and motorists along City streets in both residential and commercial areas. However, once the work is completed, the views in these areas would return to pre-project conditions. As a result, these short-term effects on esthetics would be considered less than significant.

The long-term effects on esthetics would include changes in local views due to construction of the new permanent booster station on currently undeveloped land on the southeast side of the City. While this would be a long-term change, the contrast in views would not be substantial because of the relatively small size of the station and similar appearance with other utility structures in the area. In addition, few potential viewers reside in or travel through this part of the City. As a result, the long-term effects on esthetics would be considered less than significant.

3.9.3 Mitigation

Since the project would have no significant effects on esthetics, no mitigation would be required.

3.10 Cultural Resources

3.10.1 Existing Conditions

Prehistoric Context

The earliest stage of human prehistory in the region is the Paleo-Indian, or Paleo-American (pre-6500 BC), which corresponds to the Late Pleistocene/Early Holocene period. Recent research has indicated that these early people practiced a foraging and hunting economy rather than exclusively hunting big game (Grayson, 1993; Mann, 2005). Although no projectile points are documented for the Eureka area, artifacts typical of this period have been found throughout the Great Basin and the Colorado Plateau.

The subsequent cultural stage is the Archaic (6500 BC – AD 400), which corresponds to the Middle Holocene, a period of increasing aridity in the west. The economy of this stage was based on foraging and hunting in a variety of environments. The technology of this stage includes an array of projectile points and groundstone implements. While archaic material has been observed in the general area, no archaeological sites with an Archaic component have been excavated.

The next cultural stage is defined as the Formative (AD 400 – 1350) and is marked by the appearance of the Fremont culture. The Fremont are characterized as practicing both hunting and gathering and small scale horticulture; inhabiting semi-permanent villages and farmsteads of

subterranean pit houses; and using a more complex material culture with ceramics, bow and arrow weaponry, and rock art.

During the decline and later disappearance of the Fremont, "new" cultural traits began to appear that may indicate the arrival of the Numic-speaking people (AD 1350 – 1700), who were ancestors of the Ute, Paiute, and Shoshoni. These Numic speakers were highly mobile hunter-gatherers who practiced little or no agriculture and lived in smaller social groups. They lived in simple conical brush shelters, and some adopted the plains style tipi. A variety of side-notched triangular arrow points were the most common point style. Other stone tools include small triangular points, as well as large bifaces, small drills on flakes, and hide preparation scrapers. Pottery, though not as common as during the Fremont occupation, was also used.

Historic Content

Early exploration of the area by European Americans began around 1776, followed by settlement by Mormon farmers and ranchers in the mid-1880's. Prior to the discovery of major mineral wealth in the Tintic Mountains, the region was inhabited by the followers of "Chief" Tintic, a locally prominent leader of the Ute. In 1856, hostility between the Ute and Mormon ranchers in the region boiled over, leading to a short but violent conflict dubbed the Tintic War. The killing of Tintic and the dispersal of his followers opened the area to settlement by European Americans.

In addition to the general prehistory of the area, the project area is within the central hub of the Tintic Mining District. Ore discoveries were made as early as 1869, and an explosion of mining activity followed. Large numbers of people moved to the area and made claims on the rich mineral deposits. Most of the large mines closed in the 1950's, leaving large portions of the district abandoned (Allen, 2011).

The development of the Tintic Mining District followed the same general pattern as occurred in other mining districts throughout the west. After the initial discovery, the region attracted other prospectors who explored and worked the surface deposits of high grade material. When these ores were depleted, individual efforts gave way to corporate interests that had the capital to develop deep hard-rock mines (Notarianni, 2006).

The development of the community of Eureka follows the same three-stage pattern as other western mining communities; i.e., camp, settlement, and town. The initial "camp" stage began with the founding of Eureka in 1870 and consisted of a tent city used by teamsters hauling ore from the Eureka Hill Mine. By 1880, permanent businesses were established and operating, such as William Hatfield's general merchandise, William's and Cusick's general merchandise, saloon and billiard hall, and W.W. Mathews saloon (Notarianni 2006). In 1881, the first school in Eureka was constructed on the west end of the town (Wilson, McNulty, and Hampshire, 1999).

With the arrival of the railroads between 1882 and 1889, Eureka had reached the third phase and had developed into a town with a thriving business district, more than 300 homes, and a population of 1,733 (Wilson, McNulty, and Hampshire, 1999). Another important factor in the development of Eureka and the Tintic District was the establishment and operation of several mills and smelters for processing the ore. Eureka was incorporated as a city on November 8, 1892.

The prosperity of the Tintic District and Eureka rapidly declined with the Great Depression. Although the mines were still productive, the market had dried up. Employment and wages decreased; production mostly ceased; and commercial enterprise suffered loss. This led to a dwindling tax base, migration from the district, and a decrease in political power. World War II became a great drain on the labor pool for the mines, drawing workers into the armed forces and to the war industries. Following the war, life returned to somewhat normal dimensions; however, a slow decline continued.

Literature and Records Search

On May 8, 2013, Bighorn Archeological Consultants, Inc., conducted a records search of the area of potential effect (APE) for the project (Baxter, Seacat, & Madsen, 2013). (For this project, the APE has been determined to be the same as the project area.) The search indicated that previous cultural resource surveys covered most of the APE. Two partial and one comprehensive Reconnaissance Level Survey (RLS) of the historic structures in Eureka were previously conducted. The first resulted in the listing of the Eureka Historic District on the National Register of Historic Places in March 1979 (#79002514). The records search also indicated that 32 previous cultural resource inventories and 123 previously recorded sites are located within 1 mile of the project area. Between 2001 and 2004, SWCA Environmental Consultants conducted four inventories that covered the Eureka Mills Superfund site. These inventories covered the majority of the current project area (Baxter, Seacat, & Madsen, 2013).

Field Surveys

All areas not previously subject to survey in the SWCA 2001-2004 reports were subject to a 100 percent level of field survey. Also, a new RLS was completed to identify structures that may have become historic in the last 10 years. Any previously recorded cultural resource sites within or adjacent to the current project area were revisited to update documentation to current conditions, if needed.

Examination of the proposed project areas resulted in no new discoveries of cultural resource sites. A historic road (42UT1632) and historic telegraph alignment (42UT1633) were recorded close to or within the project area, but could not be relocated. Both alignments appear to have been destroyed by a modern road alignment and general maintenance activities.

During the RLS inventory, a large number of previously recorded structures (288) located throughout the town were examined; no additional structures were identified that had become historic in the past 10 years. Of the 288 structures reviewed, 221 were present with no changes from the original recordation; 57 are no longer present in the project area; and 10 are newly constructed residential structures that have replaced a historic structure.

3.10.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect if it would adversely affect historic properties. An effect to a historic property is defined under 36 CFR Part 800.16(i) as any alteration to the characteristics of such a property that qualify it for inclusion in, or eligibility for, the National Register of Historic Places (NRHP).

No Action

Since there would be no construction, this alternative would have no effect on historic properties.

Water and Wastewater Systems Improvements

No new cultural resources were encountered during the inventory. Two previously recorded sites (42UT1632 and 42UT1633) were not relocated, and neither site was previously determined eligible for the NRHP. These sites were likely destroyed by modern construction actions. During the RLS inventory, no additional buildings had become historic in age within the last 10 years so would contribute to the Eureka Historic District. Additionally, construction of the project would not affect any of the characteristics that qualify the Eureka Historic District for listing in the NRHP; therefore, the Corps has determined that there would be no adverse effect to historic properties as a result of this project.

The Corps initiated Section 106 consultation with Native American Tribes with interests in the area via letter dated January 21, 2014. These included the Skull Valley Goshutes, Kanosh Band of Paiutes, Ute Indian Tribe, Paiute Indian Tribe of Utah, and Confederate Tribes of the Goshute Indian Reservation. In a letter dated February 4, 2014, the Paiute Indian Tribe of Utah replied that they do not have any objections to the project and that they are not aware of any cultural resources related to the Tribe's traditional religion or culture. Although no other responses have been received to date, the Corps will consider any additional comments from the Tribes.

Consultation with the Utah State Historic Preservation Officer (SHPO) in accordance with Section 106 was initiated via letter dated February 20, 2014. The Corps received a letter dated February 25, 2014, from the Utah SHPO, concurring with the Corps' determination of eligibility and effect for the project. Correspondence relating to cultural resources is included in Appendix D.

3.10.3 Mitigation

Since there would be no adverse effects on any properties listed, or eligible for listing, in the NRHP, no mitigation would be required. However, the contractor would be required to have an archaeological monitor on-site during excavation in all areas not previously disturbed during construction or maintenance of the existing systems within the Tintic Mining District. (This would include deepening or widening beyond the previously disturbed area when replacing existing pipelines.) Monitoring would be required to ensure documentation of any additional cultural material that may be inadvertently discovered during construction. This monitor must meet the Secretary of Interior's standards for archeology or be supervised by someone who does meet the standards.

If buried or previously unidentified cultural resources are located during project activities, all work in the vicinity of the find would cease within 100 feet of the find. The Corps would assess the significance of the find and, if necessary, develop appropriate treatment measures pursuant to 36 CFR 800.13(b). The Corps would also contact the Utah SHPO for additional consultation.

If human remains of Native American origin are discovered during construction, compliance with UAC R451-1, Native American Grave Protection and Repatriation, would be necessary. If any human remains are discovered or recognized in any location other than a

dedicated cemetery, all excavation in the vicinity would immediately cease, and the Corps and Utah SHPO would be notified. No further work would take place until allowed by the Corps.

3.11 Hazardous, Toxic, and Radiological Waste

3.11.1 Existing Conditions

Background

The mining community of Eureka was founded in 1870 after the discovery of a high-grade mineralized outcrop containing silver and lead, as well as other minerals including gold, copper and arsenic. Incorporated as a City in 1892, Eureka became the financial center for the Tintic Mining District, a wealthy gold and silver mining area in Utah and Juab Counties. The area was extensively mined until 1958.

Large waste rock piles and associated waste material resulting from mining operations are located primarily on the south side of the valley adjacent to Eureka residences and businesses. Mine waste was distributed around the city by mining activities, including transport along rail lines and milling operations. Some of the mine waste material was used for urban construction in Eureka. Wind and water erosion also spread mine wastes within the city (U.S. EPA, 2011b).

Lead Contamination

The U.S. EPA and UDEQ began investigating effects of historic mining activities on the environment and residential areas of Eureka City in 2000. High concentrations of lead and arsenic in the soil, combined with elevated levels of lead in the blood of children in Eureka, led to time-critical soil removal actions in 2001 and 2002. Because of the type and degree of contamination, as well as the potential adverse effects on humans and the environment, the U.S. EPA placed Eureka on the National Priorities List in September 2002 (U.S. EPA, 2011b).

Lead is a naturally occurring element that can be harmful to humans when ingested or inhaled, particularly to children under the age of six (U.S. EPA, 2013b). Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, and cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. The lead effects most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (U.S. EPA, 2012).

Characterization and Cleanup Work

In 2002, U.S. EPA completed studies and published a Record of Decision focused on site soils, which were found to pose an imminent and substantial endangerment to public health. Site areas requiring remediation were divided into four operable units (OU) with lead as the primary contaminant. Remedial designs for OU's 0–3 were completed in 2003. Remedial action based on the designs was initiated in August 2003 and completed in October 2010. These actions included:

- Cleaning up approximately 700 residential and commercial properties with concentrations of lead in the soil greater than 231 parts per million. Cleanup consisted of removing 18 inches of soil and constructing an 18-inch cap of vegetated soil or rock.

- Capping mine waste piles posing a human health risk with an 18-inch-deep cap of vegetated soil or rock.
- Constructing a disposal cell for contaminated soils excavated during future construction.
- Assisting the City with adopting an ordinance to control excavation activities that would disturb the clean cap and expose underlying contaminated materials.
- Implemented public health actions, including information programs and periodic testing for lead levels in children (U.S. EPA, 2011b).

Between 2000 and 2008, blood sampling identified approximately 50 children with elevated levels of lead in their blood. Blood test results indicated that the lead levels in Eureka children dropped considerably. The decline in lead levels was so successful that, in the spring of 2008, the U.S. EPA and the Utah Department of Health agreed to reduce the frequency of testing for lead from quarterly to an annual test at the end of the summer (U.S. EPA, 2011b). Blood lead testing by the Utah Department of Health was ended in the summer of 2011.

In addition to cleanup, the U.S. EPA's remedy for the Eureka Mills Superfund Site included restricting the movement, treatment, or disturbance of certain soils within the Superfund site. In response, the City amended the Eureka City Land Use Ordinance in October 2010 to include Chapter 13 pertaining to potential contaminated soils within the boundary of the identified Superfund site. The City's intent was to provide restrictions to ensure that excavation and development activities are safely conducted in the community. Specific procedures for these activities are provided in Chapter 13 (City of Eureka, 2010), as well as U.S. EPA's O&M Manual (U.S. EPA, 2009) . The UDEQ does annual inspections to verify compliance with the O&M Manual.In 2011, the U.S. EPA completed studies for OU 4, which evaluated the quality of the surface and groundwater at the site, as well as ecological risks associated with non-residential areas of Eureka. These studies did not identify any human health risks for surface and groundwater (U.S. EPA, 2011a). Levels of lead and arsenic were below standards, and the U.S. EPA determined that no response action was necessary for either water source. To date, Eureka is still listed on the National Priorities List.

Land Use and Development

The City passed the Land Use Ordinance, Chapter 13, Special Regulations - Eureka Mills Superfund Site, in October 2010 to ensure that excavation activities are safely conducted in the community (City of Eureka, 2010). These regulations apply to any excavation, development, or other construction activity that may disturb contaminated soil within the Superfund site. The U.S. EPA has also required mine owners to file Environmental Covenants in the chain of title at the Juab County Recorder's office for their land parcels with capped mine waste areas, sedimentation ponds, and other drainage control features. The purpose of the covenants is to protect these parcels from future disturbance unless the State and U.S. EPA first approve any changes in writing (U.S. EPA, 2011b).

3.11.2 Effects

Basis of Significance

An alternative would be considered to have a significant effect if it would involve substances identified as potentially hazardous (for example, by the Comprehensive Environmental Response, Compensation, and Liability Act); and (1) expose workers to hazardous substances in excess of Federal Occupational, Safety, and Health Administration standards, or (2) contaminate the physical environment, thereby posing a hazard to people, animals, or plant populations by exceeding Federal exposure, threshold, or cleanup limits.

No Action

The no action alternative would have no effect on hazardous, toxic, or radiological waste (HTRW) or increase human or environmental exposure to any HTRW, including lead. Any potentially contaminated areas and associated human/environmental risk would be expected to remain in their current condition and/or be monitored and regulated the U.S. EPA and UDEQ.

Water and Wastewater Systems Improvements

This alternative could have short-term effects on HTRW sources in the project area. Lead-contaminated soil material could be unearthed during excavation for the new storage tank and trenching for the new and replacement pipelines and manholes within the Eureka Mills Superfund Site boundary. To protect both the environment and the workers onsite, construction activities would be required to comply with Eureka City's Land Use Ordinance, Chapter 13, Special Regulations - Eureka Mills Superfund Site, pertaining to potential contaminated soils within the boundary of the identified Superfund site.

Specifically, in conformance with the Land Use Ordinance, during construction activities all contaminated soils or soils with unknown lead concentrations removed from excavations for utility installation or repair within a public right-of-way or utility easement that are not replaced in the excavation must be disposed of in the Open Cell Repository. An estimated 30,000 cubic yards of contaminated soil material may need to be exported to the Open Cell Repository. This estimate is based on the total length of pipeline; widths and depths of trench excavation; quantities of bedding, drain gravel, and road base that would displace the excavated contaminated soils; and type of road or ground surface. The contractor would be required to reuse as much of the existing material as possible. Upon completion of backfilling, the final surface of the excavation must be covered with a hard surface cover a minimum of 2 inches thick or a protective cap that is a minimum of 18 inches thick.

Specific procedures (including BMP's) in EPA's O&M Manual and the City's Land Use Ordinance would also be implemented during construction to minimize the potential for mobilizing lead-contaminated soils via either water or air. Types of BMP's include (1) covering soil stockpiles to prevent wind or storm water erosion; (2) watering to reduce the potential for wind borne contamination; and (3) repaving roadways for soil stabilization. Workers could also be exposed briefly to asbestos during replacement of old piping made with asbestos. However, this piping would be left in place and reburied. In any case, all workers would be required to wear protective clothing and gear to minimize any exposure to both lead and asbestos and meet OSHA standards as discussed in U.S EPA's O&M Manual (2009).

Implementation of City and U.S. EPA requirements, BMP's, and protective clothing and gear would reduce any short-term effects on HTRW sources or exposure to less than significant.

Once construction is completed, any disturbed lead-contaminated soils would either be removed to the Open Cell Repository or contained by a hard surface cover or protective cap. As a result, no long-term effects on HTRW sources would be anticipated.

3.11.3 Mitigation

Since there would be no significant effects on HTRW, no mitigation would be required. However, the contractor would be required to comply with all of the requirements of the U.S. EPA's O&M Manual and the City's Land Use Ordinance. These requirements include procedures to be followed in the event of accidents or accidental exposure to lead or asbestos contamination.

4.0 CUMULATIVE EFFECTS

Cumulative effects are the effects of the project considered with the effects of other past, present, or reasonably foreseeable projects. The geographic area that could be affected by the project varies depending on the type of environmental resource being considered. For example, air quality, noise, and esthetics resources extend beyond the confines of the construction footprint due to the nature of these resources. For this project, the geographic area is considered to be the small southwest trending valley in which Eureka and the Superfund site are located.

Currently, there are no other projects that are either ongoing or reasonably foreseeable (planned for implementation within 5 to 10 years) in the project area. In addition, there are no past projects that resulted in identifiable long-term effects having a cumulative relationship with the effects of the proposed project. Therefore, when the effects of the proposed project are considered with other past, present, and reasonably foreseeable projects in the area, no significant cumulative effects are anticipated at this time.

5.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Clean Air Act, as amended and recodified (42 U.S.C. 7401 et seq.). *Compliance*. The project is not expected to violate any Federal or State air quality standards, or hinder the attainment of air quality objectives. The Corps has determined that the proposed project would have no significant adverse effects on the air quality of the area.

Section 176(c) of this act requires that Federal agencies ensure that their activities are in conformance with Federally approved State Implementation Plans for areas designated as "non-attainment" and "maintenance." This project would not be located in either type of designated area and therefore is not subject to this provision of the act.

Clean Water Act (33 U.S.C. 1251 et seq.). *Compliance.* Since there are no jurisdictional wetlands or other Waters of the U.S. in the project area, the project would have no effect on these resources. Prior to drilling the well, the contractor would be required to obtain the State's approval to change the Point of Diversion. In addition, the contractor would be required to obtain a NPDES permit from the State since the project would disturb 1 or more acres of land and involve possible stormwater discharge to waters of the State.

Coastal Barrier Resources Act, as amended (16 U.S.C. 3501 et seq.). *Compliance.* Since there are no coastal barriers in or near the project area, the project would have no effect on these types of areas.

Coastal Zone Management Act, as amended (16 U.S.C. 1451 et seq.). *Compliance.* Since there are no coastal zone areas in or near the project area, the project would have no effect on these types of areas.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.). *Compliance*. The City would secure all U.S. EPA and/or UDEQ permits/approvals and meet all requirements to ensure that the work would not cause any hazardous material (lead or asbestos) to endanger public health or the environment.

Endangered Species Act (16 U.S.C. 1531 et seq.). *Compliance.* A list of threatened, endangered, and proposed species in and near the project area was obtained from the U.S. Fish and Wildlife website on July 31, 2014 (Appendix C). According to the list, there are no such Federally listed species or their habitat in or near the project area. As a result, the project would not result in the take of any Federally listed or proposed species.

Executive Order 11312, Noxious Weeds. *Compliance.* This order directs all Federal agencies to prevent the introduction of invasive species; provide for their control; and minimize the economic, ecological, and human health effects of invasive species. Prior to mobilization, all project-related vehicles and equipment would be cleaned of soils, seeds, vegetative matter, or other debris that could contain or hold non-native invasive and noxious weed seeds. During construction, vehicles and equipment would also be cleaned, as needed, as they leave or enter staging areas and work sites. As a result, the project would not be expected to introduce any invasive species into either the staging area or work sites.

Executive Order 11988, Floodplain Management. *Compliance*. This order directs all Federal agencies to avoid to the extent possible the adverse effects associated with the modification of floodplains, and to avoid support of floodplain development wherever there is a practicable alternative. In 2007, the Federal Emergency Management Agency (FEMA) conducted and finalized a Flood Insurance Study to designate the 100-year flood plain in Eureka. The study became the basis for the hydrologic design of the drainage channels and sediment ponds at the remediated Superfund Site.

Based on the 2007 Flood Insurance Study, the project area is not located in a high-risk floodplain as defined by FEMA. In addition, the project would not change the surface elevation or the existing drainage patterns and sediment ponds. As a result, the project would not modify any floodplains or support development in a floodplain.

Executive Order 11990, Wetlands. *Compliance*. This order directs all Federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The project would have no effects on wetlands because there are no such areas in or near the project area.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. *Compliance.* Since there are no minority or low-income populations in the project area, the project would have no disproportionate effects on such groups.

Farmland Protection Policy Act (7 U.S.C. 4201). *Compliance*. Since there is no prime farmland or farmland of statewide importance in the project area, the project would have no effect on these types of farmlands.

Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 et seq). *Compliance.* Since the project would not impound, divert, or otherwise control or modify any streams or other water bodies, consultation under this act would not required. The USFWS was notified of the availability of the draft EA for review during the public review period, but did not provide any comments to the Corps.

Migratory Bird Treaty Act (15 U.S.C. 701-18h). *Compliance.* This act requires that the project avoid disturbing or destroying active nests of migratory birds during the breeding season from April 1 to July 31(Hankins, 2014). Prior to initiation of construction during those months, the contractor would be required to have a qualified biologist survey any areas of migratory bird habitat that could be disturbed to ensure that there are no active nests of migratory birds in the area. If such nests are found, the contractor would be required to contact the Corps to determine how to proceed.

National Environmental Policy Act (42 U.S.C. 4321 et seq.). *Compliance.* Comments received during the public review period were considered and incorporated into the final EA, as appropriate. This final EA and signed Finding of No Significant Impact (FONSI) complete the Corps' NEPA process.

National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.). *Compliance.* The Corps initiated consultation with the Utah State Historic Preservation Officer (SHPO) in accordance with Section 106 via letter dated February 20, 2014. On March 4, 2014, the Corps received a letter dated February 25, 2014, from the Utah SHPO, concurring with the Corps' determination of eligibility and effect for the project.

In addition, the Corps initiated Section 106 consultation with Native American Tribes with interests in the area on January 21, 2014. These included the Skull Valley Goshutes, Kanosh Band of Paiutes, Ute Indian Tribe, Paiute Indian Tribe of Utah, and Confederate Tribes of the Goshute Indian Reservation. In a letter dated February 4, 2014, the Paiute Indian Tribe of Utah replied that they do not have any objections to the project and that they are not aware of any cultural resources related to the Tribe's traditional religion or culture. Although no other responses have been received to date, the Corps will consider any additional comments from the Tribes. Correspondence relating to cultural resources is provided in Appendix D.

Safe Drinking Water Act, as amended (42 U.S.C. 300f et seq.). *Compliance.* The project has been designed to comply with all provisions of this act, including the Sole Source Aquifer Program.

Wild and Scenic River Act (16 U.S.C. 1271 et seq.). *Compliance*. Since there are no designated wild and scenic rivers in or near the project area, the project would have no effect on these types of rivers.

6.0 PUBLIC INVOLVEMENT

The public involvement for this project has included public attendance and participation at regular Eureka City Council meetings where the need to improve the water supply system and the wastewater collection/treatment system has been discussed. The public and other interested/ affected parties have continually been encouraged to comment on the proposed plans, funding decisions, and City Council decisions.

On April 16, 2013, the City held a public meeting to discuss the project, as well as request public comments on the indebtedness and rate increases associated with the project (City of Eureka, 2013b). A total of 59 residents attended the meeting and voiced concerns about the rate increases, loans needed to fund the project, necessity to construct both the water and wastewater features concurrently, and assistance programs for low-income users.

On May 14, 2013, the Eureka City Council held a public hearing to receive public comments on the several items, including Resolution No. R-06-11-2013-A, A Resolution Setting New Sewer Rates, and R-06-11-2013-B, A Resolution Setting New Culinary Water Rates (Eureka City Council, 2013). At the Council's following meeting on Tuesday, June 11, 2013, they ratified both of these resolutions (Eureka City Corporation, 2013).

The City also provides current information on completed and ongoing capital improvement projects on the City's website at http://www.eurekautah.org/. Contact information is provided, and the public can obtain additional information or make comments during the design and construction process of the City's capital projects. This includes the proposed project to improve the water supply and wastewater collection/treatment systems.

7.0 COORDINATION AND REVIEW OF THE EA

The draft EA and FONSI were circulated for 30 days to agencies, organizations, and individuals known to have an interest in the project (Appendix E). All comments received were considered and incorporated into the final EA, as appropriate. These comments with the Corps' responses are provided in Appendix F. This project has been coordinated with the following agencies:

U.S. Department of Agriculture
U.S. Fish and Wildlife Service
Utah Department of Environmental Quality
Utah State Historic Preservation Officer
Utah Department of Transportation
Utah Department of Wildlife
Juab County

Because of the status of the City as a Superfund site, close coordination with the UDEQ on the water storage tank location and general construction procedures/requirements has been conducted. Coordination with UDEQ will be ongoing throughout the project. The UDEQ lead on the Eureka Mills Superfund Site is:

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801-536-4179
State of Utah Department of Environmental Quality
Division of Environmental Response and Remediation

8.0 CONCLUSIONS

Based on the information in this EA, the project would have no significant effects on the environment. No mitigation beyond avoidance, BMP's, other measures proposed in this EA, and permit requirements would be required. As a result, the project would meet the requirements for actions allowed following completion of a FONSI as described in 40 CFR 1508.13. These actions would not have a significant effect on the quality of the human environment and do not require preparation of an environmental impact statement. Therefore, a FONSI has been prepared and accompanies this EA.

9.0 LIST OF PREPARERS

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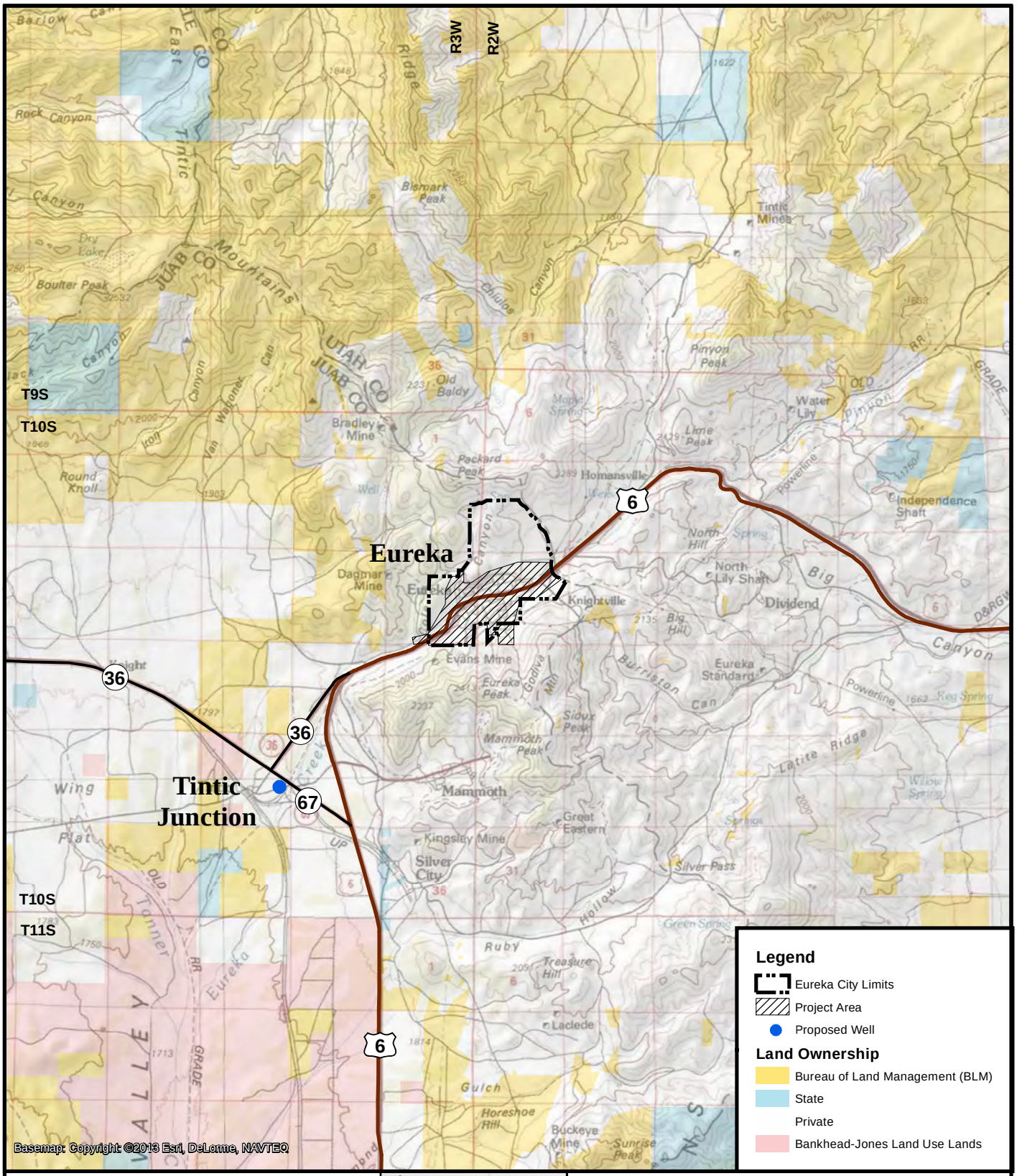
Plates

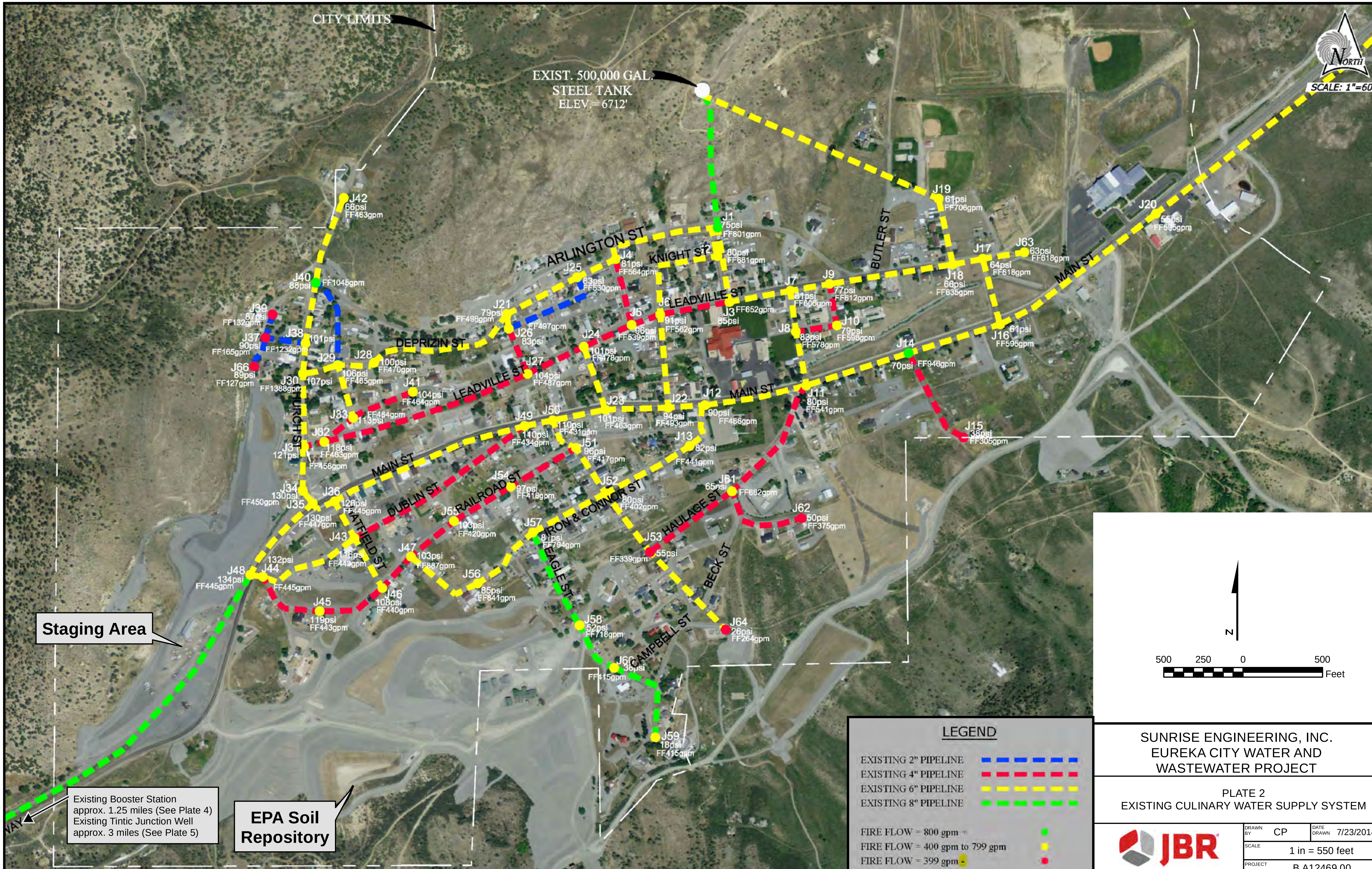


SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND WASTEWATER PROJECT

PLATE 1
PROJECT AREA LOCATION

DRAWN BY	CP
DATE DRAWN	1/29/2014
SCALE	1 in = 8,000 feet
PROJECT	B.A12469.00

X:\UT\Clients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 1 Project Area Location.mxd


CITY LIMITS
EXIST. 500,000 GAL. STEEL TANK ELEV.= 6712'
NORTH
SCALE: 1"=600'
ARLINGTON ST
KNIGHT ST
LEADVILLE ST
DEPRIZIN ST
MAIN ST
BUTLER ST
CHURCH ST
DUBLIN ST
RAILROAD ST
IRON & CONNOR ST
HAULAGE ST
EAGLE ST
BECK ST
CAMPBELL ST
J1 75psi FF801gpm
J2 80psi FF681gpm
J3 85psi FF652gpm
J4 81psi FF564gpm
J5 96psi FF539gpm
J6 91psi FF562gpm
J7 81psi FF606gpm
J8 83psi FF578gpm
J9 77psi FF612gpm
J10 79psi FF598gpm
J11 80psi FF541gpm
J12 90psi FF486gpm
J13 82psi FF441gpm
J14 70psi FF946gpm
J15 38psi FF305gpm
J16 61psi FF595gpm
J17 64psi FF618gpm
J18 66psi FF635gpm
J19 61psi FF706gpm
J20 55psi FF595gpm
J21 79psi FF499gpm
J22 94psi FF493gpm
J23 101psi FF463gpm
J24 101psi FF478gpm
J25 83psi FF530gpm
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J29 106psi FF465gpm
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J31 121psi FF458gpm
J32 118psi FF463gpm
J33 115psi FF484gpm
J34 130psi FF450gpm
J35 130psi FF447gpm
J36 126psi FF445gpm
J37 90psi FF165gpm
J38 101psi FF1232gpm
J39 87psi FF132gpm
J40 88psi FF1045gpm
J41 104psi FF464gpm
J42 66psi FF463gpm
J43 116psi FF443gpm
J44 132psi FF445gpm
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J54 97psi FF418gpm
J55 103psi FF420gpm
J56 85psi FF841gpm
J57 81psi FF794gpm
J58 52psi FF718gpm
J59 18psi FF415gpm
J60 36psi FF415gpm
J61 65psi FF682gpm
J62 50psi FF375gpm
J63 63psi FF618gpm
J64 26psi FF264gpm
J66 89psi FF127gpm
Staging Area
Existing Booster Station approx. 1.25 miles (See Plate 4)
Existing Tintic Junction Well approx. 3 miles (See Plate 5)
EPA Soil Repository
N
500 250 0 500
Feet
LEGEND
EXISTING 2" PIPELINE
EXISTING 4" PIPELINE
EXISTING 6" PIPELINE
EXISTING 8" PIPELINE
FIRE FLOW = 800 gpm +
FIRE FLOW = 400 gpm to 799 gpm
FIRE FLOW = 399 gpm -

SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND WASTEWATER PROJECT

PLATE 2
EXISTING CULINARY WATER SUPPLY SYSTEM

JBR

DRAWN BY: CP	DATE DRAWN: 7/23/2014
SCALE: 1 in = 550 feet	
PROJECT: B.A12469.00	

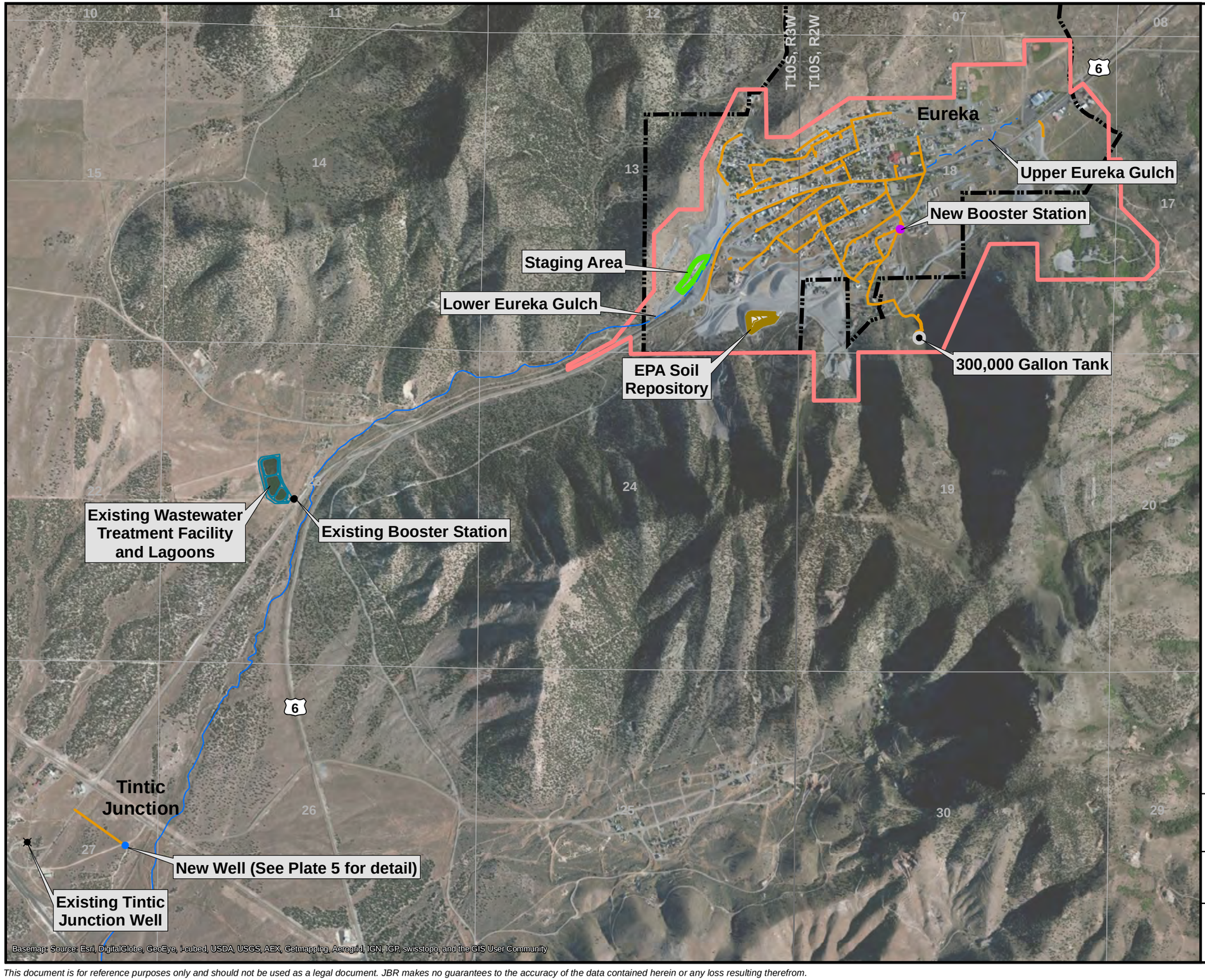
Path: X:\UT\Clients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 2 Existing Culinary Water Supply System.mxd

SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND WASTEWATER PROJECT

PLATE 3
EXISTING WASTEWATER TREATMENT SYSTEM

DRAWN BY	CP
DATE DRAWN	7/23/2014
SCALE	1 in = 500 feet
PROJECT	B.A12469.00

Path: X:\UTClients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 3 Existing Wastewater Treatment System.mxd



Legend

- Eureka City Limits
- Superfund Site Boundary
- New Distribution/Waterlines
- 300,000 Gallon Tank
- New Booster Station
- Existing Booster Station
- New Well
- Existing Tintic Junction Well
- Staging
- EPA Soil Repository
- Eureka Gulch (dashed indicates approximate location based on HDR 2010)

N

1,600 800 0 1,600 Feet

SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND WASTEWATER PROJECT

PLATE 4
PROPOSED WATER SYSTEM COMPONENTS

DRAWN BY	CP	DATE DRAWN	7/23/2014
SCALE	1 in = 1,600 feet		
PROJECT	B.A12469.00		

Path: X:\UT\Clients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 4 Proposed Water System Components.mxd

Legend

- New Well
- New 8-inch Waterline (1,200 Feet)
- Existing Well
- Existing Water Line

500 250 0 500 Feet

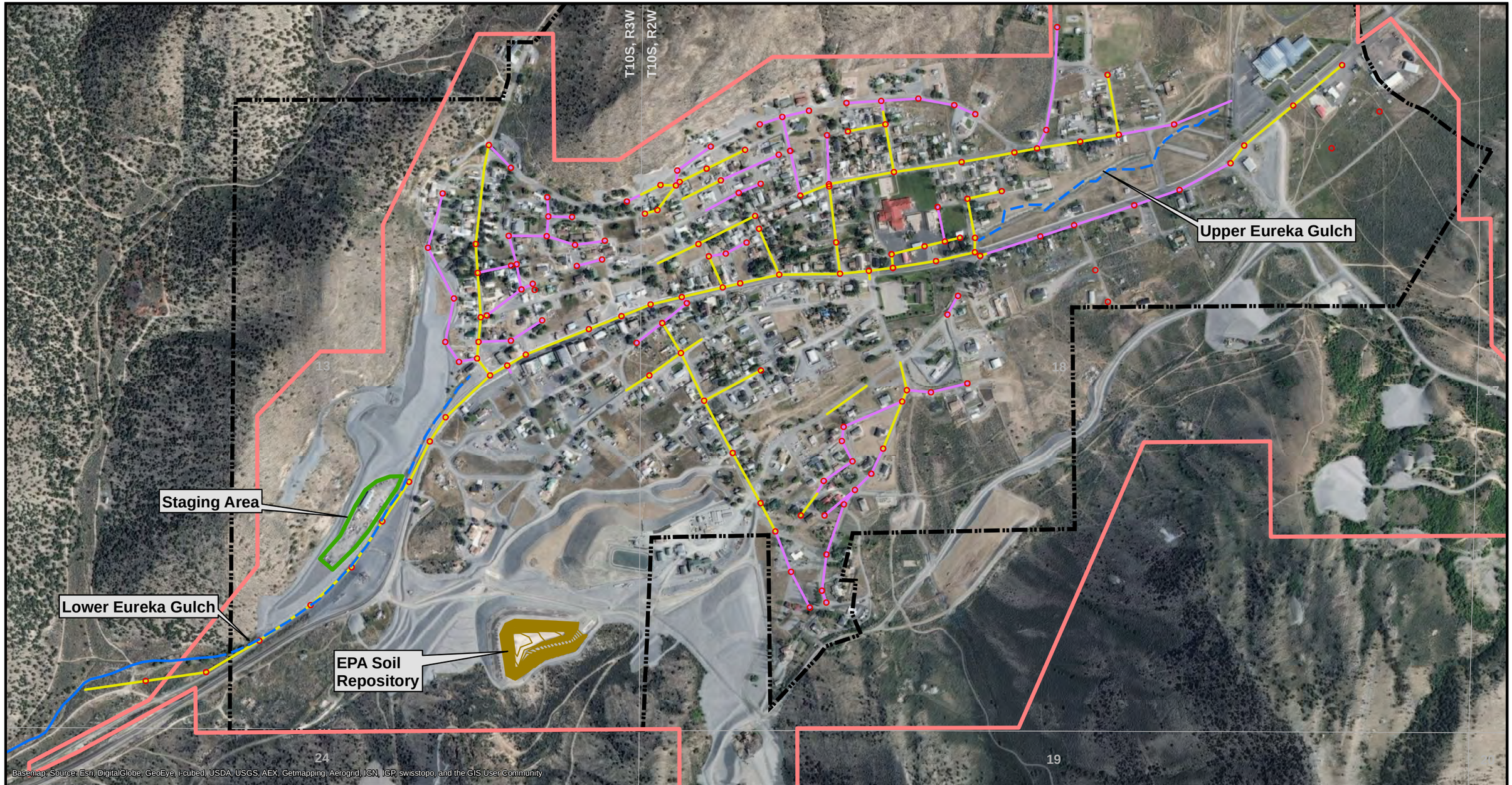
N

SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND
WASTEWATER PROJECT

PLATE 5
PROPOSED NEW WELL AND CONNECTING PIPELINE

DRAWN BY	CP	DATE DRAWN	7/30/2014
SCALE	1 in = 600 feet		
PROJECT	B.A12469.00		

Path: X:\UT\Clients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 5 Proposed New Well and Connecting Pipeline.mxd



Path: X:\UT\Clients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 6 Proposed Wastewater System Components.mxd

Legend

- Eureka City Limits
- Superfund Site Boundary
- New Manholes
- Sewerline Replacement
- New Sewerline Expansion
- Staging Area (2.1 acres)
- EPA Soil Repository (96,000 Cubic Yards)
- Eureka Gulch (dashed indicates approximate location based on HDR 2010)

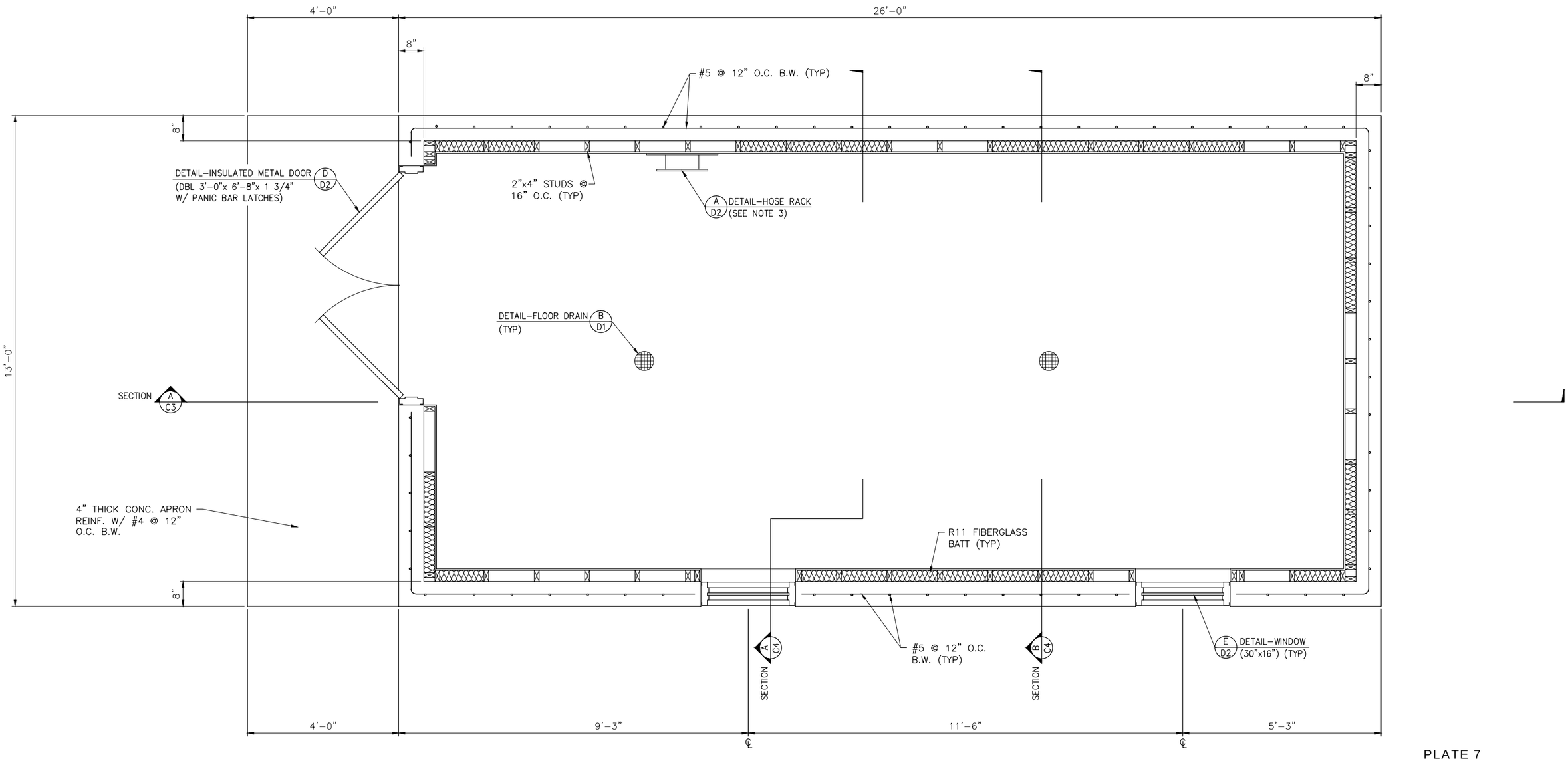
N

600 300 0 600 Feet

SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND WASTEWATER PROJECT

PLATE 6
PROPOSED WASTEWATER SYSTEM COMPONENTS

DRAWN BY	CP	DATE DRAWN	7/23/2014
SCALE	1 in = 600 feet		
PROJECT	B.A12469.00		



A/C1 PLAN - WELL & CHLORINATOR BUILDING
3/8" = 1'-0"

PLATE 7
WELL HOUSE PLAN VIEW

REV NO.	COMMENT	DATE

FOR REVIEW ONLY
NOT
FOR CONSTRUCTION

SUNRISE ENGINEERING
25 EAST 500 NORTH
FILLMORE, UTAH 84631
TEL 435.743.6151 • FAX 435.743.7900
www.sunrise-eng.com

EUREKA CITY
WATER IMPROVEMENTS PROJECT
2013
FLOOR PLAN

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
04421	JTA	CJC	RWW	X	C2

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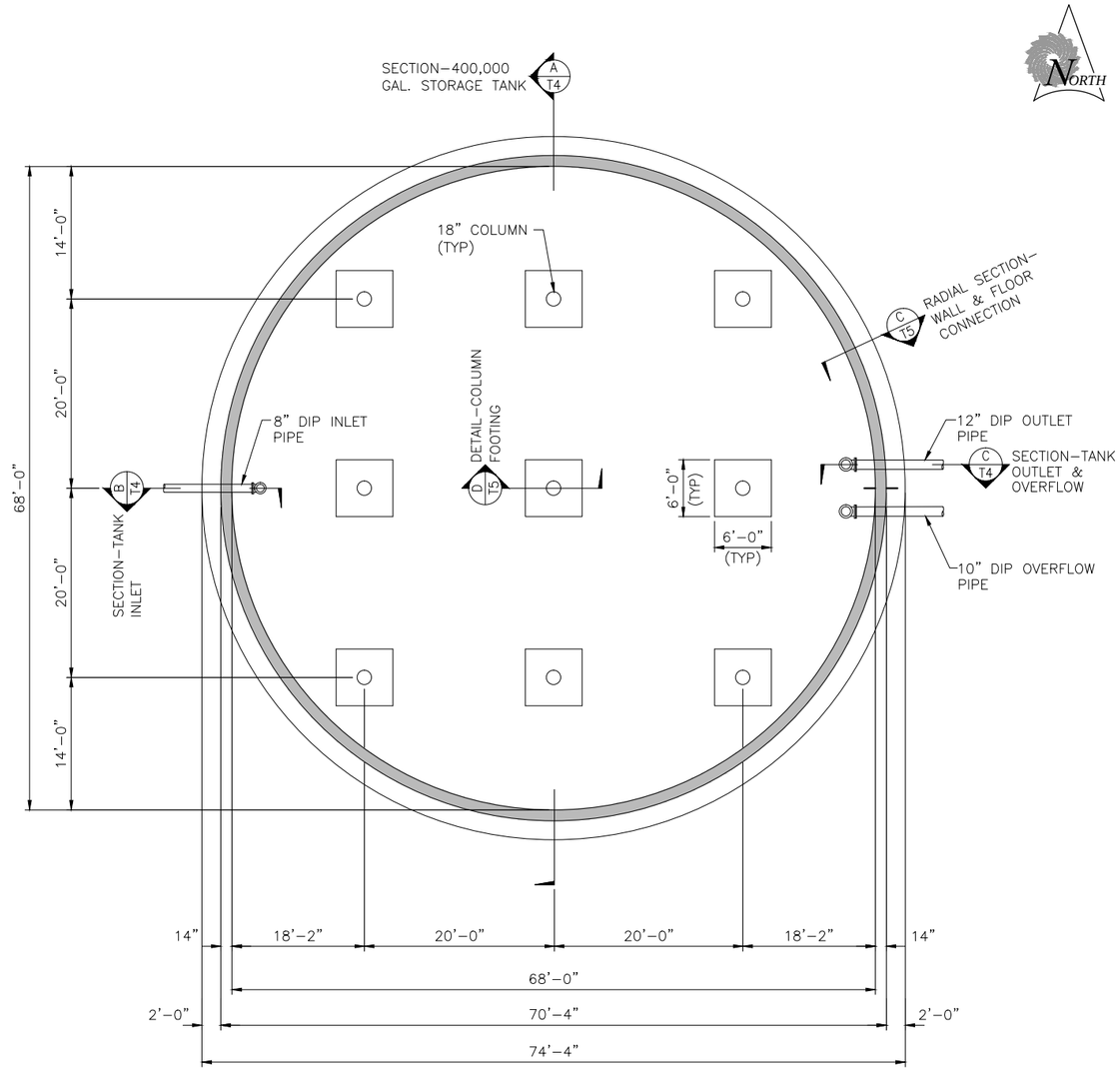
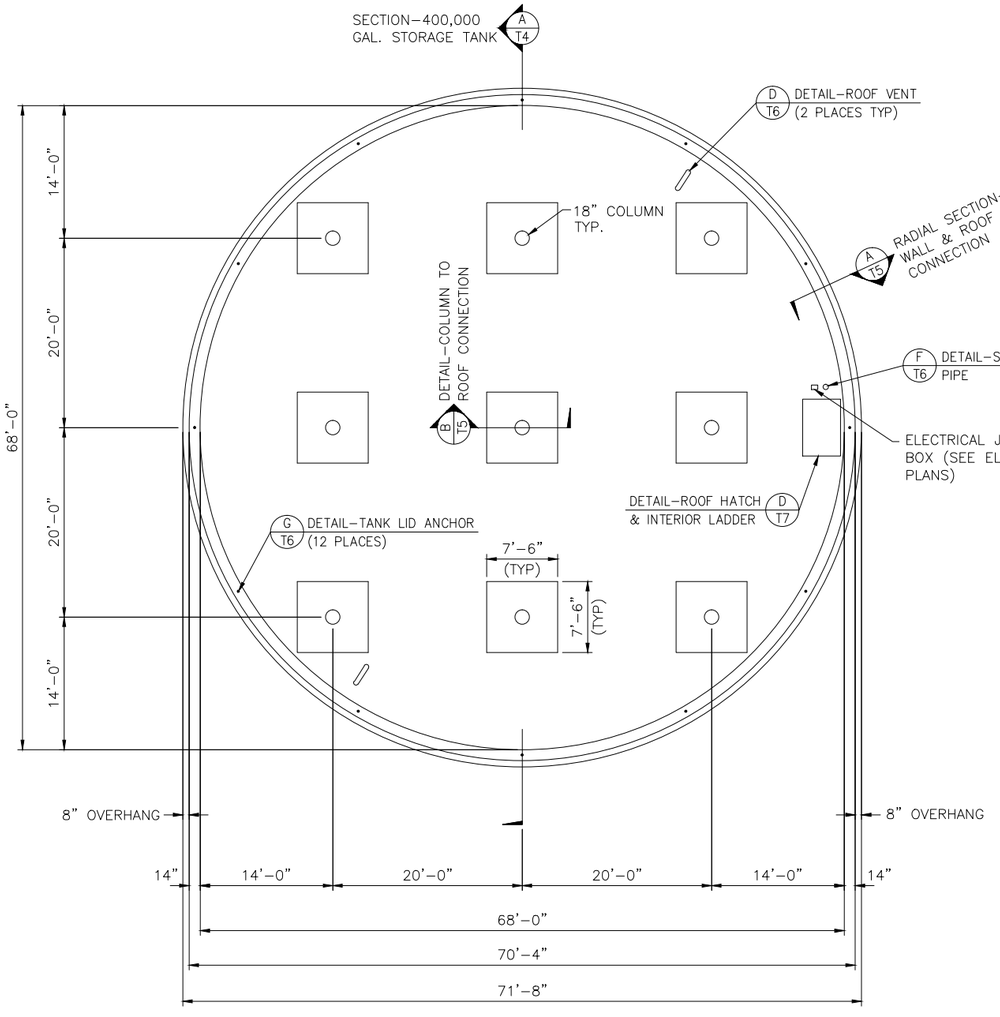


TANK FLOOR PLAN



NOTE:
FOR ROOF REINFORCING SEE DWG T3

TANK REFLECTED ROOF PLAN

A T1 PLAN - TANK FLOOR & REFLECTED ROOF
1/16" = 1'–0"

PLATE 8
WATER STORAGE TANK PLAN VIEW

REV NO.	COMMENT	DATE

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EUREKA CITY
WATER IMPROVEMENTS PROJECT
2013
TANK FLOOR & REFLECTED CEILING PLANS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
04421	JTA	CJC	RWW	X	T2

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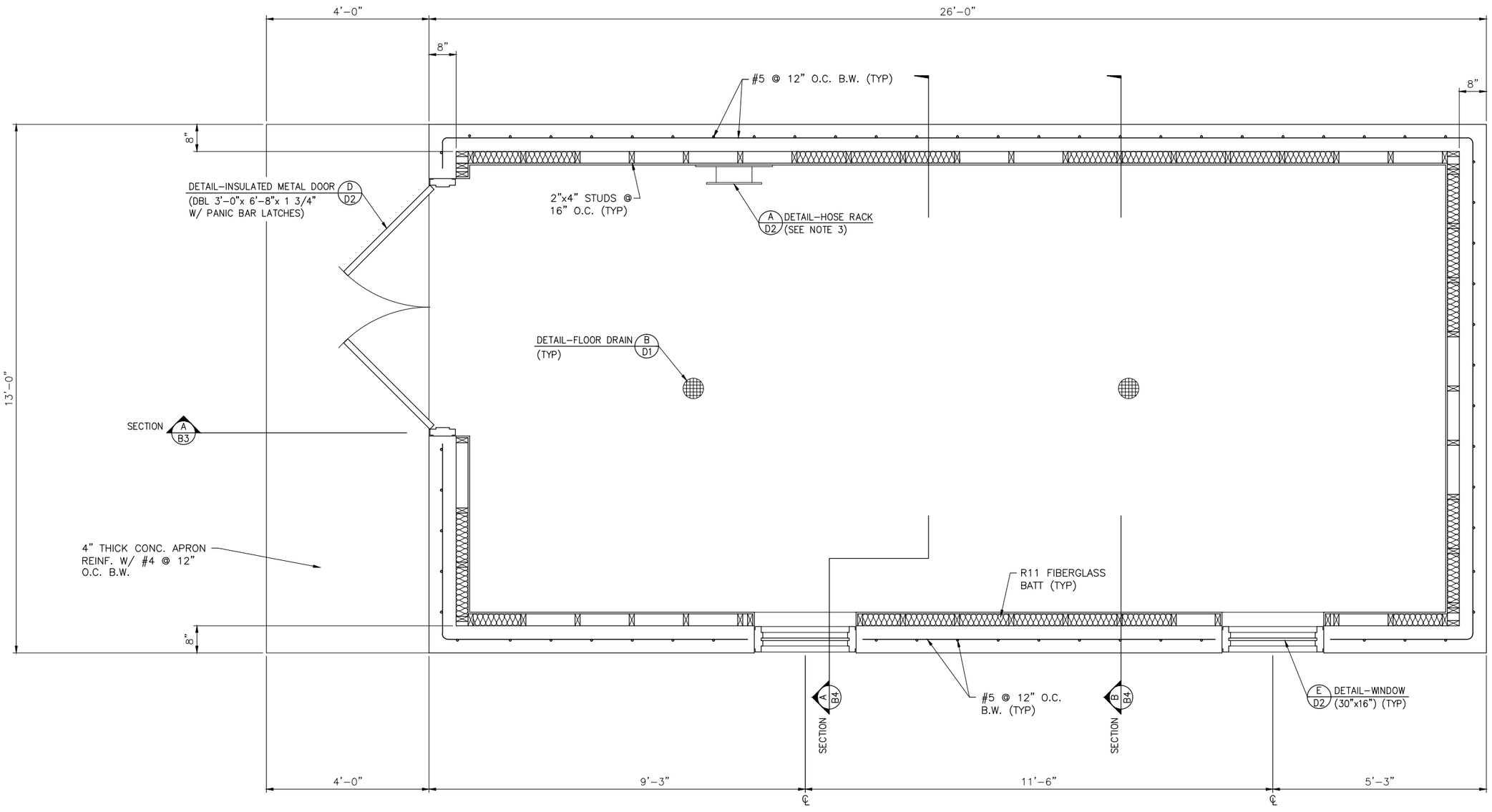

A/B1 PLAN - BOOSTER PUMP BUILDING
3/8" = 1'-0"

PLATE 9
BOOSTER STATION BUILDING
PLAN VIEW

REV NO.	COMMENT	DATE

FOR REVIEW ONLY
NOT
FOR CONSTRUCTION

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www.sunrise-eng.com

EUREKA CITY

WATER IMPROVEMENTS PROJECT
2013
FLOOR PLAN

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
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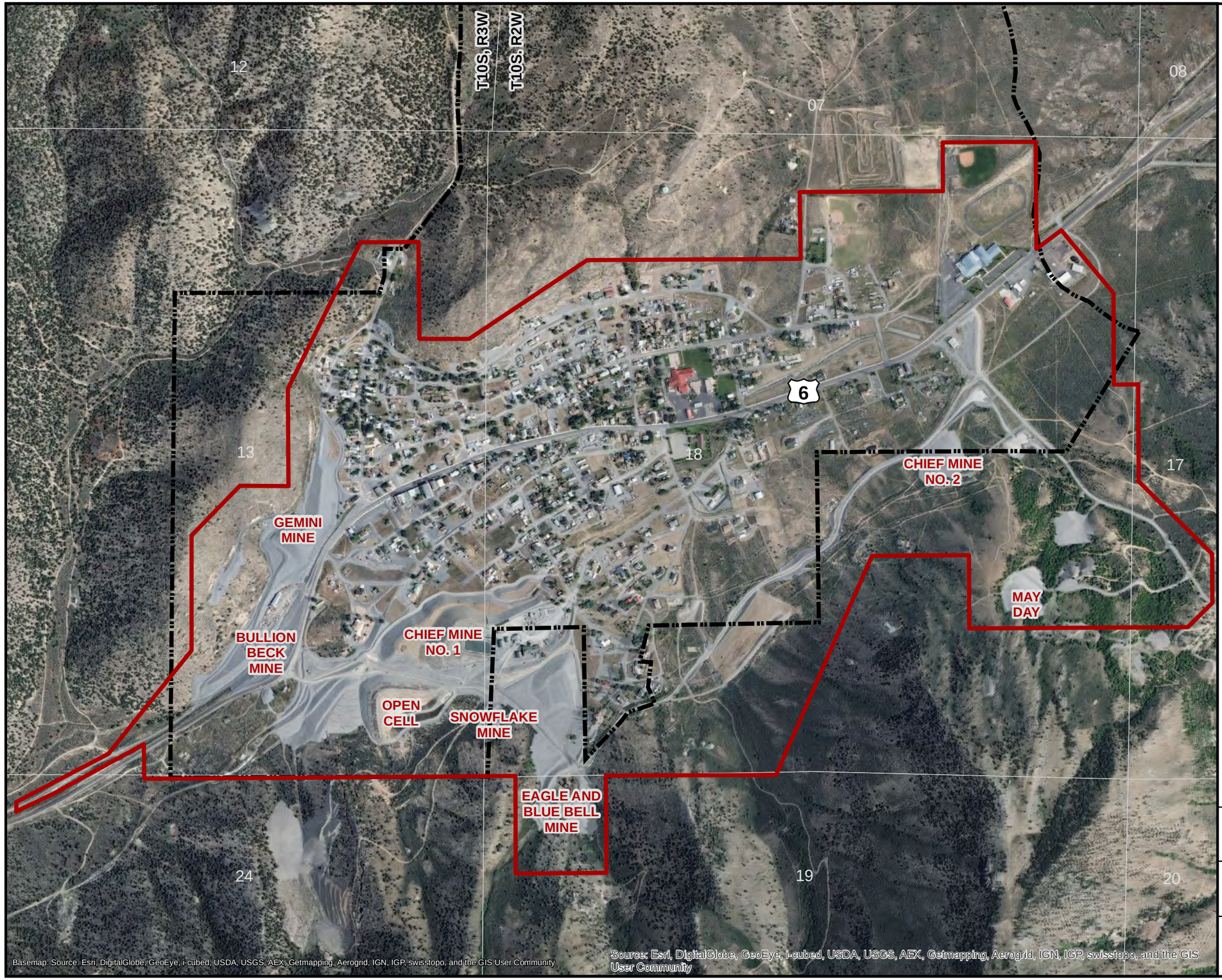


Legend

- Eureka City Limits
- Superfund Site Boundary

N

800 400 0 800
Feet

SUNRISE ENGINEERING, INC.
EUREKA CITY WATER AND WASTEWATER PROJECT

PLATE 10
EUREKA MILLS SUPERFUND SITE BOUNDARY

DRAWN BY	CP	DATE DRAWN	1/29/2014
SCALE	1 in = 800 feet		
PROJECT	B.A12469.00		

Path: X:\UT\Clients\Sunrise Engineering Inc\EurekaWaterSewerSystem\MXDs\Plate 10 Eureka Mills Superfund Site Boundary.mxd

Appendix A

Eureka City Land Use Ordinance

Chapter 13 Special Regulations -

Eureka Mills Superfund Site

July 19, 2010

CHAPTER 13

ESTABLISHING CHAPTER 13 OF THE EUREKA CITY, UTAH LAND USE ORDINANCE BY ADDING REGULATIONS AND PERMITTING PROCEDURES FOR EXCAVATIONS AND DEVELOPMENT IN THE EUREKA MILLS SUPERFUND SITE.

WHEREAS, the United States Environmental Protection Agency ("EPA") has identified and designated an area within the municipal limits of the City of Eureka ("City"), known as the Eureka Mills Superfund Site ("Site") (a map of the Site is attached hereto), as being contaminated with mining wastes containing high concentrations of lead and other metals and has consequently placed such Site on the EPA's National Priorities List for cleanup and remediation under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601, et seq.; and

WHEREAS, EPA's remedy for the Site recommends land use controls including restricting the movement, treatment, or disturbance of certain soil within the Site absent advance notice to and permission from the City and further requires information identifying the nature of the material to be moved or disturbed; the plans for handling, storing, or removing such materials; and any proposed or planned storage site for same; and

WHEREAS, EPA and the City agree that the purpose of land use controls restricting the movement, treatment or disturbance of contaminated soil within the Site is to protect the remedy that placed clean soil materials in the top 18inches to prevent exposure to lead contaminated soils within the Site; and

WHEREAS, the City wishes to extend the protection of land use restrictions to all areas of the City where Contaminated Soils have not been remediated by EPA and those areas of the City that may now or in the future fall outside the Site boundaries; and

WHEREAS, the implementation and enforcement of land use controls by the City regulating excavation and building activities within the Site, for which the City is willing to take responsibility and which could minimize the disturbance, transfer, inhalation, and ingestion of contaminated soils, thus lessening the health risks posed by the Site to public health and safety; and

WHEREAS, EPA and the City have conferred and agreed that the adoption and enforcement of this ordinance will provide the appropriate mechanism by which the review and permitting of excavation and building activities within the Site can be efficiently and appropriately carried out at the local level; and

WHEREAS, the City has determined that this chapter of the land use ordinance is necessary to further public health, safety, and welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF EUREKA, UTAH, AS FOLLOWS:

Section 1

That the Eureka City Land Use Ordinance of Eureka, Utah, is hereby amended by adding new Chapter 13, "SPECIAL REGULATIONS - EUREKA MILLS SUPERFUND SITE," to the Eureka City Land Use Ordinance, which shall read as follows:

Chapter 13 SPECIAL REGULATIONS - EUREKA MILLS SUPERFUND SITE.

(1) APPLICABILITY.

(A) These regulations shall apply to and govern any excavation, development, or other construction activity that may cause or contribute to the movement or disturbance of contaminated soil within the boundaries of the Eureka Mills Superfund Site ("Site") as those boundaries are identified and designated by the United States Environmental Protection Agency ("EPA") and within the City corporate limits. A map developed by EPA and incorporated into this ordinance, which depicts the boundaries of the Site and the current City corporate limits, shall be maintained in the City Hall. The map shall be available to the public during regular business hours.

(B) The provisions of this chapter may be amended from time to time to address changes at the Site and/or in State or Federal laws and regulations applicable thereto or changes to the City corporate limits. The City will inform EPA and the State before it amends this Chapter to allow for their review and consultation with the proposed changes.

(C) Nothing contained in this Chapter is intended or shall be construed to supersede or limit the authority vested in EPA or the Utah Department of Environmental Quality ("UDEQ") under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601, et seq., or any other Federal or State law, rule, or regulation.

(2) DEFINITIONS.

As used in this Section, the following terms shall have the meaning specified unless the context requires otherwise:

(A) "CERCLA" or "Superfund" means the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601, et seq., as amended.

(B) "City" means the City of Eureka, Utah.

(C) "Cleanup" means the remedial action conducted by EPA in accordance with

EPA's Record of Decision (ROD) for the Eureka Mills Superfund Site, Eureka, Utah, September, 2002 as it relates to residential cleanup and the Remedial Action Work Plan (2003, as amended). The Cleanup provides an 18 inch clean soil cover with the re-establishment of a vegetative cover, or an 18 inch clean rock cover or a paved surface (concrete or asphalt) or a permanent building with a floor. (In residential areas, EPA's Cleanup did not include the removal of contaminated material more than18 inches below the ground surface.)

(D) "Coarse-Grained Soils" means soils with more than 50 percent of its particles larger than 0.075 millimeters. Refer to ASTM D 2487 (Unified Soil Classification System). Coarse-Grained Soils also means roadbase or gravel.

(E) "Contaminated Soil" or "Contaminated Material" means soil or material containing lead concentrations of 231 parts per million (ppm) or greater for residential and commercial use areas and 735 ppm or greater for recreational use areas.

(F) "Drip Line" means area within the dripline of an established tree, i.e., the area of the circle that could be drawn on the soil around a tree, with a radius equal to the distance from the trunk to the tip of its outermost branch.

(G) "EPA" means the United States Environmental Protection Agency.

(H) "Exempted Activity" is any soil disturbing activity within the Site and within the City corporate limits that does not require a permit under this chapter of the Eureka City Land Use Ordinance but requires the property owner or other responsible party to adhere to the Performance Standards in subsection 7 of this chapter of the Land Use ordinance. Exempted Activities include but are not limited to the following: planting trees, digging holes for installation of fence posts, emergency repair of underground utility lines, i.e., sewer, water, or gas.

(I) "Fine-Grained Soils" means soils with less than 50 percent of its particles larger than 0.075 millimeters. Refer to ASTM D 2487 (Unified Soil Classification System).

(J) "Hard Surface Cover" means a non-permeable barrier a minimum of 2 inches thick overlaying the ground surface, such as paving (asphalt or concrete) and including buildings and other permanent structures.

(K) "Marker Barrier" – means a permeable geotextile fabric placed to delineate the presence of contaminated material below 18 inches, over which 18 inches of clean topsoil or clean roadbase material is placed.

(L) "Open Cell" means a repository (or landfill) at the Site designated by EPA specifically and solely for the disposal of Contaminated Soil generated within the Site or the City limits.

(M) "Permit Area" means the property or properties where Restricted Activities will take place pursuant to the requirements of the excavation permit issued by the City.

(N) "Person" means an individual, partnership, corporation, association, company, landowner, tenant, occupant, contractor, subcontractor, or any public body or political subdivision.

(O) "Protective Cap" shall mean a soil barrier placed over Contaminated Soil, to provide a protective barrier. The thickness of protective caps comprised of coarse-grained soil (gravel, roadbase, etc.) shall be 18 inches. The thickness of protective caps comprised of fine-grained soil (topsoil, clay, etc.) shall be 18 inches and have a vegetative cover. Soils comprising the protective cap shall have a lead concentration of 100 ppm or less.

(P) "Recreational Use" shall mean use of property for sports fields, motocross tracks, open space, or other uses not specified as Residential/Commercial use. Trails and paths are included in the definition of Recreational Use only if they are designated and recognized by the City for a specific purpose

(Q) "Residential/Commercial use" shall mean use of property for businesses, schools or residential homes, day care facilities, parks or play areas used by small children.

(R) "Restricted Activity" means any excavation or earth moving activity within the Site or within the City corporate limits that is not an Exempted Activity and that results in a disturbance of soil, or which may disturb the soil, below the 18-inch clean soil cover or which reduces the clean soil cover to less than 18 inches in depth. Some areas within the Site have not been cleaned up, pending future development, because existing vegetation in those areas limits exposure to contaminated soils. In areas of the Site that have not been cleaned up, and/or where there is no 18 inch clean soil cover, "Restricted Activity" means any excavation or earth moving of any depth or the removal of the vegetative cover that limits exposure to the Contaminated Soils.

(S) "Site" means those areas within the City that are within the boundaries of the Eureka Mills Superfund Site as designated by EPA in the September 2002 ROD pursuant to Superfund and as depicted on the official map maintained at City Hall.

(T) "Soil" means inert earthen material disturbed as the result of excavation or construction within the Site regardless of grain size.

(U) "State" means the State of Utah, Department of Environmental Quality.

(V) "Vegetative Cover" means plant life, including, but not limited to, grass, trees,

shrubs, vines, and sod, planted or installed to ensure stabilization of a Protective Cap comprised of fine-grained soil and to prevent its erosion. Adequacy of the Vegetative Cover consisting of grass plants shall be evaluated when the grass plants are a minimum 1 inch high. A Vegetative Cover of grass plants is satisfactory if there are a minimum 100 grass plants per square foot, bare spots are a maximum 6 inches square, and the total area of bare spots does not exceed 2 percent of the seeded area. Vegetable or flower gardens provide adequate Vegetative Cover for that portion of the garden that is actively planted and maintained during the normal growing season.

(3) RESTRICTED ACTIVITY.

All persons undertaking a Restricted Activity within the Site or within the City corporate limits shall comply with the procedures and performance standards provided in this Chapter. This chapter does not apply to the EPA or the State or their employees and contractors conducting cleanup or operation and maintenance activities under CERCLA within the Eureka Mills Superfund Site.

(4) UTILITY INSTALLATION AND REPAIR.

All Contaminated Soils or soils with unknown lead concentrations removed from excavations for utility installation or repair within a public right-of-way or utility easement that are not replaced in the excavation must be disposed of in the Open Cell. Upon completion of backfilling the final surface of the excavation must be covered with a Hard Surface Cover a minimum of 2 inches thick or Protective Cap that is a minimum of 18 inches thick.

(5) PERMITS REQUIRED.

No person shall undertake or conduct any Restricted Activity without first obtaining a permit from the City. Any excavation or earth moving resulting from an "Exempted Activity" shall not require a permit under this Chapter but shall be subject to the requirements as set forth in Subsection 7 of this Chapter 13. The requirements of this section do not apply to the EPA, the State or its designees conducting a federal Superfund or State hazardous waste response action or Operation and Maintenance of the these actions. The requirements for obtaining a permit in this section do not apply to the City when conducting activities in the ordinary course of business; however, such activities shall otherwise comply with the Performance Standards of this Chapter.

(6) PERMIT PROCEDURES.

(A) *Application.* All permit applicants shall use a form provided by the City. A fee shall be assessed in accordance with a schedule adopted under Chapter 1 of the Eureka City Land Use Ordinance. Each applicant shall, at a minimum, provide the following information, which may also be required for a building permit:

(i) The location and nature of the proposed activity, including the address and legal description of the property, and a legal property survey.

(ii) A site-plan drawing showing property boundaries, structures, other property improvements, and yard areas.

(iii) The estimated depth of any proposed excavation and estimated volume of material to be excavated or disturbed.

(iv) The estimated surface dimensions of all areas to be disturbed or affected by the proposed activity, including areas used for the stockpiling or handling of soils. Such area shall be defined as the "Permit Area."

(v) The estimated volume of material to be disposed in the Open Cell.

(vi) The applicant's plans for conserving the existing Protective Cap placed by EPA during the Cleanup. The area(s) where the Protective Cap material(s) will be stockpiled during the excavation and construction to prevent cross-contamination of material before it is re-laid over Contaminated Soil to a depth of 18 inches. The stockpile area must be adequately protected to ensure that recontamination does not occur during the excavation or construction activities.

(vii) The applicant's plans for conducting soil sampling (if necessary) or the results of sampling previously conducted, in accordance with the requirements for soil sampling in Appendix A.. Sampling shall be supervised by the City. The cost of soil sampling shall be borne by the property owner.

(viii) Such additional information as determined by the City to be reasonable and necessary to evaluate the safety of the proposed construction activity and its compliance with this Chapter.

(B) No excavation permit shall be issued before the application has been reviewed and approved by the City, utilizing the performance standards set forth in Subsection 7. Nor shall any excavation permit be issued until the City has inspected the property to determine if conditions on the property and the applicant's plans for the excavation activities comply with this Chapter. All permits issued must comply with this Chapter.

(C) The duration for the permit will be established in the terms of the permit.

(7) PERFORMANCE STANDARDS.

The following performance standards shall apply to all soil disturbing activities including Restricted and Exempted Activities within the Site and within the jurisdiction of the City.

(A) *Excavation and construction.*

(i) **Properties Previously Cleaned Up:** For properties that were part of EPA's Cleanup, excavated material must be transported to the Open Cell for disposal as it is excavated. Excavated materials include materials generated from Exempted Activities and Restricted Activities.

1. Where the property owner wishes to conserve clean Protective Cap material(s) for re-use after excavation and construction, plans for stockpiling the clean material(s) on the Permit Area to prevent the materials from being contaminated during excavation or construction must be provided to the City prior to commencing excavation. Protective Cap material(s) must be kept an adequate distance from excavation activities or must be shielded from excavation activities by such measures as berms, silt fencing, and tarping to avoid cross-contaminating clean materials.

2. During excavation, Contaminated Material, i.e., material removed below the 18 inch Protective Cap, must be transported to the Open Cell for disposal as it is excavated. Excavated materials include materials excavated by Exempted Activities and Restrictive Activities.

(ii) **Properties Not Previously Cleaned Up:** For properties that were not part of EPA's Cleanup, excavated materials: 1) can be transported to the Open Cell for disposal as the Permit Area is excavated; or 2) do not need to be transported to the Open Cell if it is determined through representative sampling and analysis pursuant to the requirements in Appendix A that the excavated materials are not Contaminated Soils; or 3) can be used as fill within the Permit Area below a Protection Cap or Hard Surface Cover; or 4) can be disposed of elsewhere in accordance with federal and state hazardous waste regulations.

(iii) Contaminated material can be stored on the Permit Area for up to 30 days on properties that have not been part of EPA's Cleanup. Any Contaminated Materials that are stored on the Permit Area, shall be securely contained on a durable non-permeable tarp and covered with a durable non-permeable tarp to prevent the transport of Contaminated Materials onto clean material. Alternatively, berms or other temporary diversion structures may be constructed to prevent stormwater runoff from leaving the Permit Area.

(iv) It is the responsibility of the property owner and the permit holder to prevent migration of any Contaminated Material off the Permit Area, including but not limited to sediment due to stormwater runoff, tracking of Contaminated Materials from vehicle and construction equipment traffic and from wind erosion. The property owner should make every effort to limit the duration that the Contaminated Material on the Permit Area is exposed without a

Protective Cap or Hard Surface Cover. The installation of a Protective Cap or Hard Surface Cover within the Permit Area shall be a condition of Certification of Occupancy.

(v) The Open Cell is solely for the purpose of disposing of lead Contaminated Soils displaced during future development or the repair or installation of utilities within the City corporate limits. Disposal of other types of waste – household waste, used oil and other chemical waste, vegetation, building debris, large items such as vehicles, appliances, etc. is prohibited.

(B) *Driplines.* Within the dripline of established trees, removal of 18 inches of Contaminated Soil and replacement of 18 inches of clean soil is not feasible without severely compromising the viability of the tree. In such cases, less than 18 inches of clean soil is permissible; however, the applicant must excavate to the top of the tree roots place some clean soil over the roots and establish a Vegetative Cover within the dripline of the tree.

(C) *Removal of Contaminated Soil*. All excavated Contaminated Soils that are removed from the Permit Area must be transported to and disposed at the Open Cell. Contaminated Soil removed, placed, stored, transported, or disposed anywhere other than the Open Cell is subject to State and/or Federal transportation and disposal requirements.

(D) *Imported soil*. All imported soil used for a Protective Cap must have a lead concentration lower than the acceptable lead standard for the designated use as set forth in the definition above for Contaminated Soil or Contaminated Material and as determined in EPA's Record of Decision (2002). The exact location from where the imported soil is obtained must be identified in the permit application. The City may at its discretion require that the imported soil be tested according to the sampling and analysis procedures in Appendix A prior to the soil being brought into the Permit Area. Mine waste material is not an acceptable source of material for a Protective Cap.

(E) *Dust suppression*. All Restricted Activity shall be accompanied by dust suppression measures, such as the application of water or other soil surfactant, to minimize the creation and release of dust and other particulates into the air. Application rates shall be regulated to control dust during excavation and from stockpiled soils while minimizing saturated conditions that could produce surface runoff or significant accumulation of Contaminated Materials on excavation or hauling equipment.

(F) *Marker Barrier*. Any Restricted Activity (i.e. requiring a permit) shall include the placement of a marker barrier after the final grading of sub-grade material and prior to placing the clean topsoil or roadbase material. A marker barrier is not necessary for areas that are capped with a "Hard Surface Cover" or where a permanent structure is constructed.

(G) *Vegetative Cover on Non-Remediated Areas.* For areas that have not been remediated by EPA because a heavy vegetative cover exists to limit exposure to Contaminated Soils, the property owner shall not clear the vegetation without an excavation permit that meets the Performance Standards of subsection (7) of this ordinance.

(8) SOILS TESTING.

A property owner may sample and analyze excavated soils at the owner's expense to determine the lead content of the excavated soils. Soil sampling shall be conducted by City staff or by a designated person (contractor) who has been approved by the City and has the appropriate experience and qualifications. All soil samples shall be analyzed by a laboratory accredited by the National Environmental Laboratory Accreditation Program that is qualified to conduct the appropriate soil analyses. All testing shall utilize and adhere to the protocols in Appendix A of this ordinance.

(9) NOTIFICATION OF COMPLETION.

Upon completion of any permitted activity or within 1 year from the commencement of excavation, which ever occurs first, the permit holder shall notify the City that the activity has been completed in conformance with the requirements of this Chapter and shall request a Certificate of Occupancy.

Prior to issuing a Certificate of Occupancy, the City shall inspect the Permit Area to determine whether the permit conditions have been met and whether the work conforms to the requirements of this Chapter.

(A) When the work complies with the permit and this Chapter, the City shall issue a Certificate of Completion.

(B) In the event that the work fails to comply with the permit or this Chapter, the City shall issue a Notice of Deficiency, which shall explain the deficiencies noted at the property. If the property owner fails to correct any such deficiencies, the City may take enforcement action in accordance with the Eureka City Plan, Chapter 7 and with this Chapter 13, Subsection 11.

(C) For a Certificate of Completion, the City shall conduct a final inspection to determine whether the work complies with the requirements of the permit and this Chapter. Establishment of a Vegetative Cover for all soil areas shall be a condition for determining that the work is complete.

(10) INSPECTION AND MAINTENANCE.

In addition to all other requirements set forth in this Chapter 13, the following requirements shall

apply to the use and maintenance of all lands within the Site and the jurisdiction of the City, including, but not limited to, lawns, play areas, and parking lots.

(A) The City shall conduct periodic inspections of the permitted construction activity to ensure that the conditions of the permit are being adhered to.

(B) All properties within the City limits shall be subject to inspection by persons authorized or appointed by the City in order to enforce the provisions of this Chapter 13 regardless of whether or not a permit is required.

(C) All properties within the Site shall be maintained by the property owner with a Hard Surface Cover or Protective Cap.

(D) All properties within the Site shall be maintained by the property owner in a manner that will minimize erosion, including the control of drainage and surface water run-off in a manner that will prevent the formation of ditches or gullies.

(11) PENALTIES

(A) A violation of this Chapter 13 is punishable as a class B misdemeanor pursuant to the Eureka City Plan, Chapter 7; U.C.A. 76-3-204; and U.C.A. 76-3-301 or by imposition of a civil penalty pursuant to the Eureka City Plan, Chapter 7. Each provision of this Chapter 13 of the Eureka land use ordinance that is found to be not in compliance will constitute a separate violation.

(12) APPEALS.

(A) Any person adversely affected by a City decision administering or interpreting this Chapter may, within 10 calendar days of the decision, appeal that decision to the Board of Adjustment (BOA) by alleging that there is an unreasonable error in any order, requirement, decision or determination made by the City in the administration or interpretation of the land use ordinance, including issuance of a permit.

(B) No person may challenge in district court a City decision made under these ordinances until that person has exhausted the person's administrative remedies as provided for in Section 1, paragraph (12) of this Chapter 13, and UCA 10-9a-701 through 10-9a-708, as applicable.

Section 2

The City Clerk is directed to file and have recorded a certified signed copy of this Chapter, along

with a certified copy of an official map depicting the boundaries of the Eureka Mills Superfund Site and the current City corporate limits, in the office of the Eureka City Recorder.

Section 3

This ordinance shall be effective upon recording in the office of the Eureka City Recorder.

Section 4

If any section, subsection, sentence, clause, phrase, or portion of this ordinance is for any reason held invalid or unconstitutional in a court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision and shall not affect the validity of the remaining portions thereof.

Section 5

A public hearing on the ordinance shall be held on the ___ day of ____, 2010, in the City Council Chambers, Eureka City Hall, Eureka, Utah.

INTRODUCED, READ, AND ORDERED PUBLISHED as provided by law by the City Council of the City of Eureka on the _____ day of _____, 2010.

_____
Milton Hanks, Mayor

ATTEST:

_____
Patricia Bigler, City Clerk

ADOPTED, PASSED, AND APPROVED this _____ day of _____, 2010.

_____
Milton Hanks, Mayor

ATTEST:

_____

Patricia Bigler, City Clerk

Appendix B

Wildlife Species Observed

During Field Visits

Appendix B - Species Observed During Field Visits (April 29 and June 13, 2013)

Species Observed	
Scientific Name	**Common Name**
Mammals and Reptiles	
Odocoileus hemionus	Mule deer (sign)
Cervus canadensiss	Rocky Mountain elk (sign)
Sciurus griseus	grey squirrel
Canus americanus	domestic dogs
Felis catus	domestic cats
Equus sp.	domestic horses
Bos primigenius	cattle
Crotalus sp.	rattlesnake (sign)
Phrynosoma platyrhinos	Northern desert horned lizard
Uta stansburiana	Side-blotched lizard
Birds	
Circus cyaneus	Northern harrier
Falco sparverius	American kestrel
Tyrannus verticalis	Western kingbird
Sialia currucoides	Mountain bluebird
Cathartes aura	Turkey vulture
Junco hyemalis	Dark eyed junco
Zonotrichia leucophrys	white crowned sparrow
Sturnella neglecta	Meadow lark
Chondestes grammacus	Lark sparrow
Polioptila caerulea	Blue-gray gnatcatcher
Zenaida macroura	Mourning dove
Corvus corax	Raven
Sturnus vulgaris	European starling

Appendix C

List of Threatened and Endangered Species from USFWS

Species By County Report

The following report contains Species that are known to or are believed to occur in this county. Species with range unrefined past the state level are now excluded from this report. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the IPaC application.

County: Juab, UT

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Action Status	Recovery Plan Stage
Birds	Yellow-billed Cuckoo (*Coccyzus americanus*)	Western U.S. DPS	Proposed Threatened	Sacramento Fish And Wildlife Office	-	-	-
	Greater sage-grouse (*Centrocercus urophasianus*)	entire	Candidate	Wyoming Ecological Services Field Office	-	-	-
Fishes	Least chub (*Iotichthys phlegethontis*)		Candidate	Utah Ecological Services Field Office	-	-	-
Flowering Plants	Ute ladies'-tresses (*Spiranthes diluvialis*)		Threatened	Utah Ecological Services Field Office	Ute Ladies'-Tresses Draft Recovery Plan	View Implementation Progress	Draft

Export options: CSV | EXCEL | XML | PDF

Appendix D

Correspondence Related to Cultural Resources

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Julie Fisher
Executive Director
Department of
Heritage & Arts

Utah Division of
State History

Brad Westwood
Director

MAR 04 2014

February 25, 2014

Alicia E. Kirchner
Chief, Planning Division
U.S. Army Corps of Engineers
Environmental Resources Branch
1325 J Street
Sacramento, CA 95814-2922

RE: Proposed Water and Wastewater Improvement Project in Eureka City, Juab and Utah Counties

For future correspondence, please reference Case No. 14-0198

Dear Ms. Kirchner:

The Utah State Historic Preservation Office received your request for our comment on the above-referenced undertaking on February 24, 2014.

We concur with your determinations of eligibility and effect for this undertaking.

This letter serves as our comment on the determinations you have made, within the consultation process specified in §36CFR800.4. If you have questions, please contact me at 801-245-7263 or Lori Hunsaker at 801-245-7241 *lhunsaker@utah.gov*.

Sincerely,

Chris Merritt, Ph.D.
Senior Preservation Specialist
cmerritt@utah.gov

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

FEB 20 2014

Brad Westwood
State Historic Preservation Officer
300 S. Rio Grande St.
Salt Lake City, UT 84101

Dear Mr. Westwood:

We are writing you pursuant to 36 CFR 800.4(a)(1) and 36 CFR 800.5(b) to inform you of the area of potential effects (APE) and request concurrence with our finding of no adverse effect to historic properties with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

The Corps has identified the APE as several separate properties located within the city of Eureka, Utah, and the surrounding area. The APE is located on lands held by the city of Eureka and privately owned within Juab and Utah Counties, Utah as shown in figures 1a-1c found in "A Cultural Resource Inventory for the Water and Wastewater Improvement Project, Eureka City, Juab and Utah Counties, Utah," (Enclosure).

The city of Eureka is proposing to install/replace several water/sewer lines within the city limits as well as construct several new water tanks in the areas surrounding the city. The combined water and sewer lines to be replaced or upgraded are equal to approximately 11.3 miles. The staging area is located just west of town within a 2.1-acre area. Excavated materials will be placed in a disposal area located approximately 0.2 miles south of town within a 3.1-acre area. The 300,000-gallon tank location would measure 71 by 71 meters within a 1-acre area and the booster station measures 56 by 54 meters within a 0.6-acre area. The tank, booster station, and associated water lines will be located either on the south side of town or approximately 0.2 miles north of town.

A combination of 8.8 miles of linear survey and 10.2 acres of block survey was used to document cultural resources within the APE in August 2013. The resulting report is enclosed for your review and record (Enclosure). Two historical archaeological sites, 42UT1632 and 42UT1633, were previously recorded within the APE, but could not be relocated. A third previously recorded site, a historic artifact scatter (42UT1423), was relocated and updated, but is no longer within the APE. Additionally, the town of Eureka

is listed on the National Register of Historic Places (#79002514) and 288 buildings were revisited to record their current condition, but none of the buildings will be affected by this project.

Native American Tribes with interests in the project area were contacted via letter on January 21, 2014 and were invited to consult on the project. No responses have been received to date, however, should any response with additional information concerning historic properties be received in the course of this project, the Corps would reinitiate consultation with your office.

In conclusion, the Corps is currently seeking concurrence on our APE determination and our finding of no adverse effect to historic properties. If you have any comments or questions, please contact Nikki Polson at (916) 557-6977 or by email at: nikki.polson@usace.army.mil. Please contact Mr. Dennis Clark Project Manager at (916) 557-7963 with any project specific questions.

Sincerely,

Alicia E. Kirchner
Chief, Planning Division

Enclosure

THE PAIUTE INDIAN TRIBE OF UTAH

440 North Paiute Drive • Cedar City, Utah 84721 • (435) 586-1112

FEB 18 2014

February 4, 2014

Environmental Resource Branch
Department of the Army
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

Dear Ms. Kirchner,

Subject: ***Eureka Culinary and Wastewater Systems Project***

The Paiute Indian Tribe of Utah is receipt of your letter dated January 21, 2014 and has reviewed the material and do not have any objections pertaining to the above named project.
At this time we are not aware of any cultural resource sites, practices, or locations of importance in the Tribe's traditional religion or culture. The tribe supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties.

The Paiute Indian Tribe of Utah sincerely appreciates the consideration and efforts you and your staff have made to consult with the tribes.

Sincerely,

Dorena Martineau

Dorena Martineau/Cultural Resources
Paiute Indian Tribe of Utah

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Ms. Lori Bear Skiby, Tribal Chairperson
Skull Valley Goshutes
P.O. Box 448
Grantsville, UT 84029

Dear Ms. Bear Skiby:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

We would like to invite your consultation under Section 106 of the National Historic Preservation Act of 1966, as amended. The area of potential effect (APE) is made up of several separate properties located within the city of Eureka, Utah, and the surrounding area. The APE is located on lands held by the city of Eureka and privately owned within Juab and Utah Counties, Utah (enclosure).

The city of Eureka is proposing to install/replace several water/sewer lines within the city limits as well as construct several new water tanks in the areas surrounding the city. The combined water and sewer lines to be replaced or upgraded are equal to approximately 11.3 miles. The staging area is located just west of town within a 2.1-acre area. Excavated materials will be placed in a disposal area located approximately 0.2 miles south of town within a 3.1-acre area. The 300,000-gallon tank location would measure 71 by 71 meters within a 1-acre area and the booster station measures 56 by 54 meters within a 0.6-acre area. The tank, booster station, and associated water lines will be located either on the south side of town or approximately 0.2 miles north of town.

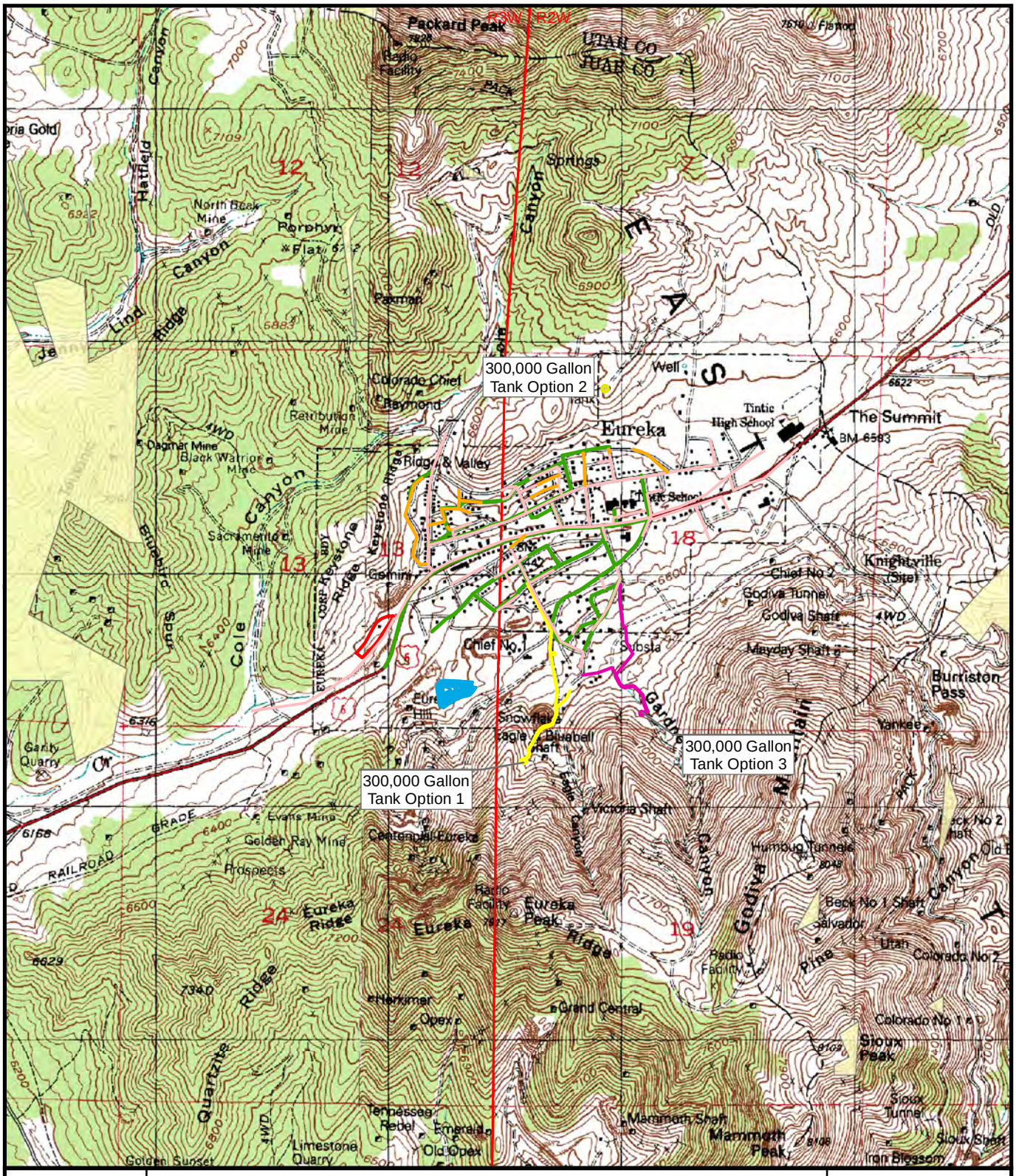
Examination of the proposed project areas resulted in no new discoveries of either cultural resource sites or isolated finds. One previously recorded site, a historic artifact scatter (42UT1423), was relocated and updated. Additionally, the town of Eureka is listed on the National Register of Historic Places, but none of the contributing buildings will be adversely affected by this project.

Please let us know if you have knowledge of locations of archaeological sites or areas of traditional cultural value or concern in or near the Project APE. If you have any other comments, suggestions, or questions, please contact Nikki Polson at (916) 557-6977 or by email at nikki.polson@usace.army.mil. Please contact Mr. James Baker, Project Manager at (916) 557-5394 with any project specific questions.

Sincerely,

Alicia E. Kirchner
Chief, Planning Division

Enclosure



Legend

- New Sewer Lines
- Replaced Sewer Lines
- Repository
- Staging Area
- Option 1
- Option 2
- Option 3
- New 8" Waterlines
- BLM
- Private

Figure1a. Eureka Culinary and Wastewater Systems Project Locations

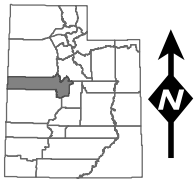
BIGHORN ARCHAEOLOGICAL CONSULTANTS, LLC

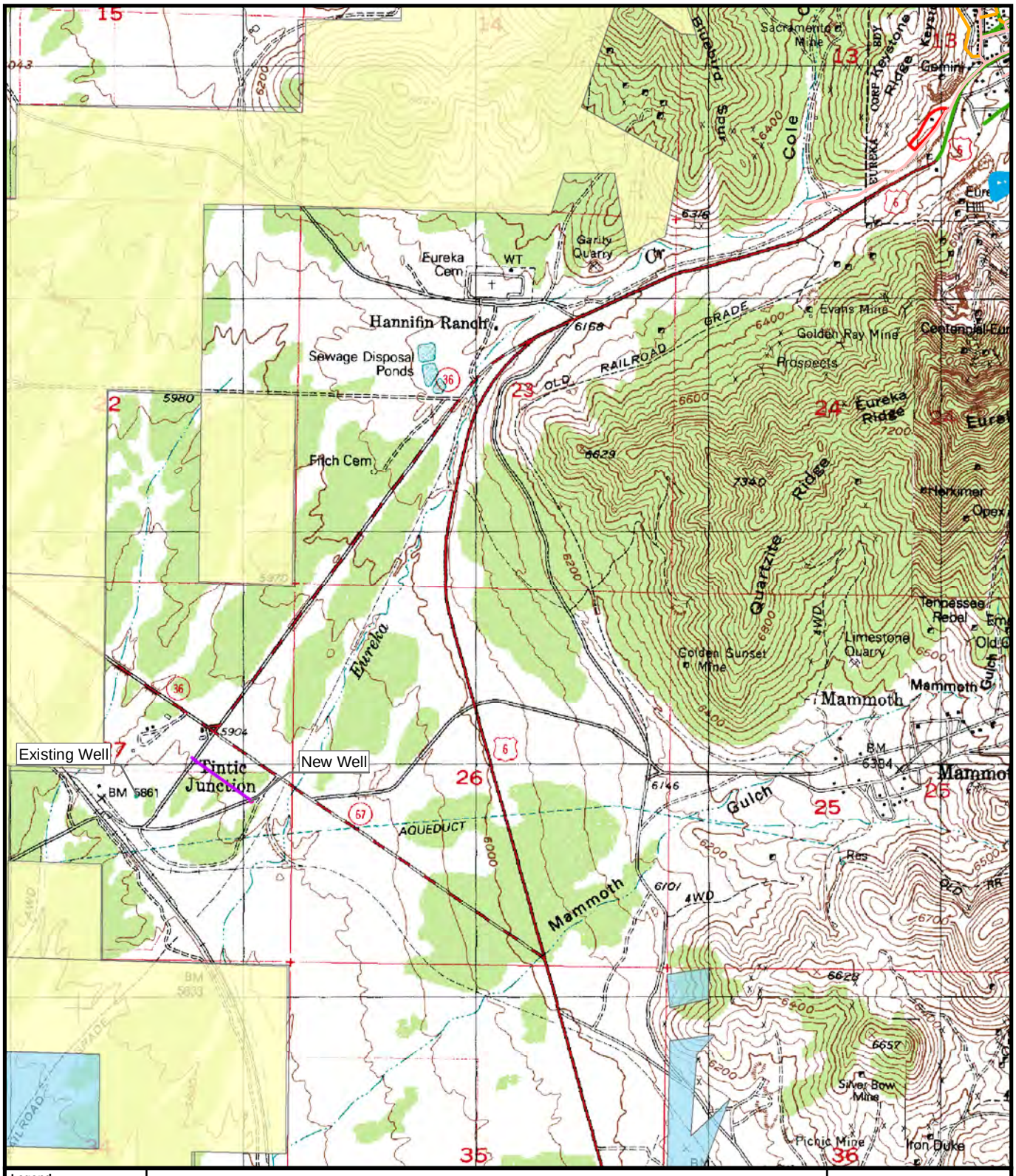
0 1:24,000 1 mi

0 1.5 km

USGS 7.5' Series Quad: Eureka and Tintic Junction, UT

Juab County
T10S, R2/3W





Legend

- New Sewer
- Replaced Sewer
- Repository
- Staging
- New 8"
- New 6"
- Existing Well
- New Well
- BLM
- Private
- SITLA

Figure 1b. Eureka Culinary and Wastewater Systems Project Location

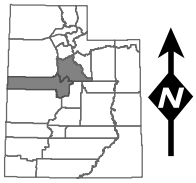
BIGHORN ARCHAEOLOGICAL CONSULTANTS, LLC

0 1:24,000 1 mi

0 1.5 km

USGS 7.5' Series Quad: Eureka and Tintic Junction, UT

Juab and Utah County
T10S, R2/3W



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Corrina Bow, Tribal Chairperson
Kanosh Band of Paiutes
P.O. Box 116
Kanosh, UT 84637

Dear Ms. Bow:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

We would like to invite your consultation under Section 106 of the National Historic Preservation Act of 1966, as amended. The area of potential effect (APE) is made up of several separate properties located within the city of Eureka, Utah, and the surrounding area. The APE is located on lands held by the city of Eureka and privately owned within Juab and Utah Counties, Utah (enclosure).

The city of Eureka is proposing to install/replace several water/sewer lines within the city limits as well as construct several new water tanks in the areas surrounding the city. The combined water and sewer lines to be replaced or upgraded are equal to approximately 11.3 miles. The staging area is located just west of town within a 2.1-acre area. Excavated materials will be placed in a disposal area located approximately 0.2 miles south of town within a 3.1-acre area. The 300,000-gallon tank location would measure 71 by 71 meters within a 1-acre area and the booster station measures 56 by 54 meters within a 0.6-acre area. The tank, booster station, and associated water lines will be located either on the south side of town or approximately 0.2 miles north of town.

Examination of the proposed project areas resulted in no new discoveries of either cultural resource sites or isolated finds. One previously recorded site, a historic artifact scatter (42UT1423), was relocated and updated. Additionally, the town of Eureka is listed on the National Register of Historic Places, but none of the contributing buildings will be adversely affected by this project.

Please let us know if you have knowledge of locations of archaeological sites or areas of traditional cultural value or concern in or near the Project APE. If you have any other comments, suggestions, or questions, please contact Nikki Polson at (916) 557-6977 or by email at nikki.polson@usace.army.mil. Please contact Mr. James Baker, Project Manager at (916) 557-5394 with any project specific questions.

Sincerely,

Alicia E. Kirchner
Chief, Planning Division

Enclosure

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Gordon Howell, Tribal Chairperson
The Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

Dear Mr. Howell:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

We would like to invite your consultation under Section 106 of the National Historic Preservation Act of 1966, as amended. The area of potential effect (APE) is made up of several separate properties located within the city of Eureka, Utah, and the surrounding area. The APE is located on lands held by the city of Eureka and privately owned within Juab and Utah Counties, Utah (enclosure).

The city of Eureka is proposing to install/replace several water/sewer lines within the city limits as well as construct several new water tanks in the areas surrounding the city. The combined water and sewer lines to be replaced or upgraded are equal to approximately 11.3 miles. The staging area is located just west of town within a 2.1-acre area. Excavated materials will be placed in a disposal area located approximately 0.2 miles south of town within a 3.1-acre area. The 300,000-gallon tank location would measure 71 by 71 meters within a 1-acre area and the booster station measures 56 by 54 meters within a 0.6-acre area. The tank, booster station, and associated water lines will be located either on the south side of town or approximately 0.2 miles north of town.

Examination of the proposed project areas resulted in no new discoveries of either cultural resource sites or isolated finds. One previously recorded site, a historic artifact scatter (42UT1423), was relocated and updated. Additionally, the town of Eureka is listed on the National Register of Historic Places, but none of the contributing buildings will be adversely affected by this project.

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Chief, Planning Division

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U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Gari Lafferty, Tribal Chairperson
Paiute Indian Tribe of Utah
440 North Paiute Drive
Cedar City, UT 84721

Dear Ms. Lafferty:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

We would like to invite your consultation under Section 106 of the National Historic Preservation Act of 1966, as amended. The area of potential effect (APE) is made up of several separate properties located within the city of Eureka, Utah, and the surrounding area. The APE is located on lands held by the city of Eureka and privately owned within Juab and Utah Counties, Utah (enclosure).

The city of Eureka is proposing to install/replace several water/sewer lines within the city limits as well as construct several new water tanks in the areas surrounding the city. The combined water and sewer lines to be replaced or upgraded are equal to approximately 11.3 miles. The staging area is located just west of town within a 2.1-acre area. Excavated materials will be placed in a disposal area located approximately 0.2 miles south of town within a 3.1-acre area. The 300,000-gallon tank location would measure 71 by 71 meters within a 1-acre area and the booster station measures 56 by 54 meters within a 0.6-acre area. The tank, booster station, and associated water lines will be located either on the south side of town or approximately 0.2 miles north of town.

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Chief, Planning Division

Enclosure

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U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Dorena Martineau, Cultural Resource Manager
Paiute Indian Tribe of Utah
440 North Paiute Drive
Cedar City, UT 84721

Dear Ms. Martineau:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

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The city of Eureka is proposing to install/replace several water/sewer lines within the city limits as well as construct several new water tanks in the areas surrounding the city. The combined water and sewer lines to be replaced or upgraded are equal to approximately 11.3 miles. The staging area is located just west of town within a 2.1-acre area. Excavated materials will be placed in a disposal area located approximately 0.2 miles south of town within a 3.1-acre area. The 300,000-gallon tank location would measure 71 by 71 meters within a 1-acre area and the booster station measures 56 by 54 meters within a 0.6-acre area. The tank, booster station, and associated water lines will be located either on the south side of town or approximately 0.2 miles north of town.

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Chief, Planning Division

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CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Ed Naranjo, Tribal Administrator
Confederate Tribes of the Goshute Indian Reservation
P.O. Box 6104
Ibapah, UT 84034

Dear Mr. Naranjo:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

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Chief, Planning Division

Enclosure

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CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Rupert Steele, Tribal Chairperson
Goshute Business Council
P.O. Box 6104
Ibapah, UT 84034

Dear Mr. Steele:

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Sincerely,

Alicia E. Kirchner
Chief, Planning Division

Enclosure

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U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA, 95814-2922

REPLY TO
ATTENTION OF

Environmental Resources Branch

JAN 2 1 2014

Director of the Cultural Rights and Protection Department
The Ute Indian Tribe
P.O. Box 190
Ft. Duchesne, UT 84026

To Whom It May Concern:

We are writing you with regard to a proposed Water and Wastewater Improvement Project (Project) in Eureka City, Juab and Utah Counties, Utah. The U.S. Army Corps of Engineers (Corps) is authorized by Section 595 of the Water Resources Development Act of 1999 to participate in water-related infrastructure projects and resource development projects in rural Utah.

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Sincerely,

Alicia E. Kirchner
Chief, Planning Division

Enclosure

Appendix E

Mailing List

Appendix E - Mailing List

Confederate Tribes of the Goshute Indian Reservation
Attn: Ed Naranjo, Tribal Administrator
P.O. Box 6104
Ibapah, UT 84034

Eureka City
15 North Church Street
Eureka, UT 84628

Goshute Business Council
Attn: Rupert Steele, Tribal Chairperson
P.O. Box 6104
Ibapah, UT 84034

Juab County
160 North Main Street
Nephi, UT 84648

Kanosh Band of Paiutes
Attn: Corrina Bow, Tribal Chairperson
P.O. Box 116
Kanosh, UT 84637

Paiute Indian Tribe of Utah
Attn: Gari Lafferty, Tribal Chairperson
440 North Paiute Drive
Cedar City, UT 84721

Paiute Indian Tribe of Utah
Attn: Dorena Martineau, Cultural Resource Manager
440 North Paiute Drive
Cedar City, UT 84721

Skull Valley Goshutes
Attn: Ms. Lori Bear Skiby, Tribal Chairperson
P.O. Box 448
Grantsville, UT 84029

Utah Department of Environmental Quality
Attn: Michael J. Storck, Project Manager
P.O. Box 144840
Salt Lake City, UT 84114

Utah Department of Transportation
Attn: Teri Newell, Region Three Director
658 North 1500 West
Orem, Utah 84057

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114

Utah Division of Drinking Water
P.O. Box 144830
Salt Lake City, Utah 84114

Utah Division of Water Quality
Attn: William (Bill) E. Damery
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Utah Division of Water Rights
Attn: Teresa Wilhelmsen, Regional Engineer
P.O. Box 146300
Salt Lake City, Utah 84114-6300

Utah Division of Wildlife Resources
Central Region
1115 North Main Street
Springville, UT 84663

Utah State Historic Preservation Officer
Utah Division of State History
300 South Rio Grande Street
Salt Lake City, UT 84101

Ute Indian Tribe
Attn: Gordon Howell, Tribal Chairperson
P.O. Box 190
Ft. Duchesne, UT 84026

Ute Indian Tribe
Cultural Rights and Protection Department
P.O. Box 190
Ft. Duchesne, UT 84026

U.S. Department of Agriculture
Natural Resources Conservation Service
125 South State Street, Room 4010
Salt Lake City, UT 84138

U.S. Department of Agriculture, Rural Development
Attn: Lori Silva
125 South State Street, Room 4311
Salt Lake City, UT 84138

U.S. Environmental Protection Agency, Region 8
Attn: Paula Schmittdiel
1595 Wynkoop Street
Denver, CO 80202

U.S. Fish and Wildlife Service
Utah Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119

Appendix F

Comments and Responses

State of Utah
GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF ENVIRONMENTAL
RESPONSE AND REMEDIATION

Brent H. Everett
Director

ERRC-129-14

July 15, 2014

Department of the Army
U.S. Army Engineer District, Sacramento
Corps of Engineers
Attn: Ms Lynne Stevenson (CESPK-PD-R)
1325 J Street
Sacramento, California 95814-2922

Re: Division of Environmental Response and Remediation Comments on Draft Environmental Assessment for the Water and Wastewater Improvement Project/Eureka City, Utah

Dear Ms. Stevenson:

Enclosed with this letter are the Division of Environmental Response and Remediation's (DERR's) comments on the *Draft Environmental Assessment for the Water and Wastewater Improvement Project for Eureka City, Utah.*

If you have any questions please give me a call at (801) 536-4179.

Sincerely,

Michael J. Storck, Project Manager
Division of Environmental Response and Remediation

MJS/ab

Enclosure(s)

cc: Stan Christensen, U.S. EPA Region 8

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144840 • Salt Lake City, UT 84114-4840
Telephone (801) 536-4100 • Fax (801) 359-8853 • T.D.D. (801) 536-4414
www.deq.utah.gov

DERR COMMENTS ON
DRAFT ENVIRONMENTAL ASSESSMENT
WATER AND WASTEWATER IMPROVEMENT PROJECT
EUREKA CITY, UTAH

Specific Comments:

1. Section 1.2, Second Paragraph, Page 1: In the second sentence delete the words "work sites" and replace with "proposed work areas".

   Response: Change made per comment.

2. Section 1.3, Second Paragraph, Page 1: In the first sentence insert the word "existing" prior to "water system".

   Response: Change made per comment.

3. Section 1.3, Second Paragraph, Pages 1-2: Please include the location of the Tintic Junction well and existing booster station to Plate 2, Existing Culinary Water Supply System.

   Response: The location of the existing booster station has been added to Plate 4. An arrow pointing toward the existing Tintic Junction well located approximately 3 miles to the west has been added to Plate 2. In addition, the location of the Tintic Junction well has been added to Plate 5.

4. Section 1.3, Third Paragraph, Page 2: Please include the location of Eureka Creek, the wastewater treatment facility and the three-cell, aerated lagoon system to Plate 3, Existing Wastewater Treatment System.

   Response: The approximate alignment of Eureka Creek (upper and lower Eureka Gulch) through the city, as well as an arrow pointing toward the existing wastewater treatment facility and lagoons located approximately 1.25 miles to the west, have been added to Plate 3. In addition, the label pointing to the wastewater treatment facility has been expanded to include the words "Existing" and "and Lagoons".

5. Section 1.4.1, Culinary Water System, Third Paragraph, Page 2: Revise the first sentence to read "In addition, Eureka City's culinary water system does not currently comply…"

   Response: Change made per comment.

6. Section 1.4.1, Culinary Water System, Fourth Paragraph, Page 2: In the second sentence please clarify that after January 1, 2007, the revised rule listed as (Minimum Water Pressure) UAC R309-105-9 (2) requires the following: a) 20 psi during conditions of fire

flow and fire demand experienced during peak day demand; b) 30 psi during peak instantaneous demand; and c) 40 psi during peak day demand.

Response: The second sentence has been revised to read: "As of January 1, 2007, the rules were revised per UAC R309-105-9(2) to ensure public safety and now require that new systems have minimum pressures of 20 psi during conditions of fire flow and fire demand experienced during peak day demand, 30 psi during peak instantaneous demand, and 40 psi under peak day demand."

7. Section 1.4.2, Wastewater System, Second Paragraph, Page 3: In the second sentence it states "The amount of wastewater entering the treatment facility is three times the expected amount based on State averages for per capita discharge, and more than double the quantity of culinary water being provided through the water system". Please cite the reference for State averages for per capita discharge for wastewater entering the treatment facility.

   Response: The words "per UAC R317-3-2.2-B-1" have been added after the word "discharge" in the second sentence. This code is the source of the State averages.

8. Section 2.3.1, Overview, First Paragraph, Page 5: Please insert the word "of" after "replacement".

   Response: Change made per comment.

9. Section 2.3.2, Pre-Construction Activities, Pages 5-7: Please note that all plans and specifications for any construction work on the culinary water system, including the well, well house, storage tank, booster station, water lines, disinfection systems, etc. shall be reviewed and approved by the Utah Division of Drinking Water prior to any construction activities (see UAC R309, Rules for Public Drinking Water Systems).

   Response: The following sentence has been added to the first paragraph: "All plans and specifications for work on the water system would be reviewed and approved by the Utah Division of Drinking Water."

10. Section 2.3.2, Groundwater Dewatering, Pages 5-6: It would be helpful to include a figure that depicts the area that will require dewatering (groundwater depths three feet and less).

    Response: The text under "Groundwater Dewatering" has been revised to explain that the area requiring dewatering would be determined by the contractor at the time of excavation of the pipeline trench due to the great variability of groundwater levels throughout the year. Thus, the exact area cannot be depicted on a figure at this time.

11. Section 2.3.3, Construction Details, Second Paragraph, Page 7: The report states that the storage tank site, supply line and booster station are located on Chief Mining Company's

property. It is our understanding that the Chief Mining Company's property on the Eureka Superfund Site had been purchased by Ophir Minerals & Aggregate Company. Please verify if this is true and if so, revise the document accordingly.

Response: The City recently purchased the new storage tank site and the booster station site. They also obtained an easement for the pipeline from the booster station to the tank. The second paragraph, as well as other parts of the EA, have been revised to reflect the new ownership and easement.

12. Table 2, Features and Surface Disturbance of Wastewater System Improvements, Manholes, Page 8: It states that 85 new manholes will be constructed. Please explain why the permanent disturbance area is 0.00 acres as it seems the permanent disturbance area would be similar to the diameter of the manhole (2-3 ft. diameter).

    Response: The permanent disturbance area in Table 2 has been revised to 0.05 acre to reflect the updated (see response to #20) total area of permanent disturbance by the manholes.

13. Section 2.3.3, Water Well and Well House, First Paragraph, Page 8: Please revise the last sentence of the paragraph to read "Prior to drilling the new well, the contractor shall be required to secure all necessary approvals from the State Engineer, and the Utah Division of Drinking Water, including provisional approval to drill the well and an approved Change in Point of Diversion.

    Response: The phrase "and the Utah Division of Drinking Water" has been added to the last sentence after "…State Engineer".

14. Section 2.3.3, Water Well and Well House, Second Paragraph, Page 8: The report should clarify that a new well has already been constructed and provide the date that installation was completed

    Response: A new paragraph has been added, explaining that a test well was drilled, evaluated, and capped at the new well site in May 2014 as part of the project design work.

15. Section 2.3.3, Water Well and Well House, Third Paragraph, Page 8: The report should indicate that excavated soil will be sampled and if it exceeds the remedial soil cleanup level for lead (231 ppm), the contaminated soil will be disposed of in the Open Cell.

    Response: A sentence has been added to the end of the new paragraph (noted in response to comment #14), indicating that excavated material would be sampled for lead and then disposed according to the City's Land Use Ordinance, Chapter 13 Special Regulations – Eureka Mills Superfund Site.

16. Section 2.3.3, Water Well and Well House, Fifth Paragraph, Page 9: The last sentence should be revised to read "The two west wells (the Tintic Junction well and the new culinary well) would be the primary wells, and the five east wells would provide a back-up water source during high demand".

    Response: The wording in the last sentence has been revised per the comment.

17. Section 2.3.3, Water Storage Tank, Second Paragraph, Page 9: The second-to-last sentence of the paragraph states that the excavated area for the storage tank would be approximately 100 feet by 120 feet. This is not consistent with Table 1, which states the dimensions of disturbance for the permanent area of the storage tank is 150 feet by 150 feet. Please review and revise accordingly.

    Response: The correct dimensions for the excavated area are 150 feet by 150 feet. The incorrect dimensions in the second-to-last sentence have been corrected accordingly.

18. Section 2.3.3, Water Storage Tank, Third Paragraph, Page 9: The first sentence of the paragraph should clarify that "chemically tested" refers to excavated material that will be sampled according to the Soil Sampling Plan that is part of the Land Use Ordinance that was adopted by Eureka City.

    Response: The first two sentences have been revised to read: "… tank site during excavation and sampled for lead contamination in accordance with the City's Land Ordinance in order to determine whether the material is suitable for reuse as fill around the tank or whether it would need to be hauled to the Open Cell Repository. If the material is unsuitable for reuse (lead concentration exceeds 231 ppm), clean fill …."

19. Section 2.3.3, Water Storage Tank, Third and Fourth Paragraphs, Page 9: The report should indicate "clean fill material" or imported soil cited in the third and fourth paragraphs must meet the requirements of the Eureka City Land Use Ordinance for a protective cap (soil barrier over contaminated soil) and have a lead concentration of 100 ppm or less.

    Response: The following sentence has been added to the third paragraph: "Per the City's Land Use Ordinance, all imported soil/fill material used as a protective cap (soil barrier over contaminated soil) would be required to have a lead concentration of 100 ppm or less."

20. Section 2.3.3, Water and Wastewater Pipelines, First Paragraph, Page 10: The report indicates that the new pipeline would include approximately 34,640 feet of water line. According to an email submitted to DERR by Sunrise Engineering on July 3, 2014, the new water line has been reduced by 2,300 feet (water line between the new booster station and new water tank). Please review and revise accordingly.

    Response: Refinements to the locations and lengths of proposed pipelines were made after the draft EA was made available for public review in June 2014. The final EA has been reviewed and revised, as needed, to update the proposed pipeline description, as

well as reflect any associated changes in types or degree of associated environmental effects due to these refinements.

21. Section 2.3.4, Borrow Materials and Sources, Page 13: Please see specific comment no. 19 with regards to using clean soil material.

    Response: The following sentence has been added to the end of the section: "This soil material to be used as a protective cap would be required to have a lead concentration of 100 ppm or less per the City's Land Use Ordinance."

22. Section 2.3.4, Stockpiling and Disposal Areas, Pages 13-14: Please note, according to the Eureka City Land Use Ordinance if contaminated soil is stockpiled or stored on the "permitted area" (properties where excavation or earth moving activities occur within the Site) the contaminated material shall be securely contained on a durable non-permeable tarp and covered with a durable non-permeable tarp to prevent the transport of contaminated materials onto clean material.

    Response: To avoid the transport of contaminated materials onto clean material, all excess soil material contaminated with, or with unknown concentrations of, lead would not be stockpiled at the work sites, but would be transported immediately by truck to the Open Cell Repository for disposal.

23. Section 2.3.4, Stockpiling and Disposal Areas, Third Paragraph, Page 14: Regarding the placement of contaminated soils in the Open Cell Repository please refer to the Operation & Maintenance (O&M) Manual (July 2009), Section 8.2.1, Placement of Contaminated Soils, with regards to grading, compacting and maintaining the drainage structure. Also please reference Section 8.1, Description and Purpose of the Open Cell, with regards to using the decontamination pad, located adjacent to the repository, for the decontamination of vehicles after contaminated soil is disposed of and prior to leaving the Open Cell.

    Response: The fourth paragraph of the section has been revised to indicate the basic requirements regarding placement of contaminated soils in the Open Cell Repository; grading, compacting, and maintaining the drainage structure; and using the decontamination station to remove any remaining contaminated soils from the truck prior to leaving the repository.

24. Section 2.3.5, Construction Schedule, Page 14: Please provide a construction schedule that includes dates for milestones completed and review times for major deliverables such as the bid packages and 60% and 90% designs and specifications.

    Response: A current project schedule has replaced the first paragraph in the section.

25. Section 3.3.1, Existing Conditions, Fourth Paragraph, Page 21: Please clarify in the report how many field visits were conducted in June 2013. Also, please briefly define the term "protocol surveys" as it's used in the last sentence of the paragraph.

Response: The first sentence has been revised to indicate that two field visits were conducted in April and June 2013. In addition, the words "protocol surveys" have been replaced with "species-specific".

26. Section 3.4.2, Water and Wastewater Systems Improvements, Third Paragraph, Page 23: The text states that all replaced piping made with asbestos would be left in place, rather than removed and disposed of in order to avoid potential air quality issues due to airborne asbestos fibers. Please note if some pipe needs to be removed to make way for the new pipe State and Federal Regulations may apply. The State, UAC R307-801, and Federal, 40 CFR Part 61 Sub-part M, regulations require that the pipe remain intact as much as possible if removed. Projects that disturb (crumble, pulverize or reduced to powder) more than three linear feet of asbestos-containing pipe are regulated and require a notice to the Division of Air Quality the day before the project begins. Projects that disturb more than 160 linear feet require notification 10 working days before the project begins.

    Response: The paragraph has been revised to indicate that any unanticipated disturbance or removal of asbestos piping would be conducted in accordance with Federal (40 CFR Part 61 Sub-part M) and State (UAC R307-801) regulations for handling this type of piping.

27. Section 3.5.1, Surface Water, First Paragraph, Page 24: The report should clarify that as Eureka Creek flows through the residential part of Eureka it is part of Upper and Lower Eureka Gulch, which is maintained by the City. The last sentence of the paragraph incorrectly states that Eureka Creek is not considered to be a viable aquatic habitat. According to the Division of Water Quality classification of waters of the State of Utah, UAC R317-2-13, Eureka Creek (Upper and Lower Eureka Gulch) is classified as (2B, 3E, 4) an active aquatic stream.

    Response: The first paragraph has been revised to clarify that the section of Eureka Creek flowing through the city is commonly known as upper and lower Eureka Gulch and is maintained by the City. The State's beneficial use classifications of Eureka Creek as 2B,3E, and 4 are also noted in the second paragraph.

28. Section 3.6.1, Surface Water, First and Second Paragraph, Page 26: It would be helpful to include a figure that depicts Eureka Creek, Tanner Creek and the wastewater treatment lagoons (drainage patterns and flow direction).

    Response: Eureka Creek (downstream of the city) and Tanner Creek are shown on Plate 1, and the existing wastewater treatment lagoons are shown on Plate 4. Additional portions of Eureka Creek as identified in the 2010 Groundwater/Surface Water Remedial Investigation Report by HDR have been added to Plate 6.

29. Section 3.6.2, Water and Wastewater Systems Improvements, Fourth Paragraph, Pages 27-28: The last sentence states there would be no long-term adverse effects on the

quality of either surface or groundwater resources. This may not be true as contaminated sediments could accumulate in Upper and Lower Eureka Gulch and result in the blockage of flow through the channel. This could result in a long-term adverse effect on drainage throughout the channel. Please review and revise accordingly.

*Response: The following sentence regarding long-term maintenance has been added to the fourth paragraph: "*In addition, the City would continue to maintain upper and lower Eureka Gulch, including erosion control and soil containment measures to avoid downstream transport of sediments and blockages to flow."

30. Section 3.7.2, Water and Wastewater Systems Improvements, Fourth Paragraph, Pages 30-31: Please note that the repair of the surfaces of access roads such as the Open Cell Access Road will be required and it's expected that after installation work is completed all access roads used during construction will be returned to pre-project conditions.

    Response: Revisions have been made to the first and fourth paragraphs, indicating that the surfaces of access roads would also be affected and that all access roads used during construction would be returned to pre-project conditions once construction is completed. In addition, the following sentence has been added to the end of Section 3.7.3: "The contractor would also comply with all requirements related to construction traffic within the Superfund site."

31. Section 3.9.1, Existing Conditions, Third Paragraph, Page 33: In the first sentence please insert the word "of" after "part".

    Response: Change made per comment.

32. Section 3.9.1, Existing Conditions, Third Paragraph, Page 33: In the second-to-last sentence of the paragraph you may want to consider adding "headframes" as one of the prevalent structures that can be visually seen throughout the city.

    Response: The word "headframes" has been added to the second-to-last sentence. Thank you for the good suggestion.

33. Section 3.10.2, Water and Wastewater Systems Improvements, First Paragraph, Page 37: Please briefly describe the two recorded sites (42UT1632 and 42UT1633) that were not located and may have been destroyed by previous construction actions.

    Response: The two recorded sites are identified in the second paragraph under Section 3.10.1, "Field Surveys", as a historic road (42UT1632) and a historic telegraph alignment (42UT1633).

34. Section 3.10.2, Water and Wastewater Systems Improvements, Second Paragraph, Page 37: In the last sentence of the paragraph please delete the second period.

    Response: Change made per comment.

35. Section 3.11.1, Lead Contamination, Paragraph following listed bullets, Page 39: Please revise the last sentence of the paragraph to clarify that blood lead testing conducted by the Utah Department of Health ended in the summer of 2011.

    Response: The following sentence has been added to the end of the paragraph: "Blood lead testing by the Utah Department of Health was ended in the summer of 2011."

36. Section 3.11.2, Water and Wastewater Systems Improvements, Second Paragraph, Page 40: The report should provide a brief explanation of how it was determined 30,000 cubic yards of material may need to be placed in the Open Cell.

    Response: The following two sentences have been added after the sentence that ends"… exported to the Open Cell Repository." to briefly explain the basis for the 30,000 cubic yard estimate: "This estimate is based on the total length of pipeline; widths and depths of trench excavation; quantities of bedding, drain gravel, and road base that would displace the excavated contaminated soils; and type of road or ground surface. The contractor would be required to reuse as much of the existing material as possible."

37. Section 5.0, Compliance with Environmental Laws and Regulations, Pages 41-43: Why does Section 5.0 identify the particular list of statues that it does when the body of the Environmental Assessment includes references to other environmental laws that are not included in Section 5.0?

    Response: Section 5.0 includes the Federal laws considered relevant to an environmental evaluation for this type of water-related infrastructure project under the Section 595 Rural Utah Program.

38. Section 5.0, Executive Order 11988, Floodplain Management, Page 42: The report should also state that the Federal Emergency Management Agency (FEMA) conducted and finalized a Flood Insurance Study (FIS) in 2007 to update the designation of the 100-year flood plain in Eureka. The FIS subsequently became the basis for the hydrologic design of the drainage channels and sediment ponds located on the Site. Please add this information to the report.

    Response: The text under Executive Order 11988 has been revised to indicate that FEMA conducted and finalized a FIS in 2007 to designate the 100-year flood plain in Eureka and that the FIS became the basis for the hydrologic design of the drainage channels and sediment ponds at the remediated Superfund Site.