

**FINAL
ENVIRONMENTAL ASSESSMENT**

**VIRGINIA CITY AND GOLD HILL
WASTEWATER SYSTEM IMPROVEMENTS
STOREY COUNTY, NEVADA**

July 2012



**US Army Corps
of Engineers** ®
Sacramento District



Sierra Front Office

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DOI-BLM-NV-C020-2011-004-EA



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

JUL 13 2012

FINDING OF NO SIGNIFICANT IMPACT
Virginia City and Gold Hill Wastewater Systems Improvements
Storey County, Nevada

I have reviewed and evaluated the information presented in this Environmental Assessment (EA) for the Virginia City and Gold Hill Wastewater Systems Improvements, Storey County, Nevada. The project would involve (1) upgrading the existing wastewater treatment plant in Virginia City, (2) replacing Virginia City's sewer collection system, (3) constructing sewer lift stations in Gold Hill, and (4) replacing and extending the Gold Hill sewer collection system. The work would reduce potential surface and groundwater contamination, ensure public and environmental health, and meet Virginia City and Gold Hill wastewater treatment demands. This project is authorized by Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53).

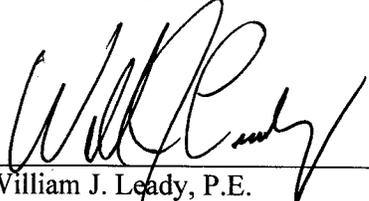
During this review, the possible consequences of the work described in the EA have been studied with consideration given to environmental, social, economic, and cultural feasibility. In evaluating the effects of the project, specific attention has been given to environmental conditions, including cultural resources and hazardous waste, which could potentially be affected. I have also considered the views of other government agencies, organizations, and individuals concerning the proposed project.

The project area is located entirely within the boundaries of the Virginia City Historic District (VCHD), which is listed on the National Register of Historic Places, as well as a National Historic Landmark (NHL). Numerous historic archaeological sites, features, and buildings have been identified that contribute to the integrity of the VCHD and NHL. Stipulations to determine the type and degree of any adverse effects of the project on these historic properties, as well as mitigation measures, are included in the Programmatic Agreement (PA) accompanying this EA. Implementing the stipulations in the PA would mitigate any adverse effects to less than significant.

Mercury contamination from past mining activities has been found in the soils and groundwater in Virginia City, Gold Hill, and surrounding areas. As a result, the project could disturb mercury-contaminated soils during surface clearing, grading, and excavation activities. To ensure public health, implementation of best management practices and measures required by the Nevada Division of Environmental Protection would reduce any effects on mercury 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 will be implemented in compliance with applicable Federal, State, and local laws and requirements. 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.

12 July 2012
Date



William J. Leady, P.E.
Colonel, U.S. Army
District Engineer

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1.0 PURPOSE AND NEED

1.1 Proposed Action

Storey County, Nevada, is proposing to (1) upgrade their existing wastewater treatment plant (WTP) in Virginia City; (2) replace the Virginia City sewer collection system; (3) construct sewer lift stations in Gold Hill; and (4) replace/extend the Gold Hill sewer collection system. Construction of an upgraded WTP is required to reduce potential groundwater contamination, ensure public health, and meet Virginia City and Gold Hill wastewater demands while accommodating potential future growth. Replacement of the sewer collection system in Virginia City is necessary due to severe deterioration of the existing system. Construction of the sewer lift stations and sewer collection system in Gold Hill is needed to replace the existing community septic system and provide sewage treatment capacity to Gold Hill.

1.2 Location of the Project Area

Virginia City and Gold Hill are located in Storey County, Nevada, approximately 18 miles southeast of Reno and 12 miles north of Carson City in western Nevada (Plate 1). The project area includes portions of T. 16 N., R. 21 E., and T. 17 N., R. 21 E., of the USGS Virginia City 7.5-minute quadrangle (Plate 2). The project area includes an area along Six Mile Canyon where the upgraded WTP would be constructed, the town of Virginia City where sewer lines would be replaced, and the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced.

Portions of the project area are located on public land administered by the U.S. Bureau of Land Management (BLM). Storey County has applied to the BLM for a right-of-way (ROW) to install the new sewer lines that would be located on BLM-administered public land. The BLM has proposed to directly convey the WTP parcel to Storey County. In addition, the project area is within the Virginia City National Historic Landmark (NHL), Virginia City National Register District, and Comstock Historic District.

1.3 Need for Proposed Action

1.3.1 Virginia City

Treatment of Virginia City wastewater began with the construction of sewage treatment ponds in 1972. In 1982, an aeration basin type of WTP was constructed, and the sewage pond located west of Six Mile Canyon was converted to serve as an aeration and equalization basin to the WTP, while the pond located east of Six Mile Canyon was converted to a sludge wasting area (Farr West Engineering, 2010). The portions of the WTP located west of Six Mile Canyon Road are located on BLM land. The sludge wasting area is located on Storey County property. The existing WTP has an operating capacity of 0.1 million gallons per day (mgd) with a maximum capacity (peak flow) of

0.5 mgd (CSA, 2007). The treated effluent from the WTP is discharged into Six Mile Canyon Creek, which flows east from the WTP and eventually drains into the Carson River approximately 7 miles from the WTP.

Except for an auger screen installed in 2008, the WTP has not been updated since its construction in 1982. The plant process still includes manual removal of solid wastes, and the treatment technology of the liquid waste is outdated. In addition, the drying beds are undersized to provide adequate sludge drying time. Construction of the upgraded WTP is needed to update the treatment process and technology, which would result in more efficient automatic processing of solids and improve the quality of the effluent being discharged into Six Mile Canyon Creek. In addition, based on the State of Nevada demographer's population estimates, the current WTP is undersized to process peak demand. An upgraded WTP is needed to treat wastewater for the population over the next 20 years.

During periods of high precipitation and runoff in Six Mile Canyon, stormwater has been known to flood the existing WTP aeration pond, discharging untreated wastewater downstream (Farr West Engineering, 2010). This discharge of untreated wastewater is both hazardous to public health and a violation of Nevada Division of Environmental Protection (NDEP) standards that require treatment of wastewater prior to discharge. Construction of a stormwater drainage channel is needed to route stormwater around the aeration pond, and to avoid flooding and discharge of untreated wastewater.

The existing Virginia City sewer collection system was developed starting in the 1930's. The majority of the existing collection system, with the exception of the main on C Street, which was replaced in 1985, consists of old wood, clay, metal, or concrete pipelines. Due to the age of the system and the materials used for construction, the Virginia City collection system includes cracked pipes, failed joints, and pipe bottoms that have rotted away (Farr West Engineering, 2010). A video survey conducted in 2007 found that many of the old pipelines were deteriorated beyond repair and the collection system had passed its useful life (CSA, 2007).

The Virginia City sewer collection system is allowing raw sewage to infiltrate into the ground. This raw sewage is harmful to ground water resources and ultimately public health. The NDEP requires treatment of wastewater prior to discharge. Due to leaks, the current collection system does not meet NDEP standards and needs to be replaced so that all of the Virginia City wastewater is collected and conveyed to the WTP. In addition to deterioration, the existing Virginia City collection system lacks a sufficient number of manholes to ensure proper maintenance of the system. As a result, there is inadequate access to the pipes, so routine repairs cannot be made.

1.3.2 Gold Hill

The Gold Hill sewer collection system does not currently service all residences and businesses in the area due to limited capacity of the community septic tank. Those portions of the community that are not connected to the collection system are currently

using individual septic systems. In addition, the existing collection main is located in the shoulder of State Highway 341 and is substandard because there are no manholes and insufficiently sized pipes (Farr West Engineering, 2010). The disposal field associated with the community septic system is failing as evidenced by the surfacing of effluent in the area (CSA, 2007). There is a need to provide waste water treatment to the Gold Hill community to reduce the potential for groundwater contamination and public health issues associated with effluent surfacing at the disposal field.

1.4 Project Authorization

This project was authorized by the Water Resources Development Act of 1999 (Public Law 106-53), which authorized the U.S. Army Corps of Engineers (Corps) to participate in environmental infrastructure projects in rural Nevada and Montana. The Corps is the Federal lead agency for compliance with Federal laws, and Storey County is the local sponsor for the project.

The ROW for replacement of 32,900 linear feet of pipeline on BLM-administered lands would be authorized by the BLM pursuant to Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (PL 94-579) and the regulations contained in 43 CFR 2800. The sewage WTP upgrade and expansion would be authorized by the BLM pursuant to the Recreation and Public Purposes Act of 1926 (R&PP), as amended, and the regulations contained in 43 CFR 2740 and 2912. The 12-acre WTP parcel would be conveyed directly to Storey County as a land patent, subject to appropriate reversionary and compensation provisions and existing valid rights.

1.5 Purpose of the Environmental Assessment

This Environmental Assessment (EA) discusses the environmental resources in the project area; evaluates the effects of the alternatives (including the proposed action) on the resources; and proposes measures to avoid, minimize, or mitigate any adverse effects to a less-than-significant level. 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 BLM's purpose and need for this EA is to respond to Storey County's application received on November 20, 2007, under Title V of the FLPMA for a ROW to replace the Virginia City and Gold Hill wastewater collection system. The BLM would also respond to Storey County's application pursuant to the R&PP Act to construct, operate, and maintain a WTP on BLM-administered public land.

Consistent with 48 *Federal Register* 34263 (July 28, 1983), upon a determination that this EA meets BLM's own regulations per NEPA, the BLM would adopt this EA in its own Finding of No Significant Impact (FONSI) statement. The BLM would issue a FONSI and Decision Record once all its requirements under NEPA have been met and a Programmatic Agreement (PA) with the Nevada State Historic Preservation Officer (SHPO) has been signed by all participating agencies to meet the Section 106

requirements of the National Historic Preservation Act (NHPA). The decision that the BLM will make is whether or not to grant the requested ROW and convey the parcel at the WTP directly to Storey County, and if so, what terms and conditions would be included as a part of the Notice to Proceed and other stipulations.

2.0 ALTERNATIVES

2.1 Alternative Designs Not Considered in Detail

Initially, several designs were considered for the wastewater treatment features of the project. These designs were described and evaluated in the Preliminary Design Report prepared for Storey County in 2010 (Farr West Engineering, 2010). This section identifies the alternative designs and summarizes the reasons why several designs were not considered further.

2.1.1 Virginia City

Two alternative designs were considered for the Virginia City WTP: (1) construction of a new WTP and conversion of the existing WTP to an equalization tank and (2) construction a new WTP and a new equalization tank. The first design would use the existing WTP as an equalization basin. This design would present a substantial risk to water quality and public health because the existing WTP is deteriorating and could fail in the near future. This failure would result in a discharge of untreated wastewater downstream. Therefore, the second design, which does not rely on the existing WTP and includes construction of a new equalization basin, was identified as the preferred alternative design and is considered further in this EA.

2.1.2 Gold Hill

Two alternative designs were considered for the treatment of wastewater in Gold Hill. The first design involved conveying Gold Hill wastewater to the Virginia City collection system and WTP through a series of lift stations. The second design involved constructing a WTP for the Gold Hill community at American Flat west of Gold Hill and pumping the Gold Hill wastewater to this new WTP. The construction of a new WTP at American Flat was not considered further because a new WTP would substantially increase the size of the construction footprint and would require grading an undisturbed vegetated area. Also, a substantial amount of energy and resources would be required to operate and maintain a plant.

With the project features in place, the upgraded Virginia City WTP would have the capacity to treat the Gold Hill wastewater based on State demographer projections for the next 20 years. Because the sewer lift stations would have a smaller footprint and would have less operational demands than a new WTP at American Flat, construction of the sewer lift stations was identified as the preferred alternative design for treatment of Gold Hill wastewater and is evaluated in this EA.

2.2 No Action

Under the no action alternative, an upgraded WTP and collection system would not be constructed for Virginia City, and the wastewater collection system would not be extended to Gold Hill. The existing WTP would continue to operate using outdated treatment technology, as well as manual removal of solids, undersized sludge drying beds, and a clarifier/equalization basin that is subject to flooding. The WTP would continue to be undersized to meet the needs of the population, considering the projected growth over the next 20 years.

In addition, the existing Virginia City wastewater collection system would continue to leak untreated wastewater into the soil, contaminating groundwater resources, and wastewater treatment would not be provided to Gold Hill. Ground and surface water contamination due to untreated wastewater would continue to threaten public health and violate NDEP wastewater standards.

2.3 Wastewater System Improvements (Preferred Alternative)

The preferred alternative would include (1) construction of an upgraded WTP along Six Mile Canyon, (2) replacement of the sewer collection system in Virginia City, (3) construction of sewer lift stations and force main, and (4) replacement of the sewer collection system for Gold Hill. This work would reduce potential groundwater contamination, ensure public health, and meet Virginia City and Gold Hill wastewater treatment demands while accommodating potential future growth in the area.

2.3.1 Pre-Construction Activities

Permits, Utilities, and Approvals. Prior to initiation of work, the construction contractor would be required to obtain all Federal, State, and local permits and approvals necessary to perform the work, including those related to stormwater discharge, WPT effluent, fugitive dust, and traffic. Specific permits and approvals related to environmental resources are discussed in Section 3.0.

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 directly concerning the timing and degree of the proposed work. These utility companies could include NV Energy and Storey County Public Works.

In addition, Storey County would be responsible for obtaining required Federal land use authorizations from the BLM. This would include work on portions of the collection system; WTP; and test pits, borings, and exploration. The WTP would be located on approximately 12 acres of BLM-administered public land. As shown in Table 1, up to approximately 46,000 linear feet of sewer line, storm drain, and force main would be located on BLM-administered public land in Virginia City and Gold Hill, requiring a ROW for replacement.

Table 1. Locations and Types of Pipeline on BLM Land

Section	Total (linear feet)	BLM Land (linear feet)
Virginia City sewer lines	63,500	28,700
Virginia City sewer lines alternate	12,800	4,200
Virginia City Total	76,300	32,900
Gold Hill sewer line (excludes force main)	10,900	4,500
Gold Hill sewer line alternate	3,400	1,400
Gold Hill Total	14,300	5,900
Sewer line total	74,400	33,200
Sewer Line with Alternatives Total	90,600	38,800
Force main total	7,000	3,200
Force Main Alternate Total	11,500	4,600
Virginia City Storm Drain Total	6,600	2,600
Total with Alternatives	108,700	46,000

Dewatering. Due to the close proximity to Six Mile Canyon Creek, the WTP area would be expected to have shallow groundwater. Prior to construction, geotechnical borings would be conducted to determine the depth to groundwater. If the depth to groundwater is greater than the depth of trenches, structures, or other excavation, then no dewatering would be required. However, if groundwater is encountered, then well points and a pump would be used to dewater the work area prior to construction. The contractor would be responsible for obtaining a temporary dewatering permit from the NDEP prior to dewatering, and all conditions of the permit would be complied with during construction.

Test Pits, Borings, and Exploration. Trenching and boring would be conducted as a part of geotechnical explorations to provide information in support of the engineering design. The locations of the test pits and borings are shown on Plate 5. In addition, cultural resource explorations would be conducted as requested by the SHPO. The locations of the explorations would be based on a cultural resources sensitivity document.

This pre-construction work could have short-term effects on traffic, noise levels, and the local viewshed. Although road closures are not expected due to the size and location of the work, traffic controls such as lane closures may be required in some areas. Use of equipment such as the backhoe and drill rig would result in increased noise levels nearby and changes in the local viewshed. However, once exploration activities are completed, traffic, noise levels, and the viewshed would return to existing conditions.

Test Pits. A total of 45 test pits (trenching) would be excavated throughout the project area, with 11 test pits located on Federal land administered by the BLM. Test pits would be excavated using a rubber tire backhoe with a 3-foot-wide bucket. The test pit would have a maximum depth of 10 feet, depending on bed rock, and would have a 45

degree slope towards ground level. The maximum dimensions for each test pit would be 3 feet wide by 10 feet deep by 12 feet long. There would only be one open pit exposed at a time for exploration. Once the test pit is logged, it would be backfilled and compacted with the excavated soil from the pit. The 45 test pits would be excavated and backfilled within a period of 12 days or less.

Borings. A total of 17 borings would be drilled throughout the project area, with nine borings located on Federal land administered by the BLM. The borings would be drilled using a rubber tire drill rig, which would create a hole with an 8-inch diameter. The maximum depth of each boring would not exceed 24 feet. Once the boring cuttings are logged, the hole would be backfilled and compacted with the removed soil. The 17 borings would be drilled and backfilled within a period of 5 days or less.

Explorations. Initially, a cultural resources sensitivity document would be prepared to identify those areas within the project area that are considered to have a high potential for the presence of cultural resources. The identification of these areas would be based on existing information such as topographic maps; data on cuts and fill of the area; Sanborn maps; knowledge of buried utilities including water, gas, and electric; archival information; and interviews with knowledgeable individuals on the historic district and landmark. Of those areas considered to have high potential where the project may affect subsurface resources, data recovery would likely take place.

Data recovery could consist of a variety of methods. To identify an archeological deposit or feature, methods could include excavating trenches with backhoes to identify locations and type of resource. Once identified, depending on its identification and relative importance to the Virginia City Historic District (VCHD), the deposit or feature could be further excavated either around the feature or as a 1-meter by 1-meter archeological excavation unit. Depending on the size of the archeological deposit or feature, the size of the excavation unit may increase. The type of excavation unit and method of excavation would depend on the type of the deposit or feature. Excavation units would likely be excavated in 10-centimeter intervals until the base of the cultural deposit or sterile soil is reached.

Staging and Stockpiling. Construction staging would take place in defined staging areas. Staging areas have been identified throughout the project area to provide nearby access to materials as construction progresses (Plate 3, Sheets 1 through 12). Due to the large size of the overall project area, 25 potential staging areas have been identified for the project. The staging areas would be cleared and stabilized using best management practices (BMP's) prior to delivery of materials. These BMP's could include erosion control fabric, fiber rolls, silt fence, or other BMP's as specified in the Stormwater Pollution Prevention Plan (SWPPP).

During construction, excavated materials would be temporarily stockpiled in the staging areas. Materials unsuitable for use as fill would be removed from the project site via haul trucks and disposed of at either the Carson City or Lockwood landfill. Once construction is completed in the associated work area, the soil stockpile and equipment

staging areas would be restored by reseeding with a seed mix that is weed free, appropriate for the area, and approved by BLM.

Mobilization. During mobilization, construction equipment would be moved onto the staging areas, along with PVC piping, gravels, concrete, steel, and other construction materials. Types of equipment would include hydraulic excavators, track hoes, front end loaders, dump trucks, haul trucks, and water trucks. In addition, areas would be provided for an administrative trailer and parking of worker vehicles.

2.3.2 Construction Details

Construction of the project would begin with improvements to the Virginia City WTP, followed by the Virginia City collection system and the Gold Hill sewer lift stations and collection system.

Virginia City Wastewater Treatment Plant

Grading. Construction would begin by clearing and grubbing the surface vegetation and debris from the areas surrounding the existing WTP that are proposed for surface grading. Since these materials are not suitable for reuse onsite, they would be temporarily stockpiled within the limits of construction and then removed via haul trucks for disposal at either the Carson City or Lockwood landfill.

These surrounding areas would then be graded to match the elevations identified in the engineering plans. Site grading would involve excavation of a total of approximately 8,500 cubic yards (cy) of material, all of which would be used onsite as fill material. All fill needed for the project would be obtained from onsite grading. As a result, no import or export of fill material would be required for the project. Excavated materials would be temporarily stockpiled at the County storage yard on the east side of Six Mile Canyon Road near the WTP.

Grading would also include excavation from the hillside to the west and south of the existing WTP. The slope would be re-contoured to a finished grade of 2 horizontal (H):1 vertical (V) and reseeded with vegetation typical of the area. The existing storage pond and drying beds would be filled and graded to provide a flat surface for the new WTP and sludge handling building (Plate 3, Sheet 5). Rocks or other similar material would be stored at the County storage yard and could be used to line the drainage channel.

Waterline, Access Road, and Fencing. An existing 2-inch waterline along Six Mile Canyon Road would be replaced with a 6- or 8-inch water main as determined by the Storey County Fire Department for fire remediation at the WTP (Plate 3, Sheet 5). A gravel access road would be constructed along the east and south portions of the project area. The area of the existing WTP would be converted to gravel access road/parking area for maintenance vehicles following construction of the new WTP and removal of the existing plant. The existing chain link fence around the WTP would be removed, and a

new chain link fence would be installed. The new fence line would extend beyond the existing fence line to include the drainage channel to the south and east of the existing WTP.

Grit Chamber, Headworks Vault, and Diversion Vault. A new grit chamber would be constructed along the east portion of the site adjacent to the existing storage pond. This grit chamber would be approximately 10 feet by 10 feet in size. The structure would receive influent from the sewer collection system and provide initial processing of wastewater via grit removal. A headworks vault, approximately 10 feet wide by 30 feet long, would be constructed adjacent to the grit chamber. From the headworks vault, water would be transferred to a diversion vault approximately 10 feet by 10 feet in size that would be constructed directly south and adjacent to the existing WTP. The grit chamber, headworks vault, and diversion vault would receive and process influent prior to treatment in the WTP.

Solids Handling Building and Digester. A new prefabricated metal building would be constructed to handle the solid wastes generated by the WTP. The new building would be constructed at the south end of the site at the approximate location of the existing sludge drying beds. The building would be approximately 40 feet wide, 40 feet long, and 20 feet high. The building foundation and floor would be constructed using 6 inches of compacted aggregate base overlain with 8 inches of concrete. A new sludge pump and sludge press inside the building would be used to compress the sludge (solid waste) prior to export to the landfill for disposal. A new prefabricated metal building would also be constructed for a digester. The digester would be enclosed within a building approximately 30 feet wide by 100 feet long, with a height of approximately 22 feet.

Drainage Channel. A drainage channel would be constructed around the west and south sides of the aeration pond to convey stormwater runoff from up-gradient areas around the WTP to an offsite area down-gradient from the WTP. The drainage channel would be constructed from the east end of the site and would convey water along the southern perimeter of the property. The drainage channel would be approximately 5 feet wide and 2.5 to 3.5 feet deep. The channel would be constructed with a 2H:1V slope and would be lined with riprap. The channel would follow Six Mile Canyon Road on the south side and discharge into Six Mile Canyon Creek approximately 750 feet from the WTP. Rock riprap would be used to dissipate flows at the outlet.

New Wastewater Treatment Plant. A new WTP would be constructed on the location of the existing storage pond on the southern portion of the site. The new WTP would be a pre-fabricated treatment plant. It would be constructed primarily below grade and would extend approximately 12 feet below grade and 4 feet above the ground surface. Construction would involve grading and excavating the surface; backfilling with aggregate base; pouring a concrete slab; constructing the walls and roof; and installing all of the structural, mechanical, and electrical interior and exterior features of the building. An anoxic chamber, aeration chamber, post-anoxic chamber, clarifier, and sludge holding tank would be housed within the new WTP.

Site Restoration/Building Removal. The existing sludge drying beds on the east portion of the site would be filled. The site would be restored and brought to finished grade prior to the construction of the sludge handling building at that location. The existing WTP would be demolished, and all structures except for the generator and lab would be removed when the new WTP is completed and fully operational. The location of the existing WTP would be covered with gravel and used for maintenance access/parking.

Virginia City Sewer Collection System

Pipeline. Approximately 76,300 linear feet of new sewer pipeline would be installed in the Virginia City area (Plate 3 Sheets 1 through 6). Approximately 32,900 linear feet of pipeline would be installed on BLM-administered public land, requiring a ROW from that agency. All sewer lines would be installed a minimum of 18 inches below and 5 feet in lateral distance from the nearest waterline.

In paved locations, construction of the sewer pipeline would include cutting through and removing the roadway asphalt and aggregate base in the area of excavation. A trench would then be excavated to a depth that would provide a minimum of 60 inches of cover above the sewer line, and the trench would be approximately 24 inches wider than the pipeline. The trench would be filled with a minimum of 6 inches of bedding material. The sewer line would be installed on top of the bedding material, and additional bedding material would be backfilled around the sewer line, providing a minimum of 12 inches of cover above the sewer line. The trench would then be backfilled to surface grade using stockpiled excavated material.

The new sewer line would cross the V&T Railroad in up to four locations. Three of these locations are part of the project, and one is associated with an alternative alignment of the sewer force main. In each of these locations, jack and bore construction techniques would be used to install the new sewer line. As a result, the project would avoid any adverse effects to the activities or operation of the V&T Railroad.

Any excavated material not suitable for reuse as backfill would be removed from the site, and stockpiled excavated material from a different portion of the project would be used as backfill. Installation of the pipeline would be completed along sections of the roadway each day to ensure that there would be no traffic or public safety concerns due to unattended open trenches.

Once installation of the pipeline is completed along a paved street, the disturbed area would be resurfaced with a cover of 6 inches of aggregate base and asphalt seal. Unpaved streets would be backfilled to match the natural ground surface elevation and would be compacted. Along hill slopes and areas of native vegetation, the finished ground surface would be reseeded with vegetation typical of the surrounding area.

Sewer Manholes. Approximately 324 manholes would be installed as part of the Virginia City sewer collection system. Precast manholes, cover, and base would be used. The manholes would be backfilled per the engineering plans, and a concrete collar would be installed. PVC pipe transitions and sewer couplings would be installed to connect the manhole to the sewer line. After final backfilling, disturbed paved roadways would be resurfaced with aggregate base and asphalt.

Storm Drain. The storm drain catch basins on C Street that were tied into the sewer system by the Nevada Department of Transportation (NDOT) would be disconnected from the sewer system. A separate storm drain main would run along C, Flowery, Silver, E, and Page Streets. This storm drain main would be separate from the sewer system and would discharge at the east end of Page Street.

Gold Hill Sewer Lift Stations. Three sewer lift stations would be required to pump the wastewater from Gold Hill up-gradient to the Virginia City collection system. The new lift stations would be located adjacent to the new pipeline alignment along SR 342. The work area for each lift station would be approximately 0.2 acre, for a total disturbance area of less than 1 acre. The first lift station would be located at the south end of the project area in Gold Hill on property owned by Storey County (Plate 3, Sheet 9). At this sewer lift station, the sewer line would discharge to a wet well and then gravity flow to inline grinders to reduce the size of solids. Finally, the wastewater would be pumped using positive displacement pumps through a force main to the second lift station.

The positive displacement pumps at the first lift station would be housed within a vault approximately 8 feet by 18 feet in size. The wet well, inline grinders, and positive displacement pumps would be constructed primarily below the ground surface and would extend approximately 1 foot above the ground surface. The force mains would consist of 4-inch pipeline. Construction of the sewer lift station would consist of excavating the surface; backfilling with aggregate base; pouring the concrete structure; installing all of the structural, mechanical, and electrical components of each structure; and connecting the sewer mains.

The second sewer lift station would be located west of C/Main Street, and the third sewer lift station would be located near the intersection of C/Main Street and Homestead Road (Plate 3, Sheets 7 and 8). The second and third lift stations would each consist of a wet well, which would receive wastewater through the force main. Positive displacement pumps would then pump the wastewater through the force main to Virginia City. The last force main segment would have an outlet manhole into the gravity sewer system in Virginia City. The construction of the wet well and positive displacement pumps for the second and third sewer lift stations is the same as for the first sewer lift station. For the second and third lift stations, two alternative locations are also provided because both would be located on private property. The final location of each sewer lift station would depend on agreements with the property owner.

Fencing/Electrical/Generator. The Gold Hill sewer lift stations would include a wooden security fence to protect the sites from vandalism. The fence would surround the sewer lift station and would provide room for access around the station. The area within the fence line would be compacted and covered with gravel to provide vehicle maintenance access. An electrical box would be installed at each of the sewer lift stations. The electrical box would be approximately 4 feet wide and 5 feet high. A generator would also be installed at the site. The generator would be approximately 6 feet wide and 6 feet high.

Force Main Alternative Alignments. Two force main alignments are being considered for the sewer lift stations at Gold Hill. The two alternative alignments are shown on Plate 3, Sheets 7 and 10. Both alignments are considered in this EA. The first force main alignment would follow C/Main Street north past the third lift station to the gravity sewer system in Virginia City. If the first alignment is selected, approximately 7,000 linear feet of force main pipeline would be required. This would include approximately 3,200 linear feet on BLM-administered public land.

The second alignment would follow Homestead Road east from the third lift station to State Highway 341. The alignment would then cross the highway at Homestead Road and connect to the existing sewer line in Virginia City. The pipeline would be installed under the highway using a jack and bore method to avoid any effects on traffic and the surface condition of the highway. If the second alignment is selected, approximately 11,500 linear feet of force main pipeline, as well as 2,400 linear feet of additional sewer line, would be required in Virginia City. This would include an additional 1,400 linear feet of force main on BLM-administered public land.

Gold Hill Collection System. Approximately 14,300 linear feet of new sewer pipeline would be installed in the Gold Hill area (Plate 3, Sheets 7, 8, and 9). Approximately 5,900 linear feet of pipeline would be installed on BLM-administered public land, requiring a ROW. All sewer lines would be installed a minimum of 18 inches below and 5 feet in lateral distance from the nearest waterline. The construction of sewer pipelines in Gold Hill would follow the same guidelines as the construction in Virginia City (see above). In addition, a total of 48 sewer manholes would be installed as part of the Gold Hill sewer collections system. After final backfilling for the new Gold Hill sewer collection system, paved roadways would be resurfaced with aggregate base and asphalt.

2.3.3 Borrow, Stockpiling, and Disposal

Borrow. Borrow materials would include riprap, drain rock, aggregate base, and bedding material to be used as layering material for road surfaces, trenches, and drainage swales. The material would be obtained and transported from local commercial sources meeting all State requirements. Other materials such as piping, concrete, and structural steel would be obtained from other commercial sources in the region.

Fill Areas. Three potential fill areas have been identified in the project area (Plate 3, Sheets 1, 5, and 7). All potential fill areas have been located on Storey County property. While the overall project has been designed so that excavation quantities would balance with fill quantities, excess material suitable for reuse could be excavated during one phase and not used until a following phase. The fill areas have been identified to store the excess suitable material between construction phases.

The first potential fill area is located across Six Mile Canyon from the WTP. This fill area is approximately 1 acre. The second fill area (approximately 2.5 acres) is located east of C Street and just north of Virginia City where the sewer line would be replaced. The third fill area (approximately 2 acres) is located in Gold Hill, east of C Street and north of Homestead Road near the Divide Reservoir. The fill areas would be temporarily stabilized using BMP's, including erosion control fabric, soil stabilizers/tackifiers, silt fence, fiber rolls, or other BMP's as specified in the Project SWPPP. Each fill area would be revegetated at the completion of the associated construction phase. All revegetation plans on Federal land administered by the BLM would be subject to BLM approval.

Disposal. Cleared brush, asphalt, concrete, steel, and other waste associated with construction of the new WTP, replacement of the sewer collection systems, and construction of the sewer lift stations would be transported offsite via haul trucks and disposed of at either Carson City or Lockwood landfill. The Carson City landfill is located approximately 16 miles south of the project area. The Lockwood landfill is located approximately 32 miles north of the project area. Asphalt grindings from the roadways would be used as surface material at the sewer lift stations, or at the fill location and adjacent County buildings identified on Plate 3, Sheet 7.

2.3.4 Construction Schedule/Phasing

Due to the overall high cost of the project, estimated to be approximately \$13.6 million, construction of the overall project is proposed in phases (Plate 4).

- Construct upgrades to WTP.
- Replace Virginia City collection system west of WTP and in the center of Virginia City.
- Replace Virginia City collection system and dissociate the storm drain in the southern portion of Virginia City and north of Gold Hill.
- Replace Virginia City collection system in the northern portion of Virginia City.
- Replace collection system in Gold Hill and construct sewer lift stations.

Construction of the upgraded WTP would not likely be initiated until spring of 2013. The timing of phases would depend on the availability of funding. A minimum of 6,000 linear feet of sewer line in Virginia City would need to be replaced prior to construction of the Gold Hill sewer lift stations and tie in with the new Virginia City collection system. This new Virginia City sewer line would be used to convey the Gold Hill wastewater to the upgraded WTP.

Work during most of the year for each phase would be conducted from 7:00 a.m. to 5:30 p.m., Monday through Friday. During the winter months, work would be conducted from 7:00 a.m. to 5:00 p.m., Monday through Friday. No work would be conducted on weekends or during evening or night hours.

2.3.5 Post-Construction Activities

After construction and restoration is completed, all equipment, remaining materials, and temporary BMP's would be removed. Work areas would be cleaned of excess soils and debris, and all areas would be left in a neat and presentable condition. This would include work areas along the collection system, lift station, and the WTP.

2.3.6 Operation and Maintenance

Virginia City Wastewater Treatment Plant and Sanitary Sewer. Operation and maintenance of the new WTP and sanitary sewer collection system would be the responsibility of Storey County. The new access road along the east and south side of the WTP and in the location of the existing WTP would provide maintenance vehicle access and parking. Security of the 12-acre parcel and WTP facilities would be provided by a chain link fence, signs, and locked entrance gates. Maintenance access to the new sanitary sewer pipelines would be provided via the manholes within the existing road ROW.

Gold Hill Sewer Lift Stations and Sanitary Sewer. Operation and maintenance of the Gold Hill sewer lift stations and sanitary sewer collection system would also be the responsibility of Storey County. Security for the sewer lift stations would be provided via a wooden fence and locked entrance gate. A gravel access road would be constructed from C/Main Street to the sewer lift stations to provide maintenance vehicle access. The ground surface within the fence line would be compacted for maintenance vehicle parking. Maintenance access to the new sanitary sewer pipelines would be provided via the manholes within the existing road ROW.

3.0 AFFECTED RESOURCES AND ENVIRONMENTAL EFFECTS

This section identifies resources, describes existing conditions, and evaluates the effects of the proposed action on those resources. When necessary, mitigation measures are also proposed to avoid, reduce, minimize, or compensate for any effects determined to be significant. The NEPA's determination of significance is based on both context and intensity of the effect. For this project, resource-specific bases of significance have been developed to provide specific thresholds to help determine significance.

The BLM maintains lists of "supplemental authorities" and resources/issues that must be considered in all BLM environmental documents. Table 2 lists the supplemental authorities and their status in the project area. Table 3 lists additional BLM resources and issues, and provides their status in the project area. Those supplemental authorities and

Table 2. BLM Supplemental Authorities and their Status in the Project Area

Supplemental Authority***	Not Present *	Present/Not Affected*	Present/May Be Affected**	Rationale
Air Quality		X		Refer to Section 3.6.
Areas of Critical Environmental Concern	X			Resource not present.
Cultural Resources			X	Refer to Section 3.12.
Environmental Justice	X			Resource not present. Refer to Section 3.1.6.
Farm Lands (prime or unique)	X			Resource not present. Refer to Section 3.1.5.
Human Health and Safety (Herbicide Projects)	X			Not Applicable.
Floodplains	X			Resource not present. Refer to Section 3.5.
Invasive, Nonnative and Noxious Species			X	Refer to Section 3.2.3.
Migratory Birds			X	Refer to Section 3.2.
Native American Religious Concerns			X	Discussed in Section 3.12.
Threatened and/or Endangered Species (Animals)	X			Resource not present. Refer to Section 3.3.
Threatened and/or Endangered Species (Plants)	X			Resource not present. Refer to Section 3.3.
Wastes, Hazardous or Solid			X	Refer to Section 3.13.
Water Quality (Surface/Ground)			X	Refer to Section 3.5.
Wetlands/ Riparian Zones	X			Refer to Section 3.5.
Wild and Scenic Rivers	X			Resource not present.
Wilderness	X			Resource not present.

* Supplemental authorities determined to be Not Present or Present/Not Affected need not be carried forward or discussed further in the document.

** Supplemental authorities determined to be Present/May Be Affected must be carried forward in the document.

*** See H-1790-1(January 2008) Appendix 1. Supplemental Authorities to be Considered.

resources issues that may be affected by the proposed action are discussed further in this EA.

3.1 Resources Not Considered in Detail

Because of the nature of the work, the project would have little to no effect on several resources in the project area. These resources are discussed in Sections 3.1.1 to 3.1.7 to add to the overall understanding of the project area.

Table 3. BLM Resources and Issues and their Status in the Project Area

Resource or Issue	Present/Not Affected*	Present/May Be Affected**	Rationale
BLM Sensitive Species (Animals)		X	Refer to Section 3.4.
BLM Sensitive Species (Plants)		X	Refer to Section 3.4.
General Wildlife and Fisheries		X	Refer to Sections 3.1.4 and 3.2
Land Use Authorization		X	Refer to Section 3.7.
Recreation		X	Refer to Section 3.10.
Soils	X		Refer to Section 3.1.3.
Vegetation		X	Refer to Section 3.2.
Visual Resources		X	Refer to Section 3.4.

*Resources or uses determined to be Present/Not Affected need not be carried forward or discussed further in the document.

**Resources or uses determined to be Present/May Be Affected must be carried forward in the document.

3.1.1 Climate

Located in the Virginia Mountain Range, Virginia City and Gold Hill, Nevada, enjoy four fairly distinct seasons. The average temperatures range from winter lows in the mid 20's (degrees Fahrenheit) to summer highs in the mid 80's (WRCC, 2010). The majority of the precipitation occurs in winter and spring, with summer and fall being fairly dry. Average annual rainfall is approximately 12.76 inches, and average annual snowfall is 57.2 inches (WRCC, 2010). Because of the nature of the work, the project would have no effect on area climate.

3.1.2 Geology and Seismicity

Geology. Virginia City and Gold Hill are located in the Great Basin. The geology of the region is very complex due to millions of years of movements and uplift in the earth's crust. The surficial geology in the project area is mainly composed of a young alluvium (Qay), Talus (Qt), mine tailings (d), and scattered outcroppings of volcanic deposits (Hudson et al., 2009a). The majority of the surface material is poorly sorted Holocene deposits of boulder to silt-sized material deposited on alluvial fans and as channel deposits. This is then littered with dumps of unconsolidated mine waste. Most dumps date from the 19th century in the Virginia City area. Some large waste dumps in the Gold Hill and American Flat areas are more modern (Hudson et al., 2009b).

Seismicity. Seismic maps of Nevada confirm that there are many faults around Virginia City. Virginia City and Storey County are designated as seismic zone 4. Seismic zones are rated 1 through 4, with zone 1 being the least active and zone 4 the most active. The Comstock Fault is just west of Virginia City, and there are numerous unnamed faults to the east and west of Virginia City and Gold Hill, as well as to the northeast (Sawyer, 1999). The last activity of these faults is believed to have occurred during the Early Pleistocene, less than 1.6 million years ago (USGS, 2010). Because of the nature of the work, the project would have no effect on geology or seismic conditions.

3.1.3 Topography and Soils

Topography. Virginia City and Gold Hill are located in mountainous terrain. Virginia City has an elevation of approximately 6,220 feet at “C” Street, with elevations ranging from 6,280 feet to 5,720 feet. Mt. Davidson (7,842 feet) is to the west of Virginia City. The topography in Virginia City consists of a mixture of hillsides and gentle slopes. Six Mile Canyon and Six Mile Canyon Creek, a tributary to the Carson River, are located to the east of Virginia City.

The project would not change the topography of the area as the work would involve only minor surface earthwork and grading. Except for minor re-grading around the WTP and lift stations, the surface elevations and topography at completed work areas would match pre-project conditions. As a result, the project would have no effect on regional or Virginia City topography.

Soils. The Soil Survey of the Storey County Area (1990) identifies five main soil units in the project area. These are the Bombadil-Indiano association (Map Unit 021), Wedekind-Xman-Indiano association (Map Unit 080), Tristian-Burnborough-Gabica association (Map Unit 151), Devada-Rock outcrop complex (Map Unit 160), and Pits-Dumps complex (Map Unit 602) (NRCS, 2010b). These soil complexes/associations are briefly described below.

Bombadil-Indiano Association. This soil unit consists of approximately 65 percent Bombadil stony loam, 30 to 50 percent slope; and 35 percent Indiano gravelly loam, 30 to 50 percent slope. Bombadil soils consist of very shallow, well drained soils, and are found on ridges and convex back slopes of hills on slopes of 30 to 50 percent. Indiano soils consist of moderately deep, well drained soils derived from altered volcanic rock. These soils are generally found at elevations between 5,600 and 6,300 feet in hilly areas with a slope of 30 to 50 percent. Soils are well drained and have a surface texture of stony loam and gravelly loam. Depth to bedrock is between 7 and 40 inches. This association is the major soil unit in the Gold Hill project area.

Wedekind-Xman-Indiano Association. This soil unit consists of approximately 40 percent Wedekind gravelly loam, 30 to 50 percent slopes; 25 percent Xman very stony sandy loam, 30 to 50 percent slope; and 20 percent Indiano stony sandy loam, 30 to 50 percent slopes. The Wedekind soils consist of shallow, well drained soils derived from andesite and rhyolite. These soils are found on hills and mountainous terrain. Xman soils consist of shallow, well drained soils derived from rhyolite and altered andesite. These soils are found on plateaus and hilltops. Indiano soils consist of moderately deep, well drained soils derived from altered volcanic rock. These soils are found on hills. This association is found at elevations between 5,500 and 6,000 feet in mountainous areas with a slope of 30 to 50 percent. Soils are well drained and have a surface texture of gravelly loam, very stony loam, and stony sandy loam. Depth to bedrock is between 10 and 40 inches. This association is the major soil unit that covers most of Virginia City.

Tristian-Burnborough-Gabica Association. This soil unit consists of approximately 40 percent Tristian very stony loam, 30 to 50 percent slopes, 30 percent Burnborough very gravelly loam, 50 to 75 percent slopes, and 15 percent Gabica cobbly loam, 15 to 30 percent slopes. The Tristian soils consist of deep, well drained soils derived from basic igneous rock. These soils are found on mountain back slopes of 15 to 50 percent. Burnborough soils consist of deep and very deep, well drained soils derived primarily from andesite and rhyolitic rock. They are found on hillsides between 30 and 50 percent slopes. Gabica cobbly loam, 15 to 30 percent slopes, consists of shallow, well drained soils derived from basalt or other basic igneous rock. They are generally found on hills with slopes between 15 and 30 percent. Soils are well drained and have a surface texture of very stony loam, very gravelly loam, and cobbly loam. Depth to bedrock is approximately 14 to 60 inches. A small amount of this unit is found in the mountainous areas west of Virginia City.

Devada-Rock Outcrop Complex. This soil unit consists of approximately 70 percent Devada very cobbly loam, 15 to 50 percent slopes, and 20 percent rock outcrop. Devada soils consist of shallow, well drained soils derived from basic igneous rock. These soils are found on ridges and back slopes of hills, plateaus, and mountains. In general, rock outcrops are made up of andesite, basalt, rhyolite, and rhyodacite with some sedimentary deposits. Depth to bedrock is 0 to 20 inches. A very small amount of this unit is found near Gold Hill, between an elevation of 4,500 and 5,000 feet.

Pits-Dumps Complex. This soil unit consists of mines, quarries, borrow pits, and spoil dumps. These pits and dumps have slopes that range from 0 to 99 percent, and some of these features are identified by small hills or mounds. This unit is located throughout the project area.

Near surface soils at the WTP, lift station sites, and along with the sewer line alignment would be disturbed during construction. However, all fill material would be obtained onsite, and excavated soils would be reused as fill on site. The project has been designed so that there would be no import or export of fill material/soils to or from the area. As a result, the work would have no effect on the types of soils or soil conditions in the project area.

3.1.4 Fisheries

The project is located in the Six Mile Canyon Creek watershed, which is a sub-basin of the Carson River Basin watershed. Fish species native to the Carson River Basin include Tahoe sucker (*Catostomus platyrhynchus*), Lahontan mountain sucker (*Catostomus platyrhynchus lahontan*), Lahontan tui chub (*Gila bicolor pectinifer*), and Lahontan speckle dace (*Rhinichthys osculus robustus*) (CWSD, 2007). However, the Six Mile Canyon Creek watershed does not support a fishery because parts of the creek and its small tributaries are dry during the summer and frozen during the winter (NDEP, 2006; 7Q10, 2010).

The existing WTP is located adjacent to Six Mile Canyon Creek, approximately 9 miles west of the Carson River. The treated effluent from the WTP is discharged into the creek and eventually drains into the Carson River except during low-flow periods when the effluent evaporates or percolates into the soil. The proposed project would not create a new discharge into Six Mile Canyon Creek. Conditions in the creek and Carson River would remain basically the same or could improve due to the improved treatment at the upgraded WTP. The measures identified in Section 3.5.3 to avoid or minimize adverse effects on water quality would also be implemented. As a result, the project would have no effect on fisheries or aquatic habitat.

3.1.5 Prime Farmland

Prime farmland is defined as land with the best combination of physical and chemical characteristics for producing food, feed, forage, and other agricultural crops with minimum input of fuel, fertilizer, and labor. Farmland of statewide importance is other farmland designated as such by the State (NRCS, 2010a). The project would have no effect on prime farmland or farmland of statewide importance because there is no such farmland in the project area.

3.1.6 Socioeconomics and Environmental Justice

Virginia City and Gold Hill are small communities located in rural Storey County in northwestern Nevada. The estimated combined population of Virginia City and Gold Hill was 938 in 2000 (U.S. Census Bureau, 2000). Current estimates indicate that the population has increased slightly since that time to 1,220 (City-Data, 2010). The area encompasses 18.5 square miles, with a population density of 66 people per square mile (City-Data, 2010).

In 2000, the ethnic makeup of the area was 94.7 percent white, 3.4 percent Latino of any race, 2.2 percent Native American, 0.5 percent Asian, 0.1 percent African American, and 2.4 percent from other races (U.S. Census Bureau, 2000). In 2000, 13.5 percent of families and individuals in Virginia City and Gold Hill were living below the poverty level. Consistent with the project purpose, all residents would benefit equally from upgrade of the WTP and replacement of the collection systems. The project would reduce potential groundwater contamination, ensure public health, and meet wastewater demands for the community as a whole. As a result, there would be no disproportionate effects on any minority or low-income populations in Virginia City or Gold Hill.

Virginia City is a NHL and popular tourist attraction. An estimated 2 million tourists visit the area each year (CCCVB, 2010). As such, the local economy is based mainly on tourism and related services. The workforce is mainly in retail, arts, entertainment, gaming, food services, and accommodations. In 2008, the estimated median household income in Virginia City was \$47,170 per year, and the unemployment rate was 6.8 percent (City-Data, 2010).

Construction of the project would not be expected to affect the overall socioeconomic conditions in the Virginia City area. Population growth and ethnic makeup would continue to be determined by available housing and local job opportunities. Effects on the local economy would be minimized by ensuring that tourists are not inconvenienced and that tourist attractions remain open and accessible to the extent possible. Replacement of sewer lines along Main and C Streets would be conducted on weekdays when tourist traffic is lightest, and work would be avoided during significant historic and community events. In addition, implementation of the measures in Section 3.8.3 would also help to minimize effects on tourist parking and access. As a result, the project would have no effects on overall tourism revenue.

3.1.7 Odor Control

The only potential source of unpleasant odors in the project area is the existing WTP, which is located approximately 1,000 feet from the closest residence. The project includes the upgrade of the existing WTP. The use of new technologies in the treatment of wastewater would not create any new sources of odor. In addition, replacing the sewer lines would not create any new sources of unpleasant odor. As a result, the project would have no effects on odors.

3.2 Vegetation, Wildlife, and Weeds

3.2.1 Existing Conditions

Vegetation. Vegetation types in the Virginia City and Gold Hill area consist of single leaf pinyon (*Pinus monophylla*)-Utah juniper (*Juniperus osteosperma*) woodland and Wyoming sagebrush (*Artemisia tridentate*) (Peterson, 2008). Most of the project area is located in areas that have already been disturbed by past mining activities, and more recently by urban development. In Virginia City and the surrounding areas, there also are some areas of geothermally altered andesitic soil, which is known habitat for two rare plant species: altered andesite buckwheat (*Eriogonum robustum*) and altered andesite popcorn flower (*Plagiobothrys glomeratus*). This soil type is highly acidic (pH3.0-3.5), and it supports the acidified-soil woodland vegetation type (*pinus monophylla - juniperus osteosperma / eriogonum robustum*), in which altered andesite buckwheat is a dominant understory species (Peterson, 2008).

The outlying areas surrounding the WTP and the alternate pipeline route support single leaf pinyon-Utah juniper woodland and Wyoming sagebrush vegetation types. There are also areas of the acidified-soil woodland vegetation type (*pinus monophylla - juniperus osteosperma / eriogonum (robustum)*) located along the alternate pipeline route. These areas have mapped locations of both altered andesite buckwheat and altered andesite popcorn flower (Appendix A). One other location of altered andesite buckwheat is on disturbed ground surrounding the Storey County Public Works storage yard (Appendix A).

During a field survey conducted by 7Q10, Inc., on October 11, 2010, plant species were identified in the project area (7Q10, 2010). In the developed urban area including areas adjacent to the roadways/sewer line alignment, nonnative weeds are the dominant species, and several invasive and noxious weed species such as cheatgrass (*Bromus tectorum*) were identified. Tree species identified in the project area include black locust (*Robinia pseudoacacia*), pinyon pine (*Pinus monophyllus*), and Utah juniper (*Juniperus osteosperma*). Shrub species found in the project area include Wyoming big sagebrush (*Artemisia tridentata* var. *wyomingensis*), rubber rabbitbrush (*Chrysothamnus nauseosus*), antelope bitterbrush (*Purshia tridentata*), and Utah serviceberry (*Amelanchier utahensis*). Graminoids in the project area include squirrel-tail grass (*Elymus elymoides*), Secund's bluegrass (*Poa secunda*), and crested wheatgrass (*Agropyron cristatum*). Frequent forbs include species of narrow leafed milkweed (*Asclepias fascicularis*), buckwheat (*Eriogonum spp.*), and phlox (*Phlox sp.*).

Wildlife. The single leaf pinyon-Utah juniper and Wyoming sagebrush, and pinyon pine-Utah juniper/altered andesite buckwheat acidified-soil woodland plant communities support a variety of birds, mammals, and reptiles/amphibians. Because of the project's proximity to residences, the only big game species likely to use the area would be an occasional mule deer (*Odocoileus hemionus*). Other wildlife species that may use the area are likely habituated to human disturbances, including coyote (*Canis latrans*), cottontail rabbit (*Sylvilagus audubonii*), whitetail jackrabbit (*Lepus townsendii*), California valley quail (*Callipepla californica*), short-horned lizard (*Phrynosoma douglassi*), and passerine birds. There are no Audubon-designated Important Bird Areas or important wintering areas in the project area (McIvor, 2005). However, birds would be expected to use the area during the spring and summer months for nesting and foraging. Other wildlife species that may be using the area include bighorn sheep (*Ovis canadensis*), pygmy rabbit (*Brachylagus idahoensis*), kit fox (*Vulpes macrotis*), and Wyoming ground squirrel (*Spermophilus elegans*) (NDOW, 2006).

Eagles and Other Raptors. Federal agencies are required to protect bald and golden eagles per the Bald and Golden Eagle Protection Act of 1940. These two eagles and a variety of other raptors are known to occur or have range in or near the area of construction as indicated in Table 4 (Herrick, 2010). Three known raptor nest sites have been identified by the NDOW in the project area and 3-mile buffer area. They include two Cooper's hawk nests and one prairie falcon nest.

Migratory Birds. Federal agencies are required to protect migratory birds per the Migratory Bird Treaty Act of 1918. BLM management for these species is based on Instruction Memorandum (IM) No. 2008-050 (BLM, 2007). The IM also includes lists of migratory birds associated with western BLM lands. The Intermountain West is the center of distribution for many western birds (Rich et al., 2004). Over half of this biome's Species of Continental Importance have 75 percent or more of their population here. Many breeding species from this biome migrate to winter in central and western Mexico or in the southwestern biome. Shrub-nesting species comprise the largest number of Species of Continental Importance in this biome.

Table 4. Raptors Known to Occur or Have Range in or near the Project Area¹

Common Name	Scientific Name
American kestrel	<i>Falco sparverius</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>
Barn owl	<i>Tyto alba</i>
Burrowing owl	<i>Athene cunicularia</i>
Cooper's hawk	<i>Accipiter cooperii</i>
Ferruginous hawk	<i>Buteo regalis</i>
Golden eagle	<i>Aquila chrysaetos</i>
Great horned owl	<i>Bubo virginianus</i>
Long-eared owl	<i>Asio otus</i>
Northern goshawk	<i>Accipiter gentilis</i>
Merlin	<i>Falco columbarius</i>
Northern harrier	<i>Circus cyaneus</i>
Northern saw-whet owl	<i>Aegolius acadicus</i>
Osprey	<i>Pandion haliaetus</i>
Peregrine falcon	<i>Falco peregrines</i>
Prairie falcon	<i>Falco mexicanus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Rough-legged hawk	<i>Buteo lagopus</i>
Sharp-shinned hawk	<i>Accipiter striatus</i>
Short-eared owl	<i>Asio flammeus</i>
Swainson's hawk	<i>Buteo swainsoni</i>
Turkey vulture	<i>Cathartes aura</i>
Western screech owl	<i>Megascops kennicottii</i>

¹These raptors are migratory species known to occur or have range in or near the project area.
Source: Herrick, 2010

The raptors listed in Table 4 are also the migratory bird species that occur or are likely to occur in the project area. Habitat for these migratory birds in the project area consists of sagebrush and pinyon-juniper woodland. However, much of the project area has been previously developed.

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 or (2) permanently displace resident or migratory wildlife species.

No Action. This alternative would have no effect on existing vegetation and wildlife in the project area. The plant communities and associated wildlife would be expected to remain the same.

Wastewater System Improvements

Virginia City. This alternative would have short-term effects on single leaf pinyon-Utah juniper/woodland and Wyoming sagebrush plant communities in the undeveloped parts of the project area. Initial clearing and grading for the WTP would result in the removal of approximately 3 acres of sagebrush and pinyon-juniper woodland, as well as other native and nonnative herbaceous species. Once construction of the new WTP and sewer lines are completed, however, all previously vegetated disturbed areas would be covered with native top soil and reseeded with a native seed mix approved by BLM. This would reduce potential erosion and encourage revegetation. Due to the relatively small area where vegetation would be removed, as well as the revegetation of this area, there would be no significant effect to vegetation from this project.

Construction of the WTP and sewer lines could have short-term effects on wildlife currently using the area. These effects would include disturbance and/or displacement of individuals due to noise and human activities. In addition, wildlife in the surrounding area would likely avoid the project area during construction. After construction and restoration are completed, however, wildlife would be expected to return to the area. Thus, there would be no significant effects on wildlife currently using the area. Because of the limited size of the construction area and the large amount of higher quality habitat nearby, any wildlife species using the surrounding area would not be significantly affected. Although there could be short-term effects to individual migratory birds, there would be no long-term effects on regional populations.

Gold Hill. Most of the project area in Gold Hill has been previously developed or disturbed, and is currently devoid of vegetation. Initial clearing and grading for the lift stations would result in removal of less than 1 acre of sagebrush and pinyon-juniper woodland, as well as nonnative invasive weeds. The project area is surrounded by thousands of acres of sagebrush and pinyon-juniper woodland. As a result, loss of less than 1 acre would not be considered substantial, and there would be no significant effect to vegetation from this project.

Construction of the lift stations and sewer lines could have short-term effects on wildlife currently using the area. These effects would include disturbance and/or displacement of individuals due to noise and human activities. In addition, wildlife in the surrounding area would likely avoid the project area during construction. After construction and restoration are completed, however, wildlife would be expected to return to the project area. Thus, there would be no significant effects on wildlife currently using the area. Because of the limited size of the construction area and the large amount of higher quality habitat nearby, any wildlife species using the surrounding area would

not be significantly affected. Although there could be short-term effects to individual migratory birds, there would be no long-term effects on regional populations.

3.2.3 Mitigation

Since there would be no significant effects on vegetation or wildlife, no mitigation would be required. However, if possible, construction would be scheduled outside of the nesting season for migratory birds, including bald and golden eagles. If construction is necessary during the nesting season, Storey County would be required to have a qualified biologist survey for active nests of migratory birds within a 1/8-mile radius of the project area within 15 days prior to initiation of construction. If active nests are located during these surveys, the biologist would contact the U.S. Fish and Wildlife Service (USFWS) and NDOW, as required, to determine the appropriate buffer around the nests.

During construction, the contractor would be required to implement BMP's to prevent the introduction and spread of noxious weeds, including use of certified weed free fill material, seed mixes, and borrow material. Any excavated material containing weeds would not be stored or used as fill material, but would be stockpiled and transported via haul trucks to a landfill for disposal. Storey County would coordinate with the Nevada Department of Agriculture for annual noxious weed surveys, following State protocols. If noxious weeds are discovered, a noxious weed management plan would be developed and implemented by Storey County per guidelines set forth by the Nevada Department of Agriculture and BLM. All weed treatments applied on BLM land would be required to conform with BLM protocols.

Following construction, all staging/stockpiling and fill areas would be revegetated or returned to their pre-project conditions. These areas would be seeded with species typical of the surrounding area and vegetation communities. Seed used for revegetation would be free of noxious or invasive weed species. All revegetation plans on Federal land administered by the BLM would be subject to BLM approval.

3.3 Threatened and Endangered Species

3.3.1 Existing Conditions

The USFWS, NNHP, and NDOW were contacted regarding Federally listed species that could potentially occur in and/or near the project area. In response, the USFWS provided the Corps with a letter dated September 15, 2010, indicating that there are no listed, proposed, or candidate species in the project area. Via email dated August 24, 2011, and reaffirmed via phone on April 5, 2012, the USFWS indicated that the "previous species list ... is still current for your [the Corps'] project" (Appendix A). In the letter, the USFWS also indicated that they no longer provide species of concern, but are adopting the sensitive species list for Nevada maintained by the NNHP (Williams, 2010).

The NNHP conducted a search of their database and maps for a 2-kilometer radius around T. 16 N., R. 21 E., and T. 17 N., R. 21 E. (Miskow, 2010). Based on the search, no Federally listed threatened, endangered, proposed, or candidate wildlife species are known to occur in the area (Appendix A).

3.3.2 Effects

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

No Action. This alternative would have no effect on Federally listed threatened, endangered, or proposed species or their habitat.

Wastewater System Improvements. There are no Federally listed threatened, endangered, or proposed species or their habitat in and/or near the project area. As a result, this alternative would have no effect on these species or their habitat.

3.3.3 Mitigation

Since there would be no effect on Federally listed threatened, endangered, or proposed species or their habitat, no mitigation would be required.

3.4 BLM Sensitive Species

3.4.1 Existing Conditions

The BLM manages species (and their habitat) designated as “BLM sensitive” per BLM Manual 6840 (BLM 2008). These species are Federal candidate, proposed, and delisted (for 5 years after delisting) species requiring management to promote their conservation and reduce the need for future listing under the Endangered Species Act. These must be native species found on BLM-administered lands for which the BLM has the capability to significantly affect the conservation status of the species through management. In addition, one of the following applies to the native species: (1) there is information that the species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or (2) the species depends on ecological refugia or specialized or unique habitats on BLM administered lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk. A list of sensitive species associated with BLM lands in Nevada was signed in 2003 (BLM 2003).

The NNHP conducted a search of their database and maps for a 2-kilometer radius around T. 16 N., R. 21 E., and T. 17 N., R. 21 E. (Appendix A). Based on this search and the list signed in 2003, the Nevada BLM-sensitive species Sierra Valley

mousetails (*Ivesia aperta* var. *aperta*), altered andesite popcornflower (*Plagiobothrys glomeratus*) and altered andesite buckwheat (*Eriogonum robustum*), Townsend's big-eared bat (*Corynorhinus townsendii*), and western small-footed myotis (*Myotis ciliolabrum*) have been previously identified on BLM-administered land in or near the project area. In addition, to the bat species identified by NNHP, the BLM previously identified pallid, Brazilian free-tail, little brown Myotis, and fringed Myotis bats within mines in Virginia City.

Sierra Valley mousetails are usually found with other hydrophytic species in saturated sites (i.e., meadows, drainages, and seeps) in shallow, ponding soils derived from volcanic rock or volcanic alluvium. The species is found on mid- to high-elevation benches and flats. Surface soils are usually very rocky to somewhat sandy with shallow and clayey subsoils that tend to retain moisture longer than surrounding soils. The habitat supports generally sparse vegetation usually dominated by Sierra Valley mousetails and other hydrophytes. Because the project area does not include areas of saturated soils dominated by hydrophytic vegetation, there is no habitat for Sierra Valley mousetails in the project area.

Altered andesite popcorn flower is typically found between 4,800 and 6,600 feet in elevation on dry, shallow, mostly acidic, gravelly clay soils (DAFS, 2006). Altered andesite buckwheat is often located on shallow, rocky, highly acidic, barren ridges, and hill tops at elevations ranging from 4,410 to 7,325 feet msl (NNHP, 2001). The species is usually found in areas of high mineral extraction potential where evidence of some sort of past, present, or planned mining is present. It is present on soils derived from weathering of hydrothermal iron sulfide deposits formed mainly in andesite, and occasionally in rhyolitic or granitoid rocks, on dry ridges, knolls, and a variety of slopes (Morefield, 2000). The species usually forms a sparse understory with plants such as sandwort, rabbitbrush, squirreltail grass, and western bluegrass, and is usually located in an area with a sparse and stunted woodland of Jeffrey and/or ponderosa pine, with singleleaf pinyon pine. The habitat for the altered andesite popcornflower and altered andesite buckwheat is present in the overall area. During the field investigation, both species were observed on slopes adjacent to roadways and near the Storey County Public Works building.

Townsend's big-eared bats are found from low desert to high mountain habitats throughout Nevada. They are concentrated in areas with caves or mines, which they can use as roosting sites. They prefer caves and mines where the temperature is typically above freezing but less than 54 °F (NDOW, 2010b). Through correspondence with NDOW, it was determined that Townsend's big-eared bat has been located previously in mines (Appendix B). Mines are not included in the proposed area of disturbance for the project.

The western small-footed myotis occurs throughout much of the western U.S. It is better adapted to moist, rather than dry, areas. It roosts in rock crevices, mines, caves, or buildings, and occasionally uses an abandoned swallow's nest as a roosting site (SNMH, 2010). There is no suitable roosting habitat for the Western small-footed myotis

in the area of disturbance for the project. Further, the Western small-footed myotis has not been observed in the project area.

Similar to the Townsend's big-eared bats and western small-footed myotis, pallid, Brazilian free-tail, little brown Myotis, and fringed Myotis bats use rock crevices, mines, and caves for roosting habitat. Because the area of disturbance for the project does not include rock crevices, mines, or caves, there is no suitable bat habitat in the project area.

3.4.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on BLM sensitive species if it would be inconsistent with BLM objectives to conserve BLM sensitive species and their habitats. This applies only to these species or their suitable habitat that occur on BLM-administered land.

No Action. This alternative would have no effect on BLM sensitive species or their habitat.

Wastewater System Improvements

Virginia City. No BLM sensitive species or habitat were identified at the locations of the test pits and borings, or in the work areas for the WTP upgrade, sewer line installation, fill, or staging and stockpiling. As a result this alternative would have no effect on BLM sensitive species.

Gold Hill. The BLM sensitive species, altered andesite buckwheat, was present in the vicinity of, and outside the limits of, the staging and stockpiling area near the Divide Reservoir, next to the Storey County Public Works building. Additionally, for the alternative force main alignment, two BLM species of concern (altered andesite buckwheat and altered andesite popcorn flower) were observed on the hillslope adjacent to Homestead Road, (7Q10, 2010). However, these species are not at the locations of the test pits and borings, or in the work area for installation of the pipeline or staging and stockpiling areas. As a result, there would be no effect to BLM sensitive species as a result of the project, including either force main alignment in Gold Hill.

3.4.3 Mitigation

Since there would be no significant effects on BLM sensitive species on BLM-administered land, no mitigation would be required. Although the area around the staging and stockpiling area near Divide Reservoir is not proposed for staging and/or stockpiling, the contractor would be required to have a qualified biologist mark the locations of this species in the field before the area is used for staging and stockpiling. Regarding the sensitive species found along Homestead Road, if any construction activities extend beyond the limits of the existing roadways, the contractor would need to have a qualified biologist mark the locations of these two species in the field in order to avoid them.

3.5 Water Resources and Water Quality

3.5.1 Existing Conditions

Water Resources. The only surface water in the project area is Six Mile Canyon Creek, which begins at the eastern edge of Virginia City at an elevation of approximately 5,800 feet. The creek supports a riparian corridor immediately below the WTP, extending for several miles. An unnamed tributary enters the stream approximately 1,000 feet southeast of the WTP. From there, the creek flows approximately 7 miles east towards the Dayton Valley and the Carson River. Six Mile Canyon Creek is considered a Waters of the U.S. (WOUS) since it is a tributary to the Carson River.

Currently, State water quality regulations have not classified beneficial uses for Six Mile Canyon Creek (NDEP 2006). Flow in the creek during dry weather and after snowmelt ends is predominantly treated effluent discharged from the current WTP. The creek typically dissipates, becoming a dry desert wash before reaching the Dayton Valley due to percolation and evapo-transpiration. However, during storm events, storm runoff can discharge directly into the Carson River through a series of dry wash channels, including the creek.

Previous mining activity, as well as naturally occurring minerals, have adversely affected the quality of the groundwater supply under Virginia City. Since 1873, potable drinking water for Virginia City and Gold Hill has been supplied via pipeline/siphon by the State-operated Marlette-Hobart Water System (NDEP, 2006). Virginia City and Gold Hill are part of the Dayton Valley Hydrographic Area, which is currently over appropriated (NDWR, 2010).

Water Quality. No current water quality data are readily available for Six Mile Canyon Creek; i.e., data for the USGS Six Mile Canyon Creek gauging station is over 12 years old. The water quality in the Carson River is determined by flows, water diversions, and past and present land use activities in the watershed. The State has identified total phosphorus, total suspended solids, turbidity, temperature, total iron, and total mercury as parameters of concern for the Carson River (Pahl, 2007). Much of the Carson River is included on Nevada's list of impaired waters, as required by Section 303 of the Clean Water Act (NDEP, 2005).

Due to past mining activities and mineral deposits, local groundwater quality is known to be poor. As a result, monitoring wells have not been required to be installed down-gradient of the WTP. Groundwater quality monitoring occurs several miles downstream of the WTP by the Flowery Mining District. This monitoring has not shown any elevated trends in total dissolved solids (TDS) or nitrate levels (NDEP, 2006).

3.5.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on water resources or quality if it would (1) substantially deplete or degrade the

quality of natural surface or groundwater resources, (2) contaminate a public water supply, or (3) expose humans to substantial pollutant concentrations.

No Action. This alternative would have no effect on water resources in the project area. However, groundwater quality would likely continue to degrade due to sewer line failures and leaks in Virginia City. In addition, the existing community septic system in Gold Hill would continue to fail and contaminate surface and groundwater resources.

Wastewater System Improvements

Water Resources. The project would have no short-term effects on water resources or water supply in the Virginia City area. Consistent with the project purpose, the total discharge of treated effluent from the upgraded WTP into Six Mile Canyon Creek would increase due to the treatment of wastewater from Gold Hill, as well as improved sewer pipelines and connections in Virginia City and Gold Hill. The project would not deplete surface or groundwater resources. Therefore, this project would not have a significant effect on water resources.

Water Quality. This alternative could have short-term effects on water quality. Surface clearing, grading, and excavation activities at the WTP, lift station locations, and along the pipeline alignment would involve the movement of loose soils. During storm events, these soils could be washing into surface runoff and carried into down-gradient swales and creeks. The types of BMP's discussed in Section 3.5.3 would be implemented during construction to avoid or reduce any short-term effects on water quality to less than significant.

Consistent with the project purpose, this alternative would increase the capacity of the WTP and reduce potential releases of raw sewage to Six Mile Canyon during periods of high surface runoff. Replacing the collection system in Virginia City would also reduce the potential for pipeline leaks or breaks of raw sewage to contaminate the soils and groundwater. Finally, the Gold Hill sewer collection system and lift stations would replace the existing community septic system where the disposal field is believed to be failing and potentially leaching into the groundwater.

3.5.3 Mitigation

Since the project would have no significant effects on water resources or quality, no mitigation would be required. During construction, sediment and erosion control BMP's would be used to prevent sediment from leaving the construction area. The contractor would need to prepare a Stormwater Pollution Prevention Plan in accordance with all Federal, State, and local regulations. Construction of the project would disturb more than 1 acre of ground surface. As a result, the NDEP would require that the County 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 discharges to surface waters.

The current WTP permit from the State would have expired on August 14, 2011 (Hartley, 2010). However, Storey County applied to renew and modify the permit 180 days prior to this date, as required. As a result, the State has extended the County's WTP permit through the ongoing application process. To date, the required renewal and modification applications, studies, and construction plans have been submitted to the State for review. The State will next prepare the Public Notice and make it available for a public comment period. Based on any State and public comments, the County will make any necessary revisions to the proposed modifications. The new permit is expected in late 2012 (Lyman, 2012).

3.6 Air Quality

3.6.1 Existing Conditions

Air Quality Management. The Nevada Bureau of Air Pollution Control (BAPC) and Nevada Bureau of Air Quality Planning (BAQP) are responsible for ensuring compliance with Federal and State air quality regulations in all Nevada counties except Washoe and Clark Counties (BAPC, 2010; BAQP, 2010). Among other activities, the Nevada BAPC issues emission and surface area disturbance permits, while the Nevada BAQP monitors and manages ambient air quality throughout the rest of the State.

The State has adopted the U.S. Environmental Protection Agency's (EPA) National Ambient Air Quality Standards in determining compliance. According to the U.S. EPA, the project area is classified as an "attainment" area (meets standards) for all required pollutants including particulate matter (PM10) (EPA, 2010).

Sensitive Receptors. 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 the project area include residences and open space recreation area. Sensitive receptors include residents, tourists, recreationists, and occasional wildlife.

3.6.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on air quality if it would (1) violate any ambient air quality standard, (2) contribute on a long-term basis to an existing or projected air quality violation, (3) expose humans or sensitive species to substantial pollutant concentrations, or (4) not conform to applicable local standards.

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, wild fires, and local and regional emissions from vehicles and agriculture.

Wastewater System 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 PM10. In addition, there would be short-term increases in PM10 as fugitive dust during soil excavation and operation of vehicles and heavy equipment. The types of BMP's discussed in Section 3.6.3 would be implemented during construction to reduce any short-term effects to less than significant. Once the project is completed, air quality would return to pre-project conditions so there would be no long-term effects on air quality in the region.

3.6.3 Mitigation

Since the project would have no significant effects on air quality, no mitigation would be required. Since construction would disturb 5 acres or more of ground surface not related to agriculture, Storey County would be required to obtain a Surface Area Disturbance permit from the State. Prior to construction, the contractor would prepare a Fugitive Dust Control Plan identifying BMP's to minimize the amount of emissions and PM₁₀ generated during construction. These BMP's could include water trucks, sprinklers, fences or windbreaks, and speed limits. The contractor would be required to implement these BMP's and maintain dust controls during construction.

Since this construction project is not located in a Federal air quality non-attainment area, it is in a category of actions considered exempt from general conformity requirements (Section 176(c) of the Federal Clean Air Act). The project would be required to comply with all provisions of the Nevada Revised Statutes (NRS), Chapter 445B, Air Pollution, as well as NRS Chapter 486A, Alternative Fuels: Clean-Burning Fuels. Compliance with Nevada Administrative Code, Chapter 445B, Air Controls, would also be required. As a result, no additional mitigation would be required.

3.7 Land Use and Zoning

3.7.1 Existing Conditions

Virginia City was originally designed in a square platted grid pattern with little recognition of the surrounding topography. Residential development was primarily by individual owners with little thought given to zoning. Today, the County land use is governed and directed by the Storey County Master Plan (Storey County, 1994) and a Zoning Ordinance (Storey County, 1999). The purpose of the Storey County Master Plan is to provide goals and objectives for development in the County. Storey County's Master Plan consists of four primary districts or population areas: Virginia City/Gold Hill, Virginia Highlands, Mark Twain, and the River District. Over 90 percent of the land in Storey County is privately owned, with the remainder managed by Federal agencies, mainly the BLM.

In Virginia City, land is currently zoned by the County as Commercial/Residential (45 percent), Industrial – Light (2 percent), Industrial – Heavy (2 percent),

Public (3 percent), Residential (47 percent), and Multi-Residential (1 percent). In Gold Hill, land is currently zoned as Commercial/ Residential (58 percent), Industrial – Heavy (6 percent), Public (15 percent), and Residential (21 percent). Virginia City is located well outside the floodplain of the Carson River (NBMG, 2010).

3.7.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on land use or zoning if it would result in land uses that are incompatible with existing and planned land use in the area, or if it would result in an inconsistency with land use zoning or goals.

No Action. This alternative would have no effect on existing land use or zoning in the project area. Land uses on land not administered by BLM would continue to be determined by Storey County via their Storey County Master Plan and zoning ordinances.

Wastewater System Improvements

Virginia City. The WTP would be constructed in the same general area as the existing WTP on 12 acres of public land administered by the BLM. The BLM has proposed to directly convey the WTP parcel to Storey County. This land would change from open space to public utility. Although the land use would change from BLM open space to public utility, this change would not be incompatible with the existing land use since there is already a WTP in that area, and would not result in an inconsistency with Storey County land use goals for the area. As a result, the change would not be considered significant, and therefore there would not be any significant land use or zoning change. Approximately 35,500 linear feet of sewer lines and storm drain in Virginia City are on BLM-administered public land. Prior to project initiation, Storey County would obtain the appropriate ROW from BLM.

Land use in the Virginia City and Gold Hill area currently includes residences, tourist related businesses, retail stores, industrial, public facilities, and open space. These current land uses would not change, and the County has determined that the project would require no changes in current zoning. The project goals include replacement of outdated infrastructure, extending the sewer line to Gold Hill, and increased wastewater treatment capacity to accommodate population growth and peak demand due to tourism. As such, the project is consistent with the County's Master Plan. The project would have no effect on land use or zoning in Virginia City.

Gold Hill. The sewer lift stations are located in a mixed ownership area of private land and public land administered by the BLM. Sewer lift station one is located on Storey County land, and its land use would not change. The second sewer lift station and both of its alternatives are located on private land. The third sewer lift station and both of its alternatives are located on parcels where a portion of the parcel is on BLM land and the rest is on private land. Final locations for the sewer lift stations would be based on negotiations with private land owners.

Storey County would apply for the appropriate ROW if any of the sewer lift station alternatives involve BLM-administered public land. Approximately, 10,500 linear feet of sewer lines and force main are on BLM-administered public land in Gold Hill. Prior to project initiation, Storey County would obtain the appropriate ROW from BLM and negotiate any agreements for land use with the private property owners. As a result, the project would not significantly affect land use or zoning in Gold Hill.

3.7.3 Mitigation

Since the project would have no significant effects on land use or zoning, no mitigation would be required. Prior to project construction, Storey County would be responsible for obtaining required Federal land use authorizations from the BLM. This would include work on portions of the collection system, as well as the WTP. Up to approximately 46,000 linear feet of sewer line, force main, and storm drain would be located on BLM-administered public land in Virginia City and Gold Hill, requiring a ROW for replacement and maintenance access.

3.8 Traffic

3.8.1 Existing Conditions

Regional and Local Roadways. The local roadways in the project area include paved highways and city streets along with gravel and dirt roads. The major roadways include State Highway (SH) 341, SH 342, and Six Mile Canyon Drive. These roadways provide connections to Reno, Carson City, and the Dayton Valley via Virginia City and Gold Hill. City streets serve the residential and commercial areas in Virginia City and Gold Hill, while gravel and dirt roads provide limited access to facilities and open areas in surrounding areas.

Traffic Types and Volumes. The types of traffic that can be found on the major roadways include cars, small utility vehicles, recreational vehicles, trucks, buses, and motorcycles. Vehicles on city streets are mainly cars and small utility vehicles. The NDOT records annual average daily traffic (AADT) volumes on paved roads in Virginia City and Gold Hill. Table 5. Annual Average Daily Traffic on Roadways near the Project Area in 2010 shows the 2010 AADT counts at 10 locations in or near the project area (NDOT, 2010).

3.8.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on traffic if it would cause an increase in vehicular traffic that is substantial in relation to the existing traffic on a roadway; an increase in safety hazards on area roadways; or (3) substantial deterioration of the physical condition of area roadways.

No Action Alternative. This alternative would have no effect on existing roadway traffic in the project area. The types and volumes of traffic would be expected to remain basically the same.

Table 5. Annual Average Daily Traffic on Roadways near the Project Area in 2010

Station	Road	Location	AADT
290001	SH342, Silver City-Gold Hill Rd	0.2 mi S of SH341 (Virginia City Rd)	1,600
290002	SH341, Virginia City Rd	0.1 mi S of SH342	500
290004	F' St	0.2 mi W of Washington St N of RR tracks	310
290005	SH341, C St	120 feet S of Six Mile Canyon Rd (Mill St)	2,200
290007	SH341, C St	83 feet N of power pole at Mill St	2,300
290010	Six Mile Canyon Rd	2.3 mi W of US50 E of Dayton	1,200
290013	D St	65 feet N of Union St	480
290014	Six Mile Canyon Rd	0.15 mi E of D St.	1,300
290015	Cartwright Rd	0.1 mi S of Buckeye Rd (Virginia City Highlands)	1,200
290016	B St	100 feet N of Union Ln	410

Source: NDOT, 2010

Wastewater System Improvements. This alternative could have short-term effects on traffic on residential streets, SH 341, SH 342, Six Mile Canyon Road, and other local roads during construction. The collection system replacement and Gold Hill force main construction would require short-term lane and road closures while the sewer lines are replaced in the roadways. In some areas, traffic may need to be rerouted to adjacent streets, resulting in short-term increases in traffic volumes, possible delays, and/or congestion on these adjacent streets.

Residential streets and driveways may be partially or completely closed for short periods during replacement of sewerlines, causing residents to use alternative routes and/or park on neighboring streets. However, the work would be conducted along one street at a time so that any effects on residential traffic would be minimized. As a result, the short-term increase in traffic on alternative routes would not be substantial in relation to the existing traffic. In addition, any effects on parking during construction would be minimized by existing public parking lots, which are currently under used (Nevin, 2011). As a result, the short-term effects of the project on residential traffic would be less than significant. When the work is completed, the traffic volumes and flow along these roadways would be expected to return to pre-project conditions. As a result, there would be no long-term effects on traffic on residential streets.

An alternative alignment of the Gold Hill force main includes a crossing of State Highway 341. Under the alternative alignment, traffic flow would potentially be reduced to one-lane while the force main is installed. On State Highway 342, the traffic would

potentially be reduced to one-lane during construction of the sewer line. The construction would proceed along State Highway 342 such that the sewer line would be replaced in sections and only a segment of the roadway would be opened each day.

There would be a short-term increase in the volume of traffic on Six Mile Canyon Road as construction equipment, haul trucks, and worker vehicles access the WTP. An average of 10 worker vehicles would travel to and from the project area each work day, for a total of 20 trips per day. These short-term increases in traffic would not be considered significant in relation to the existing volumes of traffic on Six Mile Canyon Road.

Staging and storage areas are located adjacent to, or within, existing roadways and developed areas throughout the project area. The transport of materials from the area of construction to the staging and storage areas would have short-term effects on traffic. Materials would be stored for use in the staging areas, as required. Materials would be transported from the staging areas to the work areas during construction via existing roadways. By locating the staging/storage areas near the area of construction throughout the project area, traffic related to construction equipment would be reduced. City streets B, D, I, L, M, P, Howard, and Ridge would be partly closed where used for staging and stockpiling areas during construction; local traffic would be rerouted to alternative routes.

Effects to traffic as a result of road closures and lane closures would include increased commute times and traffic volumes. Traffic would also be affected during the delivery of equipment and movement of equipment and soils throughout the project area during construction, causing increased traffic volumes and traffic delays. These effects including road closures, increased congestion, and one-lane traffic would be short-term. With the implementation of measures described in Section 3.8.3, the short-term effects to traffic as a result of this project would be less than significant. Once construction is complete, traffic volumes and travel times would return to pre-construction conditions. As a result, there would be no long-term effects to traffic.

3.8.3 Mitigation

Since the project would have no significant effects on traffic, no mitigation would be required. However, the County would be required to ensure public safety on roadways. Prior to construction, a traffic management/control plan would be developed by Storey County, and traffic control measures would be implemented in accordance with the plan. The plan would include use of signs, flaggers, traffic calming, and alternative routes to accommodate local and through traffic. In addition, local residents would be advised regarding schedules for construction traffic detours through distribution of flyers prior to initiation of construction. Meetings would be held with local residents and businesses to discuss construction plans, including implications to traffic in the area.

During construction, traffic would be detoured around the project area. In some cases, the road may need to be closed and traffic redirected to alternative roads. Notice of road closures and detour routes would be provided to residents, nearby businesses, and

local fire departments, police, and others in the community. Notice would be posted in Virginia City and Gold Hill where access would be affected during construction. Traffic control measures would be used, where appropriate.

Storey County and the contractor would coordinate with NDOT regarding the crossing of State Highway 341, and the replacement of the sewer line and installation of the force main along State Highway 342. The NDOT would ultimately make the decisions regarding construction methods and how traffic would be handled along State highways.

3.9 Noise

3.9.1 Existing Conditions

Noise can be defined as unwanted sound and noise levels, and effects are interpreted in relationship to noise level objectives for each county. Storey County manages excessive noise that is injurious to health or interferes unreasonably with the comfortable enjoyment of life or property in the County (Storey County, 1999).

Primary sources of noise in the project area are from the operation of motor vehicles and natural sounds such as wind and wildlife. Noise is mainly attributable to vehicles and occasional human activities such as recreation or school activities. Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise or noise levels. Noise sensitive land uses in the project area include residences and businesses; sensitive receptors include residents, tourists, recreationists, and wildlife.

3.9.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on noise if it would substantially increase the ambient noise levels for adjoining areas. The significance of temporary noise effects is evaluated with reference to existing noise levels, the duration of the noise, and the number of sensitive receptors affected.

No Action Alternative. This alternative would have no effect on existing noise in the project area. Current noise sources and levels would be expected to remain basically the same.

Wastewater System Improvements. Construction activities would result in a short-term increase in existing noise levels in the vicinity of the project area during the period of active construction. Potential sources of noise from the project construction include both on-site construction noise sources from the use of heavy equipment (bulldozers, excavators, trucks, jackhammers, etc.) and transportation-related noise sources from construction workers and deliveries.

The anticipated construction noises produced by implementation of the project include short-term noise effects during the period of construction, and there would be no long-term direct or indirect noise effects as a result of the project. Because of the proximity of the project area to residential areas, specifically for sewer line replacements in residential areas of Virginia City and Gold Hill, there are the potential for short-term noise effects to residents during construction. The BMP's specified in Section 3.9.3 below would be implemented during construction to reduce potential noise effects to a less-than-significant level.

3.9.3 Mitigation

Since there would be no significant effects on noise, no mitigation would be required. The contractor would implement the following BMP's to minimize short-term effects on noise during construction:

- Equip construction equipment with mufflers equivalent to original equipment manufacturer.
- Limit the hours of construction to daytime hours near residential and business areas, and tourist attractions.
 - Work during most of the year for each phase would be conducted from 7:00 a.m. to 5:30 p.m., Monday through Friday.
 - During the winter months, work would be conducted from 7:00 a.m. to 5:00 p.m., Monday through Friday.
- No work would be conducted on weekends or during evening or night hours.
- Limit haul truck or other vehicles speed on roads adjacent to residences, businesses, tourist attractions, and on any unpaved roadways.

3.10 Recreation

3.10.1 Existing Conditions

Virginia City is the largest Federally designated NHL in the U.S., and attracts over 2 million tourists visit each year (CCCVB, 2010). Attractions include saloons, bed and breakfasts, mine tours, the Virginia & Truckee Railroad, Piper's Opera House, Fourth Ward School, and St. Mary's Church. Miner's Park is located in Virginia City at the corner of Carson and F Streets. This park includes a pool, baseball field, gazebo, BBQ area, skate park, and playground equipment. Except for this park, there are no other developed recreational facilities at the WTP, lift station, or adjacent to the sewer line alignment. In addition, Storey County offers many outdoor recreational opportunities including hiking, mountain biking, and horseback riding in other parts of the County.

3.10.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on recreation if there would be a substantial loss of recreational areas.

No Action Alternative. This alternative would have no effect on existing recreational facilities or opportunities in the project area.

Wastewater System Improvements. This alternative would have no effect on existing recreational facilities, but could affect recreational opportunities in the project area. Any tourist visiting Virginia City could be affected by the construction activities and noise in the project area. While the primary tourist attractions are located on C/Main Street in the center of Virginia City and the sewer line was replaced recently in this area, tourists could be affected by construction on neighboring roadways. The project would have an effect on available parking and also have the potential to increase traffic volume, road closures, and cause delays or congestion. These effects would be to recreational activities in town; however, the outdoor recreational activities such as hiking and biking would not be affected since access is more widespread and straightforward than the confined areas in town.

This alternative could have short-term effects on access to Miner's Park and the ball fields. These effects could include reduced access, disruption in recreational activities, and/or a reduction in the quality of the recreational experience for users. Access would be unavailable for short periods during installation of the sewer pipeline. Construction activities and noise could also disrupt activities where the ability to hear voices or whistles is needed, as well as reduce the quality of the recreational experience for those users enjoying the peaceful areas of the park. Once the project is completed, recreational and tourist activities and the quality of the recreational experience would return to pre-project conditions. This project would also help to accommodate wastewater treatment demand during peak tourist season. There would be no long-term effects on recreation in the project area. While there would be short-term effects to recreation, with the implementation of the measures in Section 3.10.3, the project would have a less-than-significant effect on recreation.

3.10.3 Mitigation

Since the project would have no significant effects on recreation, no mitigation would be required. To avoid or minimize any short-term effects on recreation, the County would post signs in Miner's Park, informing the public of the construction schedule. The County would also coordinate with community groups to avoid construction during scheduled public events and ensure that there is sufficient access for the public event. Additionally, construction of sewer alignments near C Street would be performed during off-peak season for tourists in order to minimize any effects on parking and access.

3.11 Esthetics and Visual Resources

3.11.1 Existing Conditions

Esthetic resources are those natural resources, landforms, and manmade structures in the regional and local environment that generate one or more sensory reactions and

evaluations by viewers. The regional landscape around Virginia City includes mountainous rolling terrain with trees and shrubs. Virginia City is one of the oldest established communities in Nevada, a result of the Comstock Lode silver strike of 1859. Virginia City was declared a NHL in 1961. As a result, many of the buildings from the 1800's have been preserved along with the feel of the Old West. This historic time is still reflected in the buildings and architecture of the town.

Virginia City was built in a very mountainous area. Mt. Davidson's Peak towers over Virginia City to the west. Virginia City is surrounded by mountain ranges and canyons. To the east lie Dayton Valley and Six Mile Canyon. Located just to the east on the outskirts of the City, the WTP is typically only noticed by motorists who use Six Mile Canyon Road. Otherwise, the hills around the WTP prevent it from being easily viewed. The lift stations would be constructed on parcels of land currently devoid of any buildings.

The project area is located in an area designated by the BLM as Visual Resource Management Class IV as documented in the BLM's 2001 Carson City Field Office Consolidated Resource Management Plan. The BLM's Visual Resource Inventory Handbook (H-8410-1) states: "The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the effect of these activities through careful location, minimal disturbance, and repeating the basic elements."

3.11.2 Effects

Basis of Significance. An alternative would be considered to have a significant effect on esthetics if changes in landform, vegetation, or structural features substantially increase levels of visual contrast as compared to surrounding conditions. The significance of esthetic effects is evaluated with reference to the number of viewers affected. The BLM's Visual Resource Management Plan and Handbook H-8410-1 provide the criteria for acceptability of any visual effects.

No Action. This alternative would have no effect on existing esthetics or BLM's visual resource designation in the project area. The regional landscape and local viewshed would be expected to remain basically the same.

Wastewater System Improvements.

Virginia City. This alternative would have both short-term and long-term effects on existing esthetics. Short-term effects would involve changes in the local viewshed during staging of equipment and supplies, as well as construction of the new facilities at the WTP project location and the replacement of the Virginia City sewer lines. Most construction activities at the WTP would not be visible to viewers because the current topography would block most of the activities. Construction of the solids handling

building at the WTP would be partially visible to Virginia City residents on R Street and motorists on Six Mile Canyon Road. However, due to the limited size of the building, it would not substantially increase visual contrast as compared to the surrounding conditions. Residents of Virginia City, as well as tourists using residential streets, would be subject to short-term visual effects associated with the sewer line replacement. However, staging of construction materials would be in the more isolated areas, and phased installation of the sewer lines would be conducted along individual streets over time. Thus, the level of visual contrast would not be considered substantial in relation to surrounding conditions, and the number of viewers affected at one time would be limited. As a result, short-term effects on esthetics would be considered less than significant.

Long-term effects to esthetics would include a change in the local viewshed due to the addition of new facilities at the WTP. However, the new facilities would be similar in size and height to other existing structures, would have the general appearance of a utility structure, and would be located and designed to minimize visual contrast. There would be some surface grading, but there would be no export/import of any fill. As a result, this change would not substantially increase the levels of visual contrast as compared to surrounding conditions. Thus, the long-term effects on esthetics would not be considered significant.

Gold Hill. This alternative would have both short-term and long-term effects on existing esthetics. Short-term effects would involve changes in the local viewshed during staging of equipment and supplies, as well as construction of the new sewer lift stations, replacement of the sewer lines, and installation of the force main. However, only a few viewers would be affected because of smaller size and fewer tourist attractions in Gold Hill. As a result, the level of visual contrast would not be considered substantial so any short-term effects on esthetics would be considered less than significant.

Long-term effects to esthetics would include a change in the local viewshed due to the addition of new sewer lift station structures. The new structures would have the general appearance of a utility structure, and most of the sewer lift station structure would be constructed below grade and outside of view. The tallest above-ground structures associated with the sewer lift station would be the electrical cabinet and generator, which would be no more than 6 feet high. In addition, a 6-foot wooden fence would be constructed around the sewer lift stations. The fence, which would be the only feature visible at the completion of the project, has been designed to meet the design criteria of the Comstock Historic District Commission (CHDC). As a result, this change would not substantially increase the levels of visual contrast as compared to surrounding conditions. Thus, the long-term effects on esthetics would not be considered significant.

3.11.3 Mitigation

Since there would be no significant effect on esthetics, no mitigation would be required. The CHDC oversees any above-ground construction in the NHL. As a result, the local sponsor would be required to coordinate with the CHDC regarding any changes in esthetics prior to initiation of construction.

3.12 Cultural Resources

The term “cultural resources” is broadly defined as the buildings, structures, objects, sites, districts, and archeological resources associated with historic or prehistoric human activity. When these cultural resources are listed in, or are eligible for listing in, the National Register of Historic Places (NRHP), they are referred to as “historic properties.” Such properties may be significant for other cultural values and may be of national, state, or local significance. Historic properties may be eligible or listed as a result of their individual eligibility and/or as contributors to historic districts, and/or as historic landmarks, memorials, and other designations. Cultural resources are representative of broad patterns, themes, events, and people in prehistory and history.

The area of potential effects (APE) is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The APE for this undertaking is defined as the previously described project area, as well as the visual landscape around above-ground project features that may have an effect on structures, objects, and cultural landscapes and settings around these project features.

3.12.1 Existing Conditions

In the spring of 2011, a records and literature search of the APE (as identified as that time) was completed at the Nevada State Museum, BLM Carson City District Office, Nevada SHPO in Carson City, Nevada Historical Society Museum, Storey County Recorder’s Office, Storey County Assessor’s Office, Mark Twain Bookstore, and the NVCRIS electronic database. An inventory was also conducted for the APE as identified at that time. (Since then, additional project features such as the locations of the lift stations have been identified.) The results of the search and inventory are discussed below.

Prehistoric. Within the APE for the project, there is a potential for the presence of prehistoric sites. The records and literature search in 2011 showed that there are no known prehistoric sites within the APE although there several within 1mile. A Class III Cultural Resources Inventory completed for the APE as identified in spring of 2011 did not identify any new prehistoric sites within the APE. Further inventory of previously unsurveyed portions of the APE may be required if future changes in the project include construction activities in areas not previously inventoried and surveyed. Types of sites existing in the APE may include camps, lithic scatters, quarries, rock art, rock shelters, religious and sacred sites, as well as others. Native American tribes known to have interest in the APE include the Washoe Tribe of Nevada and California, and the Yerington Paiute Tribe.

Historic. The project is located entirely within the boundaries of the VCHD, which is a NRHP-listed historic district, as well as a NHL. In addition, the records and

literature search and subsequent Class III Cultural Resources Inventory identified 20 new sites and 8 isolated cultural resources. All but two of the 20 new sites were found to be either individually eligible for listing in the NRHP as individual properties or eligible as non-contributing sites to the VCHD and NHL. Two sites were recommended for further testing in order to determine their NRHP eligibility.

Virginia City, on the Comstock Lode, was the first silver rush town; it was also the first area in the West where methods of large-scale industrial and corporate enterprise were intensely applied and developed. As the experimental laboratory for these techniques, which were introduced with such success between 1860 and 1864, Virginia City became the prototype for the subsequent important mining towns that appeared on the mining frontier in Colorado, Idaho, Montana, and eastern Nevada.

Gold Hill was an intensely developed region on the Comstock. The earliest producing mines were located in Gold Hill, including the Crown Point, Yellow Jacket, Imperial, Kentucky, and Confidence. Gold Hill grew rapidly because of its proximity to several mines and mills, and was eventually built up to the divide where it merged with Virginia City. In its heyday during the 1870's, Gold Hill boasted a population of approximately 8,000 people, second only to Virginia City. It had a thriving business district, including an office for the Bank of California that stands today, several lodges, hotels, churches, schools, and other public amenities (CHDC 2005).

The VCHD is described as: "Technologically, economically, and sociologically the Comstock Lode represented a big and abrupt stride beyond the farthest limits reached in California during the 1850's. No California mining venture of the 1850s has demanded such a huge investment, none had been conducted on such a flamboyantly large scale, none had required such a rapid advance in engineering and technology. Nor had California mining, even in the field of quartz, led to the factory-like industrial relations that so soon characterized Virginia City and Gold Hill"(Rodman, 1963). The period of significance for the VCHD extends from 1859 to 1941.

The bonanzas of the Comstock Lode and Virginia City mines resulted in a total of \$292,726,310 and paid \$125,335,925 in dividends from 1859 to 1882. The Virginia City mines dominated western mining history from 1870 to 1879 (Snell, 1978).

As described by the NRHP listing for the VCHD from 1978 and the amended listing from 1991, there are a number of types of historic archaeological sites, features, and buildings that contribute to the integrity of the VCHD and NHL. These include cultural landscape features (mill tailings, mine dumps, sunken shafts, cemeteries, abandoned railroad, and road beds), historic structures (headframes, ore rockers, mill leaching tanks, and water tanks and flumes), and archaeological sites (underground mining tunnels, partially or totally buried mining equipment, and parts of buildings, stone embankments, and foundations), as well as the physical setting and the built environment of the VCHD and NHL.

The historic physical setting, which has remained relatively constant from the 1850's to 1942, includes the topography and patterns of drainage and vegetation, as well as the underlying geology of the area, all of which have influenced human use and development of the land. The built environment of the VCHD and NHL includes buildings and structures in Virginia City, Gold Hill, Silver City, and Dayton. These include commercial and residential buildings (such as family dwellings, businesses, religious, government, social, cultural, education, transportation, and industrial structures), outbuildings, and mill and mining structures generally within the four communities. The architectural styles of these buildings and structures generally fall into three categories (late Victorian period, vernacular, and industrial) and date from the mining bonanza years of the 1860's and 1870's and the period of economic revival in the 1930's.

3.12.2 Effects

Significance Criteria. A historic district possesses a significant concentration, linkage, or continuity of sites, buildings, structure, or objects united historically or esthetically by plan or physical development. A district derives its importance from being a unified entity even though it is often composed of a wide variety of resources. The identity of the district results from the interrelationship of its resources, which can convey a visual sense of the overall historic environment or can be an arrangement of historically or functionally related properties. A district must be significant, as well as be an identifiable entity. It must be important for historical, architectural, archeological, engineering, or cultural values (USDI, 1992).

The NHL's are nationally significant historic places designated by the U.S. Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the U.S. Today, fewer than 2,500 historic places bear this national distinction. The National Historic Landmarks Program works in coordination with interested citizens and National Park Service (NPS) staff to nominate new landmarks and provide assistance to existing landmarks. The NPS and Nevada SHPO provide oversight for Federal undertakings in NHL's and National Register listed historic districts with National significance in Nevada. The CHDC provides historic building oversight in the NHL for Virginia City. This includes Virginia City, Gold Hill, Silver City, the Sutro Tunnel, the town of Dayton, and the surrounding mining district.

Adverse effects on cultural resources (including historic districts) that are contributing elements, listed or eligible for listing in the NRHP, or as contributing elements of a NHL could be considered significant. Cultural resources that are contributing elements to a NRHP eligible or listed property, district, or NHL, or are individually listed or eligible for listing in the NRHP are considered historic properties and must undergo particular evaluation to determine if the effect of an alternative is adverse. An alternative would be considered to have an adverse effect on historic properties if the alternative may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusions in the NRHP in a manner that

would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. Types of adverse effects include:

- Physical destruction, damage, or alteration of all or part of the historic property.
- Isolation of the historic property from or alteration of the character of the historic property's setting when that character contributes to the historic property's qualifications for the NRHP.
- Introduction of visual, audible, or atmospheric elements that are out of character with the historic property or alter setting.
- Neglect of a historic property, resulting in its deterioration or destruction.
- Transfer, lease, or sale of the historic property.

Integrity. Historic integrity is the composite effect of seven qualities: location, design, setting, materials, workmanship, feeling, and association. Decisions about historic integrity require professional judgments about whether a property today reflects the spatial organization, physical components, and historic associations that it attained during the period of significance. A property's period of significance becomes the benchmark for measuring whether subsequent changes contribute to its historic evolution or alter its historic integrity.

No Action. This alternative assumes that the project would not be constructed. Existing cultural resources and historic properties such as the VCHD and NHL would remain unaffected and as described in Section 3.12.1, and future activities within the boundaries of the VCHD and NHL would be potentially subject to the review of the CHDC, Nevada SHPO, and BLM.

Wastewater System Improvements. When historic properties are identified that may be adversely affected by a proposed project, methods must be determined to identify the scope of the historic properties, assess the extent of the adverse effects, and develop measures to avoid or mitigate any adverse effects. When a project may affect a complex historic property, NHL, or other sensitive resource, one method to meet this requirement is the execution of a PA between the parties who are involved in decision-making for the project. In addition, in accordance with 36 CFR 800.14(b)(1)(ii), when effects on historic properties cannot be fully determined prior to approval of an undertaking, a PA may be used to outline the process for identification, evaluation of properties and effects, and minimization or mitigation of effects. The evaluation and resolution of adverse effects is made pursuant to 36 CFR 800.5 and 36 CFR 800.6.

The Corps has determined that the project may have an adverse effect to the VCHD and NHL. The VCHD and NHL are composed of above-ground buildings and structures that are considered significant as remnants of the Comstock Lode, and buried resources contributing to the historic significance of the Comstock Lode may be present at or under the surface that would be disturbed during construction. In addition, the proposed lift stations and replacement of the WTP may affect the visual nature of the landscape of the VCHD and NHL. The visual landscape is considered an important part

of the integrity of the property, and the introduction of features out of character with the historic setting of the VCHD and NHL could result in adverse effects.

As a result of these potential effects, a PA has been executed in consultation with the BLM, Nevada SHPO, Storey County, Advisory Council on Historic Preservation (ACHP), NPS, CHDC, NDOT, Yerington Paiute Tribe, and the Washoe Tribe of Nevada and California. The BLM, Nevada SHPO, and Storey County signed the PA as signatory parties. As the lead Federal agency for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, the Corps has executed the PA, which includes activities that would occur before and during construction. To determine what resources in the APE may be affected, the PA includes stipulations to complete additional background documentation and an inventory of known and unknown resources in the APE (as identified for the final design of the project). Once the background and inventory are complete and the known above-ground resources have been determined, the PA stipulates steps to assess effects to known resources, as well as buried resources that are unknown until ground-disturbing activities begin.

To assess the effects on both the known above-ground resources and possible buried resources, the PA requires (1) development of a sensitivity document to identify those areas most likely to have historic properties and (2) preparation of a visual effects assessment. The visual effects assessment would determine if above-ground construction may have an adverse effect on the integrity and character of the VCHD and NHL. The design of the above-ground project features has already been coordinated with the CHDC, who required alteration of the type of fencing, pitch of the roofs, and color and type of material used for siding. CHDC's alterations were needed to be consistent with the character of the VCHD and NHL and reduce visual effects to less than significant. Any additional project features would be designed in coordination with the CHDC and PA signatories, as well as consistent with the CHDC construction standards for the VCHD and NHL, in order to reduce visual effects to less than significant.

The visual effects assessment would also examine potential effects of the project on the overall character and integrity of the historic setting of the VCHD and NHL beyond the built environment. The historic setting relates to the setting, feeling, and association of the VCHD and NHL, and how the landscape has both shaped and been shaped by the VCHD and NHL. The visual effects assessment would determine if the project would have an adverse effect on those character-defining features of the VCHD and NHL. If the project is determined to have an adverse effect on the visual landscape of the VCHD and NHL, potential mitigation measures such as documentation of the landscape through Historic American Landscape Survey would reduce effects to less than significant. Potential mitigation measures would be considered and coordinated with the SHPO and the BLM.

Because the extent and types of buried resources is currently unknown, the sensitivity document would compile existing information on the VCHD and NHL from topographic maps, information on cuts and fill of the area, Sanborn maps, historic geographic/mineral archival information, knowledge of buried utilities (water, gas, and

electrical), archival information, survey of knowledgeable individuals, and any other information relating to subsurface features. That information would be compared to the project and APE, and a testing plan targeting areas in the APE for the project identified as sensitive for buried resources would be developed to identify resources and determine likely effects. The testing plan would identify what buried components are likely to be found and where. The goal of the testing plan is to identify those areas within the APE where sites do exist or are likely to exist, and recommend the extent and method of testing prior to construction to determine the potential site eligibility as an NRHP-eligible or listed property or contributing historic property to the VCHD and NHL.

Implementation of the testing plan would include determinations of eligibility for sites identified during the testing. Determinations of eligibility would be coordinated with the SHPO and the BLM. For sites in the APE determined eligible as NRHP-eligible or listed properties, or contributing historic properties to the VCHD and NHL, a historic property treatment plan (HPTP) would be developed. A HPTP would include a data recovery plan to document and recover values that make sites, sensitive areas, or parts of the VCHD and NHL eligible for listing in the NRHP as contributing elements to the NRHP-listed district or as individually eligible historic properties. Development of any HPTP or data recovery plan would be coordinated with the SHPO and the BLM. Implementation of HPTP's for known resources or buried resources determined to be likely located in the APE and determined as NRHP-eligible or listed properties, or contributing historic properties to the VCHD and NHL, would reduce effects to less than significant.

Even after completion of the sensitivity document, testing plan, HPTP's and data recovery, the possibility still exists that unknown buried cultural resources could be discovered during project construction. Once construction is initiated, the PA includes stipulations for monitoring construction activities in both previously disturbed and undisturbed areas. Those stipulations include guidelines for contacting the BLM and the SHPO, examining the discovery, and determining NRHP eligibility of, and effects to, the discovery.

The stipulations of the PA will be completed by professional individuals who meet the Professional Qualifications Standards set forth in the Secretary of the Interior's Standards and Guidelines for the applicable technical area. Execution of the PA stipulations is the means to consider the effects of the project on historic properties and develop methods to avoid effects, where possible, and to minimize and mitigate any adverse effects elsewhere. Implementation of the stipulations in the PA would reduce any effects on historic properties in the APE to less than significant.

3.12.3 Mitigation

Since implementation of the stipulations in the PA would reduce any effects to less than significant, no additional mitigation would be required. Once the provisions of the PA relating to pre-construction identification, evaluation, and resolution of effects are met, ground-disturbing activities for the project may proceed.

In the event that an unanticipated discovery of a potential historic property is made, the PA would include an unanticipated discoveries plan to guide stopping work, coordinating with the BLM and the SHPO, determining effect, and determining possible mitigation through a HPTP and in accordance with 36 CFR 800.5 and 800.6. The unanticipated discoveries plan would also include guidelines for notification of relevant parties, coordination with appropriate Native Americans, and treatment of any human remains in accordance with all relevant Federal law, State, and local laws.

Stipulations of the PA to identify sites, evaluate sites, and determine effects will be implemented prior to any construction or activity under Sections 2.3.1, 2.3.2, or 2.3.3 of this EA.

3.13 Hazardous, Toxic, and Radiological Waste

3.13.1 Existing Conditions

Background. Mining in the Carson River drainage basin commenced in 1850 when placer gold deposits were discovered near Dayton at the mouth of Gold Canyon. Throughout the 1850's, mining consisted of working placer deposits for gold (and later silver) in Gold Canyon and Six Mile Canyon. These ore deposits became known as the Comstock Lode. Gold and silver production from the Comstock Lode increased slowly during the early years to 1863, which was the first year of large production (Corps, 2010).

Mercury was imported to the Virginia City and Gold Hill area during the Comstock era for processing gold and silver ore. The most widely used processing method was the "Washoe Process" used at mills near the mines. With this process, the raw ore was wet crushed with stamps; the crushed ore was separated from the slurry in a settling tank; and then mercury was added to the crushed ore. The mercury formed an amalgam with the gold and silver, which were then separated and recovered. The remaining material (tailings), including much of the mercury, was discharged into the local drainage and thus released into the environment. The amount is estimated to have been approximately 14 million pounds of mercury. An estimated 250 such mills operated during the Comstock era (Yates, 2011).

Mercury Contamination. In the 1970's, the U.S. Geological Survey (USGS) identified elevated levels of mercury, beyond the naturally occurring levels for this element, in the sediments and unfiltered surface water from the Carson River (Bevans et al., 1998). Due to the high concentrations of mercury contamination in both the soil and watercourse, the U.S. EPA included the Carson River Mercury Site (CRMS) on the National Priorities List (NPL) in August 1990 (*Federal Register*, 1990). This NPL site consists of (1) sediments and adjacent floodplains of the Carson River from New Empire downstream through the Lahontan Reservoir to the Stillwater National Wildlife Refuge; (2) soils and sediments in Gold, Sixmile, Sevenmile, and Daney Canyons; and (3) soils and sediments associated with mill sites in and around Washoe and Little Washoe Lakes and Steamboat Creek in the Washoe Valley (Yates, 2011).

Potential forms of mercury in the CRMS include elemental mercury, mercury chloride, mercury sulfide, and methyl mercury, all resulting from the use of the Washoe Process at the Comstock era mines (NDEP, 2010b) Methyl mercury is the most toxic form of mercury. It affects the immune system, alters genetic and enzyme systems, and damages the nervous system (USGS, 2000). Exposure to methyl mercury is usually by ingestion, and it is absorbed more readily and excreted more slowly than other forms of mercury. Elemental mercury causes tremors, gingivitis, and excitability when vapors are inhaled over a long period of time. Although less toxic, elemental mercury may be found in higher concentrations at mining sites where it was used to extract gold (USGS, 2000).

Phase 1 Environmental Site Assessment. A Phase 1 Environmental Site Assessment (ESA) conducted by the Corps in 2010 found that the CRMS, in the vicinity of Virginia City/Gold Hill, has the potential of a past, present, and/or future release of HTRW (Corps, 2010). Due to the high concentrations of mercury in the soils and watercourse, the U.S. EPA designated the Carson River basin from New Empire to Stillwater and the Carson Sink as a NPL site under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund) in August 1990. This is Nevada's only NPL site and is jointly managed by the NDEP and U.S. EPA, Region IX, in San Francisco.

Clean-up Efforts. Previous mercury cleanups at six areas in the town of Dayton and one area in Silver City were conducted in 1998 and 1999. The previous clean-up included the excavation of contaminated soils to a depth up to 2 feet, offsite disposal of the soil, replacement of the contaminated soil with clean fill, grading and surface contouring to restore the property to pre-cleanup conditions, and revegetation of the affected areas (NDEP, 2010a).

Although future cleanup of sediment in the Carson River is proposed (NDEP, 2010a), clean-up in Virginia City and Gold Hill has not been proposed as a part of the remediation of the Carson River Mercury Site. However, the U.S. EPA has identified areas in Virginia City and Gold Hill to have different CRMS risk area intensities; that is, areas where encountering mercury contamination is more likely (Yates, 2010; 2011). Plate 6 shows these risk areas and Comstock-era mill site locations.

3.13.2 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 CERCLA; the Resource, Conservation, and Recovery Act; and/or 40 CFR Parts 260 through 270); 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 HTRW or increase human or environmental exposure to any HTRW, including mercury. Any potentially contaminated areas would be expected to remain in their current condition.

Preferred Alternative. The project would have the potential to disturb mercury-contaminated soils during earthwork associated with (1) the upgrades to the WTP, (2) replacement of sewer lines in Virginia City and Gold Hill, and (3) construction of sewer lift stations in Gold Hill. During construction of the WTP, mercury-contaminated soils could be unearthed during grading and excavating soils from the hill slopes surrounding the existing WTP. Excavated soils would be stockpiled temporarily at the Storey County facility across Six Mile Canyon and would be reused as fill material as a part of the upgrades to the WTP.

During replacement of the sewer lines in Virginia City and Gold Hill, mercury-contaminated soils could be encountered in the existing roadways. Excavated soils would be temporarily stockpiled in the staging and stockpiling areas, and would be reused as backfill after placement of the new sewer lines. Once backfill and road resurfacing are completed, the soils would return to their pre-project condition and would not be a new source of mercury exposure.

During construction of the sewer lift stations, mercury-contaminated soils could be encountered during soil excavation below grade. These excavated soils would be moved to a nearby fill location. Excess soils, which could potentially be contaminated with mercury, would be stored in three fill locations in the project area. With the implementation of the BMP's listed in Section 3.13.3, this project would not have a significant effect on HTRW contamination or exposure.

3.13.3 Mitigation

Since there would be no significant effects on HTRW, no mitigation would be required. During construction, BMP's would be implemented to reduce the potential for mobilizing a source of mercury-contaminated soils via either water or air. These BMP's would be specified in the SWPPP and the dust control plan discussed in Sections 3.5 and 3.6, respectively. Types of BMP's include (1) covering soil stockpiles to prevent wind or stormwater erosion; (2) watering to reduce the potential for wind borne contamination; and (3) repaving roadways and other final BMP's for soil stabilization.

In addition, the following BMP's required or recommended by NDEP (Yates, 2010; 2011) would be implemented during work in the CRMS to further ensure worker and environmental safety (Appendix C).

- Storey County would be responsible for developing a contingency plan if mercury is encountered. This plan would include controls for management and disposal of hazardous materials, as well as operating procedures that address prevention of possible recontamination of clean areas by construction. This plan would require approval by the NDEP.

- If elemental mercury is encountered during the project, construction would be temporarily halted in that area; the County's contingency plan would be followed; and the NDEP would be notified.
- All workers who could encounter hazardous material must be compliant with OSHA 1910.120.
- No material that appears to contain mine waste would be left exposed at the surface of the ground without being covered by at least 2 feet of clean material.
- Any temporary stockpiles of material that could be contaminated with mercury would be covered and protected from erosion and human contact by 2 feet of clean material.
- No material excavated from the CRMS would be used for pipe bedding material, be placed in direct contact with water lines, be used as fill in any area outside the CRMS, or be used in any area known to be free of contamination.
- All borrow material would be obtained from areas known to be free of mercury contamination.
- The final as-built report produced as a part of the project would be submitted to NDEP.

4.0 CUMULATIVE EFFECTS

Cumulative effects are effects of the project considered with other past, present, or reasonably foreseeable projects in the area. Currently, there are no ongoing projects in or near 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. However, there are four projects that are reasonably foreseeable given the phased nature and anticipated length of construction to complete the Virginia City and Gold Hill wastewater system improvement project.

4.1 Reasonably Foreseeable Projects

4.1.1 Comstock Mine Project

The Comstock Mining Project (CMP) is located in Storey and Lyon Counties, approximately 3 miles south of Virginia City, and 1 mile south of Gold Hill. The CMP is leased or owned by Comstock Mining, Inc., and is a combination of new and existing mining projects. The company originally purchased an existing mining project (Plum Mine), and continues to acquire additional land and claims. Permits for the existing mines are being kept current, and where possible, are being modified to fit the operation's future plans. The CMP is currently in an exploration phase, with plans to possibly start Phase I of production in 2012 (CMP, 2012).

Phase I of the CMP would consist of hard rock mining on private property. Extraction of ore and waste materials from the proposed open pit mine would be by conventional drill and blast mining techniques using front shovel/truck operations. The initial mine operation is scheduled for 8 hours per day, 5 days per week (BDG, Inc., 2010). Phase I of the project may also include rerouting a portion of State Highway 342

if approved by NDOT. Required permits and the necessary ROW's to conduct Phase I of the CMP have been obtained. Phase II of the CMP, which would include work on Federal land, would start in 2016. The CMP would be expected to operate until 2035.

Because of the size and type of project, the CMP would have effects on environmental resources in the area. An environmental impact statement would be prepared prior to any action on Federal land. This mines project could result in effects on vegetation and wildlife, water resources/quality, air quality, land use, traffic, noise, recreation, esthetics, cultural resources, and HTRW. Rerouting of State Highway 342 depends on NDOT approval and has been deferred to NDOT engineers to design the reroute.

4.1.2 United Comstock Merger Mill at American Flat

The United Comstock Merger Mill is located at American Flat (AFM) south of Gold Hill, approximately 1.5 miles from the project area. The mill structures are located on Federal land under the administration of the BLM. In 2008, the U.S. Department of the Interior, Office of the Inspector General, audited the AFM and found the property to be a high-risk liability to the U.S. Government.

In response, BLM prepared an EA in 2010 to evaluate the environmental effects of four alternatives to mitigate hazards to human health from the AFM, while addressing historic resources. The BLM's preferred alternative in their EA involved demolition of the AFM. All eight buildings would be demolished; voids and tunnels filled; and building footprints and other disturbed areas covered with native borrow and soil material and revegetated. The BLM would perform cultural resource studies and construct secure fencing in 2011 and proceed with the project in 2012, subject to the availability of funding (Bitner, 2011).

Based on their 2010 EA, the BLM determined that the proposed project (demolition) would have no significant effects on the environment (assuming an MOA with SHPO), and a FONSI and Decision Record were signed in December 2010 (BLM, 2010). According to the BLM's EA, the AFM would have short-term effects on air quality and long-term effects on soils, cultural and historic resources, visual resources, land use authorization, and education and interpretation. However, avoidance, minimization, mitigation, and best management practices would be implemented to reduce any effects to less than significant, including effects on historic resources in the VCHD and NHL.

Due to subsequent concerns from the public that BLM signed the Decision Record prior to completing consultation with the Nevada SHPO under Section 106 of the NHPA, the BLM withdrew its decision in April 2011 (Buttazoni, 2011). In June 2011, the BLM sought additional public input on their proposal to reduce site safety hazards at the AFM site. Specifically, the BLM encouraged public input on the historic properties and potential effects evaluated in the 2010 EA relative to regulation 36 CFR 800.2(d) and 800.3(e) (BLM, 2012).

On March 5, 2012, the BLM in consultation with the SHPO concluded the Section 106 process by executing a PA for their demolition project. The PA signatories were the BLM, SHPO, and ACHP. The Comstock Historic Commission and NPS were also involved as concurring parties to the BLM's PA (BLM, 2012).

4.1.3 IDA Consolidated Mines Project

The IDA Consolidated mines project is located near Silver City, approximately 3.8 miles south of the project area. IDA Consolidated has plans to refurbish an old mill and reactivate mining activities (mining, crushing, and ore processing/milling activities). This would be a continuation of a mine project from 22 years ago. The mine has an estimated life of 5 additional years. This project is currently in the planning phase.

According to Mr. Art Wilson, owner of IDA Consolidated (2010), the project is currently in the planning phase. Mr. Wilson attended Storey County and Lyon County Commission meetings in early 2010 and applied for a special use permit. At that time, Storey County requested additional information on the project and its potential effects before taking action on the application. Although Mr. Wilson anticipates that mining activities would start in 2012, there has not been recent activity to obtain the necessary approvals and authorizations. The Storey County special use permit is on hold until the project is put back on the agenda, and no other project permits have been obtained.

Because of the size and type of the project, the IDA Consolidated mines project could result in effects on vegetation and wildlife, water resources/ quality, air quality, land use, traffic, noise, esthetics, cultural resources, and HTRW.

4.1.4 Virginia & Truckee Railway Tunnel Reconstruction

The Virginia & Truckee (V&T) Railway Tunnel is located in the heart of Virginia City. Storey County plans to reconstruct this historic tunnel and purchase the accompanying train depot to extend service of the V&T Railroad. The tunnel would be constructed within the East Street ROW, a few hundred feet from South Washington Street, and extend north of Union Street. The tunnel would be approximately 440 feet long.

This railway tunnel project has received the necessary approvals and permits, and has established a funding source. However, project initiation depends on the cost of construction. Reconstruction could begin as early as April 2012 and be completed by October 2012. If reconstruction bids are higher than expected, the project would be postponed until the project can be fully funded.

This project would have environmental effects on air quality, traffic, noise, esthetics, cultural resources, and HTRW in the vicinity of the tunnel on East Street. Streets would be closed in the V&T tunnel project area, and utilities would be protected and moved to accommodate reconstruction of the project.

4.2 Summary of Cumulative Effects

4.2.1 Assumptions

Because of the location and status of the four reasonably foreseeable projects relative to the Virginia City and Gold Hill wastewater improvement project, this evaluation of cumulative effects makes several assumptions as discussed below.

First, only the V&T railway tunnel and the Virginia City and Gold Hill projects are located in close proximity within the project area. Thus, the evaluation assumes that they would share the same local sensitive receptors, viewers, and viewshed. Because of the distances between the three mine projects and project area, as well as the mountainous terrain, none of the three mine projects would share the same viewers, or have the same viewshed, with each other or the Virginia City and Gold Hill project. However, because of the potential use of blast mining for the CPM, they would share the same sensitive receptors for effects on noise.

Second, the V&T railway tunnel project currently has necessary permits/ approvals, a funding source, and scheduled completion date of October 2012. Thus, the evaluation assumes that the railway tunnel project would be completed prior to construction of the first phase of the Virginia City and Gold Hill project. The construction schedules for the three mine projects are uncertain at this time because they all need to obtain required permits/approvals and/or secure adequate funding. Because of this uncertainty, the evaluation assumes that the three mine projects would be constructed at the same time (concurrent construction) as one or more phases of the Virginia City and Gold Hill project.

4.2.2 Short-Term Effects

Since the railway tunnel project would be completed prior to construction of the Virginia City and Gold Hill project, there would be no short-term cumulative effects on environmental resources. However, concurrent construction of the three mine projects and the Virginia City and Gold Hill project would result in short-term cumulative effects on air quality, traffic, and noise as discussed below.

Because of the regional nature of air quality, the sensitive receptors in the project area could be affected by increases in hydrocarbons, exhaust, and PM10 during operation of vehicles and heavy equipment associated with all four projects. In addition, the major roadway providing access to Virginia City, Gold Hill, and surrounding area is State Highway 342. All four projects could increase traffic volumes, disrupt traffic flow, and pose a public safety hazard on these highways during vehicle entry to and exit from local paved, gravel, or dirt roadways. In addition, the CMP and the Virginia City and Gold Hill project both involve work either on or along sections of Highway 342. Finally, while increases in most construction noise would have only local effects because of the distances and mountainous terrain, the increase noise levels due to blasting at the CMP

could affect sensitive receptors in Virginia City and Gold Hill, as well as the other mine projects.

Because of the type and extent of the proposed work, the CMP and IDA Consolidated Mines project could result in local effects on air quality, traffic, and noise. In particular, the CMP could result in short-term effects on local traffic or noise. However, the magnitude of the effects contributed by the Virginia City and Gold Hill project to these local effects would be very small because (1) avoidance and best management practices such as water trucks and speed limits would minimize effects on air quality and (2) work would be scheduled to avoid concurrent work with the CMP on Highway 342. In addition, the attenuation of sound over distance would reduce the decibel contribution of the Virginia City and Gold Hill project to very low levels at the CMP or IDA Consolidated Mines project. Once constructed, the Virginia City and Gold Hill project would no longer contribute to short-term cumulative effects. Air quality emissions, traffic and public safety conditions, and noise levels in the project area would return to pre-project conditions.

4.2.3 Long-Term Effects

Because of their distance and locations, the three mine projects would have no long-term effects having a cumulative relationship with the Virginia City and Gold Hill project. However, both the V&T railway tunnel and the Virginia City and Gold Hill projects would have long-term effects on the local viewshed in and near Virginia City. The reconstructed railway tunnel and upgraded WTP would both be apparent to viewers such as motorists, tourists, and train passengers. The magnitude of the effects contributed by the Virginia City and Gold Hill project would be expected to be small because (1) viewers would be limited to motorists along Six Mile Canyon Drive (2) and upgrades would be designed to be similar in location and appearance to other existing structures in accordance with stipulations of the PA related to historic properties..

4.2.4 Conclusion

Therefore, when the Virginia City and Gold Hill project is considered with other past, present, and reasonably foreseeable projects in the area, no significant cumulative effects are anticipated.

5.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Bald and Golden Eagle Protection Act (16 U.S.C. 668a-d). *Compliance.* This act requires that the project avoid “take” of bald and golden eagles. If construction is necessary during the nesting season, Storey County would be required to have a qualified biologist survey for active nests of these birds within a 1/8-mile radius of the project area within 15 days prior to initiation of construction. If active nests are located during these surveys, the biologist would consult with the U.S. Fish and Wildlife Service (USFWS) and NDOW, as required, to determine the appropriate buffer around the nest.

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 in the local air basin. The Corps has determined that the project would have no significant adverse effects on the future air quality of the area.

Clean Water Act (33 U.S.C. 1251 et seq.). *Compliance.* Since the project would not involve placing any fill material into waters of the U.S., including wetlands, a Section 404 permit would not be required. The project would require an NPDES permit from the State since it would disturb 1 or more acres of land and involve possible stormwater discharges to surface waters.

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

Endangered Species Act (16 U.S.C. 1531 et seq.). *Compliance.* No Federally listed threatened or endangered species or their habitat have been identified in or near the project area.

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. The project would have no effect on floodplains.

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.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. *Compliance.* The order directs all Federal agencies to identify any disproportionate human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The project would have no such effects on any minority or low-income populations.

Farmland Protection Policy Act (7 U.S.C. 4201). *Compliance.* The project would have no effect on prime farmland or farmland of statewide importance because there is no such farmland in the work areas for the project.

Migratory Bird Treaty Act (15 U.S.C. 701-18h). *Compliance.* This act requires that the project avoid destruction of active bird nests or young of migratory birds that

breed in the area from March to August. If construction is necessary during the nesting season, Storey County would be required to have a qualified biologist survey for active nests of migratory birds within a 1/8-mile radius of the project area within 15 days prior to initiation of construction. If active nests are located during these surveys, the biologist would consult with the U.S. Fish and Wildlife Service (USFWS) and NDOW, as required, to determine the appropriate buffer around the nest.

National Environmental Policy Act (42 U.S.C. 4321 et seq.). *Compliance.* This final EA is in full compliance with this Act. Comments received during the public review period were considered and incorporated into the final EA, as appropriate. This final EA and signed FONSI complete the Corps' NEPA process. The BLM will complete their NEPA process with the signing of the Decision Record, which can be appealed.

National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.). *Compliance.* Section 106 of this Act requires Federal agencies to take into account the effects of a proposed undertaking on properties that have been determined to be eligible for listing, or are listed in, the NRHP. The Corps has concluded that the project is entirely within the boundaries of the VCHD, a NRHP-listed historic district and a NHL. A PA with stipulations to identify affected historic properties, assess adverse effects, and resolve adverse effects on the VCHD was executed on March 12, 2012, which allows the project to be in compliance with Section 106.

The PA further defines the roles and the methods of complying with Section 106 and was developed in consultation with the SHPO, NPS, Storey County, CHDC, NDOT, Yerington Paiute Tribe, Washoe Tribe of Nevada and California, ACHP, and the BLM. The PA represents a binding commitment to the proposed measures and was prepared in accordance with 36 CFR § 800.5 and 800.6.

Letters to potentially interested Native Americans were sent on December 1, 2010, requesting their knowledge of locations of archeological sites, or areas of traditional cultural interest or concern. In a letter dated December 7, 2010, the Washoe Tribe of Nevada and California requested a copy of the survey findings for the project, when completed, and asked to be kept informed on the status of the project. On August 26, 2011, letters to the Yerington Paiute Tribe, Washoe Tribe of Nevada and California, CHDC, and the NDOT were sent, requesting for any comments on the draft PA and any interest those parties had in becoming concurring parties to the PA. No comments were received, and none of the parties expressed interest in signing the PA as a concurring party.

Because the NPS administers the National Historic Landmarks Program on behalf of the Secretary of the Interior, and pursuant to 36 CFR § 800.10(c), the NPS was provided information on the project, and their comments and involvement in the development of the PA were requested in letters dated January 27, 2011, August 26, 2011, and October 12, 2011. In addition, the NPS was asked to provide their comments and interest in becoming a concurring party to the PA. No comments were received, and

the NPS did not express interest in signing the PA as a concurring party. Copies of these letters, as well as other cultural correspondence and the executed PA, are included in Appendix B.

Although none of the potential concurring parties indicated that they were interested in signing the PA as a concurring party, they will be provided a copy of the fully executed PA and be given the opportunity to sign the executed PA.

On January 27, 2011, a letter was sent to the ACHP, informing them of the project, the proposed development of the PA, and asking for their comments on the project. In a letter dated February 11, 2011, the ACHP declined to participate in the project. In a letter dated August 26, 2011, the ACHP was provided additional information on the project, as well as the process to comply with Section 106, and they were provided the draft PA for review and comment. No comments were received from the ACHP. The ACHP will receive the fully executed PA for their records.

In a letter to the Nevada SHPO dated December 1, 2010, the SHPO was asked to comment on the APE, the project description, and the roles of the Federal agencies involved. The SHPO responded in a letter dated December 14, 2010, requesting additional information and specifying steps to be taken and included in the PA. In a letter dated May 13, 2011, the SHPO was provided the additional requested information, and the APE of the project was further defined. In following email correspondence, the SHPO concurred that the APE, to include the visual APE, was adequately determined. Efforts to determine the effects to historic properties within the physical and visual APE are defined within the executed PA. Execution of the PA by the signatories evidences the Corps' compliance with Section 106 of the NHPA for the project.

6.0 PUBLIC INVOLVEMENT

6.1 Corps

Storey County and the BLM have taken the lead in ensuring that the residents of Virginia City and Gold Hill are aware and involved in the project. During preparation of the EA, the Corps participated in the County's and/or BLM's project presentations at the CHDC meetings on January 10 and March 15, 2011, and at the Storey County Commission meeting on May 3, 2011. These meetings were open to the public.

6.2 BLM

6.2.1 Scoping

On September 13, 2010, the BLM conducted internal scoping during an ID team meeting to review the proposed action and to determine which resources need to be evaluated in the EA. The resources that BLM identified as "may be affected" by the proposed action were carried through the EA for evaluation.

6.2.2 Public Meetings

To fulfill 43 CFR 46 and the BLM's NEPA Handbook (BLM, 2008) regarding public notification and public involvement, the BLM relies on a combination of several ways to present project information to the public, including news releases to the media, direct mailings, and presentations at public meetings or other public forums.

On January 10, 2011, the BLM participated in a presentation on the project before the CHDC. In addition, the BLM, in coordination with Storey County, determined that the most appropriate approach to notifying the public of the availability of the draft EA was to participate in a presentation on the project before the Storey County Commissioners' meeting during the 30-day public review period. This meeting was held on May 3, 2011. Participation in these meetings served two purposes for the BLM; i.e., to assist in meeting their NEPA as well as Section 106 public involvement processes.

7.0 REVIEW AND COORDINATION 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 D). Comment letters were received from the NDEP and Nevada Division of Water Resources (NDWR). Their comments dealt with design, engineering, and permit requirements of the project, and copies of these letters were provided to Storey County. Similar comments were received via the Nevada State Clearinghouse's agency review, as well as a comment from the Nevada SHPO regarding the requirement for a signed PA. All comments were considered and incorporated into the final EA, as appropriate.

Development and preparation of this EA have been coordinated with the BLM and USDA. The project has also been coordinated with all relevant government resource agencies including the BLM, USDA, USFWS, NPS, ACHP, NDEP, NDOT, Nevada SHPO, Storey County, and CHDC.

8.0 CONCLUSIONS

Based on the information in this EA, the project would have no significant adverse effects on the environment. No mitigation beyond avoidance, BMP's, and measures proposed in this EA would be required. As a result, the project would meet the requirements for actions permitted 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.

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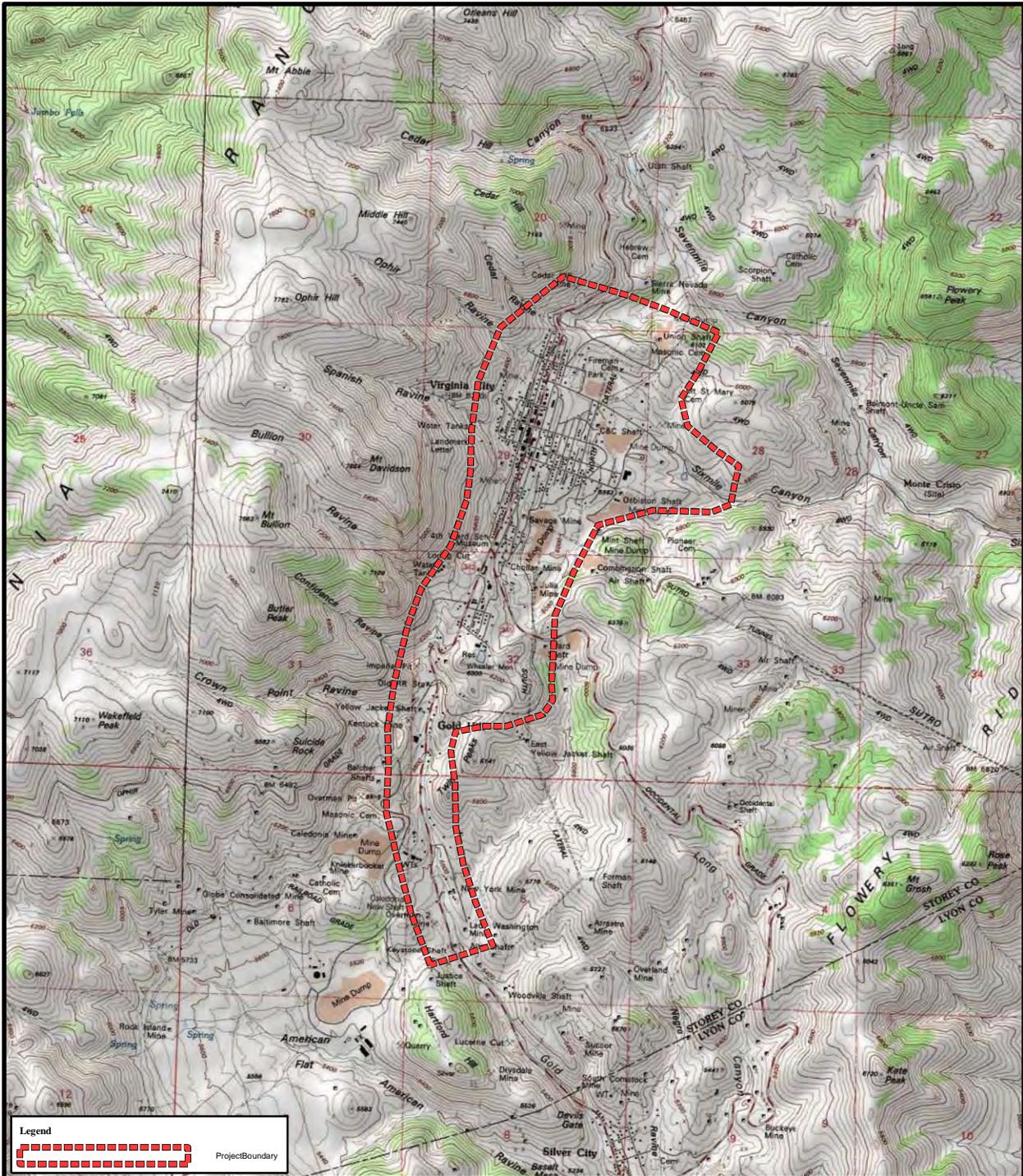
Yates, Jack. 2011. Environmental Scientist, Nevada Division of Environmental Protection. Email to Mr. Mark Lord, Environmental Economist, 7Q10, Inc. Subject: Draft EA – Virginia City Wastewater System Improvements Project. April 29.

Plates



Project Location

PLATE 1
PROJECT LOCATION



7Q10, Inc.



500 Damonte Ranch Pkwy, #929

Reno, Nevada, 89521

1 inch = 3,693 feet



Virginia City and Gold Hill Wastewater System Improvements

Plate 2

USGS Topographic Map

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GENERAL NOTES :

1. DURING CONSTRUCTION, FIELD CONDITIONS MAY DICTATE THAT THE PROPOSED SEWER MAIN LOCATIONS MUST BE ADJUSTED IN ORDER TO AVOID CONFLICTS WITH SUB-SURFACE OBJECTS; THEREFORE, THE ENVIRONMENTAL ASSESSMENT SHOULD COVER AREAS ADJACENT TO THE PROPOSED SEWER MAINS.
2. ALL AREAS ADJACENT TO THE SEWER MAIN ARE SUBJECT TO EXCAVATION IN ORDER TO CONNECT LATERALS.
3. THERE IS CURRENTLY VERY LITTLE WORK PLANNED ON "C" STREET FROM SHELDON STREET TO "B" STREET, BUT CONSTRUCTION ACTIVITIES MAY REQUIRE REPAIRS WHICH ARE NOT INCLUDED IN THE CURRENT DESIGN. IT IS SUGGESTED THAT "C" STREET BE INCLUDED IN THE ENVIRONMENTAL ASSESSMENT.

LEGEND

- EX. SANITARY SEWER
- PROPOSED SANITARY SEWER
- BID ALTERNATE 2
- POTENTIAL STAGING AREA
*NOT ALL AREAS WILL BE USED
- POTENTIAL FILL LOCATION
*NOT ALL AREAS WILL BE USED
- NON FEDERAL LAND
- PROPERTY LINE FROM ASSESSORS PARCEL MAPS
- PHASE LINE
- PAVED ROADS

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Plate 3, Sheet 1

VIRGINIA CITY SANITARY SEWER REPLACEMENT
VIRGINIA CITY & GOLD HILL WASTEWATER IMPROVEMENTS

FARR WEST
ENGINEERING
5442 LONGLEY LANE, SUITE B
RENO, NEVADA 89511
PHONE: (775) 851-4788
FAX: (775) 851-0788

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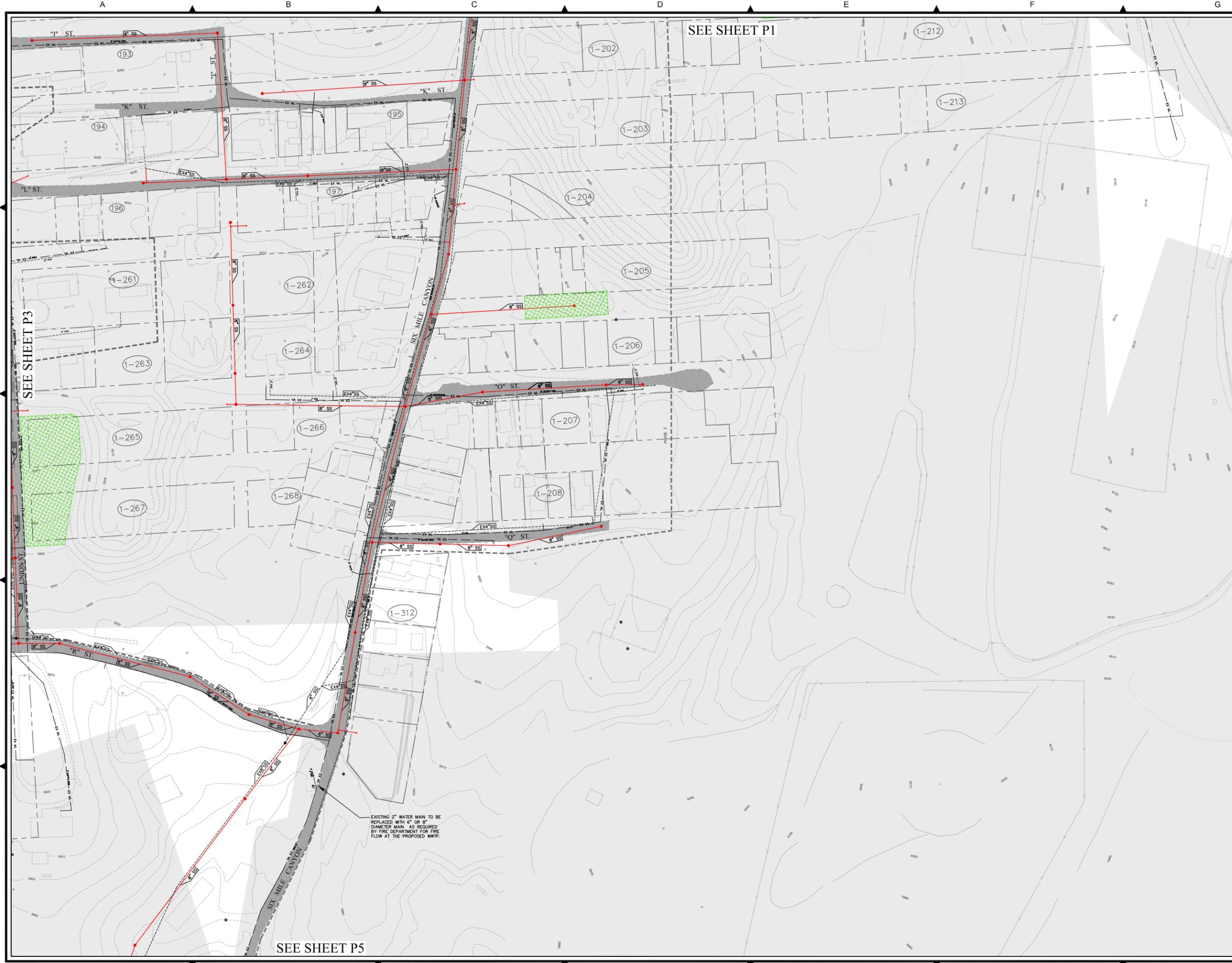
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SEE SHEET P3

SEE SHEET P2

APN: 001-302-01
OWNER: STOREY CO.
PROPOSED FILL LOCATION
2nd CHOICE

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SEE SHEET P1

SEE SHEET P3

SEE SHEET P5

EXISTING 2" WATER MAIN TO BE REPLACED WITH 6" OR 8" DIAMETER MAIN AS REQUIRED BY FIRE DEPARTMENT FOR FIRE FLOW AT THE PROPOSED WWTP.

GENERAL NOTES :

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Plate 3, Sheet 2

VIRGINIA CITY SANITARY SEWER REPLACEMENT
VIRGINIA CITY & GOLD HILL WASTEWATER IMPROVEMENTS
STOREY COUNTY
NEVADA

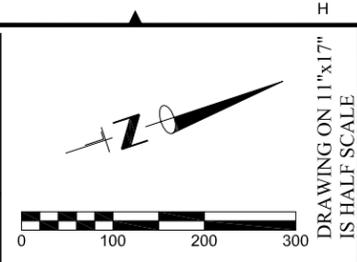
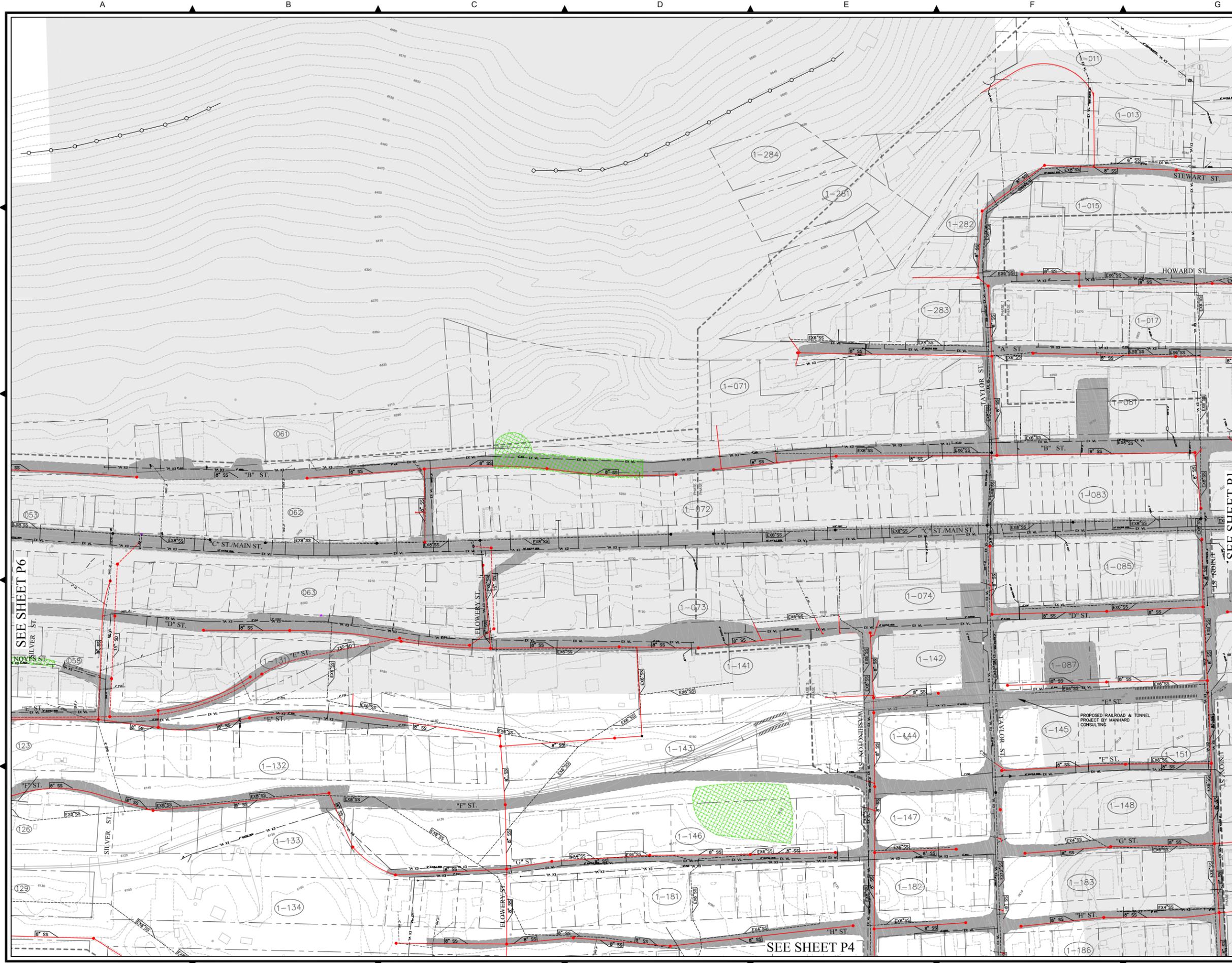
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- PHASE LINE
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Plate 3, Sheet 3

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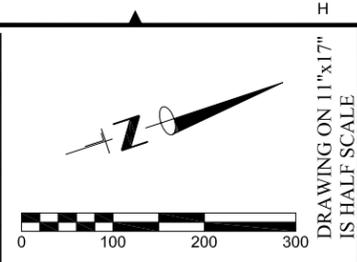
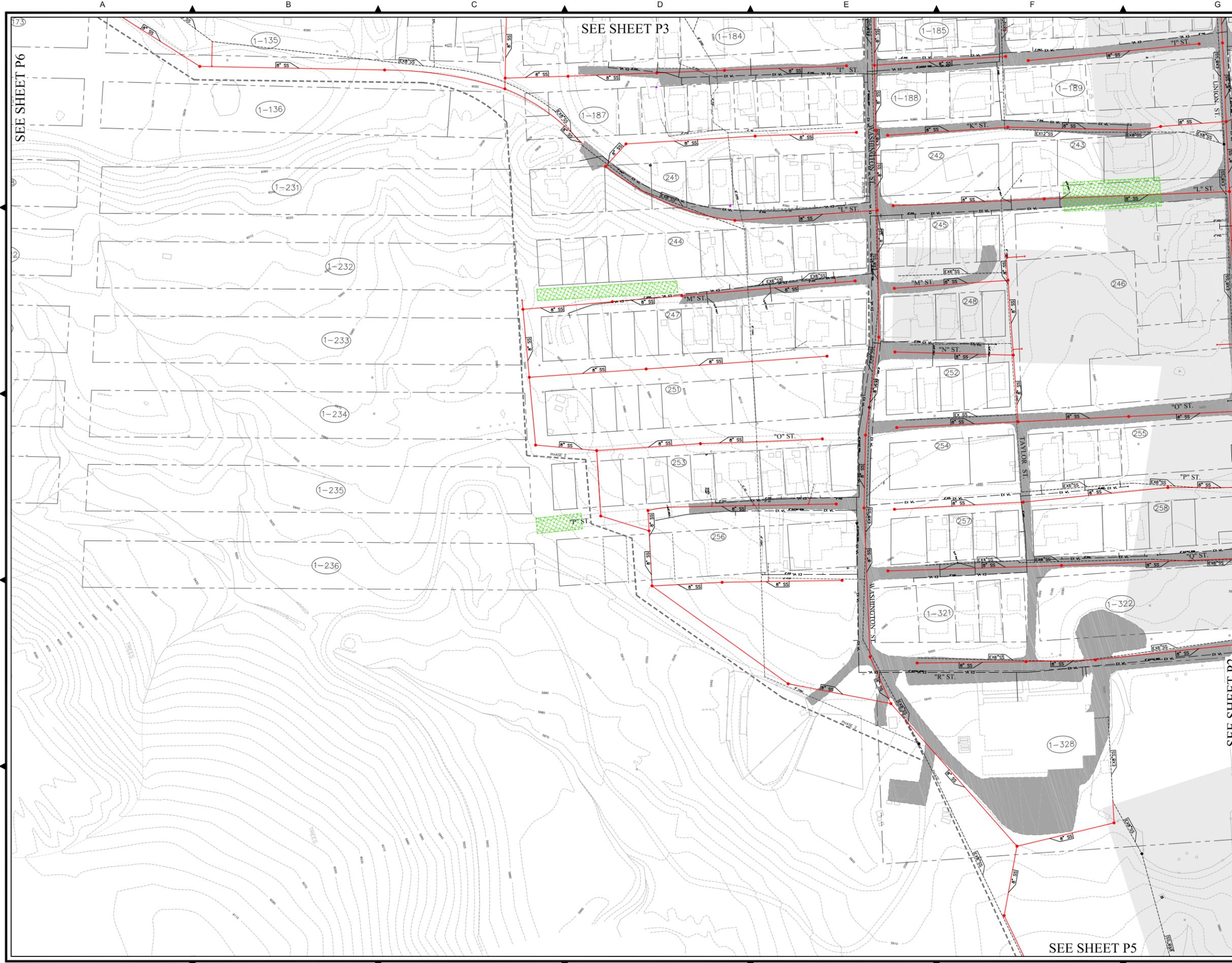
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VIRGINIA CITY SANITARY SEWER REPLACEMENT
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GENERAL NOTES :

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- PROPOSED SANITARY SEWER
- BID ALTERNATE 2
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*NOT ALL AREAS WILL BE USED
- ▨ POTENTIAL FILL LOCATION
*NOT ALL AREAS WILL BE USED
- NON FEDERAL LAND
- - - PROPERTY LINE FROM ASSESSORS PARCEL MAPS
- - - PHASE LINE
- PAVED ROADS

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Plate 3, Sheet 4

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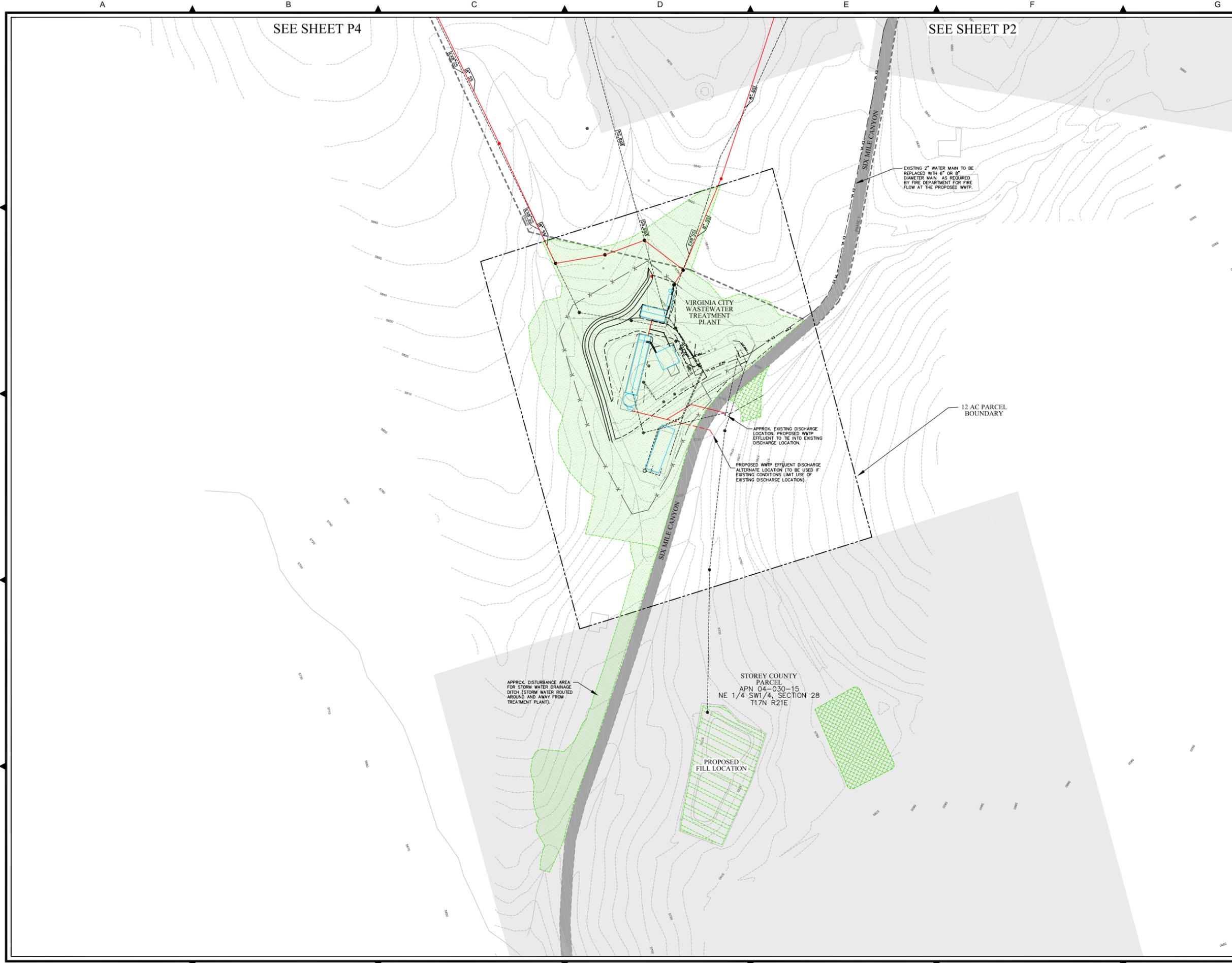
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GENERAL NOTES :

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LEGEND

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- PROPOSED SANITARY SEWER
- BID ALTERNATE 2
- [Green hatched box] POTENTIAL STAGING AREA
*NOT ALL AREAS WILL BE USED
- [Green diagonal hatched box] POTENTIAL FILL LOCATION
*NOT ALL AREAS WILL BE USED
- [Grey box] NON FEDERAL LAND
- [Green dotted box] POTENTIAL DISTURBANCE AREA
- - - PROPERTY LINE FROM ASSESSORS PARCEL MAPS
- - - PHASE LINE

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Plate 3, Sheet 5

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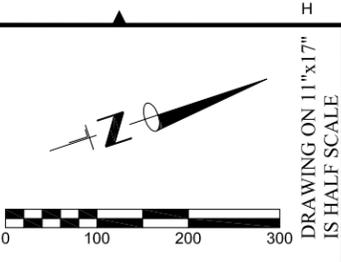
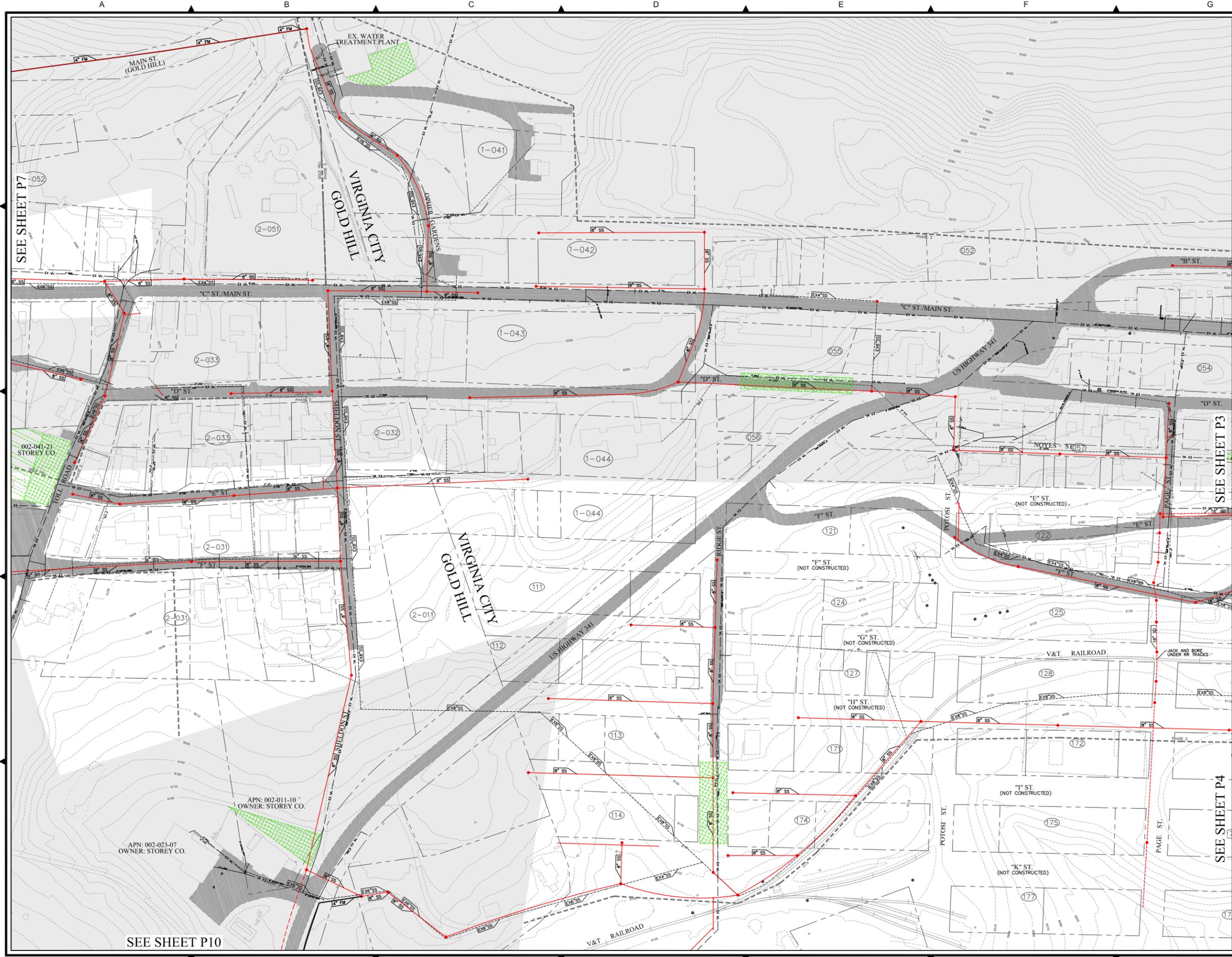
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Plate 3, Sheet 6

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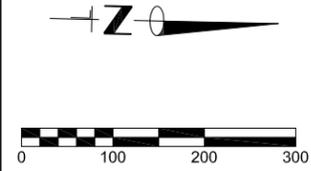
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- [Grey box] NON FEDERAL LAND
- [Green dotted box] PROPOSED LIFT STATION SITE
- - - - - PROPERTY LINE FROM ASSESSORS PARCEL MAPS
- - - - - PHASE LINE
- [Grey box] PAVED ROADS

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Plate 3, Sheet 8

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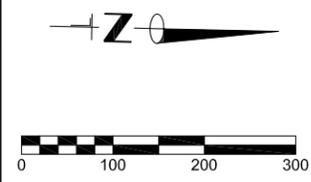
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Plate 3, Sheet 9

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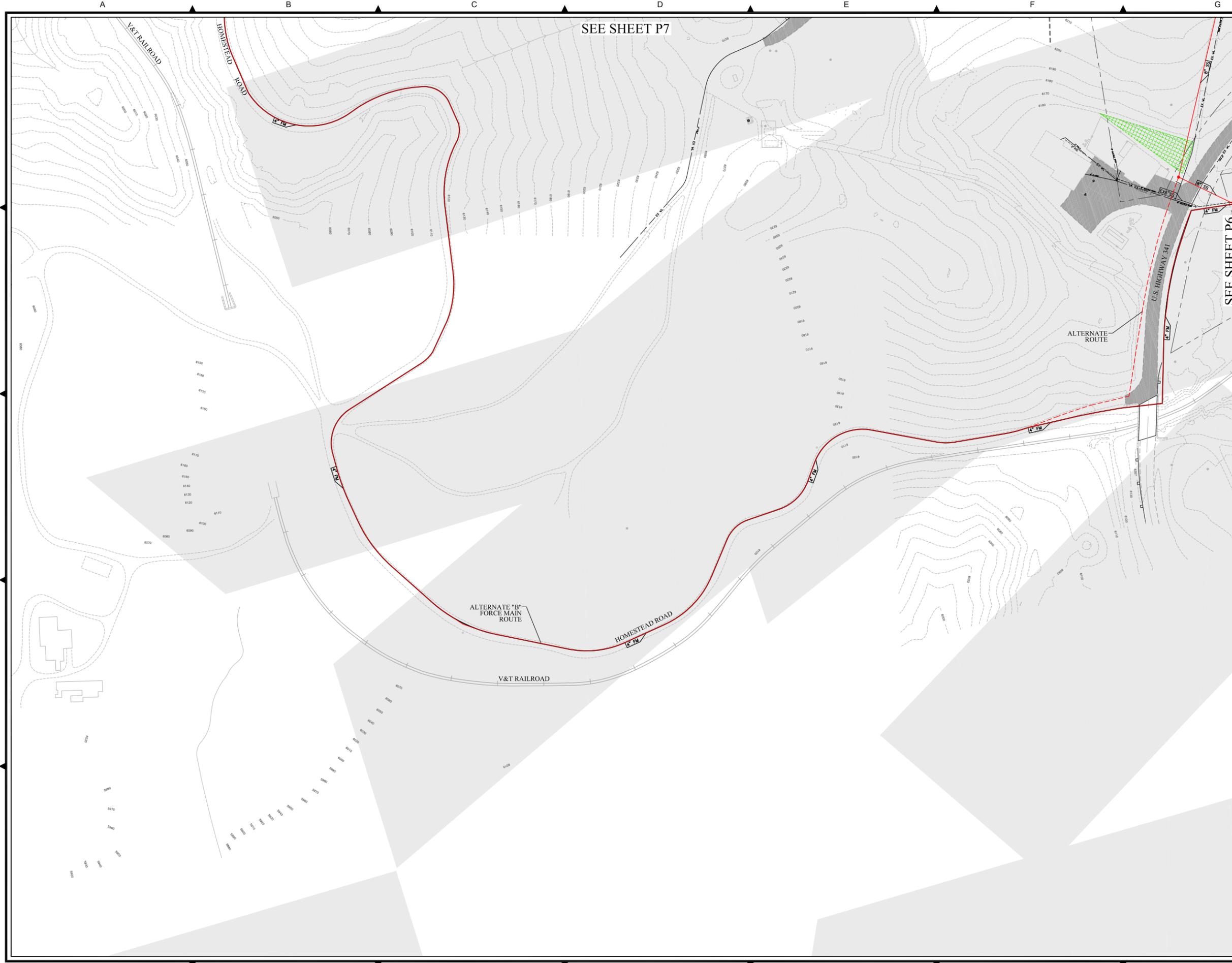
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Plate 3, Sheet 10

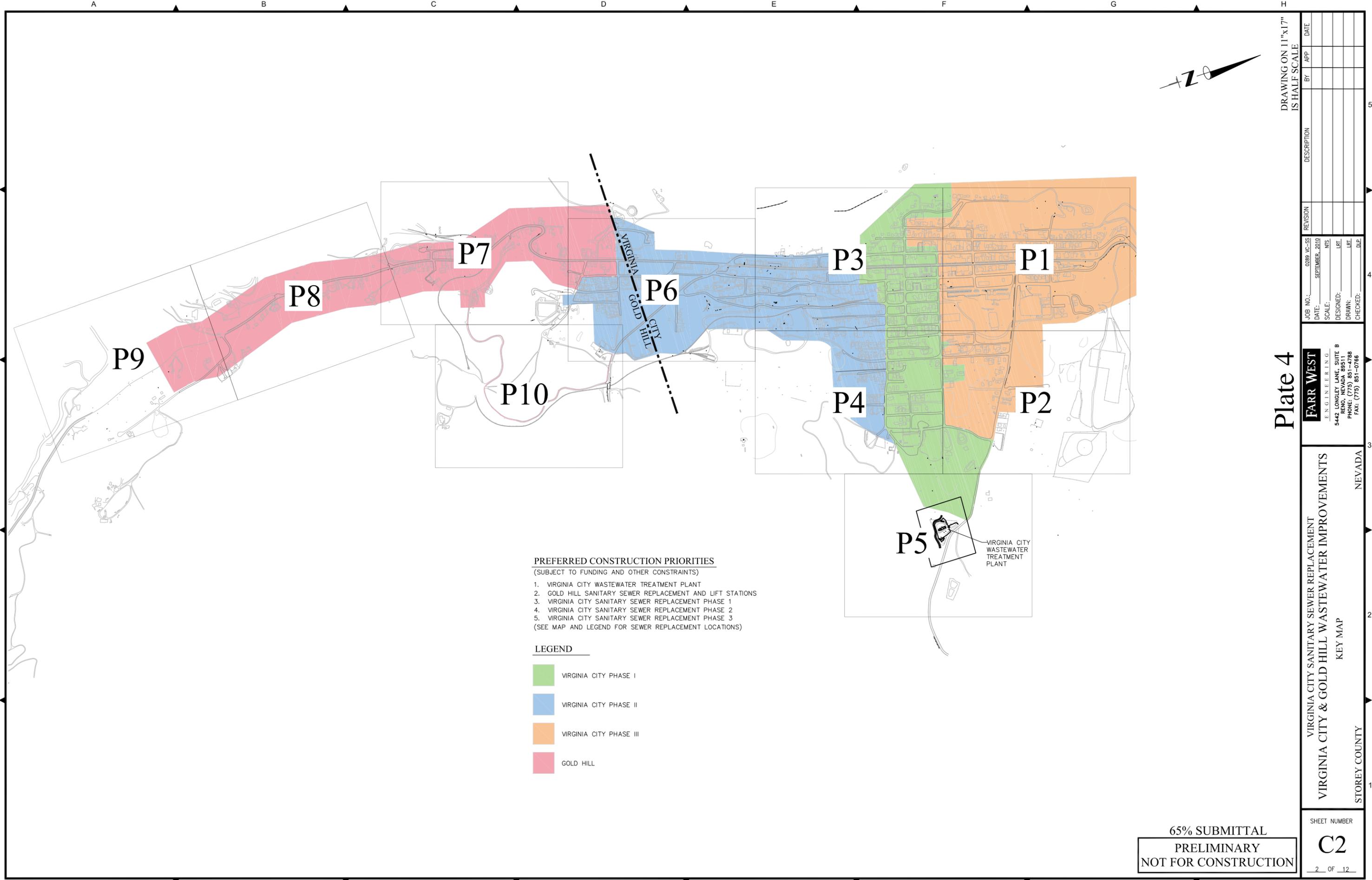
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 STOREY COUNTY NEVADA

SHEET NUMBER
P10
 12 OF 12

P:\Projects\0289 Storey County Wastewater Utility Design\5.0 Design\5.1.1 Drawings\5.1.1.1 DWG\VRGINIA CITY\60% - ACOE\02_0289 VC-SS_C2.dwg, 10/28/2010 11:45:28 AM



PREFERRED CONSTRUCTION PRIORITIES
(SUBJECT TO FUNDING AND OTHER CONSTRAINTS)

1. VIRGINIA CITY WASTEWATER TREATMENT PLANT
2. GOLD HILL SANITARY SEWER REPLACEMENT AND LIFT STATIONS
3. VIRGINIA CITY SANITARY SEWER REPLACEMENT PHASE 1
4. VIRGINIA CITY SANITARY SEWER REPLACEMENT PHASE 2
5. VIRGINIA CITY SANITARY SEWER REPLACEMENT PHASE 3
(SEE MAP AND LEGEND FOR SEWER REPLACEMENT LOCATIONS)

LEGEND

- VIRGINIA CITY PHASE I
- VIRGINIA CITY PHASE II
- VIRGINIA CITY PHASE III
- GOLD HILL

P5
VIRGINIA CITY WASTEWATER TREATMENT PLANT

65% SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

Plate 4

VIRGINIA CITY SANITARY SEWER REPLACEMENT
VIRGINIA CITY & GOLD HILL WASTEWATER IMPROVEMENTS
KEY MAP
STOREY COUNTY NEVADA

SHEET NUMBER
C2
2 OF 12

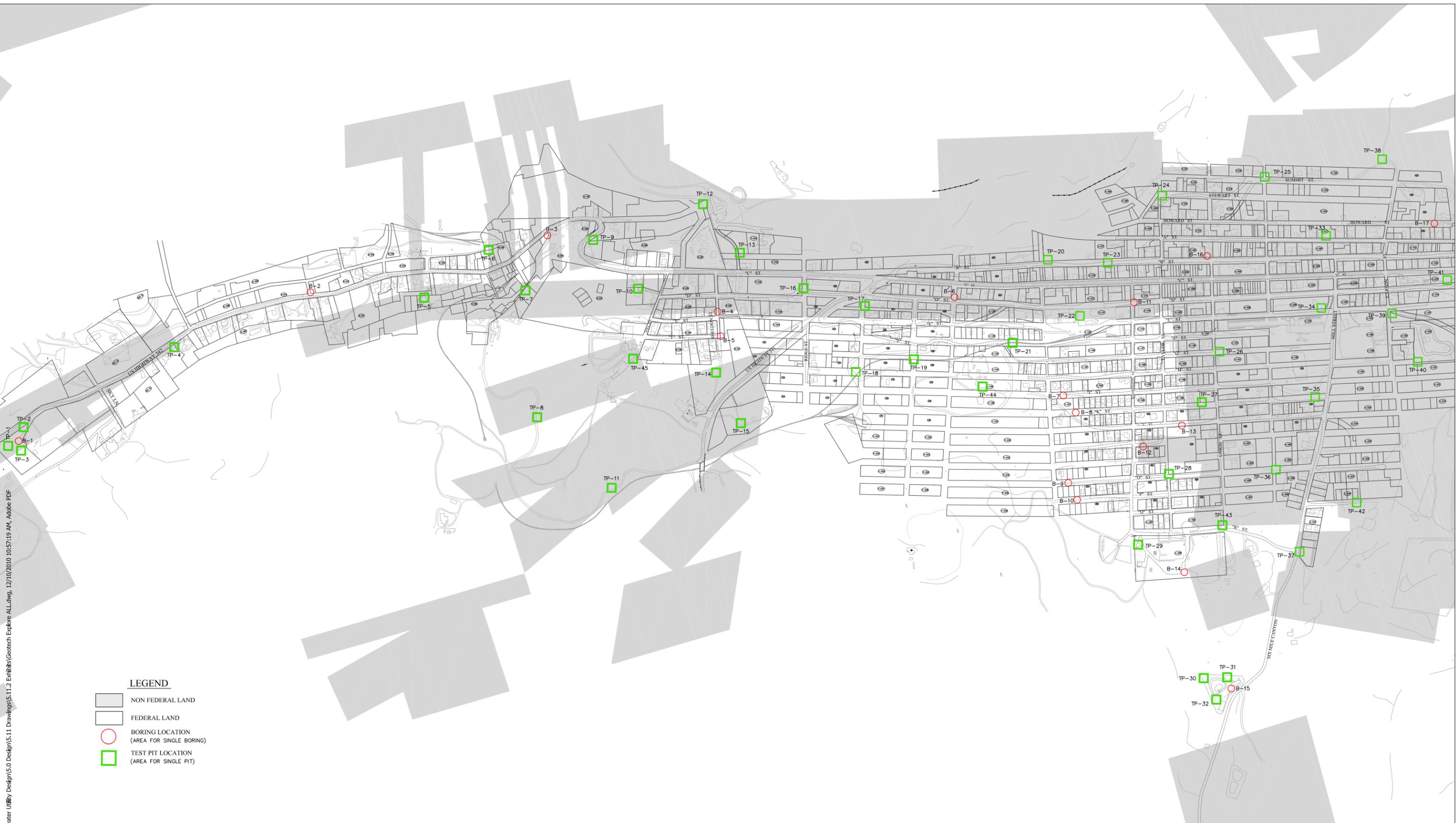
FARR WEST
ENGINEERING
5442 LONGLEY LANE, SUITE B
RENO, NEVADA 89511
PHONE: (775) 851-7788
FAX: (775) 851-0788

JOB NO.:	0289 VC-SS
DATE:	SEPTEMBER, 2010
SCALE:	NIS
DESIGNED:	LET.
DRAWN:	LET.
CHECKED:	DLP

REVISION	DESCRIPTION	BY	APP	DATE

DRAWING ON 11"x17"
IS HALF SCALE

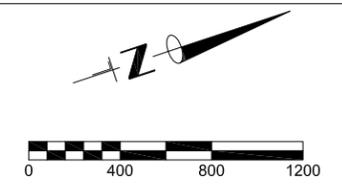
P:\Projects\0289 Stoney County Wastewater Utility Design\5.0 Design\5.11.2 Exhibits\Geotech Explore ALL.dwg, 12/10/2010 10:57:19 AM, Adobe PDF

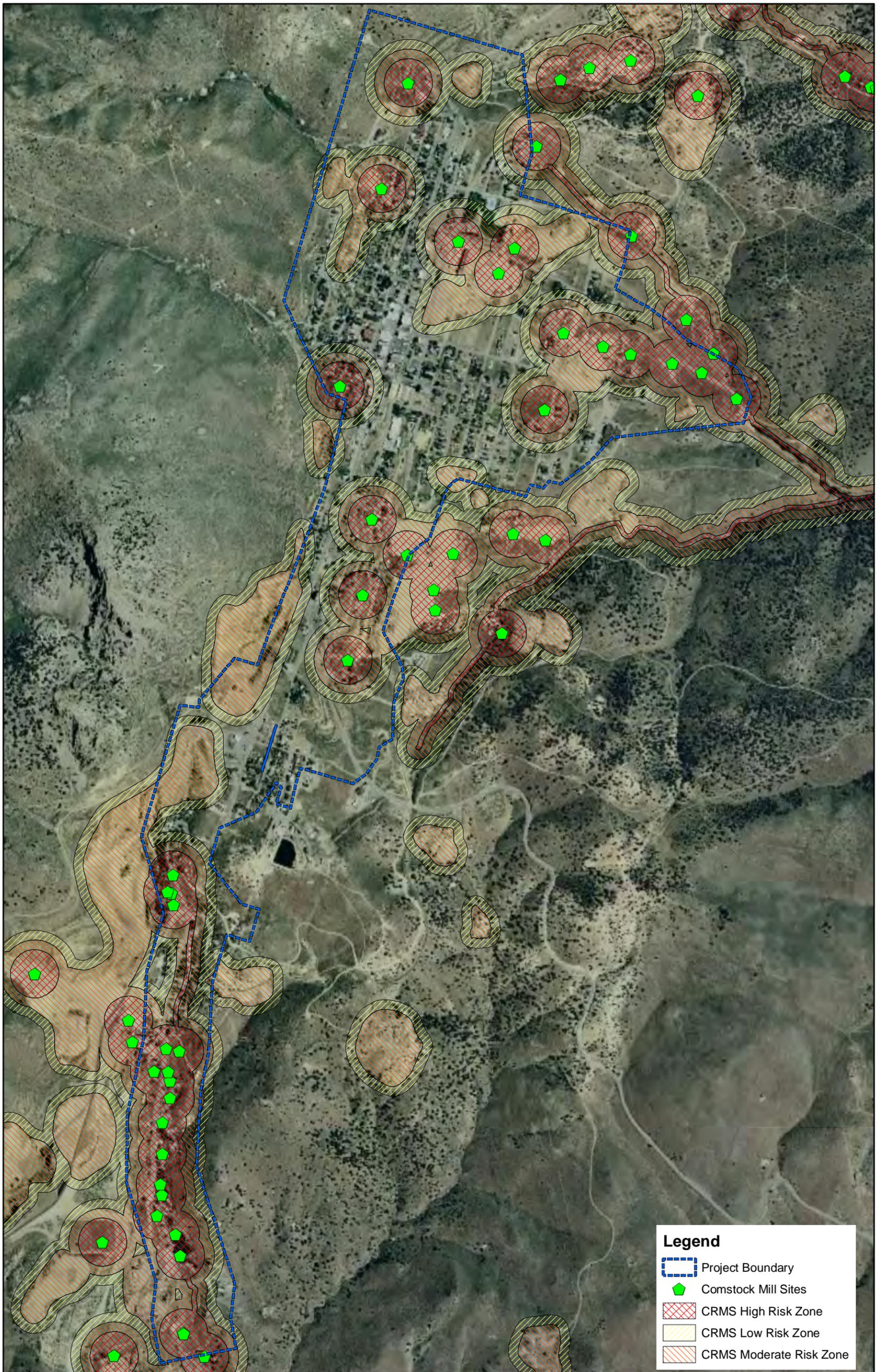


- LEGEND**
- NON FEDERAL LAND
 - FEDERAL LAND
 - BORING LOCATION
(AREA FOR SINGLE BORING)
 - TEST PIT LOCATION
(AREA FOR SINGLE PIT)

VIRGINIA CITY/GOLD HILL SANITARY SEWER PROJECT
 PROPOSED GEOTECHNICAL EXPLORATION LOCATIONS

Plate 5

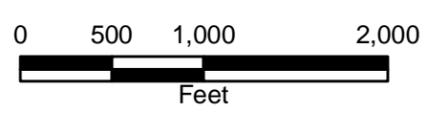




Legend

-  Project Boundary
-  Comstock Mill Sites
-  CRMS High Risk Zone
-  CRMS Low Risk Zone
-  CRMS Moderate Risk Zone

7Q10
 www.7Q10.com
 500 Damonte Ranch Pkwy, Suite 929
 Reno, NV 89521 Tel: (775)8281991



Virginia City, Nevada
Plate 6
 CRMS Risk Areas

Appendix A
Correspondence Regarding Federally Listed Threatened and Endangered Species



United States Department of the Interior

Pacific Southwest Region FISH AND WILDLIFE SERVICE

Nevada Fish and Wildlife Office
1340 Financial Blvd., Suite 234
Reno, Nevada 89502

Ph: (775) 861-6300 ~ Fax: (775) 861-6301



September 15, 2010
File No. 2010-SL-0466

Ms. Andrea Castro
7Q10, Inc.
500 Damonte Ranch Parkway, Suite 929
Reno, Nevada 89521

Dear Ms. Castro:

Subject: Species List for the Virginia City and Gold Hill Wastewater Systems Improvement Project, Storey County, Nevada

This responds to your letter received on September 7, 2010, requesting a species list for the Virginia City and Gold Hill Wastewater Systems Improvement Project in Storey County, Nevada. To the best of our knowledge, no listed, proposed, or candidate species occur in the subject project area. This response fulfills the requirement of the Fish and Wildlife Service (Service) to provide a list of species pursuant to section 7(c) of the Endangered Species Act of 1973 (ESA), as amended, for projects that are authorized, funded, or carried out by a Federal agency.

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

For a list of at-risk species by county, visit Heritage's website (<http://heritage.nv.gov>). For a specific list of at-risk species that may occur in the project area, you can obtain a data request form from the website (<http://heritage.nv.gov/forms.htm>) or by contacting the Administrator of Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your



coordination with the Service under the ESA. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address.

Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (<http://www.leg.state.nv.us/NAC/NAC-503.html>). You must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife to take, or possess any parts of protected wildlife species. Please visit <http://www.ndow.org> or contact the Nevada Department of Wildlife at (775) 688-1500.

Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703 *et seq.*), we are concerned about potential impacts the proposed project may have on migratory birds in the area. Given these concerns, we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible, we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Please reference File No. 2010-SL-0466 in future correspondence concerning this species list. If you have any questions regarding this correspondence or require additional information, please contact me or Sarah Kulpa at (775) 861-6300.

Sincerely,


Robert D. Williams
State Supervisor

Susanne Heim

From: Sarah_Kulpa@fws.gov
Sent: Wednesday, August 24, 2011 3:40 PM
To: Mark Lord
Subject: File Number 2010-SL-0466

Hi Mark,

After reviewing the project area we have found that your previous species list (File No. 2010-SL-0466) is still current for your project. This email serves to extend your previous species list for 90 days from the receipt of this email. If you have any questions regarding this email, you can contact me at (775) 861-6340.

Cheers,

Sarah

Sarah Kulpa
Botanist
Nevada Fish and Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, Nevada 89502
Tel: (775) 861-6340

LEO DROZDOFF
Acting Director

Department of Conservation
and Natural Resources

JENNIFER E. NEWMARK
Administrator

JIM GIBBONS
Governor



Nevada Natural Heritage Program
Richard H. Bryan Building
901 S. Stewart Street, suite 5002
Carson City, Nevada 89701-5245
U.S.A.

tel: (775) 684-2900
fax: (775) 684-2909



STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
Nevada Natural Heritage Program
<http://heritage.nv.gov>

07 September 2010

Andrea Castro
7Q10, Inc
500 Damonte Ranch Parkway, Suite 929
Reno, NV 89521

RE: Data request received 03 September 2010

Dear Ms. Castro:

We are pleased to provide the information you requested on endangered, threatened, candidate, and/or At Risk plant and animal taxa recorded within or near the Virginia City and Gold Hill Wastewater Systems Improvements Project area. We searched our database and maps for the following, a two kilometer radius around:

Township 17N Range 21E Sections 20, 28, 29, 31 and 32
Township 16N Range 21E Sections 05 and 06

The enclosed printout lists the taxa recorded within the given area. Please be aware that habitat may also be available for, the western small-footed myotis, *Myotis ciliolabrum*, a Nevada Bureau of Land Management (BLM) Sensitive Species. We do not have complete data on various raptors that may also occur in the area; for more information contact Chet VanDellen, Nevada Division of Wildlife at (775) 688-1565. Note that all cacti, yuccas, and Christmas trees are protected by Nevada state law (NRS 527.060-.120), including taxa not tracked by this office.

In addition to the species location data provided with this response, the Nevada Natural Heritage Program (NNHP) has other location records near your project area that are awaiting final quality-control and data input processes. Within 0.5 km of the boundary that was searched for your project, these include:

Multiple occurrences of, *Ivesia aperta* var. *aperta* (Sierra Valley mousetails, a BLM Sensitive Species, located within T17N R21E Sec. 19.)

If you have further questions concerning [this/these] occurrence[s] please contact me at (775 684-2905) for more specific location data.

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

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

Sincerely,

Eric S. Miskow
Biologist /Data Manager

At Risk Taxa Recorded Near the Virginia City and Gold Hill Wastewater Project Area

Compiled by the Nevada Natural Heritage Program for 7Q10, Inc.

07 September 2010

<u>Scientific name</u>	<u>Common name</u>	<u>Usfws</u>	<u>Blm</u>	<u>Usfs</u>	<u>State</u>	<u>Srank</u>	<u>Grank</u>	<u>Lat</u>	<u>Long</u>	<u>Prec</u>	<u>Last observed</u>
Plants											
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391736N	1193824W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391808N	1193856W	S	1978-06
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391942N	1193853W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391744N	1193911W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391930N	1193911W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	392004N	1193929W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391954N	1193932W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391910N	1193820W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391828N	1193846W	M	1978-06
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391808N	1193835W	S	1978-06
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391734N	1193856W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391733N	1193911W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391835N	1193828W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391935N	1193904W	S	1995-09-21
<i>Eriogonum robustum</i>	altered andesite buckwheat		N			S2S3	G2	391905N	1193835W	S	1995-09-21
<i>Ivesia aperta</i> var. <i>aperta</i>	Sierra Valley mousetails		N;C	S;C		S1	G2T2	391948N	1194012W	S	2006-06-18
<i>Plagiobothrys glomeratus</i>	altered andesite popcornflower		N			S2S3	G2G3	391734N	1193911W	S	1998-06-29
<i>Plagiobothrys glomeratus</i>	altered andesite popcornflower		N			S2S3	G2G3	391735N	1193856W	M	1999-PRE
Mammals											
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat		N;C	S;I;L	YES	S2	G4	T17N R21E		M	1972-05-10
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat		N;C	S;I;L	YES	S2	G4	391608N	1193904W	S	1972-05-06

Bureau of Land Management (Blm) Species Classification:

- N Nevada Special Status Species - designated Sensitive by State Office
- C California Special Status Species (see definition S and N)

United States Forest Service (Usfs) Species Classification:

- S Region 4 (Humboldt-Toiyabe NF) sensitive species
- I Region 5 (Inyo NF) sensitive species
- L Region 5 (Lake Tahoe Basin Management Unit) sensitive species
- C Region 5 sensitive species, not yet known from Inyo NF or LTBMU

Nevada State Protected (State) Species Classification:

Fauna:

- YES Species protected under NRS 501.

Precision (Prec) of Mapped Occurrence:

Precision, or radius of uncertainty around latitude/longitude coordinates:

- S Seconds: within a three-second radius
- M Minutes: within a one-minute radius, approximately 2 km or 1.5 miles
- G General: within about 8 km or 5 miles, or to map quadrangle or place name

Nevada Natural Heritage Program Global (**G**rank) and State (**S**rank) Ranks for Threats and/or Vulnerability:

- G Global rank indicator, based on worldwide distribution at the species level
- T Global trinomial rank indicator, based on worldwide distribution at the infraspecific level
- S State rank indicator, based on distribution within Nevada at the lowest taxonomic level
 - 1 Critically imperiled and especially vulnerable to extinction or extirpation due to extreme rarity, imminent threats, or other factors
 - 2 Imperiled due to rarity or other demonstrable factors
 - 3 Vulnerable to decline because rare and local throughout its range, or with very restricted range
 - 4 Long-term concern, though now apparently secure; usually rare in parts of its range, especially at its periphery
 - 5 Demonstrably secure, widespread, and abundant
 - A Accidental within Nevada
 - B Breeding status within Nevada (excludes resident taxa)
 - H Historical; could be rediscovered
 - N Non-breeding status within Nevada (excludes resident taxa)
 - Q Taxonomic status uncertain
 - U Unrankable
 - Z Enduring occurrences cannot be defined (usually given to migrant or accidental birds)
 - ? Assigned rank uncertain



JIM GIBBONS
Governor

STATE OF NEVADA
DEPARTMENT OF WILDLIFE

1100 Valley Road
Reno, Nevada 89512
(775) 688-1500 • Fax (775) 688-1595

KENNETH E. MAYER
Director

RICHARD L. HASKINS II
Deputy Director

September 14, 2010

Mark Lord
Environmental Economist
7Q10, Inc.
500 Damonte Ranch Parkway, Suite 929
Reno, NV 89521

Re: Virginia City and Gold Hill Wastewater Improvements Project Data Request

Dear Mr. Lord:

I am responding to your request for information from the Nevada Department of Wildlife (NDOW) on the known or potential occurrence of wildlife resources within the Virginia City and Gold Hill Wastewater Improvements Project area located in Storey County, Nevada. This analysis was performed using the best available data from the NDOW's wildlife sight records, commercial reptile collections, scientific collections, raptor nest sites and ranges, greater sage-grouse leks and habitat, and big game distributions databases. No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the stated intentions of your data request. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada's wildlife resources and could be cause for the denial of future data requests.

In order to fulfill your data request the NDOW delineated an area of interest that included a three-mile buffer around the project area provided by you via email (September 3, 2010) as an ESRI shapefile. Wildlife resource data was queried from the NDOW databases based on this area of interest. The results of this analysis are summarized below.

Big Game – Occupied bighorn sheep and mule deer distributions exist throughout the entire project area and the majority of the three-mile buffer area. There are no known pronghorn antelope or elk distributions within the vicinity of the proposed project area.

Raptors - Various species of raptors, which use diverse habitat types, are known to reside within the project and three-mile buffer areas. American kestrel, bald eagle, barn owl, burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, great horned owl, long-eared owl, northern goshawk, merlin, northern harrier, northern saw-whet owl, osprey, peregrine falcon, prairie falcon, red-tailed hawk, rough-legged hawk, sharp-shinned hawk, short-eared owl, Swainson's hawk, turkey vulture, and western screech owl have distribution ranges within the project area and three-mile buffer area. Furthermore, American kestrel, bald eagle, Cooper's hawk, golden eagle, peregrine falcon, prairie falcon, red-tailed hawk, and turkey vulture have all been directly observed within the project area and three-mile buffer area.

All raptor species are protected by State and Federal laws. In addition, bald eagle, burrowing owl, ferruginous hawk, northern goshawk, peregrine falcon, short-eared owl, and Swainson's hawk are NDOW species of special concern and are target species for conservation as outlined by the Nevada Wildlife Action Plan.

Three known raptor nest sites have been identified by the NDOW within the project area and three-mile buffer area. Two Cooper's hawk nests and one prairie falcon nest are all located in Township 17 North,

Range 21 East, Section 27. Per the Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance (United States Fish and Wildlife Service 2010) we have analyzed our raptor nest database for bald and golden eagle nest site locations within ten miles of the proposed project features and areas. Three known golden eagle nests occur within ten miles of the project area and are located in Township 15 North, Range 21 East, Section 4; Township 16 North, Range 21 East, Section 26; and Township 17 North, Range 22 East, Section 26.

Other Wildlife Resources

The following species have also been observed within the project area and three-mile buffer area:

Common Name	Common Name
Nevada side-blotched lizard	long-nosed leopard lizard
American coot	northern saw-whet owl
common side-blotched lizard	Sonoran striped whipsnake
desert horned lizard	Virginia's warbler
gophersnake	western fence lizard
Great Basin collared lizard	yellow-backed spiny lizard
Great Basin whiptail	zebra-tailed lizard

The above information is based on data stored at our headquarters office in Reno, and may or may not accurately represent the current environmental conditions for your project area. Please contact the following biologists at our Western Region Reno Office (775.688.1500) for more information:

Shirley Atkinson – Western Region Wildlife Diversity Biologist Supervisor (775.688.1412);
Mark Freese – Western Region Habitat Biologist Supervisor (775.688.1600); and
Mike Dobel – Western Region Game Biologist Supervisor (775.688.1219).

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

If you have any questions regarding the results or methodology of this analysis please do not hesitate to contact our GIS office at (775) 688-1565.

Sincerely,

Timothy Herrick
Conservation Aide III
Wildlife Diversity Division

Mark Lord

From: Mark Freese [markfreese@ndow.org]
Sent: Tuesday, October 12, 2010 11:38 AM
To: Mark Lord
Subject: Virginia City and Gold Hill Wastewater Improvement response

Dear Mr. Lord,

As a follow up to your data request for the Virginia City and Gold Hill Wastewater Improvement project, one of our biologists also noted the following:

“known from surveys up there [at the project site] on abandoned mines there are the following bat species: Townsends big-eared , Pallid , Brazilian free-tail , little brown Myotis, western small footed Myotis, and fringed Myotis all species of Conservation priority in the Wildlife Action Plan (with exception of pallid bat). In addition the Townsend's big eared bat has "State Sensitive" status with a MOU from the Western Association of Fish and Wildlife Agencies that directs to identify, protect and restore important habitat such as these mine roosts for the species.”

No warranty is made by the NDOW as to the accuracy, reliability, or completeness of the data for individual use or aggregate use with other data. These data should be considered **sensitive** and may contain information regarding the location of sensitive wildlife species. All appropriate measures should be taken to ensure that the use of this data is strictly limited to serve the stated intentions of your data request. Abuse of this information has the potential to adversely affect the existing ecological status of Nevada’s wildlife resources and could be cause for the denial of future data requests.

Please let me know if you need anything further,
Thanks,

Mark Freese
Supervisory Habitat Biologist
Nevada Department of Wildlife
1100 Valley Road
Reno, NV 89512
(775) 688-1145

Appendix B
Correspondence Regarding Cultural Resources



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

Environmental Resources Branch

DEC 01 2010

Yerington Paiute Tribe
Mr. Elwood Emm, Chairman
171 Campbell Lane
Yerington, Nevada 89447

Dear Mr. Emm:

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, we are writing to inform you of the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project in Storey County, Nevada. The U.S. Army Corps of Engineers (Corps) is authorized to participate in water-related infrastructure and resource development projects in rural Nevada pursuant to Section 595 of the Water Resources Development Act of 1999, Public Law 106-53, as amended. Storey County is the local sponsor for the project.

The project will require the U.S. Bureau of Land Management (BLM) to issue new right-of-way grants on sections of the sewer network as well as to amend the existing wastewater treatment plant lease authorized under the Recreation and Public Purposes Act of 1929, as amended, to Storey County. The BLM and the Corps have coordinated and determined that the Corps will be the lead agency for compliance with Section 106 of the National Historic Preservation Act (NHPA), and its implementing regulations, 36 CFR Part 800.

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The APE includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. The locations of the proposed project features are shown in red and green on the enclosed designs (enclosure 2).

Proposed project activities related to sewer line replacement include, but are not limited to, re-excavating previously disturbed sewer line trenches to expose and replace existing sewer lines; expanding (widen, deepen, or both) previously excavated trenches to allow conformance with contemporary code requirements; expanding existing trenches to accommodate new sewer access points (manholes) spaced at approximately 400-foot intervals along existing lines; staging equipment, materials, and supplies; and stockpiling excavated material for reuse or disposal. Approximately 10 miles of the sewer line replacement and other features would occur under paved or already disturbed areas, while approximately 5 miles would occur under dirt or undisturbed areas. On enclosure 2, the paved areas within the APE are shaded in gray. Approximately 12.4 additional acres outside of Virginia City would be disturbed to upgrade the existing wastewater treatment plant. The APE includes all areas where direct or indirect effects may occur.

The project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property, as well as a National Historic Landmark (NHL). In consultation with the BLM, we have determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. As a result, we are coordinating the execution of a Programmatic Agreement (PA) with the BLM to address the processes that the Corps will take to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess effects and plan for potential discoveries during project construction, coordinate these efforts with the BLM, and coordinate responsibilities for action with the BLM and Storey County. If you would be interested in reviewing the PA and offering comments or participating as a concurring party to the PA please inform us so we may send you a copy of the forthcoming draft PA.

We are also in the process of completing a Class III Cultural Resource Inventory, Survey and Evaluation of those portions of the APE that are in unpaved or previously undisturbed areas of the VCHD NHL. Based on sewer and townsite maps, most existing sewer lines are within the footprint of roads in place since Virginia City and Gold Hill were platted as townsites in 1865. As a result, the possibility of recovering intact historic deposits or sites is low within the previously disturbed area of these roads and paved areas cannot be surveyed in advance of construction. Those areas will be monitored during project construction as stipulated in the forthcoming PA.

We are sensitive toward the protection of traditional cultural properties and sacred sites, and make every effort to avoid them. Please let us know if you have knowledge of locations of archeological sites, or areas of traditional cultural value or concern in or near the project area. Correspondence may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



 Alicia E. Kirchner
Chief, Planning Division

Enclosures

Copy furnish (w/enclosures):

Yerington Paiute Tribe, Mr. Kenneth Roberts, Vice-Chair, 171 Campbell Lane, Yerington, Nevada 89447
Yerington Paiute Tribe, Mr. Marlin Thompson, Commodities/Cultural Resources, 171 Campbell Lane,
Yerington, Nevada 89447
Yerington Paiute Tribe, Mr. Justin Whiteside, Environmental Director, 171 Campbell Lane,
Yerington, Nevada 89447
Mr. James Carter, Archeologist, Bureau of Land Management, Sierra Front Field Office,
5665 Morgan Mill Road, Carson City, Nevada 89701



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

Environmental Resources Branch

Washoe Tribe of Nevada & California
Ms. Wanda Batchelor, Chair
919 U.S. Highway 395 South
Gardnerville, Nevada 89410

DEC 01 2010

Dear Ms. Batchelor:

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, we are writing to inform you of the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project in Storey County, Nevada. The U.S. Army Corps of Engineers (Corps) is authorized to participate in water-related infrastructure and resource development projects in rural Nevada pursuant to Section 595 of the Water Resources Development Act of 1999, Public Law 106-53, as amended. Storey County is the local sponsor for the project.

The project will require the U.S. Bureau of Land Management (BLM) to issue new right-of-way grants on sections of the sewer network as well as to amend the existing wastewater treatment plant lease authorized under the Recreation and Public Purposes Act of 1929, as amended, to Storey County. The BLM and the Corps have coordinated and determined that the Corps will be the lead agency for compliance with Section 106 of the National Historic Preservation Act (NHPA), and its implementing regulations, 36 CFR Part 800.

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The APE includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. The locations of the proposed project features are shown in red and green on the enclosed designs (enclosure 2).

Proposed project activities related to sewer line replacement include, but are not limited to, re-excavating previously disturbed sewer line trenches to expose and replace existing sewer lines; expanding (widen, deepen, or both) previously excavated trenches to allow conformance with contemporary code requirements; expanding existing trenches to accommodate new sewer access points (manholes) spaced at approximately 400-foot intervals along existing lines; staging equipment, materials, and supplies; and stockpiling excavated material for reuse or disposal. Approximately 10 miles of the sewer line replacement and other features would occur under paved or already disturbed areas, while approximately 5 miles would occur under dirt or undisturbed areas. On enclosure 2, the paved areas within the APE are shaded in gray. Approximately 12.4 additional acres outside of Virginia City would be disturbed to upgrade the existing wastewater treatment plant. The APE includes all areas where direct or indirect effects may occur.

The project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property, as well as a National Historic Landmark (NHL). In consultation with the BLM, we have determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. As a result, we are coordinating the execution of a Programmatic Agreement (PA) with the BLM to address the processes that the Corps will take to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess effects and plan for potential discoveries during project construction, coordinate these efforts with the BLM, and coordinate responsibilities for action with the BLM and Storey County. If you would be interested in reviewing the PA and offering comments or participating as a concurring party to the PA please inform us so we may send you a copy of the forthcoming draft PA.

We are also in the process of completing a Class III Cultural Resource Inventory, Survey and Evaluation of those portions of the APE that are in unpaved or previously undisturbed areas of the VCHD NHL. Based on sewer and townsite maps, most existing sewer lines are within the footprint of roads in place since Virginia City and Gold Hill were platted as townsites in 1865. As a result, the possibility of recovering intact historic deposits or sites is low within the previously disturbed area of these roads and paved areas cannot be surveyed in advance of construction. Those areas will be monitored during project construction as stipulated in the forthcoming PA.

We are sensitive toward the protection of traditional cultural properties and sacred sites, and make every effort to avoid them. Please let us know if you have knowledge of locations of archeological sites, or areas of traditional cultural value or concern in or near the project area. Correspondence may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



AK Alicia E. Kirchner
Chief, Planning Division

Enclosures

Copies furnish (w/enclosures):

Washoe Tribe of Nevada & California, Ms. Marie Barry, Environmental Director,
919 U.S. Highway 395 South, Gardnerville, Nevada 89410

Washoe Tribe of Nevada & California, Mr. Darrel Cruz, Tribal Historic Preservation Officer,
919 U.S. Highway 395 South, Gardnerville, Nevada 89410

Mr. James Carter, Archeologist, Bureau of Land Management, Sierra Front Field Office,
5665 Morgan Mill Road, Carson City, Nevada 89701

Washoe Tribe of Nevada and California

Environmental Protection Department



Ms. Melissa Montag
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814-2922

December 7, 2010

Re: Proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements
Project in Storey County, Nevada

To Ms. Montag:

Thank you for allowing the Washoe Tribe the opportunity to comment on the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project in Storey County, Nevada. The Washoe Tribe Historic Preservation Office, Cultural Resource Officer, Darrel Cruz requests a copy of the findings from the Class III Cultural Resource Inventory, Survey and Evaluation.

Washoe Tribe of Nevada and California
Tribal Historic Preservation Office
Darrel Cruz, CRO
919 Highway 395 South
Gardnerville, NV 89410
775-888-0936, darrel.cruz@washoetribe.us

Please keep us informed on the status of this project. If you have any questions, please contact me at (775) 265-8689.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Johnson", with a long horizontal flourish extending to the right.

Jennifer Johnson
Washoe Tribe of NV and CA
Environmental Protection Department
Environmental Specialist II/GIS
jennifer.johnson@washoetribe.us

919 Highway 395 South, Gardnerville, Nevada 89410
(775) 265-4191 • (775) 883-1446 • (530) 694-2339 • FAX (775) 265-3211



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

DEC 01 2010

Mr. Ronald M. James
State Historic Preservation Officer
Nevada State Historic Preservation Office
100 North Stewart Street
Carson City, Nevada 89701-4285

Dear Mr. James:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 CFR 800.3(c)(3) to inform you of the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project in Storey County, Nevada. Storey County is now proceeding to implement this project with funding assistance from the Corps. We are writing pursuant to 36 CFR 800.2(a)(2) to establish the Federal lead agency for this project, to request your concurrence with our determination of the area of potential effects (APE) for the project in accordance with 36 CFR Part 800.4(a)(1), and to describe the proposed project and planned future actions.

The project will require the U.S. Bureau of Land Management (BLM) to issue new right-of-way grants on sections of the sewer network, as well as to amend the existing wastewater treatment plant lease authorized under the Recreation and Public Purposes Act of 1929, as amended, to Storey County. Additionally, the project is authorized by the Secretary of the Army under Section 595 of the Water Resources Development Act of 1999, Public Law 106-53, as amended, and as such is subject to the requirements of the National Environmental Policy Act of 1969 (NEPA), as amended. Since Storey County will be implementing the project with funding assistance from the Corps, the Corps is the lead agency for the NEPA action for the project. The BLM and the Corps have coordinated and determined that the Corps will also be the lead agency for compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800.

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The APE includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. The locations of the proposed project features are shown in red and green on the enclosed designs (enclosure 2).

Proposed project activities related to sewer line replacement include, but are not limited to, re-excavating previously disturbed sewer line trenches to expose and replace existing sewer lines; expanding (widen, deepen, or both) previously excavated trenches to allow conformance with contemporary code requirements; expanding existing trenches to accommodate new sewer access points (manholes) spaced at approximately 400-foot intervals along existing lines; staging equipment, materials, and supplies; and stockpiling excavated material for reuse or disposal. Approximately 10 miles of the sewer line replacement and other features would occur under paved or already disturbed areas, while approximately 5 miles would occur under dirt or undisturbed areas. On enclosure 2, the paved areas within the APE are shaded in gray. Approximately 12.4 additional acres outside of Virginia City would be disturbed to upgrade the existing wastewater treatment plant. The APE includes all areas where direct or indirect effects may occur.

The project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property, as well as a National Historic Landmark (NHL). In consultation with the BLM, we have determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. As a result, we are coordinating the execution of a Programmatic Agreement (PA) with the BLM to address the processes that the Corps will take to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess effects and plan for potential discoveries during project construction, coordinate these efforts with the BLM, and coordinate responsibilities for action with the BLM and Storey County. We plan to send a draft of the PA to you soon and ask for your review and comment.

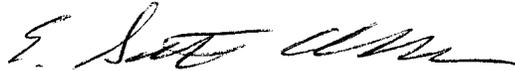
We are also in the process of completing a Class III Cultural Resource Inventory, Survey, and Evaluation of those portions of the APE that are in unpaved or previously undisturbed areas of the VCHD NHL. Based on sewer and townsite maps, most existing sewer lines are within the footprint of roads in place since Virginia City and Gold Hill were platted as townsites in 1865. As a result, the possibility of recovering intact historic deposits or sites is low within the previously disturbed area of these roads, and paved areas cannot be surveyed in advance of construction. Those areas will be monitored during project construction as stipulated in the forthcoming PA.

The results of the inventory and evaluation effort will be considered for the determination of effects on the VCHD NHL and will help determine the potential need for mitigation of adverse effects. We will keep you informed of the results of the survey and evaluation effort, as well as our determinations of effect. A list of potentially interested Native Americans for the area was obtained from the BLM. We will send letters to those individuals to request any comments they may have on the APE or the project.

Pursuant to 36 CFR 800.4(a)(1), we have documented the APE, and we request any comments you may have or your concurrence with our determination of the APE. In coordination with the BLM and in accordance with 36 CFR 800.2(a)(2), we have also determined that the Corps will be the Federal lead agency for the project, and we have provided a proposed project description and our planned future actions. We request any comments you may have on these determinations, the proposed project description, or our planned future actions.

Correspondence may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

Copy Furnish (w/enclosures):

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office,
5665 Morgan Mill Road, Carson City, Nevada 89701



STATE OF NEVADA
DEPARTMENT OF CULTURAL AFFAIRS
State Historic Preservation Office
100 N. Stewart Street
Carson City, Nevada 89701
(775) 684-3448 • Fax (775) 684-3442
www.nvshpo.org

MICHAEL E. FISCHER
Department Director

RONALD M. JAMES
State Historic Preservation Officer

December 14, 2010

Melissa Montag
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento CA 95814-2922

RE: Section 595 Virginia City and Gold Hill Wastewater System, Storey
County (Undertaking #2011-1385).

Dear Ms. Montag:

The Nevada State Historic Preservation Office (SHPO) initiated its review of the subject undertaking. This office participated in a conference call with you on December 3, 2010; the same day that this office received your request to review the area of potential effect for the subject undertaking.

As we discussed in our conference call, this office requires the following additional information in order to determine if the area of potential effects is adequate to identify all historic properties that could be affected by the undertaking:

1. The scale and design of the above ground facilities (wastewater treatment plant and lift stations) in order to determine the visual effect of the undertaking. Visual simulations are very useful for consulting with this office and the public concerning the effect of the undertaking on historic properties.
2. A sensitivity document for all parts of the undertaking based on a thorough review of the historic archival record (GLO plats, Sanborn Fire Insurance Maps, knowledgeable archaeologists and historians (Ron James, Donald Hardesty) who have previously excavated significant

Melissa Montag
December 14, 2010
Page 2 of 2

deposits in both Virginia City and Gold Hill, and the results of previous archaeological efforts in the National Historic Landmark. This document will serve to guide archaeological testing, excavation, and monitoring activities. Examples of such documents prepared for other undertakings are available at this office.

3. Contact with archaeologists working at the Nevada Department of Transportation.
4. A map showing the total disturbance area for all below and above ground facilities as the maps provided state that "all areas adjacent to the sewer main are subject to excavation in order to connect laterals".

If you have any questions concerning this correspondence, please feel free to contact me at (775) 684-3443 or by e-mail at Rebecca.Palmer@nevadaculture.org.

Sincerely,

A handwritten signature in cursive script that reads "Rebecca Lynn Palmer". The signature is written in black ink and is positioned below the word "Sincerely,".

Rebecca Lynn Palmer, Deputy
State Historic Preservation Officer



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 27 2011

Dr. Elaine Jackson-Retondo
National Park Service, Pacific West Regional Office
1111 Jackson Street, Suite 700
Oakland, California 94607-4807

Dear Dr. Jackson-Retondo:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing to inform you of the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project in Storey County, Nevada. Storey County is now proceeding to implement this project with funding assistance from the Corps. The project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property, as well as a National Historic Landmark (NHL).

Due to the sensitive nature of the VCHD and NHL we want to make every effort to include all parties with an interest in the project and those agencies with responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). Pursuant to 36 CFR § 65.1(c) we are writing to provide you with information on the proposed project and to inform you of the process we plan to follow, to include your participation. In accordance with 36 CFR § 65.2(c)(1) we have also contacted the Advisory Council on Historic Preservation to initiate consultation with them and afford them the opportunity to be included in the Section 106 process for this project.

The project will require the U.S. Bureau of Land Management (BLM) to issue new right-of-way grants on sections of the sewer network, as well as to amend the existing wastewater treatment plant lease authorized under the Recreation and Public Purposes Act of 1929, as amended, to Storey County. Additionally, the project is authorized by the Secretary of the Army under Section 595 of the Water Resources Development Act of 1999, Public Law 106-53, as amended, and as such is subject to the requirements of the National Environmental Policy Act of 1969 (NEPA), as amended. Since Storey County will be implementing the project with funding assistance from the Corps, the Corps is the lead agency for the NEPA action for the project. The BLM and the Corps have coordinated and determined, that the Corps will also be the lead agency for compliance with Section 106 of the NHPA and its implementing regulations, 36 CFR § 800.

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The area of potential effects (APE) for the proposed project includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. The locations of the proposed project features are shown in green and red on the enclosed designs (enclosure 2).

In consultation with the BLM and the Nevada State Historic Preservation Officer (SHPO), the Corps has determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. As a result, we are coordinating the execution of a Programmatic Agreement (PA) with the BLM and SHPO to address the processes that the Corps will take to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess effects and plan for potential discoveries during project construction, coordinate these efforts with the BLM, and coordinate responsibilities for action with the BLM and Storey County. We plan to send a draft of the PA to you soon and ask for your review and comment.

The PA will include stipulations to complete a Class III Cultural Resource Inventory, Survey, and Evaluation of those portions of the APE that are in unpaved or previously undisturbed areas of the VCHD and NHL as well as a sensitivity document to identify those areas that should be tested and that should undergo data recovery in advance of construction. The PA will also include stipulations that account for visual impacts to the landscape and historic character of the VCHD and NHL and will describe monitoring that would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences.

We invite any comments you may have on the proposed project. After the PA has undergone review and coordination with the BLM and SHPO we will send it to you for your review and comment. Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/enclosures):

Dr. Stephanie Toothman, Cultural Resources Chief, National Park Service, 909 First Avenue, Seattle, Washington 98122

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701



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

Environmental Resources Branch

Mr. Reid Nelson
Advisory Council on Historic Preservation
Office of Federal Agency Programs
Old Post Office Building
1100 Pennsylvania Avenue, NW, Suite 803
Washington, DC 20004

JAN 27 2011

Dear Mr. Nelson:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing to inform you of the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project in Storey County, Nevada. Storey County is now proceeding to implement this project with funding assistance from the Corps. The project is located entirely within the boundaries of the Virginia City Historic District (VCHD); a National Register of Historic Places (NRHP) listed property, as well as a National Historic Landmark (NHL).

Due to the sensitive nature of the VCHD and NHL we want to make every effort to include all parties with an interest in the project and those agencies with responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). We are writing to provide you with information on the proposed project and to inform you of the process we plan to follow, to potentially include your participation in accordance with to 36 CFR § 800.2(a)(4)(b)(1). Pursuant to 36 CFR § 65.1(c) we have also contacted the National Park Service to initiate consultation with them and afford them the opportunity to be included in the Section 106 process for this project.

The project will require the U.S. Bureau of Land Management (BLM) to issue new right-of-way grants on sections of the sewer network, as well as to amend the existing wastewater treatment plant lease authorized under the Recreation and Public Purposes Act of 1929, as amended, to Storey County. Additionally, the project is authorized by the Secretary of the Army under Section 595 of the Water Resources Development Act of 1999, Public Law 106-53, as amended, and as such is subject to the requirements of the National Environmental Policy Act of 1969 (NEPA), as amended. Since Storey County will be implementing the project with funding assistance from the Corps, the Corps is the lead agency for the NEPA action for the project. The BLM and the Corps have coordinated and determined, that the Corps will also be the lead agency for compliance with Section 106 of the NHPA and its implementing regulations, 36 CFR § 800.

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The area of potential effects (APE) for the proposed project includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. The locations of the proposed project features are shown in green and red on the enclosed designs (enclosure 2).

In consultation with the BLM and the Nevada State Historic Preservation Officer (SHPO), the Corps has determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. As a result, we are coordinating the execution of a Programmatic Agreement (PA) with the BLM and SHPO to address the processes that the Corps will take to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess effects and plan for potential discoveries during project construction, coordinate these efforts with the BLM, and coordinate responsibilities for action with the BLM and Storey County. Pursuant to 36 CFR § 800.6(a)(1) we plan to send a draft of the PA to you soon and ask for your review and comment.

The PA will include stipulations to complete a Class III Cultural Resource Inventory, Survey, and Evaluation of those portions of the APE that are in unpaved or previously undisturbed areas of the VCHD and NHL as well as a sensitivity document to identify those areas that should be tested and that should undergo data recovery in advance of construction. The PA will also include stipulations that account for visual impacts to the landscape and historic character of the VCHD and NHL and will describe monitoring that would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences.

We invite any comments you may have on the proposed project. After the PA has undergone review and coordination with the BLM and SHPO we will send it to you for your review and comment. Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,

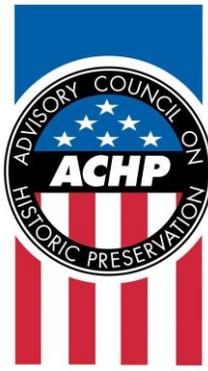


Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/enclosures):

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office,
5665 Morgan Mill Road, Carson City, Nevada 89701



Preserving America's Heritage

February 11, 2011

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

***Ref: Proposed Virginia City and Gold Hill Wastewater System Improvements Project
Storey County, California***

Dear Ms. Kirchner:

On January 31, 2011, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on the Virginia City Historic District, which is listed on the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and you determine that our participation is needed to conclude the consultation process, please notify us

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the California State Historic Preservation Office and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions, please contact Tom McCulloch at 202-606-8554, or via email at tmcculloch@achp.gov.

Sincerely,

Raymond V. Wallace
Historic Preservation Technician
Office of Federal Agency Programs



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

Mr. Ronald M. James
State Historic Preservation Officer
Nevada State Historic Preservation Office
100 North Stewart Street
Carson City, Nevada 89701-4285

MAY 13 2011

Dear Mr. James:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing in reference to the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. Your reference number for the Project is Undertaking #2011-1385. The Project is located entirely within the boundaries of the Virginia City Historic District (VCHD); a National Register of Historic Places (NRHP) listed property, as well as a National Historic Landmark (NHL). We received your letter dated December 14, 2010 which requested the following information: (1) the scale and design of the above ground facilities in order to determine the visual effect of the undertaking, (2) a sensitivity document for all parts of the undertaking, (3) contact with archaeologists working at the Nevada Department of Transportation (NDOT), and (4) a map showing the total disturbance area for all below and above ground facilities. We are writing to provide you with the requested information and to request your concurrence with our determination of the area of potential effects (APE) for the project in accordance with 36 CFR Part 800.4(a)(1).

Above ground facilities for the Project include the Waste Water Treatment Plant (WWTP) and three lift stations. The location of the WWTP is shown on Sheet P5 of Enclosure 1. Elevations, a cross section and detail of the Control and Sludge Disposal Building are shown in Enclosure 2. The Comstock Historic District Commission (CHDC) approved the WWTP structures during their March 14, 2011 meeting. Lift Station #1, shown on Sheet P9 of Enclosure 1, was also approved by the CHDC on March 14, 2011. Due to land acquisition processes, the locations of Lift Stations #2 and #3 are still being determined but the possible locations for the lift stations are shown on Sheets P7 and P8 of Enclosure 1. The CHDC agreed that once the locations of Lift Stations #2 and #3 have been determined that approval for the locations and designs may be conducted at the staff level with CHDC District Administrator Mr. Michael Bedeau.

Additionally, we have consulted with Ms. Mara Jones of your office in order to determine the requirements for a visual assessment of the above ground facilities to enable us to assess the potential effects to the VCHD and NHL. Enclosure 3 includes photos and reference areas for the WWTP, including the view towards Virginia City from the WWTP and the view towards the WWTP from Virginia City. The only structures visible from the WWTP include a building and football field goal of the Virginia City High School, built in 1989. Looking towards the WWTP from Virginia City the facility itself is not visible due to the hilly topography of the areas around the WWTP. We request any additional guidance you may require in further defining the visual APE for the Project. The requirements for the assessment of the impacts the above ground facilities may have on the integrity of the visual character of the VCHD and NHL will be included as a stipulation in the Programmatic Agreement (PA) executed between the Corps, your office, the Bureau of Land Management (BLM), and Storey County.

We have discussed the development of a sensitivity document for the Project with Ms. Rebecca Palmer of your office. The sensitivity document will be required as a stipulation of the aforementioned PA and would identify those areas within the APE that are most likely to have the presence of historic properties. Once those areas are identified a proposed testing plan and data recovery would allow for the consideration of effects the Project may have on the VCHD and NHL in advance of construction. The sensitivity document would be completed in its entirety in advance of any construction or ground disturbing activities within the APE for the Project.

As requested, we have contacted NDOT archaeologist Mr. Cliff Creger. Ms. Melissa Montag of my office contacted Mr. Creger on January 3, 2011 via email and provided him with the Project description and a map of the APE. In a follow up phone call Mr. Creger stated he was not aware of any sites or areas of concern within the APE under the jurisdiction of NDOT. NDOT has been included as a potential concurring party to the PA and will receive a copy of the draft PA when it is sent to the potential concurring parties for comment.

Through the development of the PA with your office and the BLM we have further defined the APE for the Project. Enclosure 1 includes maps showing the estimated total disturbance area for all below and above ground facilities for the Project and Enclosure 2 includes details of the above ground facilities.

Pursuant to 36 CFR 800.4(a)(1), we have documented the APE, and we request any comments you may have or your concurrence with our determination of the APE. Correspondence may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/enclosures):

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701

From: [Rebecca Palmer](#)
To: [Montag, Melissa L SPK](#)
Cc: [Mara Jones](#)
Subject: RE: Determination of the APE for the Virginia City and gold hill Wastewater System Improvement Project, Storey County (UNCLASSIFIED)
Date: Wednesday, December 07, 2011 10:52:28 AM

We don't require additional documentation and we would agree that when all associated features of the project (lift stations, etc) are designed and located the physical and direct APE can be the footprint. Is don't see any need for letters at this time.

Have a wonderful holiday season if I don't correspond with you until after the New Year.

Rebecca Lynn Palmer
Deputy Historic Preservation Officer
901 South Stewart Street, Suite 5004
Carson City NV 89701
Phone (775) 684-3443
Fax (775) 684-3442

Please note, my email is rlpalmer@shpo.nv.gov

-----Original Message-----

From: Montag, Melissa L SPK [<mailto:Melissa.L.Montag@usace.army.mil>]
Sent: Wednesday, December 07, 2011 9:23 AM
To: Rebecca Palmer
Cc: Mara Jones
Subject: RE: Determination of the APE for the Virginia City and gold hill Wastewater System Improvement Project, Storey County (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi Rebecca,

I don't know that we need a formal letter, considering the email trails as public record and ultimately the PA as the binding agreement document. I think my only concern, and it may very well be splitting hairs and not really a concern, is that the email I have from SHPO confirming agreement for the APE specifically mentions the visual APE but not the physical APE (attached).

If this is an unimportant nuance and we can agree that the visual APE and physical APE have been agreed to then the email as the record is acceptable to me. However, if SHPO requires additional documentation for the official physical APE I just want to be sure not to lose track of that piece if there's any lingering concerns there.

Let me know your thoughts on this.

Thanks,

Melissa Montag
Senior Environmental Manager/Historian
U.S. Army Corps of Engineers
Cultural, Recreation & Social Assessment Section (CESPK-PD-RC)
1325 J Street
Sacramento, CA 95814-2922

(916) 557-7907

e-mail: Melissa.L.Montag@usace.army.mil Please note that due to security requirements our out of the office notification has been disabled. If I do not respond to your message in a few days, I may be out of the office. I will respond as soon as I am able. Thank you.

-----Original Message-----

From: Rebecca Palmer [<mailto:rlpalmer@shpo.nv.gov>]

Sent: Tuesday, December 06, 2011 12:11 PM

To: Montag, Melissa L SPK

Cc: Mara Jones

Subject: RE: Determination of the APE for the Virginia City and gold hill Wastewater System Improvement Project, Storey County (UNCLASSIFIED)

Melissa,

I have searched through the file and cannot find the follow-up letter promised below. It is possible that with the move the letter never made it out the door or that somehow it was misplaced. We have two options, both of which are legally defensible according to our state records policy. One, the email string is a public record and is adequate for Section 106 compliance since the entire undertaking will be governed by the PA once it is executed. I also agree with your summary that subsequent e-mails have addressed our concerns and they are also public record. Two, we could write a letter now to address your request.

Rebecca Lynn Palmer
Deputy Historic Preservation Officer
901 South Stewart Street, Suite 5004
Carson City NV 89701
Phone (775) 684-3443
Fax (775) 684-3442

Please note, my email is rlpalmer@shpo.nv.gov

-----Original Message-----

From: Montag, Melissa L SPK [<mailto:Melissa.L.Montag@usace.army.mil>]

Sent: Thursday, December 01, 2011 12:53 PM

To: Rebecca Palmer

Subject: RE: Determination of the APE for the Virginia City and gold hill Wastewater System Improvement Project, Storey County (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi Rebecca,

This is the general timeframe of the letter that I don't seem to have in my files. If you could search and see if you have a copy of the letter you can send me I would appreciate it. Our later discussion over the phone and via email took care of determining the APE but I just want to get the letter for our overall administrative record.

Thanks,

Melissa Montag
Senior Environmental Manager/Historian
U.S. Army Corps of Engineers
Cultural, Recreation & Social Assessment Section (CESPK-PD-RC)
1325 J Street

Sacramento, CA 95814-2922

(916) 557-7907

e-mail: Melissa.L.Montag@usace.army.mil

Please note that due to security requirements our out of the office notification has been disabled. If I do not respond to your message in a few days, I may be out of the office. I will respond as soon as I am able. Thank you.

-----Original Message-----

From: Rebecca Palmer [<mailto:Rebecca.Palmer@nevadaculture.org>]

Sent: Thursday, June 16, 2011 2:43 PM

To: Montag, Melissa L SPK

Cc: 'jacarter@blm.gov'

Subject: RE: Determination of the APE for the Virginia City and gold hill Wastewater System Improvement Project, Storey County

Actually our server is down so this is formal response until I can open up my files again.

Rebecca Palmer

Deputy State Historic Preservation Officer

Archaeologist

100 North Stewart Street

Carson City NV 89701

(775) 684-3443

(775) 684-3442 (fax)

From: Rebecca Palmer

Sent: Thursday, June 16, 2011 2:40 PM

To: 'Montag, Melissa L SPK'

Cc: 'jacarter@blm.gov'

Subject: Determination of the APE for the Virginia City and gold hill Wastewater System Improvement Project, Storey County

Melissa,

The SHPO has reviewed your request for comments on the area of potential effect for the subject undertaking. As you indicated in your letter, the location of the Lift Stations has not been finalized nor did the submission include elevations and a description of the lift stations. When this information is available, and included with a map showing the location of the area of potential visual effect for the undertaking, the SHPO will be able to comment on area of potential effect of the subject undertaking. This e-mail will be followed by a formal letter for your administrative record.

Rebecca Palmer

Deputy State Historic Preservation Officer

Archaeologist

100 North Stewart Street

Carson City NV 89701

(775) 684-3443

(775) 684-3442 (fax)

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE



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

AUG 26 2011

Michael A. Bedeau
District Administrator
Comstock Historic District Commission
P.O. Box 128
Virginia City, Nevada 89440

Dear Mr. Bedeau:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 C.F.R. § 800.14(b)(2)(i) to request your review and comment on a draft Programmatic Agreement (PA) for the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. Ms. Melissa Montag, Corps Historian, has previously been in contact with the Comstock Historic District Commission (CHDC) on prior occasions for guidance and design standards the CHDC has for above ground features within the Virginia City Historic District (VCHD). The Project is located entirely within the boundaries of the VCHD, a National Register of Historic Places (NRHP) listed property and district, as well as a National Historic Landmark (NHL).

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The area of potential effects (APE) for the proposed project includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (Enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. A detailed project description is included and locations of the proposed project features are shown in green and red on the enclosed designs (Enclosure 2).

Due to the sensitive nature of the VCHD and NHL we want to make every effort to include all parties with an interest in the project and those agencies with responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). The Corps has determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. In accordance with 36 C.F.R. § 65.2(c)(1) we have also contacted the Advisory Council on Historic Preservation (ACHP) to initiate consultation with them and afford them the opportunity to be included in the Section 106 process for this project. The ACHP has declined to participate in the Project at this time.

Because the Project may have an adverse effect on historic properties and pursuant to 36 C.F.R. § 800.14(b)(1)(ii), since the effects of the Project on historic properties cannot be fully determined prior to the Corps' approval of an undertaking, we are coordinating the execution of the PA with the Bureau of Land Management (BLM), the Nevada State Historic Preservation Officer (SHPO) and Storey County to address the processes that the Corps will take to comply with Section 106 of the NHPA. The draft PA includes stipulations in advance of construction to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess visual impacts to the landscape and historic character of the VCHD and NHL, and complete a sensitivity document to identify those areas that should be tested and that should undergo data recovery. For efforts during construction the draft PA includes stipulations for unanticipated discoveries, assessment of effects and plans for potential discoveries by ensuring monitoring would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences. The draft PA includes the framework to coordinate these efforts and responsibilities for action with the BLM and Storey County, the local sponsor for the Project (Enclosure 3).

As potential signatories to the PA the BLM, SHPO and Storey County have been given the opportunity to review and comment on the PA. The views of the potential signatories have been taken into consideration and the draft PA is enclosed for your review and comment. Pursuant to 36 C.F.R. § 800.10(c) we are also sending this draft PA to the National Park Service (NPS) since the NPS administers the National Historic Landmarks Program on behalf of the Secretary of the Interior. Additionally, as potential concurring parties, the Nevada Department of Transportation, the Yerington Paiute Tribe, and the Washoe Tribe of Nevada & California will receive the draft PA for their review and comment.

We invite any comments you may have on the Project and the draft PA. We also request that if you are interested in becoming a concurring party to the PA that you notify us. You may offer comments on the PA without participating as a concurring party. We request that you review the PA and provide us with any comments within 30 days. Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

Copy Furnished (w/o enclosures):
Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office,
5665 Morgan Mill Road, Carson City, Nevada 89701



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

Mr. C. Cliff Creger
Chief Archaeologist
Nevada Department of Transportation
1263 South Stewart Street
Carson City, Nevada 89712

AUG 26 2011

Dear Mr. Creger:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 C.F.R. § 800.14(b)(2)(i) to request your review and comment on a draft Programmatic Agreement (PA) for the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. Ms. Melissa Montag, Corps Historian, previously contacted you via email on January 3, 2011 in reference to this Project and asked for any comments you had on the proposed Project. The Project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property and district, as well as a National Historic Landmark (NHL).

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The area of potential effects (APE) for the proposed project includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (Enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. A detailed project description is included and locations of the proposed project features are shown in green and red on the enclosed designs (Enclosure 2).

Due to the sensitive nature of the VCHD and NHL we want to make every effort to include all parties with an interest in the project and those agencies with responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). The Corps has determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. In accordance with 36 C.F.R. § 65.2(c)(1) we have also contacted the Advisory Council on Historic Preservation (ACHP) to initiate consultation with them and afford them the opportunity to be included in the Section 106 process for this project. The ACHP has declined to participate in the Project at this time.

Because the Project may have an adverse effect on historic properties and pursuant to 36 C.F.R. § 800.14(b)(1)(ii), since the effects of the Project on historic properties cannot be fully determined prior to the Corps' approval of an undertaking, we are coordinating the execution of

the PA with the Bureau of Land Management (BLM), the Nevada State Historic Preservation Officer (SHPO) and Storey County to address the processes that the Corps will take to comply with Section 106 of the NHPA. The draft PA includes stipulations in advance of construction to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess visual impacts to the landscape and historic character of the VCHD and NHL, and complete a sensitivity document to identify those areas that should be tested and that should undergo data recovery. For efforts during construction the draft PA includes stipulations for unanticipated discoveries, assessment of effects and plans for potential discoveries by ensuring monitoring would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences. The draft PA includes the framework to coordinate these efforts and responsibilities for action with the BLM and Storey County, the local sponsor for the Project (Enclosure 3).

As potential signatories to the PA the BLM, SHPO and Storey County have been given the opportunity to review and comment on the PA. The views of the potential signatories have been taken into consideration and the draft PA is enclosed for your review and comment. Pursuant to 36 C.F.R. § 800.10(c) we are also sending this draft PA to the National Park Service (NPS) since the NPS administers the National Historic Landmarks Program on behalf of the Secretary of the Interior. Additionally, as potential concurring parties, the Comstock Historic District Commission, the Yerington Paiute Tribe, and the Washoe Tribe of Nevada & California will receive the draft PA for their review and comment.

We invite any comments you may have on the Project and the draft PA. We also request that if you are interested in becoming a concurring party to the PA that you notify us. You may offer comments on the PA without participating as a concurring party. We request that you review the PA and provide us with any comments within 30 days. Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/o enclosures): Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

Washoe Tribe of Nevada & California
Ms. Wanda Batchelor, Chairwoman
919 U.S. Highway 395 South
Gardnerville, Nevada 89410

AUG 26 2011

Dear Ms. Batchelor:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 C.F.R. § 800.14(b)(2)(i) to request your review and comment on a draft Programmatic Agreement (PA) for the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. We previously contacted you in a letter dated December 1, 2010 and asked for any comments you had on the proposed Project and we received your letter dated December 7, 2010 asking for a copy of the Class III Inventory and Survey upon completion. The Project is located entirely within the boundaries of the Virginia City Historic District (VCHD); a National Register of Historic Places (NRHP) listed property and district, as well as a National Historic Landmark (NHL).

Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The area of potential effects (APE) for the proposed project includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (Enclosure 1). The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced, as well as locations of potential staging areas, stockpile areas, and fill locations. A detailed project description is included and locations of the proposed project features are shown in green and red on the enclosed designs (Enclosure 2).

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Because the Project may have an adverse effect on historic properties and pursuant to 36 C.F.R. § 800.14(b)(1)(ii), since the effects of the Project on historic properties cannot be fully determined prior to the Corps' approval of an undertaking, we are coordinating the execution of the PA with the Bureau of Land Management (BLM), the Nevada State Historic Preservation Officer (SHPO) and Storey County to address the processes that the Corps will take to comply with Section 106 of the NHPA. The draft PA includes stipulations in advance of construction to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess visual impacts to the landscape and historic character of the VCHD and NHL, and complete a sensitivity document to identify those areas that

should be tested and that should undergo data recovery. For efforts during construction, the draft PA includes stipulations for unanticipated discoveries, assessment of effects and plans for potential discoveries by ensuring monitoring would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences. The draft PA includes the framework to coordinate these efforts and responsibilities for action with the BLM and Storey County, the local sponsor for the Project (Enclosure 3).

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Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/enclosures):

Washoe Tribe of Nevada & California, Ms. Marie Barry, Environmental Director, 919 U.S. Highway 395 South, Gardnerville, Nevada 89410

Washoe Tribe of Nevada & California, Mr. Darrel Cruz, Tribal Historic Preservation Officer, 919 U.S. Highway 395 South, Gardnerville, Nevada 89410

CF (w/o enclosures):

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

Yerington Paiute Tribe
Ms. Linda Howard, Chairman
171 Campbell Lane
Yerington, Nevada 89447

AUG 26 2011

Dear Ms. Howard:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 C.F.R. § 800.14(b)(2)(i) to request your review and comment on a draft Programmatic Agreement (PA) for the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. We previously contacted you in a letter dated December 1, 2010 and asked for any comments you had on the proposed Project. The Project is located entirely within the boundaries of the Virginia City Historic District (VCHD); a National Register of Historic Places (NRHP) listed property and district, as well as a National Historic Landmark (NHL).

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Because the Project may have an adverse effect on historic properties and pursuant to 36 C.F.R. § 800.14(b)(1)(ii), since the effects of the Project on historic properties cannot be fully determined prior to the Corps' approval of an undertaking, we are coordinating the execution of the PA with the Bureau of Land Management (BLM), the Nevada State Historic Preservation Officer (SHPO) and Storey County to address the processes that the Corps will take to comply with Section 106 of the NHPA. The draft PA includes stipulations in advance of construction to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess visual impacts to the landscape and historic character of the VCHD and NHL, and complete a sensitivity document to identify those areas that should be tested and that should undergo data recovery. For efforts during construction, the draft PA includes stipulations for unanticipated discoveries, assessment of effects and plans for potential

discoveries by ensuring monitoring would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences. The draft PA includes the framework to coordinate these efforts and responsibilities for action with the BLM and Storey County, the local sponsor for the Project (Enclosure 3).

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We invite any comments you may have on the Project and the draft PA. We also request that if you are interested in becoming a concurring party to the PA that you notify us. You may offer comments on the PA without participating as a concurring party. We request that you review the PA and provide us with any comments within 30 days. Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/enclosures):

Yerington Paiute Tribe, Mr. Kenneth Roberts, Vice-Chair, 171 Campbell Lane, Yerington, Nevada 89447
Yerington Paiute Tribe, Mr. Marlin Thompson, Commodities/Cultural Resources, 171 Campbell Lane,
Yerington, Nevada 89447
Yerington Paiute Tribe, Mr. Justin Whiteside, Environmental Director, 603 West Bridge Street,
Yerington, Nevada 89447

CF (w/o enclosures):

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665
Morgan Mill Road, Carson City, Nevada 89701



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

Mr. Reid Nelson
Advisory Council on Historic Preservation
Office of Federal Agency Programs
Old Post Office Building
1100 Pennsylvania Avenue, NW, Suite 803
Washington, DC 20004

AUG 26 2011

Dear Mr. Nelson:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 C.F.R. § 800.14(b)(2)(i) to transmit a draft Programmatic Agreement (PA) for the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. In accordance with 36 C.F.R. § 65.2(c)(1) we previously contacted you in a letter dated January 27, 2011 to provide you with information on the proposed project; to inform you of our plan to comply with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA); and to invite your participation in the development of a PA for the Project. In a letter dated February 11, 2011, Mr. Raymond Wallace of your office acknowledged receipt of our letter and declined to participate in the Project or development of the PA at that time. Although your office has only requested that we file the final PA and supporting documents we are providing you with the draft PA for your review and any comments you choose to provide.

The Project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property and district, as well as a National Historic Landmark (NHL). Virginia City and Gold Hill are located approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The area of potential effects (APE) for the proposed project includes portions of T16N, R21E, Sections 5 and 6, and T17N, R21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle (Enclosure 1). The APE includes: (1) an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed; (2) the town of Virginia City where sewer lines would be replaced; (3) the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced; and (4) locations of potential staging areas, stockpile areas, and fill locations. A detailed project description is included and locations of the proposed project features are shown in green and red on the enclosed designs (Enclosure 2).

We have determined that the proposed project may have an adverse effect on historic properties or features that contribute to the eligibility of the VCHD for listing in the NRHP and for NHL designation. Because the Project may have an adverse effect on historic properties and pursuant to 36 C.F.R. § 800.14(b)(1)(ii), since the effects of the Project on historic properties cannot be fully determined prior to the Corps' approval of an undertaking, we are coordinating the execution of the PA with the Bureau of Land Management (BLM), the Nevada State Historic Preservation Officer (SHPO), and Storey County to address the processes that the Corps will take to comply with Section 106 of the NHPA.

The draft PA includes stipulations in advance of construction to identify potentially affected contributing elements to the VCHD NHL, inventory the APE, assess visual impacts to the landscape and historic character of the VCHD and NHL, and complete a sensitivity document to identify those areas that should be tested and that should undergo data recovery. For efforts during construction the draft PA includes stipulations for unanticipated discoveries, assessment of effects, and plans for potential discoveries by ensuring that monitoring would be required during construction for those areas deemed sensitive for the presence of cultural resources or areas that could not be surveyed or tested before construction commences. The draft PA includes the framework to coordinate these efforts and responsibilities for action with the BLM and Storey County, the local sponsor for the Project (Enclosure 3).

As potential signatories to the PA, the BLM, the SHPO and Storey County have been given the opportunity to review and comment on the PA. The views of the potential signatories have been taken into consideration and the draft PA is enclosed for your review and comment. Pursuant to 36 C.F.R. § 800.10(c) we are also sending this draft PA to the National Park Service (NPS) since the NPS administers the National Historic Landmarks Program on behalf of the Secretary of the Interior. Additionally, as potential concurring parties, the Comstock Historic District Commission, the Nevada Department of Transportation, the Yerington Paiute Tribe, and the Washoe Tribe of Nevada & California will receive the draft PA for their review and comment.

We invite any comments you may have on the Project and the draft PA. If you choose to comment, we request that you review the PA and provide us with any comments within 30 days. Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosures

CF (w/o enclosures):

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701

From: [Montag, Melissa L SPK](mailto:Montag.Melissa.L.SPK)
To: "[David Louter@nps.gov](mailto:David.Louter@nps.gov)"; [Elaine Jackson-Retondo@nps.gov](mailto:Elaine.Jackson-Retondo@nps.gov)
Bcc: [Montag, Melissa L SPK](mailto:Montag.Melissa.L.SPK)
Subject: RE: FW: Virginia City/Gold Hill NHL - US Army Corps of Engineers Project (UNCLASSIFIED)
Date: Friday, September 23, 2011 1:22:34 PM
Attachments: [NPS Virginia City PA Transmittal Letter Signed 26 Aug 2011.pdf](#)
[Virginia City Gold Hill Draft Programmatic Agreement 24Aug11.pdf](#)

Classification: UNCLASSIFIED
Caveats: NONE

Elaine and Dave,

This may require a major refreshing of memory since it has been since February we last corresponded on this project. You should have received a letter and an attached draft Programmatic Agreement from the Corps earlier this month and I just wanted to follow up to see if you have had a chance to review the PA and if you may have questions or would like to discuss anything about the Corps efforts to comply with Section 106 for the Virginia City/Gold Hill Wastewater Systems Improvements project.

The PA has gone through multiple iterations with the Nevada SHPO, the BLM, and Storey County, who are planned signatories to the PA and the signatory parties are in agreement with the stipulations of the draft PA. It is still a work in progress and we are making every effort to include the comments and concerns of concurring parties such as NPS.

I would be happy to discuss any aspect of the project or the PA with you and look forward to working forward on this project with you.

Sincerely,

Melissa Montag
Senior Environmental Manager/Historian
U.S. Army Corps of Engineers
Cultural, Recreation & Social Assessment Section (CESPK-PD-RC)
1325 J Street
Sacramento, CA 95814-2922
(916) 557-7907
e-mail: Melissa.L.Montag@usace.army.mil
Please note that due to security requirements our out of the office notification has been disabled. If I do not respond to your message in a few days, I may be out of the office. I will respond as soon as I am able. Thank you.

-----Original Message-----

From: [David Louter@nps.gov](mailto:David.Louter@nps.gov) [<mailto:David.Louter@nps.gov>]
Sent: Tuesday, February 01, 2011 10:11 PM
To: Montag, Melissa L SPK
Cc: [Elaine Jackson-Retondo@nps.gov](mailto:Elaine.Jackson-Retondo@nps.gov)
Subject: Re: FW: Virginia City/Gold Hill NHL - US Army Corps of Engineers Project (UNCLASSIFIED)

Thanks, Melissa. I'm glad you were able to navigate our organizational structure with such ease! We're still making the transition in my group, so no surprise that you didn't know. I've only been on board a month. So thanks for making the effort to include us and we look forward to working with you on this project.

Kind regards,
Dave

David Louter, Ph.D.
Chief, Cultural Resources Program
Pacific West Region
National Park Service
909 First Avenue, Fifth Floor
Seattle, WA 98104
206.220.4137 (v) 206.220.4159 (f)

"Montag, Melissa
L SPK"
<Melissa.L.Montag
@usace.army.mil> To
<David_Louter@nps.gov>
cc
01/31/2011 09:06
AM Subject
FW: Virginia City/Gold Hill NHL -
US Army Corps of Engineers Project
(UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dr. Louter,

I apologize for the misdirection of my original email and letter to Dr. Toothman, Dr. Jackson-Retondo corrected me that you are the current West Region (PWR) Chief of Cultural Resources for the National Park Service so you should have been the recipient of the attached correspondence. And I apologize that it is addressed incorrectly.

Please let me know if you have any questions.

Thank you,

Melissa Montag
Senior Environmental Manager/Historian
U.S. Army Corps of Engineers
Cultural, Recreation & Social Assessment Section (CESPK-PD-RC)
1325 J Street
Sacramento, CA 95814-2922
(916) 557-7907
e-mail: Melissa.L.Montag@usace.army.mil

Please note that due to security requirements our out of the office notification has been disabled. If I do not respond to your message in a few days, I may be out of the office. I will respond as soon as I am able.

Thank you.

-----Original Message-----

From: Montag, Melissa L SPK
Sent: Thursday, January 27, 2011 1:09 PM
To: 'elaine_jackson-Retondo@nps.gov'
Cc: 'stephanie_toothman@nps.gov'
Subject: Virginia City/Gold Hill NHL - US Army Corps of Engineers Project
(UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dr. Jackson-Retondo,

Attached is an initial coordination letter for a U.S. Army Corps of Engineers project that includes the replacement of pipeline and upgrading a wastewater treatment facility located within the Virginia City Historic District and National Historic Landmark. Details about the project are enclosed. The Corps, in coordination with the Nevada SHPO, the Bureau of Land Management and the local sponsor, is working on executing a Programmatic Agreement for the project and we want to initiate communication with you so we can include you in the planning process for the project and the PA. If you have any questions or concerns please contact me, my information is below.

Thank you,

Melissa Montag
Senior Environmental Manager/Historian
U.S. Army Corps of Engineers
Cultural, Recreation & Social Assessment Section (CESPK-PD-RC)
1325 J Street
Sacramento, CA 95814-2922
(916) 557-7907
e-mail: Melissa.L.Montag@usace.army.mil

Please note that due to security requirements our out of the office notification has been disabled. If I do not respond to your message in a few days, I may be out of the office. I will respond as soon as I am able.
Thank you.

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

[attachment "NPS Virginia City NHL_USACE 27Jan11.pdf" deleted by David Louter/Seattle/NPS]

Classification: UNCLASSIFIED
Caveats: NONE



REPLY TO
ATTENTION OF

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

Environmental Resources Branch

Dr. Elaine Jackson-Retondo
National Park Service, Pacific West Regional Office
1111 Jackson Street, Suite 700
Oakland, California 94607-4807

OCT 12 2011

Dear Dr. Jackson-Retondo:

The U.S. Army Corps of Engineers, Sacramento District (Corps), is writing pursuant to 36 C.F.R. § 800.14(b)(2)(i) to request your review and comment on a draft Programmatic Agreement (PA) for the proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. We previously contacted your office in reference to this Project in a letter dated January 27, 2011 in which we provided a project description and maps of the Project and asked for any comments you had on the proposed Project. In a letter dated August 26, 2011 we sent you a copy of a the draft PA for your review and comment. Ms. Melissa Montag of my staff contacted you and Dr. David Louter of your office in an email dated September 23, 2011 to inquire about the status of your review and any questions you might have on the Project or the PA. Previous correspondence on the Project with your office is included in Enclosure 1.

As potential signatories to the PA the BLM, SHPO and Storey County have been given the opportunity to review and comment on the PA. The views of the potential signatories have been taken into consideration and incorporated into the draft PA (Enclosure 2). The Advisory Council on Historic Preservation (ACHP) was previously contacted to initiate consultation and afford them the opportunity to be included in the Section 106 process for the Project. The ACHP has previously declined to participate in the Project. The ACHP received the draft PA for their review and comment though no response has been received. Correspondence with the ACHP is included in Enclosure 3. Additionally, as potential concurring parties, the Comstock Historic District Commission, the Nevada Department of Transportation (NDOT), the Yerington Paiute Tribe, and the Washoe Tribe of Nevada & California were sent the draft PA on August 26, 2011 for their review and comment.

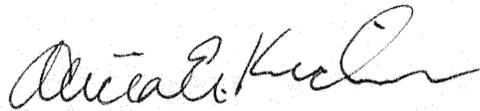
None of the potential concurring parties have expressed an interest in signing the PA as a concurring party. The NDOT has indicated that they have no comments on the PA but would like to be kept informed of the project and could assist with review of documents near roadways and highways. The Washoe Tribe of Nevada & California has indicated they are still reviewing the PA. We will request any comments from the tribe and provided there are no additional comments received, we plan to finalize the PA for formal execution.

Since the National Park Service administers the National Historic Landmarks Program on behalf of the Secretary of the Interior, we request any comments you may have on the draft PA. We also request that if you are interested in becoming a concurring party to the PA that you

notify us. We request that you review the PA and provide us with any comments within 30 days. If we do not receive a response from your office we will finalize and execute the PA in coordination with the BLM, SHPO and Storey County as the signatories to the PA. The ACHP, the Comstock Historic District Commission, the NDOT, the Yerington Paiute Tribe, the Washoe Tribe of Nevada & California and the NPS will be sent a copy of the executed PA and be given the opportunity to sign the PA as concurring parties.

Correspondence for this project may be sent to Ms. Melissa Montag, U.S. Army Corps of Engineers, Sacramento District, 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



Alicia E. Kirchner
Chief, Planning Division

Enclosure

CF (w/enclosures):

Dr. David Louter, Chief, Cultural Resources Program, National Park Service, 909 First Avenue, Seattle, Washington 98104

Mr. James Carter, Archeologist, U.S. Bureau of Land Management, Sierra Front Field Office, 5665 Morgan Mill Road, Carson City, Nevada 89701



REPLY TO
ATTENTION OF

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

MAR - 1 2012

Environmental Resources Branch

Mr. Alan R. Bittner
Acting Field Manager
U.S. Bureau of Land Management
Sierra Front Field Office, Carson City District
5665 Morgan Mill Road
Carson City, Nevada 89701

Dear Mr. Bittner:

I am writing in regard to continuing consultation on the U.S. Army Corps of Engineers' (Corps) proposed Section 595 Virginia City and Gold Hill Wastewater System Improvements Project (Project) in Storey County, Nevada. Ms. Melissa Montag, our Historian, has been coordinating with Mr. James Carter of your office on our efforts to comply with Section 106 of the National Historic Preservation Act of 1966, as amended, since the U.S. Bureau of Land Management (BLM) will issue new right-of-way grants and amend the existing wastewater treatment plant lease with Storey County, the local sponsor for the Project. We also have coordinated with Ms. Rebecca Palmer, Deputy Historic Preservation Officer representing the State Historic Preservation Officer (SHPO), at the Nevada State Historic Preservation Office.

The Project is located entirely within the boundaries of the Virginia City Historic District (VCHD), a National Register of Historic Places (NRHP) listed property, and a National Historic Landmark (NHL). In consultation with the your office and the SHPO, we have determined that the proposed Project may have an adverse effect on historic properties or features that contribute to the NRHP listing of the VCHD and its designation as a NHL. Pursuant to 36 CFR § 800.14 (b), we have coordinated the drafting of a Programmatic Agreement (PA) for the Project with your office, the SHPO, Storey County, and the Advisory Council on Historic Preservation (ACHP). The ACHP declined to participate in the PA, and the National Park Service, who, in accordance with 36 CFR § 65.1(c), administers the National Historic Landmarks Program for the Secretary of the Interior pursuant to 36 CFR § 800.10(c), has not responded to requests for involvement. The PA was sent to potential concurring parties including the Comstock Historic District Commission, Nevada Department of Transportation, Washoe Tribe of Nevada and California, and Yerington Paiute Tribe. No comments from any of the potential concurring parties were received.

In accordance with 36 CFR § 800.14(b)(2)(ii), a public notice was published in the *Comstock Chronicle* in Virginia City on April 22 and 29, 2011, announcing the presentation of the Project at the Storey County Commission meeting on May 3, 2011. Ms. Montag was in attendance at the meeting to present information and answer questions on the PA and the Section 106 process. The draft Environmental Assessment for the Project was made available for agency

and public review from April 22 to May 24, 2011. No comments on the Section 106 compliance efforts or the PA were received from the public.

The PA outlines the process for identification of historic properties, evaluation of properties and effects, and minimization or mitigation of effects. The evaluation and resolution of adverse effects will be made pursuant to 36 CFR § 800.5 and 36 CFR § 800.6 through the implementation of the stipulations of the PA. We have attempted to include all relevant parties in the development of the PA, and we have included public participation as part of our Section 106 compliance efforts. The execution of the PA by the signatories evidences the Corps' compliance with Section 106 for the Project.

I have signed the PA as the Corps' commitment to comply with Section 106 of the NHPA for this Project. So that each signatory party may have an original signed copy, I have enclosed five signed copies of the PA, and I ask that you sign the copies and forward them to Mr. Pat Whitten, County Manager for Storey County for signature. Thank you for the cooperation and efforts of your office, especially Mr. Carter, as we have developed an agreed-upon process for balancing the preservation of historic properties with a project that will reduce potential groundwater contamination, ensure public health, and meet Virginia City and Gold Hill wastewater demands.

Correspondence may be sent to the U.S. Army Corps of Engineers, Sacramento District, ATTN: Ms. Melissa Montag, (CESPK-PD-RC), 1325 J Street, Sacramento, California 95814-2922. If you have any questions or would like additional information, please contact Ms. Montag at (916) 557-7907 or by email at: Melissa.L.Montag@usace.army.mil.

Sincerely,



for William J. Leady, P.E.
Colonel, U.S. Army
District Commander

Enclosure

**PROGRAMMATIC AGREEMENT
AMONG
THE SACRAMENTO DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS,
THE SIERRA FRONT FIELD OFFICE OF THE BUREAU OF LAND MANAGEMENT,
THE NEVADA STATE HISTORIC PRESERVATION OFFICER,
AND THE STOREY COUNTY PUBLIC WORKS DEPARTMENT
REGARDING
NATIONAL HISTORIC PRESERVATION ACT COMPLIANCE
FOR
THE REPLACEMENT OF EXISTING WATER AND SEWER LINES AND
WASTEWATER TREATMENT PLANT EXPANSION IN VIRGINIA CITY AND GOLD
HILL
BOTH LOCATED WITHIN
THE VIRGINIA CITY HISTORIC DISTRICT AND NATIONAL HISTORIC
LANDMARK**

WHEREAS, the Storey County Public Works Department (County) plans to expand its existing wastewater treatment plant located near Virginia City and replace the existing water and wastewater line network in both Virginia City and Gold Hill (hereinafter referred to as the “Undertaking” as defined in 36 C.F.R. § 800.16[y]); and

WHEREAS, the Undertaking is authorized by the Secretary of the Army under Section 595 of the Water Resources Development Act of 1999, Public Law 106-53, as amended (Section 595). This authorization makes the Undertaking subject to the requirements of the National Environmental Policy Act of 1969 (NEPA). As the designated Federal lead agency for NEPA, the Sacramento District, U.S. Army Corps of Engineers (Corps) is responsible for ensuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), 16 U.S.C. § 470f, and its implementing regulations, 36 C.F.R. § 800; and

WHEREAS, the Undertaking may require the Bureau of Land Management (BLM) to issue new right-of-way grants on parts of the water and wastewater networks as well as lease additional land to Storey County for wastewater treatment plant expansion; and

WHEREAS, the Corps and the BLM agreed that the Corps would assume the role as the lead federal agency for fulfilling their collective responsibilities under Section 106, as provided in 36 C.F.R. § 800.2(a)(2); and

WHEREAS, the County is the local sponsor for the Undertaking and under the provisions of Section 595, is responsible for obtaining all permits, and rights-of-way grants, for the funding of project designs, plans, and project construction, and for implementation of treatment measures for the VCHD and NHL as outlined in this Agreement; and

WHEREAS, the Corps, in consultation with the BLM and the Nevada State Historic Preservation Officer (SHPO), has defined the area of potential effects (APE) for the Undertaking as located completely within the boundaries of the Virginia City Historic District (VCHD), an historic property listed in the National Register of Historic Places (NRHP) and a National

Historic Landmark (NHL), and as the 12.28 acres needed for the wastewater treatment plant expansion, approximately 13 acres needed for staging areas, disposal areas and lift stations, approximately 9.7 miles of water and wastewater lines to be replaced as described in the Virginia City and Gold Hill Wastewater System Improvements Environmental Assessment; and the viewshed of the wastewater treatment plant expansion and lift stations (Appendix 1); and

WHEREAS, the Corps, in consultation with the BLM, has determined that the Undertaking has the potential to cause effects to historic properties and features that contribute to the eligibility of the VCHD for listing in the NRHP and to the NHL status of the VCHD and intends to use this Programmatic Agreement (Agreement) to comply with Section 106 of the NHPA, and its implementing regulations; and

WHEREAS, the Corps, has consulted with the BLM and SHPO about this Undertaking and because the effects of the Undertaking on historic properties cannot be fully determined prior to the Undertaking's approval, chooses to conclude its assessment of the Undertaking's potential adverse effect on the NRHP listed VCHD and NHL and resolve any such effect through the implementation of this Agreement in accordance with 36 C.F.R. § 800.14(b)(1)(ii); and

WHEREAS, in accordance with 36 C.F.R. § 800.3(f)(1) the Corps has consulted with the Comstock Historic District Commission (CHDC) and the Storey County Commission as a Certified Local Government regarding the effects of the Undertaking on historic properties and pursuant to 36 C.F.R. § 800.14(b)(2)(i) has invited them to sign this Agreement as concurring parties, with the CHDC choosing not to participate in this Agreement and the Storey County Commission choosing to participate in this Agreement; and

WHEREAS, in accordance with 36 C.F.R. § 800.3(f)(2) the Corps has consulted with the Washoe Tribe of Nevada and California and the Yerington Paiute Tribe regarding the effects of the Undertaking on historic properties and pursuant to 36 C.F.R. § 800.14(b)(2)(i) has invited them to sign this Agreement as concurring parties, with both of these parties choosing not to participate in this Agreement; and

WHEREAS, in accordance with 36 C.F.R. § 800.10(c), the Corps has invited the National Park Service (NPS) to participate in the consultation, with the NPS choosing not to be a concurring party for this Agreement; and

WHEREAS, in accordance with 36 C.F.R. § 800.14(b)(3), the Corps has notified and invited the Advisory Council on Historic Preservation (ACHP) per 36 C.F.R. § 800.6(a)(1)(C) to participate in consultation to resolve potential adverse effects of the Undertaking and the ACHP has chosen not to participate in the consultation pursuant to 36 C.F.R. § 800.6(a)(1)(iii) (Appendix 2); and

WHEREAS, in accordance with 36 C.F.R. § 800.6(a)(4) and 36 C.F.R. § 800.14(b)(2)(ii), the Corps has notified the public of the Undertaking and provided an opportunity for members of the public to express their views on the proposed project and the Section 106 process as outlined in this Agreement;

NOW, THEREFORE, the Corps, the BLM and the SHPO agree that the Undertaking shall be administered in accordance with the following stipulations to satisfy the Corps' and the BLM's Section 106 responsibilities for all aspects of the Undertaking.

STIPULATIONS

The Corps shall ensure that the following measures are carried out:

Stipulation I

Identification of Undertaking and Area of Potential Effects Determination

A. Proposed Undertaking

The Storey County Public Works Department is proposing to (1) upgrade their existing wastewater treatment plant in Virginia City; (2) replace the Virginia City sewer collection system; (3) construct sewer lift stations in Gold Hill; and (4) replace/extend the Gold Hill sewer collection system. To do this, the County will need to lease BLM-managed land for the treatment plant expansion and will need additional BLM rights-of-way.

Activities covered by this Agreement include, but are not limited to, re-excavating previously disturbed sewer line trenches to expose and replace existing sewer lines, expanding (widen, deepen or both) previously excavated trenches to allow conformance with contemporary code requirements; expanding existing trenches to accommodate new sewer access points (manholes) spaced at approximately 400 foot intervals along existing lines; staging areas; and other ancillary facilities associated with the sewer line replacement.

B. Area of Potential Effects

The APE is defined to include the areas within which the Undertaking may directly or indirectly adversely affect the historic properties (defined as contributing elements to the VCHD and NHL or properties individually eligible for listing or listed in the NRHP). The APE is located entirely within the boundaries of the NRHP listed VCHD and NHL.

The APE is shown on a map in Appendix 1. Virginia City and Gold Hill are located in Storey County, Nevada, approximately 18 miles southeast of Reno and 12 miles north of Carson City in the western part of Nevada. The Undertaking locations includes portions of T. 16N, R. 21E, Sections 5 and 6, and T. 17N, R. 21E, Sections 20, 28, 29, 31, and 32 of the USGS Virginia City 7.5-minute quadrangle. The APE includes an area along Six Mile Canyon where the upgraded wastewater treatment plant would be constructed, the town of Virginia City where sewer lines would be replaced, and the town of Gold Hill where new force main sewer lines and sewer lift stations would be constructed and existing sewer lines would be replaced.

Stipulation II

Identification, Inventory, Sensitivity Document and Visual Effects Evaluation

A. Background Documentation

Prior to initiating the Class III Cultural Resources Inventory, the Corps will complete a records and literature search as specified in the current edition of the BLM Nevada Cultural Resource Inventory General Guidelines (Guidelines) and BLM IM No. 2004-020, *Guidance for Recording Cultural and Paleontological Resource Locations for the Bureau of Land Management using Global Positioning System Technology* (Guidance), to identify known resources. Records will be examined at the Carson City Field Office and the Nevada State Museum. In addition, General Land Office plats will be examined for potential cultural resources prior to initiation of the survey. The Corps will complete a thorough review of all relevant literature, including any archival data at local facilities (i.e., Nevada State Library and Archives) prior to this inventory.

The results of this background documentation will be used to define the area included in the Class III Cultural Resources Inventory and will be used as the foundation for the Sensitivity Document described under Stipulation II.C.

B. Class III Cultural Resources Inventory

Prior to beginning any surface-disturbing activities, the Corps will complete a Class III Cultural Resources Inventory of the APE. The survey of the APE will be completed using 30-meter transects following BLM Guidelines and Guidance for the areas. A total of approximately 30 acres (including the 12.28 acres needed for the wastewater treatment plant expansion and approximately 13 acres needed for staging areas, disposal areas and lift stations) will be surveyed with this methodology. All archaeological resources identified or relocated will be plotted on USGS 7.5-minute maps and recorded on the appropriate forms, as necessary. A letter report with the results of the inventory will be provided to the BLM. This report will follow BLM Guidelines and Guidance for Class III Inventory reporting format and will include a site location map for the entire project, as well as a table including sites and isolates previously recorded or identified during the current survey. All archeological resources will be recorded on the appropriate forms and will be evaluated for their eligibility for listing in the NRHP.

The Corps will make determinations of the effects that the project may have on the VCHD and NHL, including potential visual impacts and any newly discovered resources within the VCHD and NHL. The Corps will provide these effect determinations to the BLM and following consultation with the BLM, the determinations will be sent to the SHPO for review. The BLM and SHPO will have thirty (30) calendar days from their receipt to provide their comments on the Cultural Resources Inventory and any other Class III Cultural Resources Inventories that may be completed for the Undertaking.

C. Sensitivity Document for the APE

Prior to beginning any surface-disturbing activities, the Corps will complete a Sensitivity Document. The purpose of the Sensitivity Document is to avoid, to the extent possible, post-

review discoveries and the need for mitigation during construction by identifying those areas within the APE that are most likely to have surface or buried historic properties that retain qualities of integrity. Once those areas are identified, an evaluation of the Undertaking's effect on the VCHD and NHL will be made. That evaluation shall include a testing plan for the sensitive areas. The Corps will complete testing plans and data recovery to resolve adverse effects to the VCHD and NHL in advance of construction. The Sensitivity Document will need to be completed in its entirety in advance of any construction or ground-disturbing activities within the APE for the proposed project. For each of the activities in this stipulation, the results, information gathered, and effects determinations that the Corps has made will be forwarded to the BLM. Following consultation with the BLM, determinations will be sent to the SHPO for review. The BLM and SHPO will have thirty (30) calendar days from their receipt to provide their comments on the Sensitivity Document and support documents such as an effects evaluation, proposed testing plans, and proposed data recovery plans.

1. Existing Knowledge and Documentation

The Corps will compile existing knowledge from topographic maps, information on cuts and fill of the area, Sanborn maps, historic geographic/mineral archival information, knowledge of buried utilities (water, gas, and electrical), archival information, survey of knowledgeable individuals, and any other information relating to surface and subsurface features.

2. Testing Plan for Sensitive Areas

The Corps will design a sensitivity map and document with a testing plan in advance of construction, targeting areas within the APE for the project identified as sensitive for buried resources or areas retaining historic properties. The SHPO and BLM will have thirty (30) calendar days from their receipt to provide their comments on the sensitivity map and testing plan. All comments will be considered prior to the implementation of the testing plan.

3. Implementation of Testing Plan

The Corps will implement the testing plan after considering comments from BLM and SHPO. The testing plan may be implemented in phases consistent with construction phases for the project within the APE and consistent with Stipulation IV. Upon completion of the testing plan, the Corps will incorporate testing results into its determinations of NRHP eligibility for sites identified during the sensitivity documentation and site testing. Determinations of eligibility will be developed in consultation with BLM, and submitted to SHPO for comment and/or concurrence. Stipulation II.D will be followed for listed properties or sites determined as NRHP eligible, or contributing historic properties to the VCHD and NHL.

D. Effect Evaluation and Historic Property Treatment Plan

The Corps will determine effects to identified historic properties using the steps described in Stipulations II.A., II.B., and II.C. The Corps will apply the Criteria of Adverse Effect pursuant to 36 CFR § 800.5(a)(1) to identified historic properties that will be affected by the Undertaking. For those historic properties that the Corps has determined will be adversely affected by the Undertaking, a Historic Property Treatment Plan (HPTP) will be developed in accordance with Appendix 3.

1. Historic Property Treatment Plan

The Corps will recommend a data recovery plan based on the determination of adverse effect. The goal of the data recovery plan for those areas that will be affected by the proposed Undertaking is to document and recover values that makes sites, sensitive areas, or parts of the VCHD and NHL eligible for listing in the NRHP as contributing elements to the National Register listed district or as individually eligible historic properties. The SHPO and BLM will have thirty (30) calendar days from their receipt to provide their comments on the effect determinations and the data recovery plan in the HPTP. All comments will be considered before implementation of the HPTP.

2. Assessment of Visual Effects

The Corps will consider visual effects on the VCHD and NHL for all above-ground features of the Undertaking. In consultation with the CHDC and SHPO, the Corps and the County will produce a simulated graphical representation of the wastewater treatment plant within the existing landscape. Views of the existing landscape and proposed above-ground features will be produced and forwarded to the BLM and SHPO for their review. The Corps and the County will also consult with the CHDC and will incorporate suggestions from the CHDC on changes to the exterior design of structures that will minimize visual effects to the overall VCHD and NHL. The SHPO and BLM will have thirty (30) calendar days from their receipt to provide comments on the visual assessment. All comments on the determination of the visual APE and possible effects to the visual APE will be considered.

3. Implementation of HPTP Data Recovery Plan

The HPTP will be implemented to resolve adverse effects to historic properties identified through the plan. The Corps will implement the identified data recovery and other resolutions based on the recommendations of the HPTP and comments from the SHPO, ACHP, and BLM.

Stipulation III

Public and Native American Involvement

A. Public Involvement

The Corps will seek and consider the views of the public on the Undertaking through publicized meetings of the Storey County Commissioner's Meeting and the public review and comment period of the NEPA documentation, as appropriate. Any scheduled meetings will be advertised in the local newspaper and will reflect the nature and complexity of the Undertaking and its effect on historic properties. The Corps will ensure that any comments received during these meetings or the NEPA documentation comment period are considered and incorporated into the final deliverables, as appropriate.

B. Native American Involvement

The Corps will ensure that potentially interested Native Americans are provided an opportunity to comment on deliverables under Stipulation II, as appropriate. All reviewers shall have thirty (30) calendar days after receipt to provide comments to the Corps. The Corps will ensure that any comments received during this time period are considered and incorporated into the final deliverables, as appropriate. The Corps will consult with appropriate tribes to identify properties of traditional religious and cultural importance.

Stipulation IV

Notices to Proceed With Construction

Notices to Proceed (NTP) with the Undertaking may be issued by the County for individual construction segments, defined by the County in its construction Specifications. For those project activities occurring on land the BLM manages the County must consult with the Corps and the BLM in order to issue any NTPs. For those project activities occurring on all other land the County must consult with the Corps in order to issue any NTPs. NTPs may be issued by the County upon written verification from the Corps, or the BLM if the project activities occur on BLM-managed land, that any of the following conditions have been met:

- A. The Corps and SHPO have determined that there are no historic properties that may represent contributing elements to the VCHD and NHL within the APE for a particular construction segment; and
- B. The Corps and SHPO have determined, after implementation of the Sensitivity Document and testing plan, that there will be no effect to historic properties that may represent contributing elements to the VCHD and NHL within the APE for a particular construction segment; or
- C. The Corps, after consultation with the SHPO, BLM and interested parties, has implemented an adequate HPTP for the construction segment, and

1. The fieldwork phase of the data recovery or other resolution of effect option has been completed; and
 2. The Corps has accepted a summary of the fieldwork performed and a reporting schedule for that work; and
 3. The Corps has submitted the summary of the fieldwork to the SHPO. If the SHPO does not respond within two (2) working days from receipt of the summary of the fieldwork, the County can assume concurrence and issue the NTP.
- D. The County is proposing to phase the Undertaking by sequentially replacing segments of the sewer system. The County will ensure that its qualified historical archaeologist, with assistance by an architectural historian or historic architect, as appropriate, provide the Corps, the BLM, and the SHPO with a report detailing the nature and treatment of any historic resources encountered during County activities on each segment of the Undertaking within fifteen (15) days of the completion of work on that segment, unless otherwise negotiated.

Stipulation V
Construction Monitoring

The Corps, BLM, SHPO, or the County may at any time monitor any actions carried out pursuant to this Agreement.

For the sewer line replacement the County, subject to Corps and BLM approval, and in accordance with the Secretary's Standards, will engage the services of a qualified historic archeologist to monitor project construction activities and make determinations as stipulated in V.A, V.B, and V.C. If required under these stipulations, a monitor will be present during surface disturbing activities and will be empowered to stop undertaking-related activities as and where needed:

A. Replacing existing sewer lines or placing manholes within the disturbed area of an existing road or within previously disturbed trenches that are not within the disturbed area of an existing road

1. No specific identification or mitigation efforts are required where there is no new disturbance and replacement lines will be located entirely within previously disturbed trenches or in areas the Sensitivity Document has identified as not likely to contain intact deposits. In the event that potential historic properties are identified, Stipulation VII will be followed. Any historic artifacts recovered during these operations will be examined by a qualified historic archaeologist. The archaeologist will assist the Corps in determining appropriate treatment.
2. When construction activities will create new disturbance in areas identified in the Sensitivity Document as likely to contain intact deposits, the County must include provisions for the following:

- a. A qualified historic archaeologist present during excavation to identify and recover historic materials; and
- b. If necessary, the County will provide 24-hour on-site security for the discovery of historic materials prior to inspection by a qualified historic archaeologist.

B. Replacing existing sewer lines or placing manholes in previously undisturbed areas and/or for which new excavation is needed

When replacing existing sewer lines or placing manholes in previously undisturbed areas and in areas identified in the Sensitivity Document as likely to contain intact deposits, the County will engage the services of a qualified historic archaeologist to inventory, evaluate, and treat adverse effects on historic properties according to the standard procedures in this Agreement (Stipulations II.B., II.C.4., and II.C.5.).

Stipulation VI

Determinations of Effect

The Corps will apply the Criteria of Adverse Effect pursuant to 36 C.F.R. § 800.5(a)(1) to all historic properties within the APE that will be affected by the proposed Undertaking. Determinations of effect will be made in consultation with the SHPO, the BLM, and other interested parties.

Stipulation VII

Unanticipated Discoveries and Preparation of Historic Property Treatment Plans

The execution of Stipulation II is intended to avoid unanticipated effects of the Undertaking on historic properties by identifying areas likely containing intact deposits and implementing a testing and data recovery plan for those areas. However, if unanticipated discoveries are made during construction, the County, in consultation with the Corps, will follow the guidelines in Appendix 4. The Corps' determination on the site's NRHP eligibility will be forwarded to BLM and SHPO within two (2) working days. The BLM and the SHPO will have two (2) working days from their receipt to provide their comments on the eligibility determinations.

If the unanticipated discovery is determined to be an historic property, the County shall ensure that an HPTP is developed for the mitigation of effects on the property that will result from the Undertaking and any related uses and activities. HPTPs will conform to the guidelines in Appendix 3 and will be reviewed by the Corps, BLM and SHPO within two (2) working days from receipt. For any HPTP or Supplemental Treatment Plan (STP) not developed during construction the review timeframes in Stipulation VIII will be followed.

Stipulation VIII

Review of Historic Properties Treatment Plans and Supplemental Treatment Plans

The Corps shall ensure that draft HPTPs and STPs are submitted concurrently to the BLM, the SHPO, appropriate Native American groups, and individuals for review and comment. Reviewers shall have thirty (30) calendar days after receipt of the draft HPTP or STP to comment to the Corps. The Corps shall ensure that any comments received during this time period are taken into account and incorporated into the final HPTP or STP, as appropriate. Failure to comment within this time period shall not preclude the Corps from allowing the HPTP to be finalized and implemented. The Corps shall ensure that all reviewers are provided with copies of the final HPTP within five (5) working days after finalization.

Stipulation IX

Qualifications

All work described in this Agreement completed by the Corps, the BLM, or by the County, will be completed by, or will be under the direct supervision of, persons appropriately permitted by the BLM and by persons meeting the Professional Qualifications Standards of the Secretary of the Interior's Standards and Guidelines, as amended and annotated, for History, Archeology, Architectural History, Architecture, and Historic Architecture as appropriate and as defined in 36 CFR § 61.

Stipulation X

Time Frames

A. Inventory, Evaluation, Testing and Data Recovery

The Corps, BLM, and SHPO shall review and comment on the results of any cultural resources inventory, evaluation, testing, or data recovery plans submitted by the County within the time frames indicated in this Agreement.

B. Consultation

Unless previously noted with different timeframes, the Corps shall submit the results of all identification and evaluation efforts, including unanticipated discoveries, data recovery, testing plans, and treatment plans to the SHPO, BLM, concurring parties, and identified interested persons, as appropriate, for a thirty (30) day review and comment period.

If the SHPO, BLM, concurring parties, or identified interested persons, do not respond to the Corps within thirty (30) days of receipt of a submittal, the Corps shall presume concurrence with the Corps' findings and recommendations as detailed in the submittal.

C. Reports

A draft final report of all identification, evaluation, testing, data recovery, treatment, or other mitigating activities prepared by qualified personnel will be due to the Corps, the BLM, and the SHPO within three (3) months after the completion of the fieldwork associated with the activity,

unless otherwise negotiated. Comments on any draft reports by the BLM or the SHPO will be due to the Corps within thirty (30) calendar days from receipt. The Corps will incorporate comments into the final draft report(s), as appropriate, and submit to the BLM and SHPO within thirty (30) calendar days.

Stipulation XI
Annual Reporting

Each year following the execution of this Agreement, the Corps will provide all parties to this Agreement a summary report detailing work carried out pursuant to its terms, if any. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the Corps' efforts to carry out the terms of this Agreement.

Stipulation XII
Curation

A. Curation on BLM Managed Land

Curation of all records, photographs, maps, field notes, artifacts, and other materials collected or developed for any identification, evaluation, or treatment activities on BLM managed land remain federal property and will be curated in a facility approved by the BLM at the time the final report associated with that activity is accepted by the BLM and will be treated in accordance with 36 CFR § 79 *Curation of Federally-Owned and Administered Archeological Collections*.

B. Curation on County or Private Land

All materials found on County or private land remains the property of the land owner, and will be managed according to the owner's wishes, except that copies of all records, photographs, maps, field notes, and photographs of artifacts, and other materials collected will be retained by the Corps and provided to the SHPO and the County. Curation of materials found on County or private land will be treated in accordance with 36 CFR § 79 *Curation of Federally-Owned and Administered Archeological Collections* to the extent possible and as affordable to the County and private landowners. The Corps will assist with determinations on the treatment of materials as requested.

Stipulation XIII
Other Considerations

- A. As long as construction of the Undertaking commences, if any signatory or concurring party to this Agreement is unable to continue in their capacity as a signatory or concurring party, due to changes in land ownership, congressional authority or other circumstances, then this Agreement shall be amended and executed between the remaining signatories and concurring parties so that the responsibilities in the Agreement prescribed to that party are accounted for by another party.

- B. The County, in cooperation with the Corps, BLM and the SHPO, will ensure that all its personnel, and all the personnel of its contractors, are directed not to engage in the illegal collection of historic and prehistoric materials. Where applicable the County will cooperate with the BLM to ensure compliance with the Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470).
- C. The County will bear the expense of identification, evaluation, and treatment of the VCHD and NHL historic properties or contributing properties directly or indirectly affected by activities related to the Undertaking. Such costs may include, but not be limited to, pre-field planning, field work, post-fieldwork analysis, research and report preparation, interim and summary report preparation, and costs associated with the curation of project documentation and artifact collections.

Stipulation XIV
Non-Availability of Funds

This Agreement shall be subject to available funding, and nothing in this Agreement shall bind the Corps to expenditures in excess of funds authorized and appropriated for the purposes outlined in this Agreement. If the County or the Corps determines that funding is inadequate to carry out the terms of this Agreement, the Corps will notify all parties and consult further to amend or terminate the Agreement per Stipulations XVI and XVII.

Stipulation XV
Dispute Resolution

Should any Signatory to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, the Corps will consult with such party to resolve the objection. If the Corps determines that such objection cannot be resolved within thirty (30) days, the Corps will forward all documentation relevant to the dispute, including the Corps' proposed resolution, to the ACHP per 36 C.F.R. § 800.2(b)(2). Any comments provided by the ACHP within fifteen (15) working days of receiving adequate documentation will be taken into account by the Corps in reaching a final decision regarding the objection.

The Corps' responsibility to carry out all other actions subject to the terms of this Agreement that are not the subject of the objection remain unchanged.

Stipulation XVI
Amendments

This Agreement may be amended through consultation with, and written concurrence of all Signatories. The amendment will be effective on the date the amendment is signed by all of the Signatories.

Stipulation XVII
Termination

- A. This Agreement will terminate either when the Corps, the BLM and SHPO determine that the Undertaking has been completed or five (5) years from the date of its execution, whichever occurs first. Prior to the five year termination date, the BLM, the Corps, or both, may consult with the other parties to reconsider the terms of the Agreement and extend or amend it as appropriate.
- B. If any Signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to seek alternatives to termination. If within thirty (30) days (or another time period agreed to by all Signatories) an Agreement on an alternative to termination cannot be reached, any Signatory may terminate the Agreement upon written notification to the other Signatories.
- C. Should this Agreement be terminated, the Corps will either execute a new agreement pursuant to 36 C.F.R. § 800.6, or request the comments of the ACHP under 36 C.F.R. § 800.7(a).

Stipulation XVIII
Effective Date

This Agreement becomes effective on the date of the last signature below and will remain in effect until terminated, or the Undertaking is completed.

EXECUTION of this Agreement by the Corps, BLM and the SHPO, its transmittal to the ACHP, and subsequent implementation of its terms evidence that the Corps has afforded the ACHP an opportunity to comment on the Undertaking and its effects on historic properties, that the Corps, as the lead Federal agency, has taken into account the effects of the undertaking on historic properties, and that the Corps has satisfied its responsibilities under Section 106 of the National Historic Preservation Act and applicable implementing regulations for all aspects of the Undertaking.

SIGNATORIES TO THIS AGREEMENT:

U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT


Date 1 MAR 12
 William J. Leady, P.E., Colonel, U.S. Army Corps of Engineers, District Commander

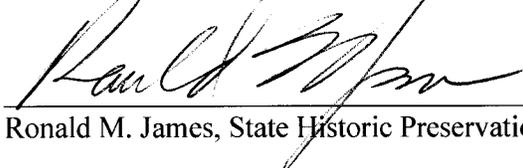
U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT



Date 3/9/12

Alan R. Bittner, Acting Field Manager, Sierra Front Field Office, Carson City District

NEVADA STATE HISTORIC PRESERVATION OFFICER



Date 3-12-12

Ronald M. James, State Historic Preservation Officer

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Date

John M. Fowler, Executive Director

STOREY COUNTY



Date 12 MAR 2012

Pat Whitten, County Manager

CONCURRING PARTIES:

NATIONAL PARK SERVICE

_____ Date
David Louter, Pacific West Region Chief of Cultural Resources Program

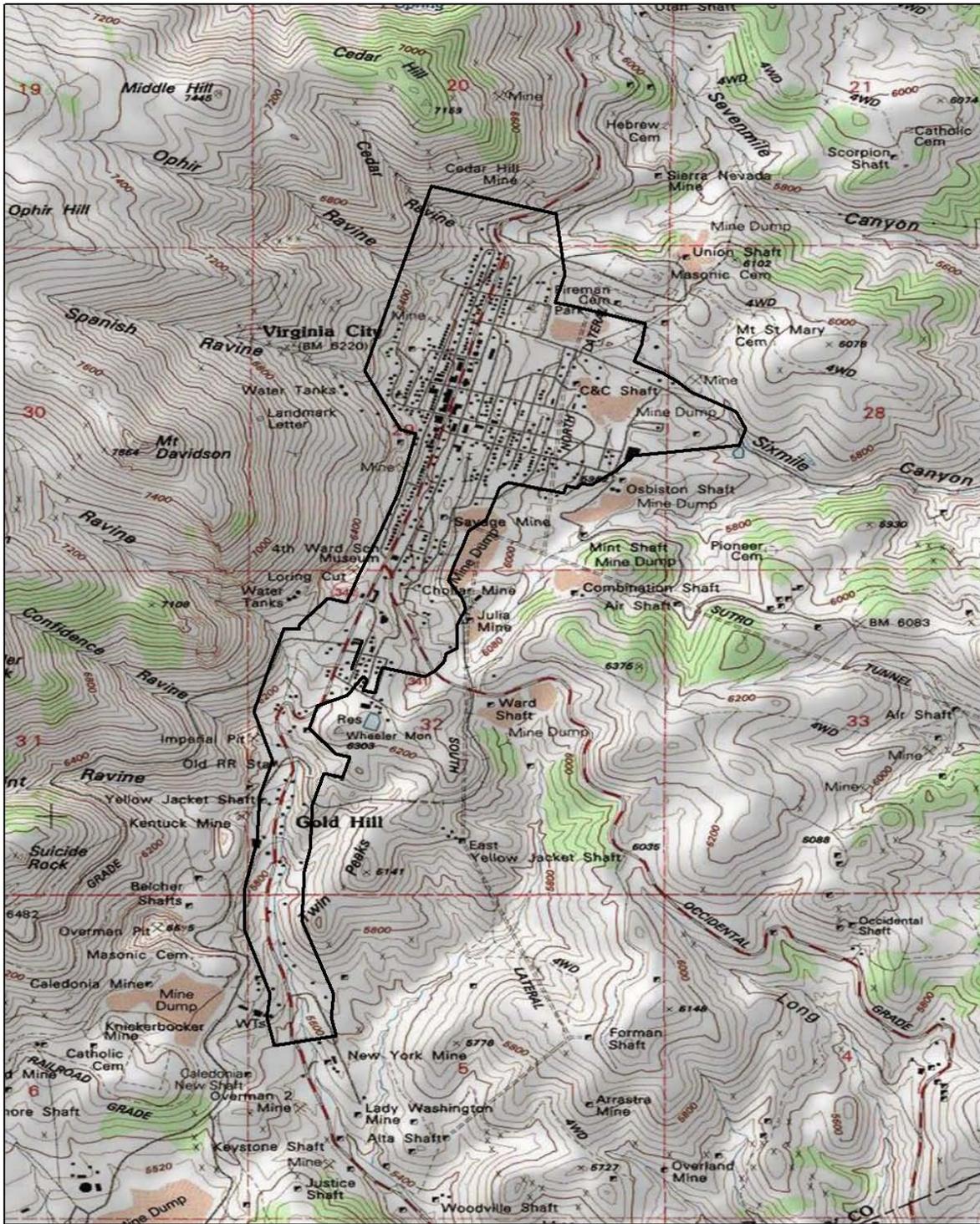
WASHOE TRIBE OF NEVADA AND CALIFORNIA

_____ Date
Wanda Batchelor, Chairwoman

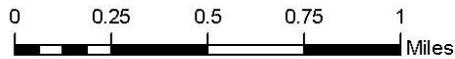
YERINGTON PAIUTE TRIBE

_____ Date
Linda Howard, Chairman

Appendix 1
Area of Potential Effects

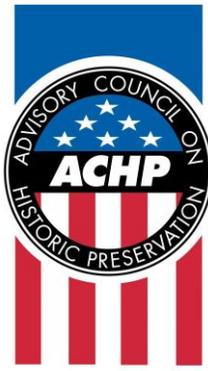


Virginia City Project Boundary
 Virginia City, Nevada (1994) 7.5" U.S.G.S. Quadrangle



Section 595 Virginia City and Gold Hill Wastewater System Improvements Project Area of Potential Effects (APE)

Appendix 2
Correspondence from the Advisory Council on Historic Preservation



Preserving America's Heritage

February 11, 2011

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

***Ref: Proposed Virginia City and Gold Hill Wastewater System Improvements Project
Storey County, California***

Dear Ms. Kirchner:

On January 31, 2011, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on the Virginia City Historic District, which is listed on the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and you determine that our participation is needed to conclude the consultation process, please notify us

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the California State Historic Preservation Office and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions, please contact Tom McCulloch at 202-606-8554, or via email at tmcculloch@achp.gov.

Sincerely,

Raymond V. Wallace
Historic Preservation Technician
Office of Federal Agency Programs

Appendix 3
Historic Property Treatment Plan Guidelines

Historic Property Treatment Plans (HPTP) shall address:

- The historic properties or portions of historic properties where effects will be assessed;
- Any data recovery or other options for resolution of adverse effect to historic properties or portions of historic properties that will be destroyed or altered without treatment;
- The qualifications of the researchers with principal responsibility for assessing effects and proposing and implementing the treatment;
- A research design that will contain the research questions and goals that are applicable to the project area as a whole and that will be addressed through data recovery, along with an explanation of their relevance and importance. These research questions and goals shall reflect the concepts of historic contexts as defined in National Register Bulletin 16. Historic contexts shall be prepared to provide the necessary background information to properly evaluate historical, engineering, and architectural properties;
- The field and analysis methods to be used, with an explanation of their relevance to the research questions;
- The methods to be used in data management and dissemination of data, including a schedule;
- The proposed disposition of recovered materials and records;
- Proposed methods for disseminating results of work to the interested public;
- Proposed methods by which appropriate Native American groups and individuals, local governments, and other interested persons will be kept informed about implementation of the HPTP and afforded an opportunity to comment;
- A proposed schedule for submission of progress reports to the Corps, SHPO, the BLM, and the ACHP;
- Methods and procedures for the recovery, analysis, treatment, and disposition of human remains, associated grave goods, and objects of cultural patrimony that reflect any concerns and/or conditions identified as a result of consultations between the Corps and any affected Native American Group (see Stipulation III.B.);
- The historic properties to be affected in the specified project segment and the nature of those effects;
- The research questions identified in the HPTP that will be appropriate for the specified project segment and that will be addressed through data recovery, along with any explanation of their relevance to the overall research goals as established in the HPTP;

- The specific field work and analytical strategies identified in the HPTP, as well as any other strategies that will be used in the specified project segment;
- A proposed schedule for submission of progress, summary, and other reports to the Corps and;
- Qualifications of consultants employed to undertake the implementation of the STP.

Avoidance of adverse effects on historic properties is the preferred treatment approach. The HPTP will discuss and justify the chosen approaches to the treatment of historic properties and those treatment options considered, but rejected. If preservation of part or all of any historic property is proposed, the treatment plan will include discussion of the following:

1. Description of the area or portions of the historic properties to be preserved in-place, and an explanation of why those areas or portions of sites were chosen;
2. Explanation of how the historic properties will be preserved in-place, including both legal and physical mechanism for such preservation;
3. A plan for monitoring and assessing the effectiveness of mechanisms to preserve the historic properties; and
4. A plan for minimizing or mitigating future adverse effects on the historic properties if preservation in-place mechanisms prove to be ineffective.

Appendix 4
Unanticipated Discoveries Plan

UNANTICIPATED DISCOVERY PLAN

Before any undertaking-related activities begin within the area of potential effect (APE), the County will provide the Corps, the BLM and SHPO with a list of, and schedule for, employees or authorized representatives who are empowered to halt all activities in a discovery situation. These employees will be responsible for notifying the Corps and BLM of any discoveries.

At least one of the Storey County Public Works Department employees or authorized representatives in this list must be present during all undertaking-related activities.

The County also must identify a qualified historical archaeologist who will be responsible for documenting and evaluating unanticipated cultural resources and human remains found during the project according to the stipulations of this Agreement.

The Corps will provide the County with a designated contact who will be responsible for dealing with discoveries in a timely manner.

1. DISCOVERY SITUATIONS

- A. On discovery of any artifact or other evidence, by anyone associated with the Undertaking, indicating the possibility of a buried or previously unidentified potential historic property, other than isolates:
 - 1. The County will immediately stop all surface disturbing activities within 30 feet of the location of the discovery;
 - 2. The County will notify the designated Corps contact and the County's archaeologist to evaluate the discovery;
 - 3. Storey County will secure the site of the discovery as needed until notified to proceed by the Corps. The County will provide 24-hour security of the site if necessary consistent with Stipulation V.A.2.b.

- B. After being notified by the County:
 - 1. The Corps will immediately notify the BLM and SHPO, and will consider the BLM's and SHPO's initial comments on the discovery;
 - 2. Within 2 working days of the discovery, the Corps will notify the County, BLM, SHPO, and identified consulting parties of their decision to either allow undertaking-related activities to proceed or to require mitigation.

- C. If, in consultation with SHPO and the BLM, the Corps determines that mitigation is appropriate, the Corps will develop a Historic Property Treatment Plan (HPTP) in accordance with Appendix 2 and will:

1. Solicit comments from the SHPO, BLM and identified consulting parties, as appropriate, to develop mitigating measures;
 2. Allow SHPO, BLM and identified consulting parties, as appropriate, the opportunity to comment on the extent of mitigation efforts;
 3. Consider any comments and identify the mitigation required within 5 working days of notification to the County of the need for mitigation;
 4. Notify the SHPO, BLM, the County, and identified consulting parties of its decision and ensure that mitigating actions are implemented.
- D. The Corps will ensure that reports of mitigation efforts for discovery situations, prepared by the County's archaeologist, are completed in a timely manner.
1. All reports will conform to the standard procedures in this Agreement (Stipulations II.B., II.C.4., and II.C.5.).
 2. Drafts of such reports will be submitted to the BLM and SHPO for review and comment.
 3. Final reports will be submitted to the BLM and SHPO and potential consulting parties for informational purposes.
- E. Undertaking-related activities within 30 feet of the discovery will not resume until the Corps notifies the County that mitigation is not required or that mitigation is complete and activities can resume.

2. HUMAN REMAINS

Any human remains encountered during the Undertaking will be given sensitive and respectful treatment in accordance with all relevant federal, state, and local laws. Within these constraints, the specific treatment of the remains will depend on the surface ownership where the human remains are discovered and if the remains are identified as Native American.

- A. If human remains, in any condition, are discovered under any circumstances:
1. The County will immediately stop all surface disturbing activities within 30 feet of the location of discovery and secure the site until it can be evaluated;
 2. The remains will be carefully covered and secured to protect them from any degradation, inappropriate observation, or inappropriate photography;
 3. If necessary, the County will provide 24-hour on-site security for the

discovery;

4. The County will conform to all appropriate Nevada statutes concerning possible unrecorded dead bodies, human remains, or crime scenes.
- B. The County will immediately notify local law enforcement authorities, the Corps, BLM and SHPO.
1. Local authorities, assisted by BLM law enforcement personnel, if necessary, will determine whether the remains are of an unrecorded dead body as defined by Nevada statutes (NRS 440.020) and whether the remains are part of a crime scene.
 - a. If the remains are part of a crime scene, local law enforcement shall assume jurisdiction and responsibility for the remains and discovery site.
 - b. The County will immediately notify SHPO, the Corps and BLM that local law enforcement personnel consider the discovery to be a crime scene. This notification will be followed by a written notification, as needed.
 - c. Work will not resume until authorized by the local authorities, the Corps and BLM.
 2. The BLM will assume responsibility for coordination with local authorities, SHPO, and appropriate tribes for discoveries on BLM managed land.
- C. If the discovery is not a crime scene, the County's archaeologist will inspect the remains, determine ancestry and context and report the findings to SHPO, the Corps and BLM and assist the Corps and BLM with appropriate disposition.
- D. If the remains are not Native American, and found on county or private land, the County will assume responsibility for their appropriate and respectful disposition.
- E. If the remains are not Native American, and found on BLM managed lands, BLM assume responsibility for their appropriate and respectful disposition.
- F. If the remains are identified as Native American and are located on private or County land, SHPO will notify the Nevada Indian Commission and the appropriate tribes and comply with the relevant portions of NRS 383.
1. The tribes may inspect the discovery, with permission of the landowner, and will have 48 hours to make a recommendation on the disposition of human remains and associated artifacts.

2. The County will submit a treatment plan consistent with tribal recommendations to SHPO. After the treatment plan is approved by SHPO, the tribes, and the landowner, the County will implement the treatment, which may include scientific studies or removal and reburial.
 3. After the treatment plan is completed and the report is approved:
 - a. All human remains and artifacts must be reinterred under the supervision of the tribes.
 - b. No Native American human remains or associated grave goods will be publicly exhibited or be displayed in any manner without the explicit written consent of the tribes.
 - c. No media will be directly or indirectly alerted to this discovery without the written consent of the tribes.
 4. Work may not resume until authorized by SHPO.
- G. If human remains are identified as Native American and are found on BLM managed land, BLM will comply with 43 CFR Part 10 and will assume responsibility for determinations of affiliation, treatment and repatriation in consultation with affiliated tribes.
1. Unless otherwise resolved, the County may resume all Undertaking related activities at the discovery site 30 calendar-days after the BLM has certified that it has received written notification of the discovery and such resumption is otherwise lawful.
 2. Therefore, all signatories and parties to agree to implement all reasonable measures to resolve any issues regarding affiliation and disposition of discovered remains within a 30-calendar day period beginning with BLM certification of notification.
- H. The County will be responsible for all expenses associated with the discovery including tribal site visits, excavation, analysis, reporting, and reinterment. The County will also be responsible for any reasonable costs incurred by tribal members to receive the remains, to perform ceremonies, or to reinter the remains.

Appendix C
Correspondence Regarding Hazardous, Toxic, and Radiological Waste



STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor
Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

December 7, 2010

Mark Lord
7Q10, Inc. formerly Huffman and Carpenter, Inc.
500 Damonte Ranch Parkway, Suite 929
Reno, NV 89521

Subject: Virginia City and Gold Hill Wastewater Improvement Project

Dear Mr. Lord:

The Carson River Mercury Site (CRMS) encompasses approximately a 75-mile stretch of the Carson River and floodplain beginning just east of Carson City, Nevada and extending downstream through the Lahontan Reservoir to the terminal wetlands in the Carson Desert. Mill sites, tailings piles, sediments and soil in Gold, Sixmile, Sevenmile and Daney Canyons have been impacted. In August of 1990 the U.S. Environmental Protection Agency (EPA) added the CRMS to the National Priorities List (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly referred to as Superfund. The contaminants of concern are mercury, arsenic and lead resulting from historic mining and milling practices of the "Comstock Lode." Your proposed waste water improvement project lies, all or partially, within the borders of the CRMS.

In December of 1994, EPA finalized a Human Health Risk Assessment and Remedial Investigation Report for the area. A residential clean-up level for total mercury of 80 mg/kg (ppm) was set for the site. This level is based on the risk and probability of direct ingestion of elemental mercury by a child as a result of long-term residence on the site. For soils that contain less than 80 mg/kg total mercury no mitigation is required. For non-residential areas of the CRMS site a clean-up level of 300 mg/kg (ppm) is used.

The goal of any mitigation of the elemental mercury hazard (greater than 80 mg/kg) is to preclude direct human exposure to contaminated soils. These findings were finalized in the EPA "Record of Decision" dated March 30, 1995.

The most likely location to encounter mercury contamination would be in areas near historic mill sites as well as deposition areas where streams or rivers could have eroded and redeposited contaminated mill site tailings material (e.g., river banks, river sediment, alluvial fans and irrigation ditches) which is typically located within or near the 100 year floodplain.

The Nevada Division of Environmental Protection (NDEP) will not require hazardous materials sampling provided the following recommendations and requirements are discussed in project documents and implemented during project construction:

1. Reference to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as well as the potential to encounter hazardous materials should be included in appropriate areas of the EA. Included with this letter are ArcGIS shapefiles of the current best estimate of the CRMS Superfund boundary in the Virginia City area showing high, moderate and

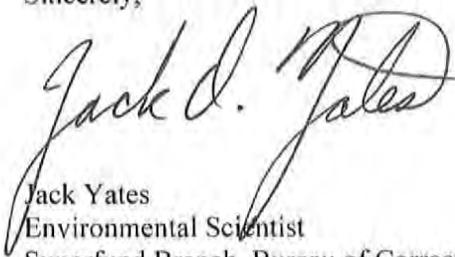


low risk areas. Additional care should be taken when conducting excavation in areas located in one of the increased risk zones.

2. No material excavated from the CRMS will be used for pipe bedding material or be placed in direct contact with the upgraded water line or be used as fill in any area outside the CRMS or in any area known to be free of contamination.
3. All workers which may be in a position to encounter hazardous material must be OSHA 1910.120 compliant.
4. No material that appears to contain mine waste will be left exposed at the surface of the ground without being covered by at least 2 feet of clean material.
5. If elemental mercury is encountered during the project, construction will be temporarily halted in that area and the NDEP will be contacted for guidance and disposal options.
6. Any temporary stockpiles of material that could contain mercury contamination shall be covered and protected from erosion and human contact by 2 feet of clean material.
7. All borrow material should be procured from areas known to be free of mercury contamination.
8. Suitable controls for management of hazardous materials and operating procedures which address prevention of possible re-contamination of clean areas by construction activities should be addressed for your site specific situation. Adequate dust control measures should be implemented during all phases of this project.
9. The final as-built report produced as part of this project will be submitted to the NDEP.

For additional information relating to your site or the CRMS in general, please visit: [The Carson River Mercury Superfund Website](#) or feel free to contact me.

Sincerely,



Jack Yates
Environmental Scientist
Superfund Branch, Bureau of Corrective Actions
Nevada Division of Environmental Protection
901 N. Stewart Street, Suite 4001, Carson City, NV 89701
Phone: (775) 687-9547

Appendix D
Mailing List

Mailing List

Ken Nelson

U.S. Bureau of Land Management
Carson City Field Office
5665 Morgan Mill Road
Carson City, NV 98701

Brian Buttazoni

U.S. Bureau of Land Management
Carson City Field Office
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Carson City, NV 98701

Barbara Allen

U.S. Department of Agriculture
Community Programs Specialist
1390 Curry St.
Carson City, NV 89703

U.S. Fish and Wildlife Service

Nevada Fish and Wildlife Office
1340 Financial Boulevard
Reno, NV 89502

Nevada Department of Transportation

1263 South Stewart Street
Carson City, NV 89712

NV Division of Environmental Protection

Bureau of Water Pollution Control
901 So. Stewart Street, Suite 4001
Carson City, NV 89701

NV Division of Environmental Protection

Bureau of Air Pollution Control
901 So. Stewart Street, Suite 4001
Carson City, NV 89701

Nevada Department of Wildlife

1100 Valley Road
Reno, NV 89512

Nevada State Clearinghouse

209 East Musser Street, Room 200
Carson City, NV 89701

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PO Box 526
Virginia City, NV 89440

Pat Whitten

Storey County Manager
PO Box 526
Virginia City, NV 89440

Storey County Public Library

P.O. Box 14
Virginia City, NV 89440

Nevada Appeal

Carson City News
580 Mallory Way
Carson City, NV 89701

Comstock Chronicle

66 N B Street
Virginia City, NV 89440

Washoe Tribe

919 Highway 395 South
Garnerville, NV 89410

Skip Canfield

Nevada Division of State Lands
901 S Stewart Street
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Nevada State Historic Preservation Office

100 North Stewart Street
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Reginald C. Lang III, P.E.

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