Initial Study

North San Juan Fire Suppression System

Nevada County, California

To:

Building Department	CalTrans
Department of Public Works – Engineering	AT&T
Department of Public Works – Transit	PG&E
Environmental Health Department	CA Fish and Wildlife
Nevada County Transportation Commission	Central Valley Water Quality Control
CEO	CA Native Plant Society Redbud
North San Juan Fire District	State Clearinghouse
Fire Protection Planner	OOTI Nature Preserve
Nevada County Historical Landmarks Commission	Commissioner Mike Mastrodonato, District IV
Sierra Nevada Group/Sierra Club	Supervisor Susan Hoek, District IV
Rural Defense League of NSJ	Jeff Thorsby, Board of Supervisors
San Juan Ridge Taxpayers Association	Tyler Barrington, Principal Planner
Northern Sierra Air Quality Management District	*County Counsel
	**receives full report, others receive NOA only with report available online*

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Zoning Districts: Public Right-of-Way and Residential Agricultural (RA-1.5), Residential Agricultural with Rural Center Combining District (RA-1.5-RC), Public with Rural Center Combining District (P-RC), and Neighborhood Commercial with Rural Renter Combining District (C1-RC)

General Plan Designations: Public Right-of-Way and Residential (RES), Public (PUB), and Neighborhood Commercial (NC)

Project Location: Western Nevada County, within and adjacent to the North San Juan Rural Center, including State Highway 49 south of Sweetland Road to Oak Tree Drive; portions of Flume Street, Reservoir Street, Cherokee Street, and Oak Tree Road. See *Figure 1*.

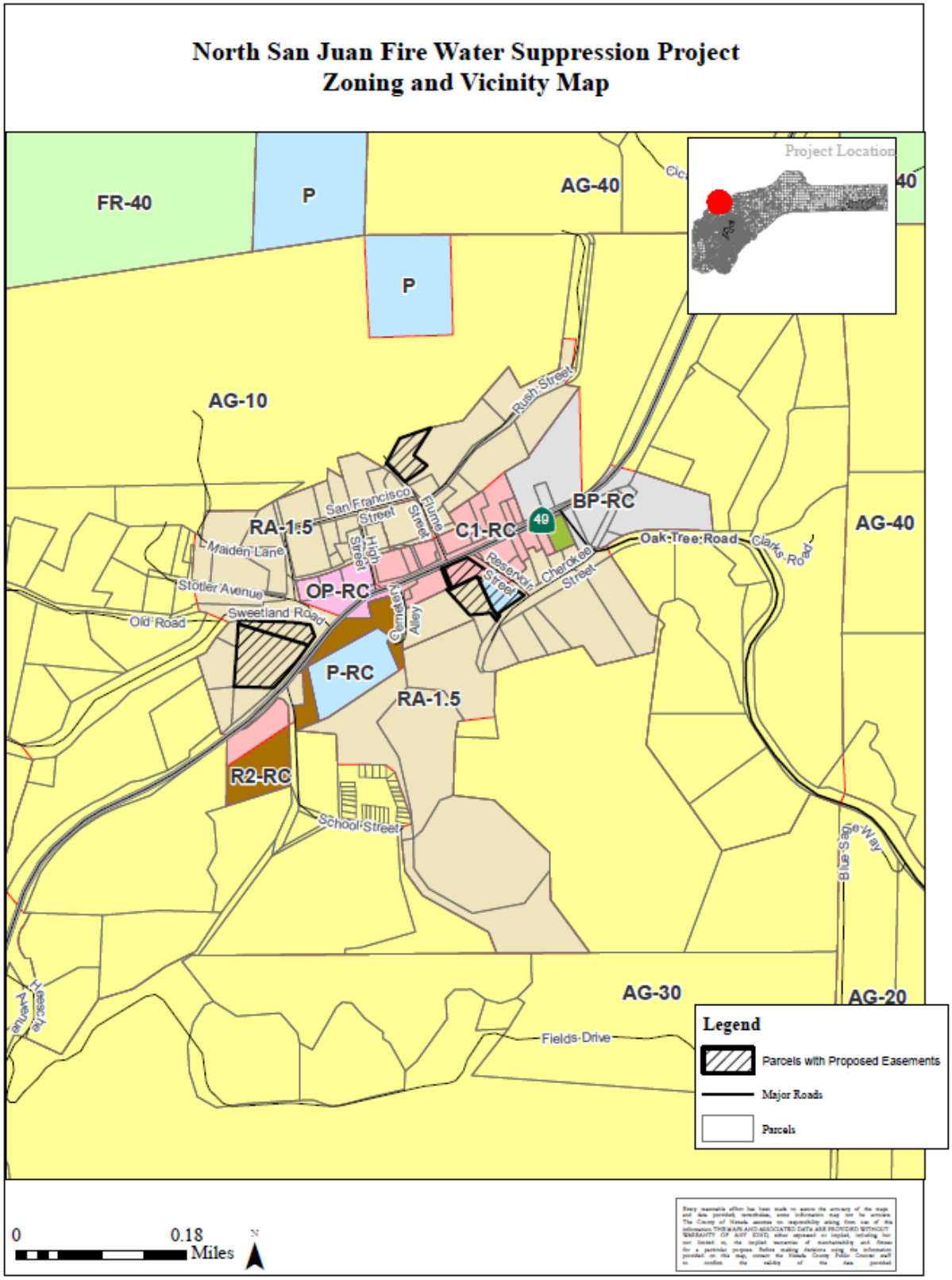

Figure 1 – Zoning and Vicinity Map

Project Description

The proposed project is to construct water system facilities for fire suppression in the North San Juan community. The system will include a 330,000-gallon steel water storage tank, a well with pump and related controls, a well building, approximately 3,850 feet of 12-inch pipeline, 500 feet of 6-inch fire hydrant lateral pipeline, 12-inch butterfly valves, 6-inch gate valves, and fire hydrants. The locations of the water tank, well, pipeline, and hydrants is indicated in *Figure 2*. Utility and construction easements will be obtained across private property, with most of the work being installed in the public right-of-way. The purpose of the project is to increase the ability to fight fires in the commercial core of NSJ and the immediately surrounding areas, in a region where there is otherwise little or no break in the wildland/structural interface, potentially allowing fire to spread rapidly through brush, grass, and timber.

The service area is the downtown core of the community of North San Juan. North San Juan currently has no public water service and no public fire suppression service, other than that provided by the North San Juan Fire Protection District's (NSJFPD) personnel and vehicles. The proposed water storage tank and hydrant system would be an entirely new service in the community of North San Juan. The North San Juan Fire Suppression System will provide benefit to approximately 135 parcels that are within 1,000 feet of one or more new fire hydrants. Parcels include the commercially zoned areas along the Highway 49 corridor, along with single family residences, the NSJ Community Center, Gold Country Mobile Home Park, the NSJFPD fire station, and the post office building (*see Figure 2*).

The tank will initially be filled either by the proposed well or by water brought by commercial water trucks. The proposed well is expected to be able to complete the initial fill the water storage tank, adequately maintain tank levels to account for evaporation, minor pipeline leakage, and periodic fire district uses such as filling water tender trucks.

Construction Considerations

The Contract Documents and Construction Plans would require the contractor to conduct the work to ensure the least possible obstruction to traffic and inconvenience to the public and residents in the vicinity of the construction activities, and to ensure the protection of public safety and property. The contractor would restore all existing landscaping and hardscape (concrete or AC walkways, paths, or other surface features) disturbed by the work activities to the preconstruction conditions acceptable to the Nevada County Department of Public Works and the appropriate local jurisdiction or landowner. If necessary, landscape restoration would be performed under direction of a licensed landscaping subcontractor.

Protected Resources

No oak (Quercus species) trees with a diameter breast height (dbh) of thirty-six (36) inches or greater, or hardwood tree groves with thirty-three percent or greater canopy closure would be permitted to be removed for the construction of the pipeline. Though not anticipated, the removal of any trees and vegetation would be replanted with California-native and/or drought-tolerant plant species in compliance with the Nevada County Land Use and Development Code and other appropriate local and state regulations. Special precautions would be taken if the limited excavation activities encounter roots of mature trees in the work area.

There are wetland areas within 100 feet of the proposed project, thus requiring a Management Plan to be obtained pursuant to the Nevada County Land Use and Development Code. The Management Plan includes mitigation measures to ensure there is no significant impact to the wetlands. The Management Plan mitigation measures are also included here.

Temporary Construction Easements

Where deemed necessary, the project will obtain a right of entry permit and temporary construction easements for construction activities. The right of entry permit and the temporary construction easements would be for the portion of a property owner's land that is shown on the construction plans. Temporary construction easements would be located outside of sensitive resource and riparian areas.

Staging Areas, Parking, and Storage

Staging areas, parking, and storage would be located outside of sensitive resource and riparian areas. All stockpiled materials, parking areas, and equipment storage areas must be approved by the Planning Department and any other appropriate agencies, and would be located to avoid interference with private property and to prevent hazards to the public.

Cleanup and Restoration

The contractor would, at all times, keep property on which work is in progress and the adjacent property free from the accumulation of waste material or rubbish caused by employees or by the work. All surplus material would be removed from the site daily. Upon completion of the construction, the contractor would remove all temporary structures, rubbish, and waste materials resulting from their operation.

Roadway pavement, vegetation, or other hardscape areas that are damaged or removed because of contractor's operations would be restored or replaced to as nearly the original condition and location as is reasonably possible and encroachment permits of the appropriate local jurisdiction.

Figure 2 - Site Plan

Surrounding Land Uses:

Most of the project area is within the 23+-acre North San Juan Rural Center, shown in *Figure 3* below. Land uses along the State Highway 49 portion of the project corridor consist of low-density commercial development, including a gas station/mini-market, restaurants and a bar, small retail stores, as well as low-density residential uses, a post office, and vacant lots. Uses along the roads that access the highway consist of low-density residential, a community center, church, a fire station, and vacant lots. Within the North San Juan Rural Center boundaries, several parcels are vacant, undeveloped with structures and or/unimproved with utilities.

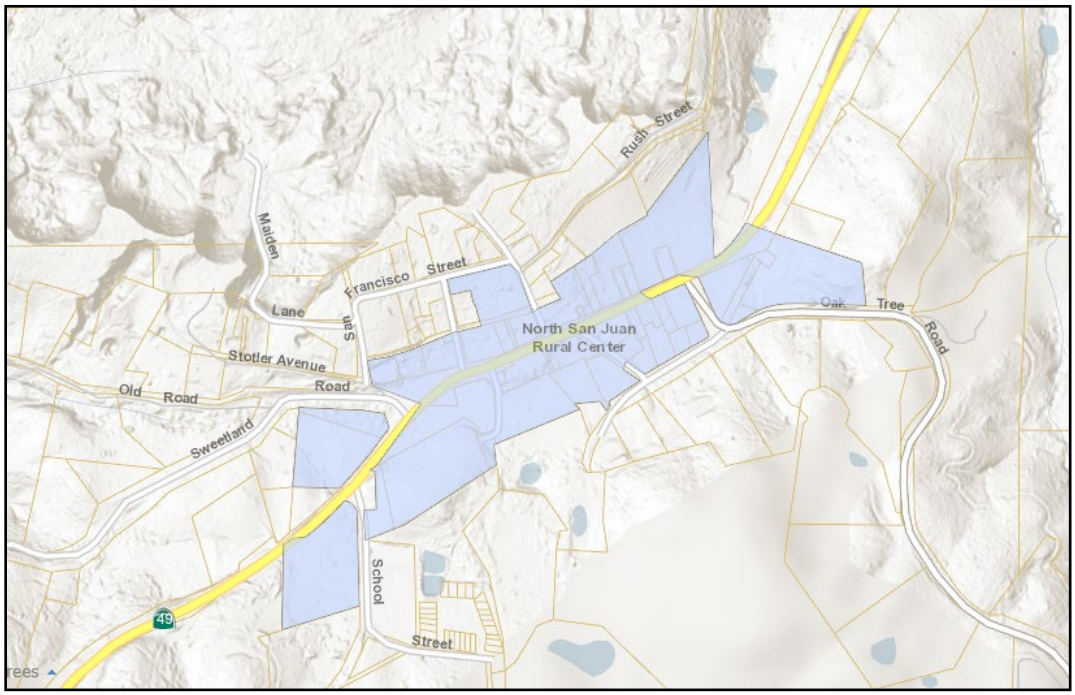

Figure 3 - North San Juan Rural Center

A portion of the proposed pipeline and water storage tank site would be located outside of the North San Juan Rural Center on a parcel zoned Residential-Agricultural (RA-1.5). Surrounding zoning districts include: Residential (RA) (1.5-acre minimum parcel size), Medium Density Residential (R2), Neighborhood Commercial (C1), Public (P), Business Park (BP), Office & Professional (OP), and Agricultural (AG-10 and AG-30) as shown in *Figure 1*.

Other Permits that May be Necessary:

1. Road Encroachment Permits – Nevada County Department of Public Works and California Department of Transportation (CalTrans)
2. Grading and/or Building Permits – Nevada County Building Department
3. Northern Sierra Air Quality Management District
4. Well Permit – Nevada County Department of Environmental Health
5. Construction Stormwater General Permit – California State Water Resources Control Board

Relationship to Other Projects:

There are no directly related development projects known to this project. However, this project was identified in the North San Juan Rural Center Area Plan (NSJRCAP), adopted in April 2010. The NSJRCAP discusses the limited availability of groundwater wells and storage tanks within the unincorporated town of North San Juan, and identifies the need for a pressurized fireflow system within the low- and medium-density Rural Center, necessary to serve future residential, commercial and industrial land uses. The proposed project aligns with NSJRCAP Goal 4.3, Goal 4.4, and Policy 4.8, which encourages fire suppression capabilities for the Rural Center by seeking and prioritizing grant opportunities to fund a community emergency water system.

Consultation with Native American Tribes:
Native American tribes traditionally and culturally affiliated with the project area were notified of the project and invited to consultation. No consultation was requested.

Summary of Impacts and Proposed Mitigation Measures

Environmental Factors Potentially Affected

All of the following environmental factors have been considered. Those environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation" as indicated by the checklist on the following pages.

✓	1. Aesthetics		2. Agricultural and Forestry Resources	✓	3. Air Quality
✓	4. Biological Resources	✓	5. Cultural Resources		6. Energy
✓	7. Geology and Soils		8. Green House Gas Emissions	✓	9. Hazards and Hazardous Materials
✓	10. Hydrology and Water Quality	✓	11. Land Use and Planning		12. Mineral Resources
✓	13. Noise		14. Population and Housing	✓	15. Public Services
✓	16. Recreation	✓	17. Transportation	✓	18. Tribal Cultural Resources
✓	19. Utilities and Service Systems	✓	20. Wildfire	✓	21. Mandatory Findings of Significance

Recommended Mitigation Measures

The following measures shall be implemented, and where appropriate, included as a note on construction plans as outlined in each.

1. **AESTHETICS**: To preserve the existing aesthetic quality and character of the project area, the following mitigation measures have been included:

   Mitigation Measure 1A: Landmark and Heritage Trees and Groves. To minimize removal of existing trees and protect existing trees during construction, no landmark trees, landmark groves, or heritage trees or groves, as defined in Land Use and Development Code Section L-II 4.3.15, will be removed with this project. All trees near the construction zone, or affected by construction, shall be protected throughout all phases of construction, including orange protective fencing around the driplines of the trees and no construction materials or equipment may be stored or staged within the driplines. Details of tree

protection measures shall be shown on the construction plans and installed and maintained during all phases of construction.
***Timing**: Prior to building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 1B: Water Storage Tank Painted. Any portion of the water storage tank and related equipment visible from public and/or private roads shall be painted and finished in non-glare materials and colors that complement the natural setting, which shall be shown on the construction drawings. A line-of-site diagram from all public and/or private roads within the project corridor is required at the time of construction drawing submittal, and all visible portions of the tank and equipment shall be identified on the drawings. Prior to permit finalization, the Planning Department will complete a site inspection to ensure the tank is appropriately concealed.
***Timing**: Prior to building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

3. **AIR QUALITY**: To offset potentially adverse air quality impacts associated with the construction activities and operation of the project, the following mitigation measures shall be required:

Mitigation Measure 3A: Implement dust control measures. Prior to the approval of any Grading or Building Permits, to reduce short-term construction impacts, all future development permits shall comply with the following standards to the satisfaction of the Northern Sierra Air Quality Management District, which shall be noted on all grading plans and shall be included in project bidding documents:

1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction.

2. All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

4. All land clearing, grading, earth moving, or excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 miles per hour.

5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.

7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance. There must be a minimum of six (6) inches of freeboard in the bed of the transport vehicle.

8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to remove excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

Timing: *Prior to issuance of Grading Permits, Building Permits or Improvement Plans*
Reporting: *Approval of the grading permit and improvement plans*
Responsible Agency: *Northern Sierra Air Quality Management District*

Mitigation Measure 3B: Minimize Construction Equipment Idling. In order to reduce emissions from construction equipment, the applicant shall include the following standard note on all Grading Plans, Site Plans or Improvement Plans: "During construction, the contractor shall minimize idling time to a maximum of 5 minutes for all diesel-powered equipment. Signs shall be posted in the designated queuing areas of the construction site to remind off-road equipment operators that idling is limited to a maximum of 5 minutes. Idling of construction-related equipment and construction related vehicles is not recommended within 1,000 feet of any sensitive receptor."
Timing: *Prior to issuance of Grading Permits, Building Permits or Improvement Plans*
Reporting: *Planning Department approval of Grading Permits or Building Permits / Complaint driven*
Responsible Agencies: *Planning and Building Department, Code Compliance Division*

Mitigation Measure 3C: Use Alternative Methods to Open Burning for Vegetation Disposal. The following note shall be included on all grading or improvement plans: "Open burning of site-cleared vegetation is prohibited. Among suitable alternatives are chipping, grinding, hauling to an approved disposal site, cutting for firewood, and conversion to biomass fuel."
Timing: *Prior to issuance of Grading Permits, Building Permits or Improvement Plans and during construction*
Reporting: *Approval of the grading permit and improvement plans*
Responsible Agency: *Northern Sierra Air Quality Management District*

Mitigation Measure 3D: Comply with the Asbestos Airborne Toxic Control Measure (ACTM) for construction. If serpentine, ultramafic rock, or naturally occurring asbestos is discovered during construction or grading, the Northern Sierra Air Quality Management District shall be notified no later than the following business day and specific requirements contained in Section 93105 of Title 17 of the California Code of Regulations shall be strictly complied with. This measure shall be included as a note on all grading and improvement plans.

Timing: *Prior to issuance of the grading permits and improvement plans and during grading activity*
Reporting: *Approval of the grading permit and improvement plans*
Responsible Agency: *Northern Sierra Air Quality Management District*

4. **BIOLOGICAL RESOURCES:** To reduce potential impacts to sensitive biological resources, the following mitigation shall be noted on the project construction plans for implementation during project construction:

   Mitigation Measure 4A: Vegetation Restoration. The construction plans shall identify any and all vegetation proposed for removal, and shall include the plant or tree species and tree diameter at breast height (dbh). Removed vegetation shall be replaced with like-for-like vegetation except invasive species shall be replaced with native vegetation where feasible, in order to restore habitat diversity, and shall be shown on the construction plans. Pursuant to Mitigation Measure 1A, no landmark or heritage trees or groves are to be removed. Prior to permit finalization, the Planning Department will complete a site inspection to ensure any disturbed native vegetation is restored, subject to review and approval by the Zoning Administrator.
   Timing: *Prior to grading/building permit issuance and during construction*
   Reporting: *Agency approval of permits or plans*
   Responsible Agency: *Planning Department*

   Mitigation Measure 4B: Wetlands Management Plan Best Management Practices. The following Best Management Practices (BMPs) will appear on all site plans prior to building/grading permit issuance in order to protect waters of the U.S., including wetlands, water quality and aquatic life, and to avoid introduction of invasive weeds. The following Best Management Practices (BMPs) shall be implemented during and after construction:

   1. For all areas of work:
      a. Prior to construction adjacent to the wetlands, install weed-free fiber roles (wattles) to prevent erosion and deposition of surface soils into the wetlands. Wattles are available for sale at most of the local hardware stores in Grass Valley and Nevada City. More information on wattles can be found at the following website: https://www.acfenvironmental.com/products/perimeter-and-sediment-control/perimeter-control-tubes/wattles/
      b. Avoid doing any excavation or grading within 3 days of a significant rainfall event greater than 1-inch total daily rainfall.
      c. The contractor shall exercise every reasonable precaution to protect the wetland at the project site from pollution with sediments, fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the wetland and shall instead be collected and removed from the site.

d. Spread weed-free straw on all disturbed soils near all construction sites to prevent the erosion of surface soils. No invasive, non-native grasses such as orchard grass, canary reed grass, or velvet grass shall be used for erosion control, as these species are known to invade wetlands.
e. Provide Copies of Mitigation Measures to Contractors. To ensure the proper and timely implementation of all mitigation measures contained in this report, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and any other permit requirements to the contractors prior to grading and construction.

2. Specific BMPs for Wetland Features
    a. NSJ Fire Meadow
        i. Install wattles adjacent to the existing fence line between the meadow and trench.
        ii. Scatter weed-free straw at a depth of 2-4 inches over the ditch site after soil is replaced in all areas within 50 feet of the wetland.
    b. Oak Tree Road Ditch
        i. No trenching shall occur on the south side of Oak Tree Road (i.e., the same side of the road as the ditch) to minimize potential impacts to the roadside ditch.
        ii. Install wattles along the roadside ditch.
    c. Highway 49 Swale
        i. Install orange construction fencing between disturbance areas and the wetland.
        ii. Scatter weed-free straw at a depth of 2-4-inches over the ditch site after soil is replaced on all bare soil within 50 feet of the wetland.
    d. Community Center Ephemeral Drainage
        i. Install wattles between the ditch and the downslope willow-filled drainage adjacent to the NSJ Community center.
        ii. Scatter weed-free straw at a depth of 2-4 inches over the ditch site after soil is replaced for the entire length along Highway 49 from the new hydrant to the Sweetland Road intersection.

Timing: *Prior to building permit issuance and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency: *Planning Department*

Mitigation Measure 4C: Conduct a Nesting Bird Survey. If project construction, including tree removal, occurs during the nesting season (February 1 to September 30), a nesting bird study, conducted by a qualified biologist, shall be completed no more than 10-days prior to construction to determine if any native birds are nesting on or near the site (including a 250-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer will be determined and flagged by the qualified biologist based on species, location and planned construction activity. The avoidance buffer would be in

place until the chicks have fledged and the nests are no longer active. If removal does not occur within 10-days of the survey, an additional survey is required prior to tree removal.
Timing: *Prior to building permit issuance and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency: *Planning Department*

Mitigation Measure 4D: Avoid disorienting foraging bats or other nocturnal species. Construction hours are limited to between 7:00 am and 7:00 pm (daylight hours) to avoid disorienting foraging bats or nocturnal species such as owls that forage at night. This measure shall be noted on all construction plans.
Timing*: Prior to building permit issuance and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

5. **CULTURAL RESOURCES**: To offset potentially adverse cultural or historical resources impacts associated with the construction activities, the following mitigation measure shall be required:

Mitigation Measure 5A. Cultural awareness training. A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribe values.
Timing*: Prior to the issuance of building/grading permits and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 5B. Halt work and contact the appropriate agencies if human remains or cultural materials are discovered during project construction. All equipment operators and employees involved in any form of ground disturbance at any phase of project improvements shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Nevada County Planning Department, United Auburn Indian Community of the Auburn Rancheria, and any other interested and affected tribe shall be

contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for each phase of this project.
Timing: *Prior to the issuance of building/grading permits and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 5C. Preservation of historic buildings. A licensed professional, such as a civil engineer, will submit with the grading and/or building permit submittal a plan showing the location of the proposed pipeline trenching to be no closer to historical structures and resources as required to preserve the integrity of historical structures.
Timing: *Prior to the issuance of building/grading permits and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency*: Planning Department*

7. **GEOLOGY AND SOILS:** To mitigate potentially adverse soils impacts from project grading and construction, both on-and off-site, the following mitigation measures, in addition to **Mitigation Measures 5A and 5B**, shall be required:

   Mitigation Measure 7A: **No Construction within Steep Slopes.** The construction plans shall identify any areas within the project corridor with a steep equal to or greater than thirty (30) percent, and shall show no construction work within steep slope areas.
   Timing*: Prior to grading/building permit issuance*
   Reporting*: Agency approval of permits or plans*
   Responsible Agency*: Planning Department*

   Mitigation Measure 7B: Erosion Control Measures. To ensure adequate protection of water quality during and after project activities, the project manager shall provide labor, materials, and equipment to maintain and protect exposed soil from wind and water erosion in the following manner:
   1. Grading plans shall include the time of year for construction activities. Project activities planned between October 15 and May 15 requires that the Building Official or his/her authorized agent to determine whether project soil conditions are adequate to accommodate proposed activities. Soils must not be oversaturated and the contractor must implement erosion control measures at the end of each construction day.
   2. If a storm is forecast in the area, exposed fill shall be sloped to drain and compacted to facilitate runoff.
   3. Existing surface drainage facilities shall be kept free of soil and debris during project activities.

4. Temporary or constructed water conveyance channels shall be kept free of sediment or debris at all times.
5. Temporary erosion control shall be applied within and adjacent to the boundary of the project activity zone if ground disturbance will occur.
6. Siltation control shall be provided during project activities if ground disturbance will occur.
7. Disturbed slopes shall be stabilized and seeded (with native species wherever practicable) as soon as possible following grading to allow vegetation to become established prior to the rainy season.
8. Surface water drainage shall not be directed over cut and/or fill slope faces.
9. All runoff shall be intercepted and directed into energy dissipaters or vegetated swales constructed at discharge points to reduce velocity and prevent erosion and shall be discharged into natural drainage courses that are capable of receiving the expected storm water flows.

Timing: *Prior to issuance of grading or improvement permits.*
Reporting: *Approval of permits or plans*
Responsible Agency: *Building / Planning Departments*

Mitigation Measure 7C: **Geotechnical Engineering Report.** To ensure that the proposed water storage tank does not pose a geologic threat due to its proximity to historic hydraulic mining areas, all of the recommendations described in the Geotechnical Engineering Report dated June 29, 2023 or newer by NV5 shall be incorporated into all grading/building permit documents. The recommendations apply to grading, clearing and grubbing, soil preparation for fill placement, fill placement, fill slope grading, erosion controls, underground utility trenches, construction dewatering, surface water drainage, grading plan review and construction monitoring, seismic design criteria, and pier design criteria.
Timing*: Prior to grading/building permit issuance*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Building / Planning Department*

Mitigation Measure 7D: **Stockpiling of Organic Topsoil.** To ensure that there is no substantial loss of topsoil, all organic topsoil removed as part of clearing and grubbing, excavation, or grading shall be stockpiled onsite, covered appropriately to avoid erosion and dust, and used in areas to revegetated upon complete of utility installation. This note shall appear on all building/grading plans.
Timing*: Prior to grading/building permit issuance*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Building / Planning Department*

Mitigation Measure 7E: **Potentially Expansive Soil.** The following note must appear on all grading and building permits related to this project: If fine grained, potentially expansive soil, as determined by a qualified geotechnical engineer, is encountered during grading, it shall be mixed with granular soil, or overexcavated and stockpiled for removal from the project site or for later use in landscape areas. A typical mixing ratio is about 4 parts

granular soil to 1-part expansive soil. The actual mixed ratio shall be evaluated by a qualified geotechnical engineer at the time of construction.
***Timing**: Prior to grading/building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Building / Planning Department*

9. **HAZARDS AND HAZARDOUS MATERIALS**: Potential impacts to the implementation of emergency response plans will be mitigated by **Mitigation Measure 17A**.

10. **HYDROLOGY AND WATER QUALITY**: The proposed project would result in construction activities and may require the preparation of a Stormwater Pollution Prevention Plan (SWPPP). In addition to **Mitigation Measures 4A and 4B**, the following water quality mitigation measures or best management practices (BMPs) are also identified:

    Mitigation Measure 10A: Obtain Appropriate Stormwater Permit and Implement an Erosion and Sediment Control Plan. Project road improvements and future land disturbance must obtain an appropriate stormwater permit and implement an erosion and sediment control plan for projects including land disturbance of one acre or more. The following note must be included on grading/building permits: Prior to issuance of grading permits or improvement plans for all projects that could result in disturbance of an acre or more of land, the construction and grading permits shall comply with the applicable General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit) regulations. Grading plans shall include verification that a Construction General Permit, issued by the State Water Resources Board, has been issued for this project. Said permits or plans shall incorporate, at a minimum, the following erosion and sediment control measures:

    1. Best Management Practices (BMPs) for temporary erosion control shall be implemented during construction to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. This SWPPP includes the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control.
    2. All portions of the project, including on-site grading and excavation for the access road, shall be included in the State-mandated Storm Water Pollution Prevention Plan (SWPPP) and are subject to the required monitored and reporting.

    ***Timing:** Prior to building/grading permit issuance*
    ***Reporting:** Approval of permits or plans recordation*
    ***Responsible Agency:** Planning Department and Building Department*

    Mitigation Measure 10B: Implement the following BMPs to minimize construction related impacts to water quality. The following BMPs shall be incorporated into all Contract Documents and Construction Plans for the project and implemented by the contractor to protect water quality:

1. Construction crews shall be instructed in preventing and minimizing water pollution on the job.
2. Interim erosion control measures may be needed and shall be installed during construction to assure adequate erosion control facilities are in place at all times.
3. Straw or rice mulch may be used if needed with a tackifier.
4. All earth moving or excavation activities shall cease when winds exceed 20 mph.
5. Haul trucks shall be covered with tarpaulins or other effective covers at all times.
6. Use broom and shovels when possible to maintain a clean site. Use of a hose is not recommended. Introducing water as a cleanup method adds to water pollution.
7. Designate a concrete washout area, as needed; to avoid wash water from concrete tools or trucks from entering storm drain systems. Maintain washout area and dispose of concrete waste on a regular basis.
8. Establish a vehicle storage, maintenance, and refueling area, as needed, to minimize the spread of oil, gas, and engine fluids. Use of oil pans under stationary vehicles is strongly recommended.
9. Dust control measures shall conform to **Mitigation Measure 3C:** Control dust during project construction.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 10C: The following BMPs shall be implemented to ensure that SWPPP measures are maintained and prevent water pollution.

1. At no time shall heavy equipment operate in flowing water or saturated soils.
2. Be prepared for rain and have the necessary materials onsite before the rainy season.
3. Insure all SWPPP measures are in place prior to a 30% chance of rain. Install silt-fencing, straw bales, sediment catch basins, straw or coir logs or rolls, or other sediment barriers to keep erodible soils and other pollutants from entering the storm drain system and adjacent drainages
4. Before the first heavy rains and prior to removing the barriers, soil or other sediments or debris that accumulates behind the barriers shall be removed and transported away for disposal.
5. During long periods of rain and high intensity rainfall, SWPPP measures may become clogged. Extreme care should be taken to clean SWPPP measures to reduce fugitive discharge and potential flooding.
6. Protect drain inlets from receiving polluted storm water through the use of filters such as fabrics, gravel bags or straw wattles.
7. Inspect sediment control devices after each storm and remove sediment.
8. Inspect all BMPs before and after each storm event. Maintain BMPs on regular basis and replace as necessary, through the entire course of construction.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*

***Responsible Agency**: Planning Department*

Mitigation Measure 10D: Additional Best Management Practices (BMPs). To protect water quality in watercourses adjacent to the project corridor, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to:

1. Disruption of soils and/or vegetation near the unnamed watercourses that bisect the project alignment shall be minimized to limit potential erosion and sedimentation; disturbed areas shalt be graded to minimize surface erosion and siltation; bare soils shall be immediately stabilized and revegetated. Seeded areas shall be covered with broadcast straw or mulch. If straw is used for mulch or for erosion control, utilize only certified weed-free straw to minimize the risk of introduction of noxious weeds, such as yellow star thistle.
2. The contractor shall exercise every reasonable precaution to protect the unnamed watercourses and tributary drainages from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and wash water shall be prevented from discharging into or near these resources and shall be collected and removed from construction areas. No slash or other natural debris shall be placed in or adjacent to the unnamed watercourses and adjacent drainages. All construction debris and associated materials and litter shall be removed from the work site immediately upon completion.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 10E: Provide copies of BMPs. Copies of the project's Mitigation Monitoring and Reporting Program and all BMPs shall be supplied to the Contractor(s) and their workers to assure compliance with mitigation measures during construction.
***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 10F: Groundwater Monitoring. The following mitigation measures shall be included in the project operations plan and submitted for review by the Planning Department prior to building or well permit issuance:

1. Establishing Baseline Water Depth & Quality
    a. At least one year prior to commencing fill of the water storage tank from the well, landowners of parcels within the estimated zone of influence (345-foot radius from the well location) will be notified that their property may be affected by the use of the well to fill the water storage tank. They will be invited to participate in well monitoring for both water depth and water quality. At minimum, the three nearest wells responding to the invitation to participate in monitoring will be selected. Failure to obtain permission to monitor three or more private domestic wells will result in termination of

using the well to initially fill the tank. Copies of the notification letters and a list of the selected monitoring wells will be submitted to the Planning Department prior to issuance of building permits.

b. The Department of Public Works will provide continuous monitoring data from November to April of the year prior to fill operations to estimate the monthly low groundwater levels for the three or more wells in the estimated zone of influence selected to participate in the monitoring program.
c. Water quality samples will be assessed for all participating wells per degradation of beneficial uses designated by the Sacramento River Basin Plan, Section 2.2 prior to initial well operations. Results will be submitted to the Planning Department prior to building permit issuance.
d. Use of the well during any months for which there is no baseline data shall not be allowed.

2. Groundwater Monitoring During Initial Fill
    a. Monitored domestic wells will be sampled for water quality after the tank has been filled approximately 165,000 gallons, and 247,500 gallons. If the water quality in the monitored wells was of beneficial use prior to commencing tank filling operations and falls below the beneficial uses at any point, the use of the well for filling the tank will be terminated and a commercial water supplier will be used for the remaining fill of the tank.
    b. If the monthly low groundwater levels are decreased by more than one foot in any monitoring well then well fill operations will be paused until the groundwater recovers to above the monthly lower range, or the well fill operations will be terminated and a contract with a commercial water supplier will be required for the remaining fill. Prior to issuance of building permits, an executed contract with a water supplier to fill the water storage tank in the case the well operation is terminated shall be provided to the Planning Department.
    c. Prior to final building permit inspection, final groundwater level and water quality evaluation will take place to verify groundwater supplies have not been reduced and water quality has not been degraded beyond beneficial uses. If the well operation was terminated, then truck tags from the commercial water supplier that filled the water storage tank will also be provided to the Planning Department.
3. Well Use Limitations
    a. If the well is used for the initial fill of the water tank, the use of the well will be limited to 8 hours per day during the aquifer recharge season which is November through April and only for months which have an established baseline water level from the prior year's monitoring efforts.
    b. If the groundwater monitoring performed during initial tank fill resulted in termination of the operation at any point because of significant impacts to groundwater resources, the tank will be refilled by a commercial water supplier following fire suppression events. If the tank was successfully filled without causing significant impacts to groundwater, then the well may be

used to refill the tank following fire suppression events under the following conditions:

i. During the aquifer recharge period of November through April
ii. Filling the tank no more than 8 hours per day, and
iii. Tank filling operations must cease if the operator receives notice from any property owner within the zone of influence that their well is being impacted by the refilling of the tank.

Sustainable operation practices will be finalized following the initial tank fill and will be included in the system's Operations Plan provided to the Planning Department prior to final building permit inspection.

***Timing**: Prior to issuance of building permits, during initial tank fill, and prior to final building permit inspection*
***Reporting**: Agency approval of permits*
***Responsible Agency**: Planning Department*

11. **LAND USE AND PLANNING**: To ensure compliance with applicable land use plans, policies, and regulations, the following mitigation measure, in addition to **Mitigation Measures 4B and 17A**, shall be included:

Mitigation Measure 11A: Secure and Record Easements. Copies of recorded easements allowing development and maintenance of pipeline and associated improvements on private parcels shall be submitted to the Planning Department prior to issuance of grading/building permits.
***Timing**: Prior to grading/building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

13. **NOISE:** Because the proposed project would result in activities that would generate temporary construction noise, the following Mitigation Measures are recommended:

Mitigation Measure 13A: Construction Noise Minimization Measures. These measures will be part of all Contract Documents and Construction Plans, implemented by the contractor and monitored by the County, as appropriate.

a. Construction activities will limited to the working hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday or as otherwise stipulated by local encroachment permits.
b. All internal combustion engine driven equipment will be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment, as per the manufacturer.
c. Stationary noise-generating equipment will be located as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.

d. Quiet air compressors and other stationary noise generating equipment will be utilized as applicable to project construction activities and when feasible.
e. Avoid the use of loud sound signals in favor of light warnings except those required by safety laws for the protection of personnel.
f. If noise complaints are received, identify the source, evaluate and implement available abatement measures, and notify the complainant(s) of the results. Complaints shall be provided to the County.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

15. **PUBLIC SERVICES:** Potential impacts to Public Services will be mitigated by **Mitigation Measure 17A**.

16. **RECREATION:** To ensure there is no significant impact to access to recreation amenities in the vicinity of the project, **Mitigation Measure 17A** is required.

17. **TRANSPORTATION**: To offset potentially adverse traffic and circulation impacts associated with project construction, the following mitigation measures shall be required:

Mitigation Measure 17A: Traffic Control Plan. To help minimize potential traffic effects within the project corridor, a traffic control plan shall be developed and implemented during construction and installation of the water supply and hydrant system. These measures shall be includes on all Contract Documents and Construction Plans and enforced by the contractor and Nevada County Public Works Department as appropriate. Prior to building permit issuance, submit in writing a complete Traffic Control Plan (TCP) to the County. The TCP shall include all streets and locations where work is to be performed and shall indicate each stage of work, closure dates for streets and section of closure (if necessary and allowed by local jurisdiction), signage, flaggers, and any other pertinent information. The TCP shall be reviewed and approved by the County Department of Public Works before the construction commences. Specific components of the TCP include the following:

1. Prior to construction, the contractor shall submit for approval the proposed route(s) for all construction traffic along the project corridor. This shall include designated routes, if any, shown on the Contract Drawings. Upon approval, the contractor shall strictly adhere to that route(s) only, unless written permission is obtained to the change the route(s).
2. At least one (1) lane of traffic will be kept open at all times unless prior approval is provided by the County and any affected agency. No roads will be blocked or made inaccessible, due to the contractor's work, without prior written approval of the County and affected agencies. Fire lanes will not be blocked or obstructed at any time.
3. Work shall be accomplished to provide access to all side streets and properties whenever possible. If access to adjacent property cannot be provided, all property owners with restricted access shall be notified at least 24 hours in advance and

adequate nearby parking shall be provided and maintained until direct access can be resolved. The contractor shall provide for pedestrian traffic through work areas at all times.

4. Traffic control, signs, and barricades shall conform to current standards. Lighted barricades shall be used when required. Special attention shall be provided to excavation and open trenching.
5. Three (3) flaggers shall be used for any one-way traffic flow situation (two (2) working and one (1) as standby), and shall be furnished by the contractor. The flaggers shall be properly equipped and trained.
6. Where flaggers are not visible to each other, additional flaggers shall be added as required by the County, or the contractor shall use radios.
7. All holes, trenches, etc., in pavement areas will be covered with 1-inch (minimum thickness) steel plates, shimmed with temporary asphalt on edges, by 5:00 p.m. or at the end of each work day. As an option to the contractor, the holes, trenches, etc., can be backfilled and all areas within pavement areas have temporary asphalt toppings. The temporary asphalt will be regularly maintained. All areas will be completely restored within ten (10) working days after the work has been completed at the location.
8. Contractor shall display “No Parking” signs in areas of work at least 72 hours in advance. The signs shall state the day(s), date(s), and time of construction work. “No Parking” signs shall be placed in full view along the side of the road and no more than 100 feet apart.
9. Contractor shall furnish, erect, maintain, and remove all necessary construction signs and barricades for the full term of the construction activities.
10. Closure of streets can only occur between 8:00 a.m. and 5:00 p.m. if allowed by the County. At least 48 hours before a street closure, the contractor must receive permission from the County and appropriate signage that meets their specifications. Approval to close a street is valid for one (1) day only.
11. In the event a street is closed, the contractor will notify the Police/Sherriff and Fire Protection District and provide appropriate signage that meets County specifications the day of the closure.
12. Lane closures may be made for work periods only. At the end of each work period, all components of the traffic control system shall be removed from the traveled way, shoulder, and auxiliary lanes.
13. If emergency access is required during a temporary lane closure, workers will be present and available to take appropriate steps to immediately alter operations to provide access.
14. The contractor will replace all striping and pavement marking disturbed by construction to preconstruction configuration.
15. The contractor will restore all existing hardscape (pavement concrete or walkways, driveways, or other surface features disturbed by the contractor’s work) to the preconstruction conditions acceptable to the County.

16. Prior to commencement of work, notify all affected agencies, including the Planning Department, Public Works Department, Police Department/Sheriff's Office, Fire Protection District, Caltrans, U.S Postal Service, Disposal Services, and local ambulance/emergency response services.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Department of Public Works*

18. **TRIBAL CULTURAL RESOURCES**: Potential impacts to tribal cultural resources will be mitigated with **Mitigation Measures 5A and 5B.**

19. **UTILITIES AND SERVICE SYSTEMS**: To offset potentially adverse impacts related to construction waste, this mitigation measure, in addition to **Mitigation Measure 10F,** shall be required:

Mitigation Measure 19A: Appropriately Dispose of Vegetative and Toxic Waste. Neither stumps nor industrial toxic waste (petroleum and other chemical products) are accepted at the North San Juan Sanitation Transfer Station and if encountered, shall be properly disposed of in compliance with existing regulations and facilities.
***Timing:** Prior to building/grading permit issuance and during construction*
***Reporting:** Agency approval of permits or plans*
***Responsible Agency:** Nevada County Planning Department*

21. **MANDATORY FINDINGS OF SIGNIFICANCE**: To offset potentially adverse impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, recreation, transportation, tribal cultural resources, and utilities and service systems, see **Mitigation Measures 1A, 1B, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 5A, 5B, 5C, 7A, 7B, 7C, 7D, 7E, 10A, 10B, 10C, 10D, 10E, 10F, 11A, 13A, 17A, and 19A.**

Mitigation and Monitoring Matrix

MEASURE #	MONITORING AUTHORITY	IMPLEMENTATION TIMING
1A	Planning Department	Prior to building permit issuance and during construction
1B	Planning Department	Prior to building permit issuance
3A	Northern Sierra Air Quality Management District	Prior to issuance of Grading Permits, Building Permits or Improvement Plans
3B	Planning and Building Department, Code Compliance Division	Prior to issuance of Grading Permits, Building Permits or Improvement Plans
3C	Northern Sierra Air Quality Management District	Prior to issuance of Grading Permits, Building Permits or Improvement Plans and during construction

3D	Northern Sierra Air Quality Management District	Prior to issuance of the grading permits and improvement plans and during grading activity
4A	Planning Department	Prior to grading/building permit issuance and during construction
4B	Planning Department	Prior to building permit issuance and during construction
4C	Planning Department	Prior to building permit issuance and during construction
4D	Planning Department	Prior to building permit issuance and during construction
5A	Planning Department	Prior to the issuance of building/grading permits and during construction
5B	Planning Department	Prior to the issuance of building/grading permits and during construction
5C	Planning Department	Prior to the issuance of building/grading permits and during construction
7A	Planning Department	Prior to grading/building permit issuance
7B	Building / Planning Departments	Prior to issuance of grading or improvement permits
7C	Building / Planning Departments	Prior to grading/building permit issuance
7D	Building / Planning Departments	Prior to grading/building permit issuance
7E	Building / Planning Departments	Prior to grading/building permit issuance
10A	Planning Department and Building Department	Prior to building/grading permit issuance
10B	Planning Department	Prior to grading/building permit issuance and during construction
10C	Planning Department	Prior to grading/building permit issuance and during construction
10D	Planning Department	Prior to grading/building permit issuance and during construction
10E	Planning Department	Prior to grading/building permit issuance and during construction
10F	Planning Department	Prior to issuance of building permits, during initial tank fill, and prior to final building permit inspection

11A	Planning Department	Prior to grading/building permit issuance
13A	Planning Department	Prior to grading/building permit issuance and during construction
17A	Department of Public Works	Prior to grading/building permit issuance and during construction
19A	Planning Department	Prior to building/grading permit issuance and during construction

Initial Study and Checklist

Introduction

This checklist is to be completed for all projects that are not exempt from environmental review under the California Environmental Quality Act (CEQA). CEQA requires a brief explanation for answers to the Appendix G: Environmental Checklist except "No Impact" responses that are adequately supported by noted information sources. Answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. This Initial Study uses the following terms to describe the level of significance of adverse impacts. These terms are defined as follows.

- **No Impact**: An impact that would result in no adverse changes to the environment.
- **Less than Significant Impact**: An impact that is potentially adverse but does not exceed the thresholds of significance as identified in the impact discussions. Less than significant impacts do not require mitigation.
- **Less than Significant with Mitigation**: An environmental effect that may cause a substantial adverse change in the environment without mitigation, but which is reduced to a level that is less than significant with mitigation identified in the Initial Study.
- **Potentially Significant Impact**: An environmental effect that may cause a substantial adverse change in the environment; either additional information is needed regarding the extent of the impact to make the significance determination, or the impact would or could cause a substantial adverse change in the environment. A finding of a potentially significant impact would result in the determination to prepare an EIR.

1. Aesthetics

Existing Setting: The topography in the area is primarily flat with gentle slopes within the larger context of the Sierra Nevada foothills. The project corridor is largely developed with commercial, residential, and agricultural land uses with forested areas at the perimeter. There are historic commercial and institutional buildings in the vicinity along with residential and agricultural uses in a rural setting. Highway 49 is an eligible but not officially designated state scenic highway. While there are historic buildings in the project vicinity, there are no designated historic districts.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Have a substantial adverse effect on a scenic vista?			✓		A
b. Substantially damage scenic resources, including but not limited to, trees, rock		✓			A, 25

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
outcroppings, and historic buildings within a state scenic highway?					
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?		✓			A
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓		A

Impact Discussion:

1a The proposed fire suppression system, including the water pipeline and fire hydrants would be installed within existing roadways, shoulders, rights-of-way and/or along abutting private property within the unincorporated North San Juan Rural Center and residential community. Implementation of the project would not eliminate access to scenic views or alter the landscapes surrounding the project site. The proposed water pipeline would be constructed underground primarily within or abutting existing roadways that are disturbed and used for vehicular traffic and parking. The water storage tank is located on private property on Flume Street. Therefore, public and/or private views would not be adversely affected by the installation of the pipeline. Immediately adjacent to Highway 49 is dense commercial development and beyond the commercial land uses, the land is dense with vegetation, including trees and shrubs, which greatly obstruct views to the proposed storage tank location. Therefore, project impact to visual character of the site are considered ***less than significant.***

1b The proposed project would not obstruct views, as the pipeline is below grade and the water storage tank facilities would be located approximately 700 feet from State Highway 49, which is developed with commercial and residential development. State Highway 49 is "eligible" but not officially designated as a State Scenic Highway. No scenic views would be obstructed as a result of the project. Along the project corridor, there are few trees within the proposed construction areas. However, to ensure any landmark oak trees or groves that may be within the project corridor are protected**, Mitigation Measure 1A** has been included which requires orange protective fencing around trees and prohibits staging or storing of construction materials and equipment within the driplines of the trees. Therefore, the impact is ***less than significant with mitigation.***

1c The project proposes a large water storage tank about 30 feet tall by 51 feet in diameter. During construction activities, residents would have views of construction equipment and vehicles, pipe storage area, temporary barriers and excavated dirt. However, upon completion, the underground project alignment will be unnoticeable because it will be located underground within or abutting an existing disturbed roadway used for automobile traffic. The hydrants will also be visible from public view and must remain so for safety reasons. However, they are a typical piece of utility infrastructure commonly found in public rights-of-way. Though there will be some tree coverage for the tank, it is likely that a portion of the water storage tank could be visible from public view since it will be approximately 30 feet tall and adjacent to a church. **Mitigation Measure 1B** has been included to ensure any visible portion of the storage tank would be painted to match the natural setting and be camouflaged as much as possible. Therefore, this impact would be ***less than significant with mitigation.***

1d There are no light sources or reflective surfaces proposed with the installation of the water pipeline or hydrant system. However, light fixtures may be proposed at the location of the water storage tank site. Nevada County Land Use and Development Code Section L-II 4.2.8 ensures any proposed light fixtures would comply with Nevada County lighting standards, such as being fully shielded and downcast to prevent light trespass onto neighboring parcels. These lighting standards are required and typically included as conditions or approval for all projects involving lighting. Therefore, the impact would be ***less than significant.***

Mitigation Measures: To preserve the existing aesthetic quality and character of the project area, the following mitigation measures have been included:

Mitigation Measure 1A: Landmark and Heritage Trees and Groves. To minimize removal of existing trees and protect existing trees during construction, no landmark trees, landmark groves, or heritage trees or groves, as defined in Land Use and Development Code Section L-II 4.3.15, will be removed with this project. All trees near the construction zone, or affected by construction, shall be protected throughout all phases of construction, including orange protective fencing around the driplines of the trees and no construction materials or equipment may be stored or staged within the driplines. Details of tree protection measures shall be shown on the construction plans and installed and maintained during all phases of construction.
Timing*: Prior to building permit issuance and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 1B: Water Storage Tank Painted. Any portion of the water storage tank and related equipment visible from public and/or private roads shall be painted and finished in non-glare materials and colors that complement the natural setting, which shall be shown on the construction drawings. A line-of-site diagram from all public and/or private roads within the project corridor is required at the time of construction drawing submittal, and all visible portions of the tank and equipment shall be identified on the

drawings. Prior to permit finalization, the Planning Department will complete a site inspection to ensure the tank is appropriately concealed.
***Timing**: Prior to building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

2. Agricultural and Forestry Resources

Existing Setting: The proposed project corridor and surrounding parcels are within the Urban and Built-Up Land with pockets within the Grazing Land. The parcels in the project corridor are primarily developed with residential and commercial uses with some small-scale agricultural uses. No Prime, Unique, or Statewide Important Farmlands or Farmlands of Local Importance, exist in this area, nor is the project area a part of a Williamson Act Contract. The nearest Forest zoning designated parcels are about 0.3 miles from the proposed project area, and the nearest Timber Production Zone designated parcels are about three (3) miles from the proposed project area.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓	A,L,7
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓	A
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓	A,18
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓	A
e. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓	A,L

Impact Discussion:

2a-e The proposed fire suppression system, including the water pipeline and fire hydrants, would be installed within the existing roadways, shoulders, rights-of-way and/or along abutting private property within the unincorporated North San Juan Rural Center and residential

community. The project corridor extends approximately 0.4 miles along State Highway 49 and other county-maintained and private roads.

The proposed project corridor and surrounding parcels are within the Urban and Built-Up Land with pockets within the Grazing Land. These designations are not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, nor does the project corridor interfere with Williamson Act lands. Similarly, the project site and surrounding parcels are not forestland and therefore no conversion from forestland to non-forest use is anticipated.

The proposed fire suppression water pipeline and fire hydrant distribution system, water storage tank, and groundwater well are within the developed North San Juan Rural Center, as well as other adjacent developed parcels, and would not directly or indirectly impact agricultural uses on or off-site. Therefore, the project is anticipated to have ***no impact*** to Farmland, Forest, or Williamson Act lands.

Mitigation Measures: None required.

3. Air Quality

Existing Setting: Nevada County is located in the Mountain Counties Air Basin (MCAB). The MCAB includes the central and northern Sierra Nevada mountain range with elevations ranging from several hundred feet in the foothills to over 6,000 feet above mean sea level along the Sierra Crest. The MCAB generally experiences warm, dry summers and wet winters. Ambient air quality in the air basin is generally determined by climatological conditions, the topography of the air basin, and the type and amount of pollutants emitted. The Northern Sierra Air Quality Management District has responsibility for controlling air pollution emissions including “criteria air pollutants” and “toxic air pollutants” from direct sources (such as factories) and indirect sources (such as land-use projects) to improve air quality within Nevada County. To do so, the District adopts rules, regulations, policies, and programs to manage the air pollutant emissions from various sources, and also must enforce certain statewide and federal rules, regulations and laws.

The Federal Clean Air Act of 1971 established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect plants, forests, crops, and materials. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed “criteria” pollutants. California has adopted its own ambient air quality standards (CAAQS). Criteria air pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. CAAQS include the NAAQS pollutants, in addition to visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. A nonattainment area is an area where a criteria air pollutant’s concentration is above either the federal and/or state ambient air quality standards. Depending on the level of severity, a classification will be designated to a nonattainment area. Failure of a state to reach attainment of the NAAQS by the target date can trigger penalties, including withholding of federal highway funds. Table 1 shows the current attainment/nonattainment status for the federal and state air quality standards in Nevada County.

Nevada County has two federally recognized air monitoring sites: The Litton Building in Grass Valley (fine particulate matter, also called PM2.5, and ozone) and the fire station in downtown Truckee (PM2.5 only). For eight-hour average ozone concentrations, Nevada County is serious nonattainment for both the 2008 and 2015 state and federal ozone standards of 75 and 70 parts per billion, respectively (Table 1). Unlike other pollutants, ozone is not typically released directly into the atmosphere from any sources. Ozone is created by the interaction of Nitrogen Oxides and Reactive Organic Gases (also known as Volatile Organic Compounds) in the presence of sunlight, especially when the temperature is high. The major sources of Nitrogen Oxides and Reactive Organic Gases, known as ozone precursors, are combustion sources such as factories, automobiles and evaporation of solvents and fuels. Ozone is mainly a summertime problem, with the highest concentrations generally observed in July and August, when the days are longest, especially in the late afternoon and evening hours. Ozone is considered by the California Air Resources Board to be overwhelmingly transported to Nevada County from the Sacramento Metropolitan area and, to a lesser extent, the San Francisco Bay Area. This recognition of overwhelming transport relieves Nevada County of CAAQS-related requirements, including the development of CAAQS attainment plan with a "no-net-increase" permitting program or an "all feasible measures" demonstration.

For particulate matter, ambient air quality standards have been established for both PM10 and PM2.5. California has standards for average PM10 concentrations over 24-hour periods and over the course of an entire year, which are 50 and 20 $\mu g/m^3$, respectively. (The notation "$\mu g/m^3$" means micrograms of pollutant per cubic meter of ambient air.) For PM2.5, California only has a standard for average PM2.5 concentrations over a year, set at 12 $\mu g/m^3$, with no 24-hour-average standard. Nevada County is in compliance with all of the federal particulate matter standards, but like most California counties it is out of compliance with the state PM10 standards. Particulate-matter is identified by the maximum particle size in microns as either PM2.5 or PM10. PM2.5, is mostly smoke and aerosol particles resulting from woodstoves and fireplaces, vehicle engines, wildfires, and open burning. PM-10 is a mixture of dust, combustion particles (smoke) and aerosols from sources such as surface disturbances, road sand, vehicle tires, and leaf blowers.

Table 1: Attainment Status by Northern Sierra Air Quality Management District of State and Federal Air Quality Standards. In addition, the entire district is either Attainment or Unclassified for all State and Federal NO_2, SO_2, Pb, H_2S, visibility reducing particles, sulfates, and vinyl chloride standards.

Pollutant	State Designation	Federal Designation
Ozone (O_3)	Nevada County: Non-attainment (due to overwhelming transport)	2008 O_3 Standard (75 ppb) Western Nevada County: Serious Non-attainment;
		2015 O_3 Standard (70 ppb) Western Nevada County: Serious Non-attainment;
PM_{10}	Nevada County: Non-attainment	Unclassified
PM2.5		2012 Annual Standard (12$\mu g/m^3$)

	Nevada County: Unclassified	Nevada County: Unclassifiable/Attainment
		2012 24-hour Standard (35µg/m^3) Unclassifiable/Attainment
CO	Nevada: Unclassified	Unclassifiable/Attainment

Ultramafic rock and its altered form, serpentine rock (or serpentinite), both typically contain asbestos, a cancer-causing agent. Ultramafic rock and serpentine are likely to exist in several areas of western Nevada County. The area of the project site is not mapped as an area that is likely to contain ultramafic rock (California Department of Conservation, 2000). Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to areas of ultramafic rock.

An evaluation of project impacts related to greenhouse gas emissions is provided in Section 8 of this Initial Study.

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. Noise-sensitive receptors in the project area include residential dwellings that are adjacent to the project corridor.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Conflict with or obstruct implementation of the applicable air quality plan?		✓			F
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?		✓			F
c. Expose sensitive receptors to substantial pollutant concentrations?			✓		A,F
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓		A,F

Impact Discussion:

3a Nevada County's General Plan, Chapter 14 Air Quality Element, contains numerous policies to protect air quality in Nevada County. With the exception of General Plan Air Quality Element Policy 14.7A, which requires compliance with Northern Sierra Air Quality Management District Rule 226, the Nevada County General Plan Air Quality Element policies are intended to apply to development that generates new residents or new employees. By assessing air pollution and emissions associated with the proposed project

and recommending mitigation measures based on Thresholds of Significance established by the Northern Sierra Air Quality Management District (NSAQMD), the project as proposed would comply with Northern Sierra Air Quality Management District regulations. In addition, the project has been mitigated, as discussed below, to be complaint with the NSAQMD construction guidelines and in compliance with Rule 226, which is related to the control of dust emissions as required by **Mitigation Measure 3A**. In addition, based on the County's review of the NSAQMD Rules and Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects, it appears several of the objectives of the NSAQMD regulations are achieved through the application of mitigation measures provided below.

Therefore, given the above discussion, the project itself will not violate any established policies or standards for the protection of air quality nor would it conflict with or obstruct implementation of any quality plan, therefore air quality impacts would be ***less than significant with mitigation.***

3b The California Emissions Estimation Model (CalEEMod) provides a means to estimate potential emissions associated with both construction and operation of land use projects. Using the parameters specific to this proposed infrastructure project, the CalEEMod model identified potential increases in the pollutants of concern during various stages of the construction phase of the project. Construction was assumed to occur over a period of 6 months and across 1 mile of pipeline with 0.1 acres of land coverage to provide a conservative analysis. The averager amount of construction-related emissions in any given year was used along with the default variables for a road widening project which was the default linear use most similar to the proposed project. The road widening default was selected because it includes grubbing and land clearing, grading and excavation, work on utilities, and paving, all of which are anticipated to be included in the proposed project scope. Although this estimate does not include the installation of the water storage tank, well, or hydrants, even if the impacts were twice those shown in Table 1, they would still be under the NASQMD thresholds.

Table 1. Project Construction Air Quality Impacts

Pollutant	NSAQMD Threshold*	Average Unmitigated Project Impact
NOx	24-136 lbs/day	8 lbs/day
ROG	24-136 lbs/day	0.9 lbs/day
PM10	79-136 lbs/day	1 lbs/day
CO	N/A	9 lbs/day

*These thresholds are "Level B" in NSAQMD's *Guidelines*. All projects require basic mitigations under Level A, which is under 24 pounds per day of any pollutant shown above.

As shown above on Table 1, although all pollutant levels would increase slightly with the project, none would exceed thresholds established by NSAQMD. Although PM10 is not anticipated to exceed the per diem threshold adopted by NSAQMD, this constituent has been identified in Nevada County as exceeding ambient air quality standards and should be mitigated to the extent possible through dust control measures such as watering and

stabilizing of excavated materials, slow vehicle speeds on-site, and halting work during windy periods as required in **Mitigation Measure 3A**.

Short-term project construction activities have the potential of generating dust and impacting the local ambient air quality with demolition, grading and excavation, vegetation removal, and construction activities from site preparation, and the installation of underground pipeline, hydrants, well, and water storage tank. If improperly managed or controlled, and depending upon the time of year and meteorological conditions, the construction activities associated with this project may have the potential to produce off-site dust impacts. The Northern Sierra Air Quality Management District (NSAQMD) therefore recommends mitigation during the construction phase of this project including **Mitigation Measure 3B** requiring that diesel construction equipment not be idled for more than 5 minutes to prevent smoke and ozone precursors and a requirement for alternatives to open burning of cleared vegetation, as outlined in **Mitigation Measure 3C**.

It is anticipated that long-term operation of the project would have less than significant impact on ambient air quality. Activities associated with the long-term operation of the project include operation of the pump for the groundwater well and standard maintenance on the water storage tank, hydrants, and other components.

Ultramafic Rock: Serpentine soils and ultramafic rock are not mapped on the project site, pursuant to the General Location Guide for Ultra Mafic Rocks in California prepared by the Department of Conservation Division of Mines and Geology. Additionally, NV5 prepared a geotechnical report and did not encounter ultramafic rock, serpentinite, or naturally occurring asbestos minerals during the site visit for the preparation of the geotechnical report. Although unlikely, there is always the potential to encounter these soil types during grading activities. According to the NSAQMD, ultramafic rock typically contains asbestos, a cancer-causing agent. Disturbance of this rock and nearby soil during project construction can result in the release of microscopic cancer-causing asbestos fibers into the air, resulting in potential health and safety hazards. Health risks related to project grading would be reduced by the incorporation of **Mitigation Measure 3D**, which would require compliance with the Asbestos Airborne Toxic Control Measure (ACTM) for construction.

The mitigation measures recommended above will minimize the potential adverse impacts associated with construction and operational emissions to a level that is ***less than significant with mitigation***.

3c,d The nearest potential sensitive receptors to the water storage tank site are a church (approximately 150 feet away) and residences (approximately 250 feet away). No components of the project, including the pipeline, hydrants, well, or storage tank, are expected to create substantial air pollutant concentrations as discussed above in Tables 1 and 2. No other emissions, such as those leading to odors, are anticipated from construction or operation of the fire suppression system beyond the initial coat of paint for

the water tower which is approximately 150 feet from any other structures so the odor is unlikely to noxious to people. Therefore, this impact is ***less than significant***.

Mitigation Measures: To offset potentially adverse air quality impacts associated with the construction activities and operation of the project, the following mitigation measures shall be required:

Mitigation Measure 3A: Implement dust control measures. Prior to the approval of any Grading or Building Permits, to reduce short-term construction impacts, all future development permits shall comply with the following standards to the satisfaction of the Northern Sierra Air Quality Management District, which shall be noted on all grading plans and shall be included in project bidding documents:

1. The applicant shall implement all dust control measures in a timely manner during all phases of project development and construction.

2 All material excavated, stockpiled or graded shall be sufficiently watered, treated or converted to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.

3. All areas (including unpaved roads) with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.

4. All land clearing, grading, earth moving, or excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 miles per hour.

5. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.

6. All inactive disturbed portions of the development site shall be covered, seeded or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying non-toxic soil stabilizers to all inactive construction areas.

7. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance. There must be a minimum of six (6) inches of freeboard in the bed of the transport vehicle.

8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or as required to remove excessive accumulation of silt and/or mud which may have resulted from activities at the project site.

Timing: *Prior to issuance of Grading Permits, Building Permits or Improvement Plans*
Reporting: *Approval of the grading permit and improvement plans*
Responsible Agency: *Northern Sierra Air Quality Management District*

Mitigation Measure 3B: Minimize Construction Equipment Idling. In order to reduce emissions from construction equipment, the applicant shall include the following standard note on all Grading Plans, Site Plans or Improvement Plans: "During construction, the contractor shall minimize idling time to a maximum of 5 minutes for all diesel-powered equipment. Signs shall be posted in the designated queuing areas of the construction site to remind off-road equipment operators that idling is limited to a maximum of 5 minutes. Idling of construction-related equipment and construction related vehicles is not recommended within 1,000 feet of any sensitive receptor."
Timing: *Prior to issuance of Grading Permits, Building Permits or Improvement Plans*
Reporting: *Planning Department approval of Grading Permits or Building Permits / Complaint driven*
Responsible Agencies: *Planning and Building Department, Code Compliance Division*

Mitigation Measure 3C: Use Alternative Methods to Open Burning for Vegetation Disposal. The following note shall be included on all grading or improvement plans: "Open burning of site-cleared vegetation is prohibited. Among suitable alternatives are chipping, grinding, hauling to an approved disposal site, cutting for firewood, and conversion to biomass fuel."
Timing: *Prior to issuance of Grading Permits, Building Permits or Improvement Plans and during construction*
Reporting: *Approval of the grading permit and improvement plans*
Responsible Agency: *Northern Sierra Air Quality Management District*

Mitigation Measure 3D: Comply with the Asbestos Airborne Toxic Control Measure (ACTM) for construction. If serpentine, ultramafic rock, or naturally occurring asbestos is discovered during construction or grading, the Northern Sierra Air Quality Management District shall be notified no later than the following business day and specific requirements contained in Section 93105 of Title 17 of the California Code of Regulations shall be strictly complied with. This measure shall be included as a note on all grading and improvement plans.
Timing: *Prior to issuance of the grading permits and improvement plans and during grading activity*
Reporting: *Approval of the grading permit and improvement plans*
Responsible Agency: *Northern Sierra Air Quality Management District*

4. Biological Resources

Existing Setting: The proposed project corridor would be located along the State Highway 49 right-of-way, as well as other roadway rights-of-way, or within an easement along the various parcels abutting the highway and roads. As such, the majority of the corridor is composed of asphalt and gravel roadways, paved and/or gravel road shoulders, and in some portions, a small corridor of vegetation. Remnant plant communities documented within the proposed project areas, including the water tank site and the well site, and road alignments include: black oak woodland; mixed conifer-hardwood forest; ponderosa pine forest; non-native annual grassland, and disturbed-ruderal areas. Four potential Waters of the United States/Wetlands exist in the project area. No

state- or federally-listed or other special-status plants or animals were observed or are expected to occur in the project area, and no suitable habitat for other special-status species was observed during the field survey. The native vegetation along the project corridor is minimal, though there are a number of trees. Within the trees present in the project corridor, there is potential for migratory bird species to nest and forage. Foraging bats and other nocturnal species may also be present in the project area. There are two large landmark black oak trees adjacent to the westernmost project boundary. There are no adopted Habitat Conservation Plans for this area.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓			K, 27
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?		✓			A, 27
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✓			A,18
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓			9,10
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓			2,3,16
f. Conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓	A,18

Impact Discussion:

4a According to the 2023 Biological Inventory prepared by Beedy Environmental Consulting, no state- or federally-listed or other special-status plants or animals were observed or are

expected to occur in the project area, and no suitable habitat for other special-status species was observed during the field survey. However, to ensure that all possible habitat is restored in the project area, **Mitigation Measure 4A** requires the identification and restoration of all vegetation that is removed as part of the project.

4b,c There are four potential wetland areas in the project vicinity that would be considered riparian habitat. Project construction is expected within the 100-foot non-disturbance area of potential wetlands as established by the Nevada County Land Use and Development Code. These areas have not been formally designated as federally protected, but may be eligible. Accidental introduction of washwater, solvents, oil, chemical wastes, cement, or other pollutants during maintenance and parking of heavy equipment could potentially adversely affect local water quality including in the four wetland areas within the project area. Disturbed soils such as those that occur with the proposed excavation may also increase erosion and run off into riparian habitat which could impair the ecosystem. Construction can also be associated with introduction of invasive weeds that could damage the riparian habitat. In order to reduce these impacts to ***less than significant with mitigation***, **Mitigation Measure 4B** requires best management practices to install wattles and weed-free straw for erosion control, avoid excavation or draining in wet weather, protect the site from construction chemicals, and educate contractors on mitigation measure to ensure the wetlands are protected.

4d Migratory birds and raptors in the orders of Falconiformes (hawks, eagles, and falcons) and Strigiforms (owls) are protected in varying degrees under the California Fish and Wildlife Code, the Migratory Bird Treaty Act (MBTA), and CEQA. Several species of migratory birds and raptors have the potential to occur and/or nest within the forested and riparian vegetation adjacent to the project corridor. These species would potentially be disturbed as a result of ground disturbing construction activities and installation of the water storage tank and groundwater well. Therefore, **Mitigation Measures 4C** and **4D** have been identified to reduce potential impacts to migratory birds and raptors to ***less than significant with mitigation*** by conducting a nesting bird survey, prohibiting construction if bird nesting is identified, and limiting construction to daylight hours to avoid disoriented nocturnal species with lights used for construction.

4e With the preparation and approval of a Management Plan, the proposed project would mitigate any conflicts with any local policies or ordinances protecting sensitive resources, found in Nevada County LUDC Section L-II 4.3, such as tree preservation and watercourses, wetlands, and riparian area protection policies or ordinances. These measures are included in **Mitigation Measure 4B** which requires best management practices to install wattles and weed-free straw for erosion control, avoid excavation or draining in wet weather, protect the site from construction chemicals, and educate contractors on mitigation measure to ensure the wetlands are protected. Therefore, the impacts to local ordinances protecting biological resources are ***less than significant with mitigation.***

4f The project area is not part of a Habitat Conservation Plan or any other adopted conservation plans. Therefore, the project would have ***no impacts*** or conflicts with adopted conservation plans.

Mitigation Measures: To reduce potential impacts to sensitive biological resources, the following mitigation shall be noted on the project construction plans for implementation during project construction:

Mitigation Measure 4A: Vegetation Restoration. The construction plans shall identify any and all vegetation proposed for removal, and shall include the plant or tree species and tree diameter at breast height (dbh). Removed vegetation shall be replaced with like-for-like vegetation except invasive species shall be replaced with native vegetation where feasible, in order to restore habitat diversity, and shall be shown on the construction plans. Pursuant to Mitigation Measure 1A, no landmark or heritage trees or groves are to be removed. Prior to permit finalization, the Planning Department will complete a site inspection to ensure any disturbed native vegetation is restored, subject to review and approval by the Zoning Administrator.
Timing: *Prior to grading/building permit issuance and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency: *Planning Department*

Mitigation Measure 4B: Wetlands Management Plan Best Management Practices. The following Best Management Practices (BMPs) will appear on all site plans prior to building/grading permit issuance in order to protect waters of the U.S., including wetlands, water quality and aquatic life, and to avoid introduction of invasive weeds. The following Best Management Practices (BMPs) shall be implemented during and after construction:

1. For all areas of work:
    a. Prior to construction adjacent to the wetlands, install weed-free fiber roles (wattles) to prevent erosion and deposition of surface soils into the wetlands. Wattles are available for sale at most of the local hardware stores in Grass Valley and Nevada City. More information on wattles can be found at the following website: https://www.acfenvironmental.com/products/perimeter-and-sediment-control/perimeter-control-tubes/wattles/
    b. Avoid doing any excavation or grading within 3 days of a significant rainfall event greater than 1-inch total daily rainfall.
    c. The contractor shall exercise every reasonable precaution to protect the wetland at the project site from pollution with sediments, fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and washwater shall be prevented from discharging into the wetland and shall instead be collected and removed from the site.

d. Spread weed-free straw on all disturbed soils near all construction sites to prevent the erosion of surface soils. No invasive, non-native grasses such as orchard grass, canary reed grass, or velvet grass shall be used for erosion control, as these species are known to invade wetlands.
e. Provide Copies of Mitigation Measures to Contractors. To ensure the proper and timely implementation of all mitigation measures contained in this report, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and any other permit requirements to the contractors prior to grading and construction.

2. Specific BMPs for Wetland Features
    a. NSJ Fire Meadow
        i. Install wattles adjacent to the existing fence line between the meadow and trench.
        ii. Scatter weed-free straw at a depth of 2-4 inches over the ditch site after soil is replaced in all areas within 50 feet of the wetland.
    b. Oak Tree Road Ditch
        i. No trenching shall occur on the south side of Oak Tree Road (~~i.e.~~, the same side of the road as the ditch) to minimize potential impacts to the roadside ditch.
        ii. Install wattles along the roadside ditch.
    c. Highway 49 Swale
        i. Install orange construction fencing between disturbance areas and the wetland.
        ii. Scatter weed-free straw at a depth of 2-4-inches over the ditch site after soil is replaced on all bare soil within 50 feet of the wetland.
    d. Community Center Ephemeral Drainage
        i. Install wattles between the ditch and the downslope willow-filled drainage adjacent to the NSJ Community center.
        ii. Scatter weed-free straw at a depth of 2-4 inches over the ditch site after soil is replaced for the entire length along Highway 49 from the new hydrant to the Sweetland Road intersection.

Timing: *Prior to building permit issuance and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency: *Planning Department*

Mitigation Measure 4C: Conduct a Nesting Bird Survey. If project construction, including tree removal, occurs during the nesting season (February 1 to September 30), a nesting bird study, conducted by a qualified biologist, shall be completed no more than 10-days prior to construction to determine if any native birds are nesting on or near the site (including a 250-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer will be determined and flagged by the qualified biologist based on species, location and planned construction activity. The avoidance buffer would be in

place until the chicks have fledged and the nests are no longer active. If removal does not occur within 10-days of the survey, an additional survey is required prior to tree removal.
Timing: *Prior to building permit issuance and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency: *Planning Department*

Mitigation Measure 4D: Avoid disorienting foraging bats or other nocturnal species. Construction hours are limited to between 7:00 am and 7:00 pm (daylight hours) to avoid disorienting foraging bats or nocturnal species such as owls that forage at night. This measure shall be noted on all construction plans.
Timing*: Prior to building permit issuance and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

5. Cultural Resources

Existing Setting: This region of the County is known as the ethnographic-period territory of the Nisenan, also called the Southern Maidu and Valley Maidu. The Nisenan maintained permanent settlements along major rivers in the Sacramento Valley and the foothills; they also periodically traveled to higher elevations to hunt or gather plants. In this part of Nevada County, archaeologists locate prehistoric-period habitation sites adjacent to streams or on ridges or knolls, especially those with southern exposure; there is potential for these resources to be located within the project corridor. No prehistoric sites were found during the cultural resources survey.

The Rural Center is within a small historic town, North San Juan, located along the Gold Rush Trail. There is a history of hydraulic mining beginning in the 1850s. The visual character of the town reflects the traditional structures and buildings associated with the area history, including working ranches, barns, corrals, and other significant commercial businesses and cultural structures centered around the historic townsite. There are two California Points of Historic Interest near the project area, but outside of the area of effect.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?		✓			A,J, 28
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		✓			A,J, 28
c. Disturb any human remains, including those interred outside of formal cemeteries?		✓			A,J, 28

Impact Discussion:

5a-d The proposed project corridor is located within the existing roadways, shoulders, rights-of-way, and/or abutting rights-of-way in a disturbed setting, therefore it is not anticipated that historical, archaeological, or paleontological resources would be located. The location of the water tank site and well were also evaluated. No resources were located on the parcel of the water tank site. A potential historical resource that appears to be a brick septic tank was located on the parcel where the well is proposed, but the well is outside of the area of the potential historic resource and no impact is anticipated. Nonetheless, the project is located within a historic townsite that includes a high potential for historic resources and low potential for indigenous-period/ethnographic-period cultural resources. Based on this, there is potential for unanticipated discovery of cultural resources, including historic, pre-historic, and paleontological resources during project construction. This impact would be ***less than significant*** with the implementation of **Mitigation Measures 5A, 5B,** and **5C** by requiring cultural awareness training for all workers on site, halting working and notifying applicable agencies if human remains or cultural materials are found, and preparing a final plan that shows that no historic buildings will be impacted by the projects.

Mitigation Measures: To offset potentially adverse cultural or historical resources impacts associated with the construction activities, the following mitigation measure shall be required:

Mitigation Measure 5A. Cultural awareness training. A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribe values.
Timing*: Prior to the issuance of building/grading permits and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 5B. Halt work and contact the appropriate agencies if human remains or cultural materials are discovered during project construction. All equipment operators and employees involved in any form of ground disturbance at any phase of project improvements shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected, work shall be halted immediately and the Nevada County Planning Department, United Auburn Indian

Community of the Auburn Rancheria, and any other interested and affected tribe shall be contacted. A professional archaeologist shall be retained by the developer and consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California Law requires that the Nevada County Coroner and the Native American Heritage Commission be contacted and, if Native American resources are involved, Native American organizations and individuals recognized by the County shall be notified and consulted about any plans for treatment. A note to this effect shall be included on the grading and construction plans for each phase of this project.
Timing: *Prior to the issuance of building/grading permits and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 5C. Preservation of historic buildings. A licensed professional, such as a civil engineer, will submit with the grading and/or building permit submittal a plan showing the location of the proposed pipeline trenching to be no closer to historical structures and resources as required to preserve the integrity of historical structures.
Timing: *Prior to the issuance of building/grading permits and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency*: Planning Department*

6. Energy

Existing Setting: The project area currently has electrical service from PG&E and independent propane tanks for domestic and commercial fuel.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation?			✓		A
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓		A,D

Impact Discussion:

6a,b Construction techniques and contractors likely to construct the project will be consistent with area and state practices. Typical construction activities require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as excavation, grading and construction travel. The size and scope of the project is not likely to require extraordinary, or non-typical construction equipment, or techniques resulting in a wasteful, or inefficient construction operation. If used for the initial 330,000 fill, the well pump is expected to require approximately 330 kWh. For comparison, one household in California uses approximately 542 kWh every month. Since

operation energy needs will be primarily limited to the well pump, there is a ***less than significant impact*** due to excessive energy consumption or conflict with renewable energy or energy efficiency plans is anticipated.

Mitigation: None required.

7. Geology and Soils

Existing Setting: In general, the project corridor has gentle slopes. Along State Highway 49, within the North San Juan Rural Center, the elevation is approximately 2,094 feet above sea level, with gentle slopes up to approximately 5% that extend easterly and westerly from the town center. The proposed water storage tank site is adjacent to historic hydraulic mining areas. A Geotechnical Engineering Report for the site of the water storage tank was prepared by NV5 because this site's northern property boundary is adjacent to an approximately 80-foot-tall bluff from previous hydraulic mining operations. The report finds that the risk of seismically induced hazards such as liquefaction and surface rupture are remote at the project site.

The Natural Resources Conservation Service (NRCS) has mapped six soil complexes within the project site: Horseshoe gravelly loam 9 to 15 percent slopes (HrC), Placer Diggings (Pr), Chaix-Hotaw complex 15 to 30 slopes eroded (ChD2), Chaix-Hotaw complex 30 to 50 percent slopes eroded (ChE2), Alluvial land loamy (Am), and Musick sandy loam 15 to 50 percent slopes (MrE). The Soil Survey of Nevada County Area describes the complexes as follows: HrC soil is moderately permeable, with medium runoff and moderate erosion; Pr soil is a miscellaneous land type consisting of remnants of tertiary river deposits, as a result of hydraulic mining, and is a mixture of stones, cobblestones, gravel, and enough soil material to support vegetation, though is generally unsuitable for agriculture; ChD2 soil has medium to rapid runoff and erosion hazard is high; ChE2 has rapid runoff and erosion hazard is very high; Am has slow runoff with moderate permeability; and, MrE has medium runoff and erosion hazard is high.

The Alquist-Priolo Earthquake Fault Zoning Act was adopted in 1972 to prevent the construction of buildings in areas where active faults have surface expression. Ground or fault rupture is generally defined as the displacement that occurs along the surface of a fault during an earthquake. The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known faults that cross through the project site. Generally, western Nevada County is located in the low intensity zone for earthquake severity. The area has not been evaluated by the California Geologic Survey for liquefaction hazards or seismic landslide hazards.

There are no known unique paleontological resources or sites or unique geologic features in the project area.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure including liquefaction? iv. Landslides?			✓		A, 12, 29, 31
b. Result in substantial soil erosion or the loss of topsoil?		✓			A, D, 31
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?		✓			D, 12, 16, 31
d. Be located on expansive soil creating substantial direct or indirect risks to life or property?		✓			A, 31
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓	A, 11, 31
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓			A, 9, 11, 31

Impact Discussion:

7a The project site is not within an Alquist-Priolo Earthquake Fault Zone, and there are no known faults that cross through the project site. Generally, western Nevada County is located in the low intensity zone for earthquake severity. The Geotechnical Engineering Report by NV5 finds that the risk of seismically induced hazards such as liquefaction and surface rupture are remote at the project site. Therefore, there is ***less than significant impact*** for impacts to rupture of known earthquake faults, seismic ground shaking, seismic-related ground failure and landslides.

7b This project includes clearing and grubbing, grading, and excavation in order to install water pipeline, storage tank, hydrants, and a well in the public right-of-way and on privately owned parcels. Soil may be exposed or stockpiled at certain times during the construction.

Though most of this land is already disturbed and does not contain topsoil, some areas will be subject to potential minor erosion or loss of topsoil. **Mitigation Measure 7B** will ensure soil erosion is kept to a minimum by limiting grading in wet conditions, implementing siltation and erosion prevention measures, and managing drainages during construction. **Mitigation Measure 7D** requires organic topsoil removed during site preparation to be stockpiled and re-used when restoring the project area. **Mitigation Measure 7A** also prohibits construction on steep slopes of 30% or greater which have a higher potential for problematic erosion. With these mitigation measures, impacts to soil erosion and loss of topsoil will be ***less than significant with mitigation***.

7c A Geotechnical Engineering Report for the site of the water storage tank was prepared by NV5 because the site's northern property boundary is adjacent to an approximately 80-foot-tall bluff from previous hydraulic mining operations. This geologic feature presented concerns over slope stability. While the report finds that the risk of seismically induced hazards such as liquefaction and surface rupture are remote at the project site, many recommendations were made regarding construction measures and foundation design to ensure geotechnical stability. With the recommendations and design criteria presented in the report, the site is suitable for the proposed improvements. Therefore, **Mitigation Measure 7C** requires that all recommendations in the Geotechnical Engineering Report be incorporated on all grading and building permit plans so that the impact to potentially unstable soils would be ***less than significant with mitigation***.

7d While no expansive soils were identified in the Geotechnical Engineering Report, it is possible that they may be encountered during excavation, especially at the site of the water storage tank. To ensure that there are no substantial direct or indirect risks to life or property **Mitigation Measure 7E** requires that the contractor mix or over excavate and stockpile any potentially expansive soil to be used in landscape areas instead of leaving it beneath structures where it could potentially lead to structural issues. With this mitigation measure, impacts to life or property caused by expansive soils would be ***less than significant with mitigation.***

7e The project area is served by municipal sewer and does not propose any septic tanks or alternative wastewater disposal systems. Therefore, there is **no impact** related to soils needed to serve septic systems.

7f The proposed pipeline and hydrant system is located within a disturbed corridor that is developed with roadways and utilized for vehicular traffic. There is no evidence of paleontological resources in the project area. However, **Mitigation Measures 5A and 5B**, described in Section 5 above, would require construction to be halted in the unlikely event that there is a discovery of cultural resources, including historic, prehistoric, tribal, and paleontological resources so that any paleontological resources can be evaluated and protected. There are no unique geological features in the project area. Therefore, impacts to paleontological resources and unique geological features is ***less than significant with mitigation***.

Mitigation Measures: To mitigate potentially adverse soils impacts from project grading and construction, both on-and off-site, the following mitigation measures, in addition to **Mitigation Measures 5A and 5B**, shall be required:

Mitigation Measure 7A: **No Construction within Steep Slopes.** The construction plans shall identify any areas within the project corridor with a steep equal to or greater than thirty (30) percent, and shall show no construction work within steep slope areas.
Timing*: Prior to grading/building permit issuance*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 7B: Erosion Control Measures. To ensure adequate protection of water quality during and after project activities, the project manager shall provide labor, materials, and equipment to maintain and protect exposed soil from wind and water erosion in the following manner:

1. Grading plans shall include the time of year for construction activities. Project activities planned between October 15 and May 15 requires that the Building Official or his/her authorized agent to determine whether project soil conditions are adequate to accommodate proposed activities. Soils must not be oversaturated and the contractor must implement erosion control measures at the end of each construction day.
2. If a storm is forecast in the area, exposed fill shall be sloped to drain and compacted to facilitate runoff.
3. Existing surface drainage facilities shall be kept free of soil and debris during project activities.
4. Temporary or constructed water conveyance channels shall be kept free of sediment or debris at all times.
5. Temporary erosion control shall be applied within and adjacent to the boundary of the project activity zone if ground disturbance will occur.
6. Siltation control shall be provided during project activities if ground disturbance will occur.
7. Disturbed slopes shall be stabilized and seeded (with native species wherever practicable) as soon as possible following grading to allow vegetation to become established prior to the rainy season.
8. Surface water drainage shall not be directed over cut and/or fill slope faces.
9. All runoff shall be intercepted and directed into energy dissipaters or vegetated swales constructed at discharge points to reduce velocity and prevent erosion and shall be discharged into natural drainage courses that are capable of receiving the expected storm water flows.

Timing: *Prior to issuance of grading or improvement permits.*
Reporting: *Approval of permits or plans*
Responsible Agency: *Building / Planning Departments*

Mitigation Measure 7C: **Geotechnical Engineering Report.** To ensure that the proposed water storage tank does not pose a geologic threat due to its proximity to historic hydraulic

mining areas, all of the recommendations described in the Geotechnical Engineering Report dated June 29, 2023 or newer by NV5 shall be incorporated into all grading/building permit documents. The recommendations apply to grading, clearing and grubbing, soil preparation for fill placement, fill placement, fill slope grading, erosion controls, underground utility trenches, construction dewatering, surface water drainage, grading plan review and construction monitoring, seismic design criteria, and pier design criteria.
***Timing**: Prior to grading/building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Building / Planning Department*

Mitigation Measure 7D: **Stockpiling of Organic Topsoil.** To ensure that there is no substantial loss of topsoil, all organic topsoil removed as part of clearing and grubbing, excavation, or grading shall be stockpiled onsite, covered appropriately to avoid erosion and dust, and used in areas to revegetated upon complete of utility installation. This note shall appear on all building/grading plans.
***Timing**: Prior to grading/building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Building / Planning Department*

Mitigation Measure 7E: **Potentially Expansive Soil.** The following note must appear on all grading and building permits related to this project: If fine grained, potentially expansive soil, as determined by a qualified geotechnical engineer, is encountered during grading, it shall be mixed with granular soil, or overexcavated and stockpiled for removal from the project site or for later use in landscape areas. A typical mixing ratio is about 4 parts granular soil to 1-part expansive soil. The actual mixed ratio shall be evaluated by a qualified geotechnical engineer at the time of construction.
***Timing**: Prior to grading/building permit issuance*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Building / Planning Department*

8. Greenhouse Gas Emissions

Existing Setting: Global climate change refers to changes in average climatic conditions on the earth as a whole, including temperature, wind patterns, precipitation and storms. Global warming, a related concept, is the observed increase in the average temperature of the earth's surface and atmosphere. One identified cause of global warming is an increase of greenhouse gases (GHGs) in the atmosphere. Greenhouse gases (GHGs) are those gases that trap heat in the atmosphere. GHGs are emitted by natural and industrial processes, and the accumulation of GHGs in the atmosphere regulates the earth's temperature. Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g. gasoline, diesel, coal, etc.), are believed to have contributed to the increase in atmospheric levels of GHGs. GHGs that are regulated by the State and/or EPA are carbon dioxide (CO2), methane (CH4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6) and nitrous oxide (NO2). Emission inventories typically focus on GHG emissions due to human activities only, and compile data to estimate emissions from industrial, commercial, transportation, domestic, forestry, and agriculture

activities. CO2 emissions are largely from fossil fuel combustion and electricity generation. Agriculture is a major source of both methane and NO2, with additional methane coming primarily from landfills. Most HFC emissions come from refrigerants, solvents, propellant agents, and industrial processes, and persist in the atmosphere for longer periods of time and have greater effects at lower concentrations compared to CO2. Global warming adversely impacts air quality, water supply, ecosystem balance, sea level rise (flooding), fire hazards, and causes an increase in health-related problems.

To reduce emissions of greenhouse gases, the California Legislature enacted AB 32 (Núñez and Pavley), which is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's long-range climate objectives. In April 2015, the California Air Resources Board issued Executive Order B-30-15 to set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. SB 32, enacted in 2016, codified the 2030 the emissions reduction goal of CARB Executive Order B-30-15.

In addition, the Governor signed Senate Bill 97 in 2007 directing the California Office of Planning and Research to develop guidelines for the analysis and mitigation of the effects of greenhouse gas emissions and mandating that GHG impacts be evaluated in CEQA documents. CEQA Guidelines Amendments for GHG Emissions were adopted by OPR on December 30, 2009. The Northern Sierra Air Quality Management District (NSAQMD) has prepared a guidance document, Guidelines for Assessing Air Quality Impacts of Land Use Projects, which includes mitigations for general air quality impacts that can be used to mitigate GHG emissions when necessary. Continuing to reduce greenhouse gas emissions is critical for the protection of all areas of the state, but especially for the state's most disadvantaged communities, as those communities are affected first, and, most frequently, by the adverse impacts of climate change, including an increased frequency of extreme weather events, such as drought, heat, and flooding.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓		A,F,36
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			✓		A,F,36

Impact Discussion:

8a,b The project is not expected to generate greenhouse gases that would result in significant environmental impacts or that would be in conflict with plans for greenhouse gas

reductions. Due to the project being a passive infrastructure project with use only during fire events, high levels of greenhouse gas emissions are not anticipated.

California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. Nevada County and Placer County are both within the Mountain Counties Air Basin. Nevada County is within the jurisdiction of the Northern Sierra Air Quality Management District, but the NSAQMD has not adopted thresholds of significance for greenhouse gases. However, Placer County Air Pollution Control District has adopted thresholds of significance for greenhouse gases. Due to greenhouse gas emissions being not only a regional but also a global concern, and the similarities between the neighboring air districts, it was determined that the Placer APCD thresholds are relevant standard for the determination of significance.

The thresholds adopted by Placer County APCD include a bright-line threshold of 10,000 metric tons of Carbon dioxide equivalent per year and a De Minimis level of 1,100 metric tons of carbon dioxide per year (MT CO2e/yr). A bright-line threshold is a numerical value used to determine the significance of a project's annual GHG emissions. GHG emissions from projects that exceed 10,000 MT CO2e/yr would be deemed to have a cumulatively considerable contribution to global climate change. The De Minimis Level for the operational phases of 1,100 MT CO2e/yr represents an emissions level which can be considered as less than cumulatively considerable and be excluded from the further GHG impact analysis.

The California Emissions Estimator Model (CalEEMod) was used to model the greenhouse gas emissions from the construction and operation of the project. A conservative estimate determined 276 metric tons of carbon dioxide equivalent would be emitted a year during the construction phase. During the operational phase, the unmitigated greenhouse gas emissions would be negligible due to the passive nature of the infrastructure project. Due to the greenhouse gas emissions from the project being substantially below both of the greenhouse gas significance thresholds, the overall GHG impact is expected to remain at a level that is ***less than significant***.

Mitigation Measures: None required.

9. Hazards and Hazardous Materials

Existing Setting: Health and safety issues apply to construction works and members of the public who would be exposed to hazardous materials and physical conditions associated with the presence of construction equipment and excavation in area of sensitive land uses. There are a variety of state and federal regulations that apply to construction projects for the protection of health and safety. No existing or proposed schools are located within one-quarter mile of the project area. The project area is not within an airport land use plan of within two miles of a public airport or public use airport of in the vicinity of a private airstrip.

Cortese List: The Hazardous Waste and Substances Site List (Cortese List) is a planning database used by the State and local agencies to comply with the CEQA requirements in providing information about the location of hazardous materials release site. Government Code Section requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

DTSC's Brownfields and Environmental Restoration Progra (Cleanup Program) EnviroStor database provides DTSC's component of the Cortese List by identifying State Response and/or Federal Superfund sites and Backlog sites listed under Health and Safety Code Section 25356, In addition, DTSC's Cortese List includes Certified with Operation and Maintenance sites.

The project is not within or adjacent to any hazardous materials sites compiled, nor is it located on an abandoned solid waste disposal site known to the County.

The project area is located within the boundaries of the North San Juan Fire District and is within areas designated as Very High (Cal Fire, Fire Hazard Severity Zones, November 2007).

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓	C
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓		C
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓		C,L
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?				✓	C, 30
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓	A,L,M

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓			G,H
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			✓		G,H,4

Impact Discussion:

9a The proposed project would not result in routine transport, use, or disposal of hazardous materials. Once operational, water will be the only routine material involved in the operation of the project. Project components may require infrequent minimal maintenance using small amounts paints, oils, or solvents. Therefore, there would be ***less than significant impact*** related to routine transport, use, or disposal of hazardous materials.

9b Small quantities of hazardous materials would be used and handled during construction of the project. The hazardous materials anticipated for use are small volumes of petroleum hydrocarbons and their derivatives (e.g. gasoline, oils, lubricants, and solvents) used to operate the construction equipment. These relatively small quantities would be below reporting requirements for hazardous materials business plans and would not pose substantial public health and safety hazardous through release of emissions or risk of upset. Safety risks to construction workers for the proposed project would be reduced by compliance with Occupational Safety and Health Administration standards. Therefore, this impact is considered ***less than significant.***

9c There are no existing or proposed schools within one-quarter mile of the proposed project. Therefore, there would be ***no impact*** related to hazardous emissions or substances near a school.

9d No portion of the project area is included on the Cortese List of hazardous materials sites. Therefore, the project would not create significant hazard to the public or the environment, and ***no impact*** would occur.

9e The proposed project is not located within an airport land use plan or within two miles of an airport. Therefore, there would be ***no impact.***

9f Operation of the water pipeline and hydrant system could potentially impair implementation of or physically interfere with adopted emergency response plans or evacuation plans. Temporary traffic delays may occur during construction activities on State Highway 49, Flume Street, Oak Tree Road, Reservoir Street, and Cherokee Street. **Mitigation Measure 17A**, which requires the preparation of a Traffic Control Plan as discussed in section 16 of this Initial Study. This mitigation measure would minimize

interference with emergency response or evacuation to ***less than significant with mitigation.***

9g Although the project is located within a Very High fire hazard severity zone, the project area is within a disturbed area with commercial and residential development, and would be located below ground with the exception of the water storage tank and hydrants. The implementation of the project would increase access to water flow for fire suppression, therefore the potential to expose people or structures to wildland fire hazards would be decreased. As such, the proposed project would result in ***less than significant impacts*** related to this issue.

Mitigation Measures: Potential impacts to the implementation of emergency response plans will be mitigated by **Mitigation Measure 17A**.

10. Hydrology and Water Quality

Existing Setting: The project area is located within the unincorporated town of North San Juan, which is a small portion of the Grizzly Creek Middle Yuba River watershed, as well as the Moonshine Creek sub-watershed. Generally, from the intersection of State Highway 49 and Flume Street, the project site drains easterly and westerly along State Highway 49. There are four potential wetland areas in the project vicinity. There are no streams or rivers in the project area.

The project corridor is not located within or near a 100-year flood hazard zone according to the Federal Emergency Management Agency's (FEMA) Flood Information. The Federal Emergency Management Agency identifies the area as Zone X, which is an area determined to be outside of the 500-year flood or protected by levee from 100-year floods. The project is not in a tsunami or seiche zones.

The California State Water Resources Control Board (State Water Board) regulates stormwater discharges from construction sites because of its potential to mobilize pollutants and discharge into waterbodies or watersheds. By regulating these discharges, the State Water Board is preserving, enhancing, and restoring California's waterbodies and its resources.

Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.

Sustainable management of groundwater basins is overseen by the Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) via the Sustainable Groundwater Management Act (SGMA). This project is not located within any groundwater basins or priority basins identified by the DWR Bulletin 118, or the SGMA Basin Prioritization Dashboard.

The nearest DWR Bulletin 118 basins are the North and South Yuba Subbasins of the Sacramento Valley Basin (5-21.60 and 5-021.61, respectively) which are more than 15 miles southwest of the project site. No Groundwater Sustainability Agency, no Groundwater Sustainability Plan, and no sustainability criteria or goals have been established for the underlying aquifer of this project.

Regional hydrogeologic studies have not been prepared in detail for this area, however nearby well completion reports indicate typical well completion depths range from 100 to 360 ft below ground surface. A red clay layer typically overlies the decomposed granite in 5 to 8 ft deep layers upon the surface. Boring logs indicate decomposed granite is encountered to depths of approximately 40 to 60 ft below ground surface and overlies weathered granite to a depth of approximately 360 ft. Aquifers in this region appear to include a mixture of confined and unconfined fractured bedrock wells, with no detailed mapping of the interconnection of any zones. Geology of the near surface bedrock includes igneous Mesozoic rocks, typically granite, granodiorite, quartz, monzonite and quartz diorite.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		✓			A,C,I
b. Substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?		✓			C, 42, 43
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) Result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?		✓			A,B,9,32
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓	A,D,9

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		✓			A,D
f. Place housing within a 100-year flood hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?					A,L,32
g. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?					A,L,32

Impact Discussion:

10a,e Proposed improvements include the installation of a water pipeline and hydrant system, groundwater well, and water storage tank within existing roadways, rights-of-way, and/or along abutting parcels. This could result in impacts to adjacent waterways due to run off of exposed soils from excavation and equipment related pollutants like oil and gas. In order to protect water quality, **Mitigation Measures 10B-E** require specific construction timing, materials and techniques to be followed in order to ensure storm water would not be contaminated through erosion or equipment related pollutants. This includes halting work in wet weather, installing erosion control measures like straw, and covering loose soil. **Mitigation Measure 4B** requires additional erosion and sediment control measures in several project areas adjacent to potential wetlands. Furthermore, State Water Board permits are required for projects of this size to ensure that watersheds and water bodies are protected from discharge and pollution related to the proposed construction and ground disturbance; this is mandated by **Mitigation Measure 10A.** Therefore, project related impacts to water quality standards and waste discharge requirements would be ***less than significant with mitigation.***

10b,e The proposed project includes a groundwater well between 100 feet and 360 feet in depth to supply the 330,000 gallon water storage tank used for the water pipeline for fire suppression purposes. The proposed groundwater well would be required to obtain a permit from the Nevada County Department of Environmental Health in compliance with County standards to protect groundwater supplies.

As described in the existing setting, the project is not located within an area regulated by the Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) via the Sustainable Groundwater Management Act (SGMA). This fireflow system is also not defined as a project under the California Clean Water Act §10912(a) and is therefore not required to complete a water supply assessment. There are no prioritized basins or sustainable groundwater management plans for this area.

The tank may initially be filled by either water brought by commercial water trucks or from water provided by the well. Based on the North San Juan Fireflow Feasibility Study prepared in 2016 by Sauers Engineering, Inc., various parcels within the North San Juan community indicate that well production ranges between 8 gallons per minute (gpm) and 25 gpm. The typical household uses approximately 300 gallons of water per day according to the US Environmental Protection Agency (EPA). Therefore, three households typically use 330,000 gallons (the capacity of the water storage tank) every year. If the well produces between 8 and 25 gallons per minute and is operated for 8 hours per day, the tank will take 27 to 85 days to fill and can be filled in one aquifer recharge season.

Drawing this amount of water from the well in this timeframe may potentially impact groundwater supplies and groundwater recharge in the area. Aquifers in this region appear to include a mixture of confined and unconfined fractured bedrock wells, and no detailed mapping of the interconnection of any zones has been completed. To estimate the area of potential impact (estimated zone of influence), the Theis equation was used. The Theis equation models the well in a phreatic confined aquifer with little drawdown relative to the aquifer depth. It is a conservative estimate of the well's effects on the aquifer because it does not include effects from recharge sources and limits groundwater movement to the well to only be as deep as the well is drilled (i.e. no contribution from any deeper recharge zones). The estimated area of potential impact is a radius of 345 feet as shown in Figure 4 below. Calculations of the estimated zone of influence (the area beyond which the drop in hydraulic height due to pumping likely becomes negligible) were completed using the Theis equation assuming the drawdown in the well is much less than the saturated aquifer thickness. This assumption is highly likely because the County's Environmental Health Department requires a 10-day constant rate pumping test to confirm the well's pumping capacity is sustainable, and the allowable pump flow rate is sized approximately half that pumping capacity. The radius of influence is estimated to be approximately 103.81 meters, or 340.5 feet if the well is constructed with a saturated aquifer thickness of 200 feet and sealed using cement grout to a depth of 50 feet below ground surface. These construction requirements result in a total well depth of at least 250 feet, which is consistent with other wells in the area reaching up to 360 feet deep. Below are the calculations based on the well's assumed construction features.

$R = 1.499\sqrt{\frac{tKD}{S}}$ Where

t	Time, (days)	=129 during fill
K	Hydraulic Conductivity, (m/d)	=0.03
D	Aquifer Thickness, (m)	=60.98
S	Specific Yield, (unitless)	=0.05

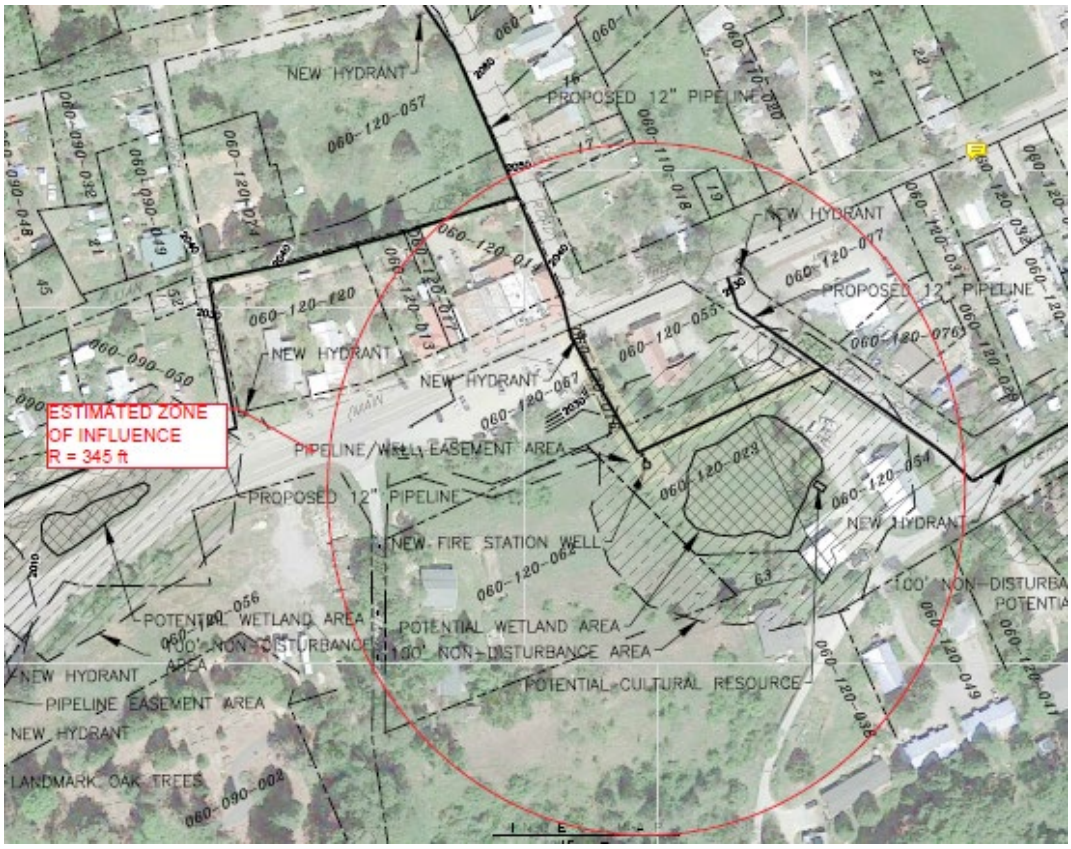

Figure 4 - Estimated Zone of Influence

After the initial fill, the well will only be used to top off the tank for regular water loss due to evaporation or filling of water tender trucks (typically 1,000 to 4,000 gallons). Filling of the tank following major fire suppression events would be completed by a commercial water supplier or from the well with the groundwater monitoring measures as described in **Mitigation Measure 10F**.

In order to mitigate for potential impacts to the quantity and quality of water available to nearby wells, **Mitigation Measure 10F** establishes baseline water depth and quality by monitoring during the year prior to well operations, continues monitoring during the initial fill of the tank, establishes benchmarks that would require the cessation of pumping of the well for the initial fill, limits the use of the well for the initial fill to 8 hours per day during the aquifer recharge season (November through April), and requires refilling of the tank by a commercial water supplier following a fire suppression event.

Because the proposed groundwater use is most intensive during the initial fill, is not included in a regulated water basin or groundwater management plan, and will be subject to monitoring prior to, during and after initial fill operations pursuant to **Mitigation Measure 10F**, the impact to groundwater supplies would be ***less than significant with mitigation***.

10c The proposed project will not alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river. There are no streams or rivers in

the project area. The proposed impervious surfaces include approximately 3,000 square feet for the proposed water storage tank site and foundation, well cover, and small pads for the fire hydrants. This amount is well within the impervious surface coverage limits established in the Nevada County Land Use and Development Code, and is not anticipated to create any substantial impacts to the amount of surface run off and associated impacts. All other disturbed areas will be restored to their pre-project condition per **Mitigation Measure 4A**. The area is not in a flood zone so will not impede or redirect flood flows. Therefore, ***less than significant with mitigation*** as they relate to alteration of existing drainage patterns.

10d The proposed project is not located within a 100-year flood hazard zone. Rather, the project corridor is identified by the as within Zone "X", which is defined as "areas determined to be outside the 0.2% annual chance floodplain" in the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA). The project is the installation of the water pipeline and hydrant system, water storage tank and groundwater well; therefore, there would be ***no impact*** associated with risks of releasing pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

10f No housing is proposed as part of this project, and the project is not within a 100-year flood hazard area. Therefore, there will be ***no impacts*** related to placing housing within a flood zone.

10g The project is not within a 100-year flood hazard area, so there are ***no impacts*** related to structures impeding or redirecting flood flows.

Mitigation Measures: The proposed project would result in construction activities and may require the preparation of a Stormwater Pollution Prevention Plan (SWPPP). In addition to **Mitigation Measures 4A and 4B**, the following water quality mitigation measures or best management practices (BMPs) are also identified:

Mitigation Measure 10A: Obtain Appropriate Stormwater Permit and Implement an Erosion and Sediment Control Plan. Project road improvements and future land disturbance must obtain an appropriate stormwater permit and implement an erosion and sediment control plan for projects including land disturbance of one acre or more. The following note must be included on grading/building permits: Prior to issuance of grading permits or improvement plans for all projects that could result in disturbance of an acre or more of land, the construction and grading permits shall comply with the applicable General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit) regulations. Grading plans shall include verification that a Construction General Permit, issued by the State Water Resources Board, has been issued for this project. Said permits or plans shall incorporate, at a minimum, the following erosion and sediment control measures:

1. Best Management Practices (BMPs) for temporary erosion control shall be implemented during construction to control any pollutants that could potentially affect the quality of storm water discharges from the site. A Storm Water Pollution

Prevention Plan (SWPPP) shall be prepared in accordance with California State Water Resources Control Board (SWRCB) requirements. This SWPPP includes the implementation of BMPs for Erosion Control, Sediment Control, Tracking Control, Wind Erosion Control, Waste Management and Materials Pollution Control.

2. All portions of the project, including on-site grading and excavation for the access road, shall be included in the State-mandated Storm Water Pollution Prevention Plan (SWPPP) and are subject to the required monitored and reporting.

Timing: *Prior to building/grading permit issuance*
Reporting: *Approval of permits or plans recordation*
Responsible Agency: *Planning Department and Building Department*

Mitigation Measure 10B: Implement the following BMPs to minimize construction related impacts to water quality. The following BMPs shall be incorporated into all Contract Documents and Construction Plans for the project and implemented by the contractor to protect water quality:

1. Construction crews shall be instructed in preventing and minimizing water pollution on the job.
2. Interim erosion control measures may be needed and shall be installed during construction to assure adequate erosion control facilities are in place at all times.
3. Straw or rice mulch may be used if needed with a tackifier.
4. All earth moving or excavation activities shall cease when winds exceed 20 mph.
5. Haul trucks shall be covered with tarpaulins or other effective covers at all times.
6. Use broom and shovels when possible to maintain a clean site. Use of a hose is not recommended. Introducing water as a cleanup method adds to water pollution.
7. Designate a concrete washout area, as needed; to avoid wash water from concrete tools or trucks from entering storm drain systems. Maintain washout area and dispose of concrete waste on a regular basis.
8. Establish a vehicle storage, maintenance, and refueling area, as needed, to minimize the spread of oil, gas, and engine fluids. Use of oil pans under stationary vehicles is strongly recommended.
9. Dust control measures shall conform to **Mitigation Measure 3C:** Control dust during project construction.

Timing*: Prior to grading/building permit issuance and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

Mitigation Measure 10C: The following BMPs shall be implemented to ensure that SWPPP measures are maintained and prevent water pollution.

1. At no time shall heavy equipment operate in flowing water or saturated soils.
2. Be prepared for rain and have the necessary materials onsite before the rainy season.
3. Insure all SWPPP measures are in place prior to a 30% chance of rain. Install silt-fencing, straw bales, sediment catch basins, straw or coir logs or rolls, or other

sediment barriers to keep erodible soils and other pollutants from entering the storm drain system and adjacent drainages

4. Before the first heavy rains and prior to removing the barriers, soil or other sediments or debris that accumulates behind the barriers shall be removed and transported away for disposal.
5. During long periods of rain and high intensity rainfall, SWPPP measures may become clogged. Extreme care should be taken to clean SWPPP measures to reduce fugitive discharge and potential flooding.
6. Protect drain inlets from receiving polluted storm water through the use of filters such as fabrics, gravel bags or straw wattles.
7. Inspect sediment control devices after each storm and remove sediment.
8. Inspect all BMPs before and after each storm event. Maintain BMPs on regular basis and replace as necessary, through the entire course of construction.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 10D: Additional Best Management Practices (BMPs). To protect water quality in watercourses adjacent to the project corridor, the contractor shall implement standard Best Management Practices during and after construction. These measures include, but are not limited to:

1. Disruption of soils and/or vegetation near the unnamed watercourses that bisect the project alignment shall be minimized to limit potential erosion and sedimentation; disturbed areas shalt be graded to minimize surface erosion and siltation; bare soils shall be immediately stabilized and revegetated. Seeded areas shall be covered with broadcast straw or mulch. If straw is used for mulch or for erosion control, utilize only certified weed-free straw to minimize the risk of introduction of noxious weeds, such as yellow star thistle.
2. The contractor shall exercise every reasonable precaution to protect the unnamed watercourses and tributary drainages from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials. Construction byproducts and pollutants such as oil, cement, and wash water shall be prevented from discharging into or near these resources and shall be collected and removed from construction areas. No slash or other natural debris shall be placed in or adjacent to the unnamed watercourses and adjacent drainages. All construction debris and associated materials and litter shall be removed from the work site immediately upon completion.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 10E: Provide copies of BMPs. Copies of the project's Mitigation Monitoring and Reporting Program and all BMPs shall be supplied to the Contractor(s) and their workers to assure compliance with mitigation measures during construction.
***Timing**: Prior to grading/building permit issuance and during construction*

***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Planning Department*

Mitigation Measure 10F: Groundwater Monitoring. The following mitigation measures shall be included in the project operations plan and submitted for review by the Planning Department prior to building or well permit issuance:

1. Establishing Baseline Water Depth & Quality
    a. At least one year prior to commencing fill of the water storage tank from the well, landowners of parcels within the estimated zone of influence (345-foot radius from the well location) will be notified that their property may be affected by the use of the well to fill the water storage tank. They will be invited to participate in well monitoring for both water depth and water quality. At minimum, the three nearest wells responding to the invitation to participate in monitoring will be selected. Failure to obtain permission to monitor three or more private domestic wells will result in termination of using the well to initially fill the tank. Copies of the notification letters and a list of the selected monitoring wells will be submitted to the Planning Department prior to issuance of building permits.
    b. The Department of Public Works will provide continuous monitoring data from November to April of the year prior to fill operations to estimate the monthly low groundwater levels for the three or more wells in the estimated zone of influence selected to participate in the monitoring program.
    c. Water quality samples will be assessed for all participating wells per degradation of beneficial uses designated by the Sacramento River Basin Plan, Section 2.2 prior to initial well operations. Results will be submitted to the Planning Department prior to building permit issuance.
    d. Use of the well during any months for which there is no baseline data shall not be allowed.
2. Groundwater Monitoring During Initial Fill
    a. Monitored domestic wells will be sampled for water quality after the tank has been filled approximately 165,000 gallons, and 247,500 gallons. If the water quality in the monitored wells was of beneficial use prior to commencing tank filling operations and falls below the beneficial uses at any point, the use of the well for filling the tank will be terminated and a commercial water supplier will be used for the remaining fill of the tank.
    b. If the monthly low groundwater levels are decreased by more than one foot in any monitoring well then well fill operations will be paused until the groundwater recovers to above the monthly lower range, or the well fill operations will be terminated and a contract with a commercial water supplier will be required for the remaining fill. Prior to issuance of building permits, an executed contract with a water supplier to fill the water storage tank in the case the well operation is terminated shall be provided to the Planning Department.

c. Prior to final building permit inspection, final groundwater level and water quality evaluation will take place to verify groundwater supplies have not been reduced and water quality has not been degraded beyond beneficial uses. If the well operation was terminated, then truck tags from the commercial water supplier that filled the water storage tank will also be provided to the Planning Department.

3. Well Use Limitations
    a. If the well is used for the initial fill of the water tank, the use of the well will be limited to 8 hours per day during the aquifer recharge season which is November through April and only for months which have an established baseline water level from the prior year's monitoring efforts.
    b. If the groundwater monitoring performed during initial tank fill resulted in termination of the operation at any point because of significant impacts to groundwater resources, the tank will be refilled by a commercial water supplier following fire suppression events. If the tank was successfully filled without causing significant impacts to groundwater, then the well may be used to refill the tank following fire suppression events under the following conditions:
        i. During the aquifer recharge period of November through April
        ii. Filling the tank no more than 8 hours per day, and
        iii. Tank filling operations must cease if the operator receives notice from any property owner within the zone of influence that their well is being impacted by the refilling of the tank.

    Sustainable operation practices will be finalized following the initial tank fill and will be included in the system's Operations Plan provided to the Planning Department prior to final building permit inspection.

***Timing**: Prior to issuance of building permits, during initial tank fill, and prior to final building permit inspection*
***Reporting**: Agency approval of permits*
***Responsible Agency**: Planning Department*

11. Land Use and Planning

Existing Setting: The proposed project corridor is located in the unincorporated area of Nevada County in the North San Juan community. The project corridor extends approximately 0.2 miles easterly, to the Sweetland Road intersection, and westerly, to the Oak Tree Road intersection along State Highway 49 at the intersection of State Highway 49 and Flume Street, and approximately 0.2 miles from Flume Street to State Highway 49 to the proposed water storage tank site, and approximately 0.2 miles from the Cherokee Street and Reservoir Street to State Highway 49.

The project area is mostly within the 23+-acre North San Juan Rural Center, a multi-purpose center whose function is to provide goods and services to surrounding rural areas and low- to medium-density residential development. Land uses within this area are primarily designated

Neighborhood Commercial, Business Park, Office & Professional, Residential Agricultural, Medium Density Residential, Public, and Open Space. The project corridor is largely developed with these land uses.

The County-adopted North San Juan Rural Center Area Plan (2010) addresses the need for a pressurized fireflow system to serve future commercial, multi-family, and industrial land uses, as prepared in the 2009 Fire Protection Plan prepared by the Fire District. The North San Juan Rural Center Area Plan Goal 4.3, Goal 4.4, and Policy 4.8 encourages adequate, reliable, and safe water supply and fire flow within the Rural Center. The affected zoning districts allow for public utilities and infrastructure.

Land uses along the State Highway 49 portion of the project corridor consist of low-density commercial development, including a gas station/mini-market, restaurants and a bar, small retail stores, as well as low-density residential uses, a post office, and vacant lots. Uses along the roads that access the highway consist of low-density residential, a community center, church, a fire station, and vacant lots. Within the North San Juan Rural Center boundaries, a significant portion of parcels are vacant and or/undeveloped with structures. The project is within a low-income community.

Section L-II 4.3.17 of the Nevada County Land Use and Development Code requires a 100-foot non-disturbance buffer to protect perennial watercourses.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Physically divide an established community?		✓			A,17
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?		✓			A,17,18

Impact Discussion:

11a The proposed project may temporarily disrupt or divide the physical arrangement of an established community, including low-income community, as the construction has the potential to necessitate temporary closure of roads for installation of the pipeline and associated developments. **Mitigation Measure 17A** requires a traffic control plan that would ease any disruption to the physical arrangement of the established community by requiring notification of property owners, alternate routes, retaining at least one lane of traffic open, flaggers, and other measures. No new roads or physical barriers be constructed in conjunction with the project and therefore, the proposed project would not disrupt or divide the physical arrangement of the community. Though most of the improvements will be made within the public right-of-way, there are portions that will installed on private property. In order to legally pursue work on private property and verify that the proposed project will not disrupt or divide existing land uses, **Mitigation Measure**

11A requires recorded easement agreements between the County and the property owners be submitted for all parcels on which improvements are proposed prior to issuance of building permits. Therefore, the proposed project would have ***less than significant impact with mitigation*** related to division of an existing community.

11b The project proposes work within 100 feet of potential wetland areas which requires a Management Plan pursuant to Land Use and Development Code Section L-II 4.3.17. The Management Plan mitigates possible impacts to the protected resource with **Mitigation Measure 4B** which requires best management practices to install wattles and weed-free straw for erosion control, avoid excavation or draining in wet weather, protect the site from construction chemicals, and educate contractors on mitigation measure to ensure the wetlands are protected. The Nevada County Land Use and Development Code Section L-II 2.2.1 ensures that site improvements for the 330,000 gallon water storage tank, including accessories, complies with the Residential Agricultural zoning district site development standards such as structure height and setbacks, and impervious surface coverage maximums as detailed in LUDC Table L-II 2.2.1.C. Impervious surface coverage maximums help to avoid environmental effects related to surface run off and are limited to 30% for the parcel with the proposed water storage tank. With the incorporation the mitigation measure requiring erosion control best management practices, the project would have a ***less than significant impact with mitigation*** regarding environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measures: To ensure compliance with applicable land use plans, policies, and regulations, the following mitigation measure, in addition to **Mitigation Measures 4B and 17A**, shall be included:

Mitigation Measure 11A: Secure and Record Easements. Copies of recorded easements allowing development and maintenance of pipeline and associated improvements on private parcels shall be submitted to the Planning Department prior to issuance of grading/building permits.
Timing*: Prior to grading/building permit issuance*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

12. Mineral Resources

Existing Setting: The northern portion of the proposed project corridor is located within an area mapped on the State Division of Mines and Geology's Nevada County Mineral Classification Report Maps, referred to as Mineral Resource Zones - 2 (MRZ-2) including the location of the water storage tank, shown in *Figure 5* below, with the yellow shading indicating the MRZ-2 area. The proposed project area within the MRZ-2 zone is disturbed, developed with roadways, the sanitation transfer station, and adjacent uses, including residences and a church. The zoning of these project parcels in this area is Residential Agricultural, which is considered incompatible for and does not

allow surface mining pursuant to Nevada County Land Use and Development Code Section L-II 4.3.11.

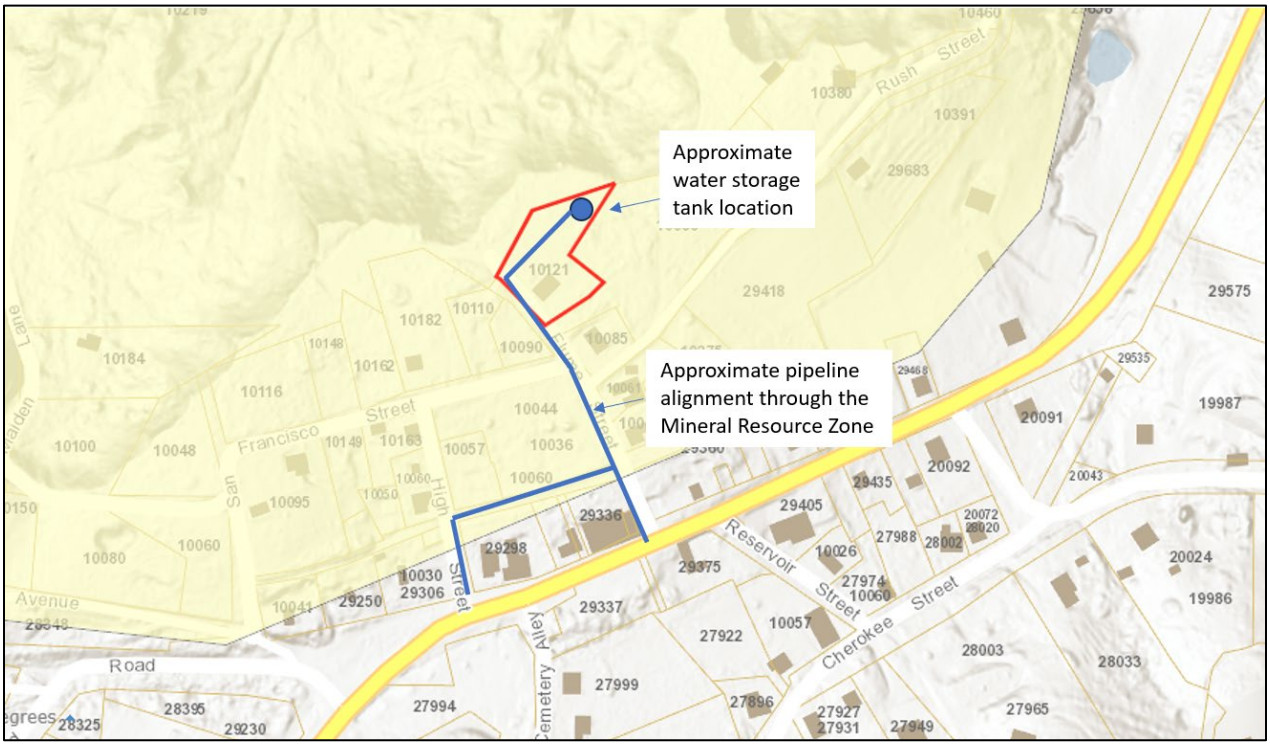

Figure 5 - Mineral Resource Area (MRZ-2) shown in shaded yellow

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			✓		A,L,1
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			✓		A,L,1

Impact Discussion:

12a,b A portion of the proposed project area, located at the northerly end of Flume Street, is mapped within the MRZ-2. The proposed project area mapped within the MRZ-2 is disturbed, as it is developed with the sanitation transfer station and the existing paved roadway and gravel shoulders, and not readily available for extraction of mineral resources. The installation of the water storage tank and water pipeline would occur within these developed areas that are not readily available for extraction of mineral resources and are zoned Residential Agricultura, which is incompatible with mining activities. Therefore the loss of known mineral resources is not anticipated and the impact to mineral resources is ***less than significant.***

Mitigation Measures: None required.

13. Noise

Existing Setting: The project alignment is located adjacent to neighborhood commercial uses, residential parcels, and public services (fire station and post office) parcels. The ambient noise in the project area is generated primarily by traffic on the existing roadways.

Noise sources occur in two forms: (1) point sources, such as stationary equipment, loudspeakers, or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites and 7.0 dB(A) at acoustically "soft" sites. For example, a 60-dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively. Sound levels can also be attenuated by man-made or natural barriers.

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. Noise-sensitive receptors in the project area include residential dwellings that are adjacent to the project corridor.

There is no airport land use plan in the project area, nor is there a public airport or public use airport within two miles of the project. There are no private airstrips in the vicinity of the project.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess standards established in the local General Plan or noise ordinance, or applicable standards of other agencies?		✓			A,17,18
b. Generation of excessive ground borne vibration or ground borne noise levels?		✓			A,18

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓	A,L

Impact Discussion:

13a During the construction phases of the project, noise from construction activities will be present in the immediate area of construction. Construction noise is regulated by state and county regulations, which include California Building Code (CBC) standards for construction-generated noise attenuation. Noise levels generated during construction must comply with applicable local, state, and federal regulations. Adherence to existing noise attenuation standards and measures, in addition to the measures described in **Mitigation Measure 13A**, would ensure construction-generated noise impacts that are ***less than significant with mitigation*** by limiting work hours, using quieter equipment, favoring signal lights over sounds, and establishing a complaint evaluation procedure.

Section L-II 4.1.7 of the Nevada County Land Use and Development Code establishes exterior noise limits, and this project is not anticipated to violate these standards. The permanent equipment does not include loud noise-producing equipment, and maintenance noise would likely be limited to vehicles visiting the site. Any long-term operational and/or maintenance noise impact associated with the water storage tank would be minimal because the tank equipment is located approximately 150 feet from the nearest structure, a church, and approximately 250 feet from the nearest residence. The project may indirectly lead to increased commercial activity in the corridor because the availability of firewater service increases the feasibility of commercial development. While commercial development may lead to increased noise, these future developments will require Use Permits and also be subject to CEQA review; noise impacts will be mitigated at that time.

13b There will be some vibration and noise associated with the construction of the foundation for the water storage tank, trenching for the pipeline, and drilling of the well. These noise and vibration sources would be limited to the construction phase and subject to the **Mitigation Measure 13A** to minimize construction noise including limiting the hours of construction and placing noise-generating equipment as far as possible from sensitive receptors. The project will not result in exposure of people to excessive ground borne vibration or ground borne noise levels, nor is the installation of the water pipeline and hydrant system, groundwater well, and water storage tank likely to generate such vibration or noise. Therefore, impacts would be ***less than significant with mitigation*** in terms of ground borne noise and vibration.

13c The proposed project is not located in the vicinity of any public or private airport. Therefore, there would be ***no impact*** related to this issue.

Mitigation Measures: Because the proposed project would result in activities that would generate temporary construction noise, the following Mitigation Measures are recommended:

Mitigation Measure 13A: Construction Noise Minimization Measures. These measures will be part of all Contract Documents and Construction Plans, implemented by the contractor and monitored by the County, as appropriate.

1. Construction activities will limited to the working hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday or as otherwise stipulated by local encroachment permits.
2. All internal combustion engine driven equipment will be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment, as per the manufacturer.
3. Stationary noise-generating equipment will be located as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
4. Quiet air compressors and other stationary noise generating equipment will be utilized as applicable to project construction activities and when feasible.
5. Avoid the use of loud sound signals in favor of light warnings except those required by safety laws for the protection of personnel.
6. If noise complaints are received, identify the source, evaluate and implement available abatement measures, and notify the complainant(s) of the results. Complaints shall be provided to the County.

Timing*: Prior to grading/building permit issuance and during construction*
Reporting*: Agency approval of permits or plans*
Responsible Agency*: Planning Department*

14. Population and Housing

Existing Setting: The General Plan land use designations for the project corridor are as follows: Residential, Office & Professional, Neighborhood Commercial, Business Park, Urban Medium Density (Residential), Public, and Rural. The zoning designations within the project corridor are as follows: Neighborhood Commercial, Medium Density Residential, Office & Professional, Business Park, and Residential Agricultural. The project corridor is located within the North San Juan Rural center, a 23+-acre multi-purpose center whose function is to provide goods and services to surrounding rural areas and low- to medium-density residential development.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓		A,17,18
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓	A,17,18

Impact Discussion:

14a If installed, the proposed water pipeline and hydrant system, including the groundwater well and water storage tank, would meet the current and allowed land uses within the North San Juan Rural Center boundaries and adjacent properties. The pipeline would satisfy the water fire flow suppression needs for commercial structures, which would increase the feasibility of future commercial development, but would not directly increase density or permit any residential, commercial, or industrial development or changes to the zoning code or General Plan. The area is currently zoned and planned for more development than currently exists. If future population inducing projects are proposed, a separate application would be required with an environmental review and a public hearing to determine impacts. Therefore the impact to induction of unplanned population growth is ***less than significant.***

14b The proposed project does not conflict with the location of existing housing; therefore, no housing would be removed, nor would the construction of replacement housing be necessary. Therefore, the proposed project would have ***no impact*** related to the induction or displacement of housing and people.

Mitigation Measures: None required.

15. Public Services

Existing Setting: The following services are provided within the project corridor:

Fire: The North San Juan Fire District provides fire protection services to this site.

Police: The Nevada County Sheriff Department provides law enforcement services.

Schools: The project site is within the Twin Ridges Elementary School and Nevada Joint Union High School Districts.

Parks: The project is within the Oak Tree Community Park District.

Water: The project site is not served by a public water conveyer. Rather, all potable water supplies within the project area are provided by groundwater wells tapped into local groundwater sources.

Sewer: Sewer service is provided to the site by the Nevada County Sanitation District No. 1 or private septic systems.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following the public services:					
i) Fire protection?		✓			H
ii) Police protection?		✓			A
iii) Schools?		✓			A,L
iv) Parks?		✓			A,L
v) Other public services or facilities?		✓			B

Impact Discussion:

15a Temporary delays to roadway traffic may occur during project construction activities. However, as required by local and state regulations, emergency vehicles will be given the right of way in the event of their presence within the project vicinity as required by **Mitigation Measure 17A** for required traffic control plan details). The proposed project would be beneficial to the North San Juan Fire District once completed, as the proposed water pipeline and hydrant system would improve emergency water access for fire suppression. The well is proposed on the site of the North San Juan Fire Station but will not interfere with their operations. No changes in police protection services are proposed as part of this project, as the water pipeline and hydrant and water tank storage would be unmanned facilities and would not require an increase in police presence. The proposed project would not add to the area's population or increase demands on school or park services, as no residential, commercial, or industrial buildings that would increase population or employment are currently proposed. Though increased access to firewater does increase the feasibility of future commercial development, this project would not result in a new substantial need for additional schools, parks, transit services or police protection because the facility would not create a significant increase in population or human presence in the area. Future development would be evaluated for impacts in an independent permitting and CEQA process. Therefore, impact of this project on public services is considered ***less than significant with mitigation.***

Mitigation Measures: Potential impacts to Public Services will be mitigated by **Mitigation Measure 17A**.

16. Recreation

Existing Setting: The improvements are proposed within the North San Juan Rural Center which lies within the Twin Ridges Recreation Benefit Zone. The nearest park, Oak Tree Community Park, is located approximately 1.2 miles from the proposed project site. No established biking, equestrian, nor hiking trails exist within the proposed project site area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓		A
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				✓	A
c. Conflict with established recreation uses of the area, including biking, equestrian and/or hiking trails?		✓			A

Impact Discussion:

16a The proposed project would not cause increased use to local parks as no additional housing units are proposed, and no direct increase to population is expected. Though increased access to firewater does increase the feasibility of future commercial development and associated impacts, these potential future projects would be evaluated in an independent permitting and CEQA process. Therefore, the impact to increased use of recreational facilities related to this project is ***less than significant***.

16b No recreational facilities are included or required as part of this project so there is ***no impact***.

16c The nearest park, Oak Tree Community Park, is accessed via Highway 49 through the project corridor. **Mitigation Measure 17A** requires a traffic control plan to limit the impact of the project on through traffic, and would ensure continued access to the nearest park. Therefore, the proposed project would have ***less than significant impact with mitigation*** on established recreation uses of the area.

Mitigation Measures: To ensure there is no significant impact to access to recreation amenities in the vicinity of the project, **Mitigation Measure 17A** is required.

17. Transportation

Existing Setting: The road system that serves the North San Juan Rural Center in the project vicinity reflects the community's past, consisting of a two-lane highway, and local roads. State Highway 49, identified as Main Street on an historic townsite map, bisects NSJ, providing access to all lands within and adjacent to the Rural Center. Short feeder streets connect the local roads in a grid pattern, running generally in north-south and east-west directions. Roadways are generally adequate to serve the vehicle needs of planned development within the Rural Center, however, no pedestrian improvements occur along the local roads or the highway. There is a public bus operated by Nevada County that services North San Juan in the project area. Pedestrians and bicyclists are present in the North San Juan Rural Center, though there is not infrastructure to support them.

Caltrans maintains Highway 49 and other roads in the project area are primarily maintained by Nevada County's Department of Public Works alongside some private roads. Parking in the area is mostly in private driveways, along with gravel parking areas on private property on Highway 49 for commercial customers and some parking on the shoulders within public rights-of-way.

The Nevada County Regional Transportation Plan was adopted in 2015. It identifies North San Juan as a population center along a major transportation corridor (State Highway 49) and proposes to provide limited fixed-route service to North San Juan, which is currently in place. The plan also calls for consideration of a Class III bike route with multi-use shoulders in the project vicinity. This project has not been implemented.

The Nevada County Active Transportation Plan, adopted in 2018, does not identify any key destinations in North San Juan. The plan does not identify any existing bicycle infrastructure, but does show a planned Class III multi-use shoulder and a planned sidewalk and crossing improvements in the Highway 49 corridor in the project area. The Plan estimates that 0%-5% of households in the project area are without automobiles.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle or pedestrian facilities?			✓		A,37,38, 39
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓		A,40
c. Substantially increase hazards due to a geometric design feature (e.g., a sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment)?			✓		A
d. Result in inadequate emergency access?		✓			A

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
e. Result in an increase in traffic hazards to motor vehicles, bicyclists, or pedestrians, including short-term construction and long-term operational traffic?		✓			A

Impact Discussion

17a Future sidewalks, crosswalks, bike lanes, and multi-use shoulders are identified in the Nevada County Active Transportation Plan in the project area along a portion of the Highway 49 corridor. The proposed fire suppression infrastructure project is designed to have minimal encroachment into the Highway 49 right-of-way, and will not hinder future installation of pedestrian and bicycle infrastructure due to above ground conflicts between fire hydrants and sidewalks or below grade conflicts between pipelines and grading needed to install sidewalks or make shoulder improvements.

The project would not result in inconsistency with adopted policies supporting the provision of transit alternatives to automobile transportation on an equitable basis with roadway improvements because the project involves the installation of a water pipeline and hydrant system, groundwater well and water storage tank in existing roadways, rights-of-way, shoulders and/or abutting parcels. All affected rights-of-way will be restored to their original condition except for the addition of fire hydrants.

Therefore, the project will have a ***less than significant impact*** on program plan, ordinance, or policy addressing the circulation system.

17b The CEQA Section 15064.3 - Determining the Significance of Transportation Impacts describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" (VMT) refers to the amount and distance of automobile travel attributable to a project.

According to the Senate Bill 743 Vehicle Miles Traveled Implementation, adopted by the Nevada County Transportation Commission, a project's or plan's VMT impact may be considered less than significant if "the project or plan total weekday VMT per service population is equal to or less than 'X' percent below the subarea mean under baseline conditions" and "the project or plan is consistent with the jurisdiction's general plan and the Nevada County Regional Transportation Plan."

A specific reduction "X" below subarea baseline VMT may be selected by each jurisdiction based on key factors such as the setting (as noted in CEQA Guidelines Section 15064(b)(1)), evidence related to VMT performance, and policies related to VMT reduction.

However, analysis of smaller, less complex projects can be simplified by using screening criteria. The Office of Planning and Research suggest that screening thresholds may be used to identify when land use projects should be expected to cause a less than-significant impact without conducting a detailed study. Screening thresholds identified by the NCTC Senate Bill 743 Vehicle Miles Traveled Implementation document include:

- Projects in western Nevada County consistent with an RTP [regional transportation plan] or General Plan that generate less than 630 VMT per day. This value is based on the CEQA exemptions allowed for projects up to 10,000 square feet as described in CEQA Guidelines Sections 15303. The specific VMT estimate relies on the vehicle trip generation rate contained in the OPR Technical Advisory for small project screening and average vehicle trip lengths for western Nevada County using the travel forecasting model.

While there will be a slight increase in traffic during construction due to construction vehicles and a slight increase in traffic for occasional maintenance once operated, the vehicle miles traveled would be far below 630 VMT per day. Further, the project is consistent with the General Plan and Zoning intensities for the project site and surrounding area. Thus, given the above discussions, the proposed project is anticipated to have ***less than a significant impact*** on CEQA Guidelines Section 15064.3, subdivision (b).

17c The proposed project would not include any design features that would result in traffic hazards. The installation of the water pipeline and hydrant system would not include a change in existing roadway or intersection configurations in the project area. There would be temporary roadway obstructions during the construction phase of the project (construction barriers, etc.) However, these obstructions would be for a limited period of time and would be necessary to improve public safety in the areas where streets are undergoing excavation and the pipeline and hydrant system is being installed. The proposed project would not substantially increase hazards due to a design feature (e.g., a sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment). Fire hydrants within a right-of-way are standard and will be placed in a way that they are not damaged by or create hazards for vehicles. Therefore, impacts are considered ***less than significant***.

17d,e Project construction will likely cause temporary disruptions to the local circulation system for vehicles, public transit, bicycles, and pedestrians in the area. The project proposes installation of pipelines and fire hydrants in the public rights-of-way throughout the North San Juan Rural Center, including State Highway 49 and roads maintained by Nevada County. Because of this, traffic will need to be controlled to minimize the impacts to the circulation system. **Mitigation Measure 17A** reduces the impacts to traffic and circulation and limits traffic hazards during construction to ***less than significant with mitigation*** by requiring a Traffic Control Plan to be approved by the Nevada County Department of Public Works. The Traffic Control Plan will include provisions to keep at least one lane of traffic open at all times, maintain pedestrian access at all times, limit road closure to hours of work, requiring flaggers, and notification of anticipated road closures. This traffic plan also

makes accommodations that will ensure continued emergency access during construction.

Mitigation Measures: To offset potentially adverse traffic and circulation impacts associated with project construction, the following mitigation measures shall be required:

Mitigation Measure 17A: Traffic Control Plan. To help minimize potential traffic effects within the project corridor, a traffic control plan shall be developed and implemented during construction and installation of the water supply and hydrant system. These measures shall be includes on all Contract Documents and Construction Plans and enforced by the contractor and Nevada County Public Works Department as appropriate. Prior to building permit issuance, submit in writing a complete Traffic Control Plan (TCP) to the County. The TCP shall include all streets and locations where work is to be performed and shall indicate each stage of work, closure dates for streets and section of closure (if necessary and allowed by local jurisdiction), signage, flaggers, and any other pertinent information. The TCP shall be reviewed and approved by the County Department of Public Works before the construction commences. Specific components of the TCP include the following:

1. Prior to construction, the contractor shall submit for approval the proposed route(s) for all construction traffic along the project corridor. This shall include designated routes, if any, shown on the Contract Drawings. Upon approval, the contractor shall strictly adhere to that route(s) only, unless written permission is obtained to the change the route(s).
2. At least one (1) lane of traffic will be kept open at all times unless prior approval is provided by the County and any affected agency. No roads will be blocked or made inaccessible, due to the contractor's work, without prior written approval of the County and affected agencies. Fire lanes will not be blocked or obstructed at any time.
3. Work shall be accomplished to provide access to all side streets and properties whenever possible. If access to adjacent property cannot be provided, all property owners with restricted access shall be notified at least 24 hours in advance and adequate nearby parking shall be provided and maintained until direct access can be resolved. The contractor shall provide for pedestrian traffic through work areas at all times.
4. Traffic control, signs, and barricades shall conform to current standards. Lighted barricades shall be used when required. Special attention shall be provided to excavation and open trenching.
5. Three (3) flaggers shall be used for any one-way traffic flow situation (two (2) working and one (1) as standby), and shall be furnished by the contractor. The flaggers shall be properly equipped and trained.
6. Where flaggers are not visible to each other, additional flaggers shall be added as required by the County, or the contractor shall use radios.
7. All holes, trenches, etc., in pavement areas will be covered with 1-inch (minimum thickness) steel plates, shimmed with temporary asphalt on edges, by 5:00 p.m. or at the end of each work day. As an option to the contractor, the holes, trenches, etc.,

can be backfilled and all areas within pavement areas have temporary asphalt toppings. The temporary asphalt will be regularly maintained. All areas will be completely restored within ten (10) working days after the work has been completed at the location.

8. Contractor shall display "No Parking" signs in areas of work at least 72 hours in advance. The signs shall state the day(s), date(s), and time of construction work. "No Parking" signs shall be placed in full view along the side of the road and no more than 100 feet apart.
9. Contractor shall furnish, erect, maintain, and remove all necessary construction signs and barricades for the full term of the construction activities.
10. Closure of streets can only occur between 8:00 a.m. and 5:00 p.m. if allowed by the County. At least 48 hours before a street closure, the contractor must receive permission from the County and appropriate signage that meets their specifications. Approval to close a street is valid for one (1) day only.
11. In the event a street is closed, the contractor will notify the Police/Sherriff and Fire Protection District and provide appropriate signage that meets County specifications the day of the closure.
12. Lane closures may be made for work periods only. At the end of each work period, all components of the traffic control system shall be removed from the traveled way, shoulder, and auxiliary lanes.
13. If emergency access is required during a temporary lane closure, workers will be present and available to take appropriate steps to immediately alter operations to provide access.
14. The contractor will replace all striping and pavement marking disturbed by construction to preconstruction configuration.
15. The contractor will restore all existing hardscape (pavement concrete or walkways, driveways, or other surface features disturbed by the contractor's work) to the preconstruction conditions acceptable to the County.
16. Prior to commencement of work, notify all affected agencies, including the Planning Department, Public Works Department, Police Department/Sheriff's Office, Fire Protection District, Caltrans, U.S Postal Service, Disposal Services, and local ambulance/emergency response services.

***Timing**: Prior to grading/building permit issuance and during construction*
***Reporting**: Agency approval of permits or plans*
***Responsible Agency**: Department of Public Works*

18. Tribal Cultural Resources

Existing Setting: Assembly Bill 52 (Chapter 532, Statutes 2014) required an update to Appendix G (Initial Study Checklist) of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. Changes to Appendix G were approved by the Office of Administrative Law on September 27, 2016. Tribal Cultural Resources include sites, features, and places with cultural or

sacred value to California Native American Tribes. See Section 5 for additional information regarding tribal resources.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		✓			J, 28

Impact Discussion:

18a The proposed pipeline and hydrant system is located within a disturbed corridor that is developed with roadways and utilized for vehicular traffic. The site was surveyed for tribal cultural resources by Peak and Associates. The survey concludes that no resources were found in the area. Therefore, there is potential that a significant tribal cultural resource such as a site, feature, place or cultural landscape with cultural value to a California Native American tribe, significant resource to a California Native American tribe, or a site listed or eligible for listing as a Historical Resource may be present within the project corridor. **Mitigation Measures 5A and 5B**, described in Section 5 above, are proposed that would require on-site training of cultural resources, and construction to be halted in the unlikely event that there is a discovery of cultural resources, including historic, prehistoric, tribal, and paleontological resources. Because discovery of cultural resources could result in a determination of cultural value, proposed Mitigation Measure 5A as outlined in Section 5 – Cultural Resources, which would halt work and require tribal involvement in the event of a discovery, impacts to these Tribal Cultural Resources will be ***less than significant with mitigation***.

Mitigation Measures: Potential impacts to tribal cultural resources will be mitigated with **Mitigation Measures 5A and 5B.**

19. Utilities and Service Systems

Existing Setting: The project corridor is located primarily within the North San Juan Rural Center, as well as along adjacent residential parcels. The unincorporated community of North San Juan is served by Pacific Gas & Electric for electricity needs and telephone service is provided by AT&T. Solid waste needs of the community are disposed of at the North San Juan Sanitation Transfer Site. Sewage disposal needs are served by the Nevada County Sanitation District No. 1 and individual septic systems. Water is provided through private wells. Currently, a water pipeline does not existing within the project area. The proposed project would create a water pipeline and hydrant system that could be accessed for fire suppression.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Require or result in the relocation or the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?		✓			A,B
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?		✓			A,B,C
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓	
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste goals?		✓			
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?		✓			

Impact Discussion:

19a The project is a new water system designed to provide water for fire suppression purposes. The proposed water storage tank and well may require electrical power as well as phone

communications for remote monitoring and facility alarms. These utilities are located within the project area and no other utilities will be constructed or relocated. This document evaluates all potential significant environmental effects related to the construction of a new water system. All impacts are ***less than significant with mitigation*** as described throughout this Initial Study.

19b The proposed project would require new entitlements from the Nevada County Environmental Health Department for a well and would be regularly monitored to ensure compliance with water quality and quantity requirements. If monitoring showed an issue with either of these standards in the future, the Department of Public Works would be required to work with the Environmental Health Department to provide an alternate water source. **Mitigation Measure 10F** requires a contract with a commercial water provider for the initial fill and fills following a fire suppression event of the water storage tank so that the well is not overdrawn. Therefore, the project would have ***less than significant impact with mitigation*** relating to the availability of water supply for the reasonably foreseeable future.

19c The proposed project neither requires a new wastewater treatment facility or connection to a new wastewater treatment facility. As such, ***no impacts*** are anticipated to wastewater treatments facilities.

19d,e The development and operation of the water pipeline and hydrant system, groundwater well, and water storage tank is not anticipated to result in significant amounts of solid waste; however, any waste generated would be required to comply with federal, state and local statutes and regulations related to solid waste**.** Construction activities typically produce solid waste in the form of construction materials, including vegetation chippings and industrial toxic wastes like glues, paint, and petroleum products, resulting in potentially adverse landfill and solid waste disposal impacts. Impacts would be ***less than significant with mitigation*** as identified in **Mitigation Measure 19A** below which requires proper disposal of any waste not accepted by the regional landfill.

Mitigation Measures: To offset potentially adverse impacts related to construction waste, this mitigation measure, in addition to **Mitigation Measure 10F,** shall be required:

Mitigation Measure 19A: Appropriately Dispose of Vegetative and Toxic Waste. Neither stumps nor industrial toxic waste (petroleum and other chemical products) are accepted at the North San Juan Sanitation Transfer Station and if encountered, shall be properly disposed of in compliance with existing regulations and facilities.
Timing: *Prior to building/grading permit issuance and during construction*
Reporting: *Agency approval of permits or plans*
Responsible Agency: *Nevada County Planning Department*

20. Wildfire

Existing Setting: The project parcel is within the North San Juan Fire Protection District and is in a Very High Fire Hazard Severity Zone as designated by CalFire. The project site is in and adjacent to the North San Juan Rural Center in Western Nevada County in an area that is developed with residential, commercial, and agricultural uses. The highest elevation, at the water storage tank site, is about 2,170 feet, and slopes gently to the south. The Safety Element of the Nevada County General Plan addresses wildfire hazards in Nevada County and has several policies to improve fire safety. Nevada County has also adopted a Local Hazard Mitigation Plan (LHMP) that was updated in May 2018. Additionally, there is a Community Wildfire Protection Plan for Nevada County that was updated in April 2016. The Nevada County Office of Emergency Services published a Wildfire Evacuation Preparedness Action Plan in 2020.

Would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**	**Reference Source (Appendix A)**
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓	A,H,N,35, 41
b. Due to slope, prevailing winds, or other factor, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?				✓	A,B,H,N,4, 18
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓	A,H,N
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?		✓			A,H,L,N,33, 34

Impact Discussion

20a The Wildfire Evacuation Preparedness Action Plan, created by the Nevada County Office of Emergency Services highlights five initiatives to reduce wildfire risk in Nevada County:

1. Create safer evacuation routes countywide to save lives.
2. Improve early warning systems and emergency communications to reach everyone.
3. Establish defensible space around our homes and neighborhoods by reducing hazardous vegetation and encouraging voluntary compliance with defensible space standards.

4. Provide a coordinated approach to wildfire response preparedness through planning, community engagement, and project implementation.
5. Enhance critical infrastructure needed to respond to wildfires such as evacuation route improvements, water storage, fire hydrants, communication systems, and green waste facilities.

The proposed project would qualify as critical infrastructure needed to respond to wildfires including water storage and fire hydrants. The project does not propose work that would hinder creation of safer evacuation routes or early warning/communication systems. Defensible space will be required around the proposed water storage tank, enhancing wildfire safety for that site. Community outreach on this project will engage residents in the service area because they will need to vote on levying a maintenance fee for the fire suppression system. This outreach may increase community awareness of fire safety issues. This project is expected to have a positive impact by decreasing wildfire hazard risk with the installation of critical fire suppression infrastructure, therefore there is ***no impact*** to an adopted emergency response plan or emergency evacuation plan.

20b Though this project is located in a very high fire hazard severity zone, the purpose of the project is to increase capacity to suppress structure fires and wildfires in the immediate vicinity by providing water storage and fire hydrants. The project area is gently slope and serviced by paved roadways. Because is project is anticipated to reduce fire danger in the area, there is ***no impact*** related to exposing people to pollutant concentrations from wildfire.

20c The scope of this project is to install and maintain critical fire suppression infrastructure including a water storage tank, pipelines, fire hydrants, and a well. No additional roads, fuel breaks, or powerlines will be installed as part of this project, therefore there is ***no impact*** related to exacerbation of fire risk or environmental damage due to installation of associated infrastructure.

20d No changes to drainage patterns or flooding impacts are anticipated as part of this project. There are structures and residents downslope of the water storage tank. Vegetation removal as a result of wildfire may trigger slope instability. The water storage tank is adjacent to a past hydraulic mining site, which is also prone to landslides. Because of this, **Mitigation Measure 7C** requires a full geotechnical engineering report and implementation to ensure that the water storage tank is fully engineered and structurally sound given its proximity to potentially unstable slopes that would be exacerbated by wildfire should it occur in that area. Therefore, there are ***less than significant impacts with mitigation*** related to exposure of people or structures to risks due to runoff, post-fire slope instability, or drainage changes.

Mitigation: **See Mitigation Measure 7C**.

21. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact	Reference Source (Appendix A)
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California's history or prehistory?		✓			A
b. Does the project have environmental effects that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of the project are considered when viewed in connection with the effects of past, current, and probable future projects.)			✓		A
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		✓			A

Impact Discussion:

21a This draft Initial Study / Mitigated Negative Declaration evaluates the potential impact the proposed North San Juan water pipeline and hydrant system, groundwater well, and water storage tank project could have on the environment. Compliance with existing federal, state, and local regulations and mitigation measures identified in this Initial Study would reduce all potential impacts of the proposed project to a less than significant level. As discussed in the Biological Resources section, the project will have less than significant impacts with mitigation on the habitat and populations of protected plant and animal species. The Cultural Resources, Geology and Soils, and Tribal Cultural Resources sections find that impacts to important examples of major periods of California's history or prehistory will also be less than significant with mitigation. With the proposed mitigation measures, this project will have a ***less than significant impact with mitigation*** to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California's history or prehistory.

21b The objective of the project is to provide a water pipeline and hydrant system for adequate fireflow supply to satisfy the fire suppression needs of the existing and planned land uses within the North San Juan Rural Center. This project does not increase allowed density, change allowed uses, or concurrently permit any other scope of work. It is conceivable that this project will enable further commercial development because of the increased fire water service, though again, not beyond what is currently allowed. Should future commercial development be proposed, it will be subject to its own permitting process pursuant to local, state, and federal regulation, and environmental review pursuant to CEQA. Therefore the project's cumulatively considerable impacts are ***less than significant***.

21c The water pipeline project would not result in any substantial adverse effects to human beings, directly or indirectly, since each potentially significant impact can be reduced to a less than significant level with adherence to the mitigation measures outlined in this report and compliance with existing federal, state, and local regulations. This includes potential impacts to noise, recreation, transportation, public services, population and housing, and utilities and service systems. Therefore there would be no substantial adverse effects to human beings as a result of the project, resulting in impacts that would be ***less than significant with mitigation.***

Mitigation Measures: To offset potentially adverse impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, recreation, transportation, tribal cultural resources, and utilities and service systems, see **Mitigation Measures 1A, 1B, 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 5A, 5B, 5C, 7A, 7B, 7C, 7D, 7E, 10A, 10B, 10C, 10D, 10E, 10F, 11A, 13A, 17A, and 19A.**

Recommendation of the Project Planner

On the basis of this initial evaluation:

_____ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

__X__ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

_____ I find that the proposed project MAY have a "potentially significant impact" or a "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

_____ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____

Marie Maniscalco, Associate Planner Date:

Appendix A – Reference Sources

A. Planning Department
B. Department of Public Works
C. Environmental Health Department
D. Building Department
E. Natural Resource Conservation Service/Resource Conservation District
F. Northern Sierra Air Quality Management District
G. Caltrans
H. CalFire / Nevada County Consolidated Fire District
I. Regional Water Quality Control Board *(Central Valley Region*)
J. North Central Information Center, California Historical Resources Information System
K. California Department of Fish & Wildlife
L. Nevada County Geographic Information Systems
M. Nevada County Airport Land Use Commission
N. North San Juan Fire District

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25. Caltrans California State Scenic Highway System Map. Reviewed July 2023. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa
26. California State Parks Office of Historic Preservation: Certified Districts. Reviewed July 2023. https://ohp.parks.ca.gov/?page_id=27283
27. Beedy Environmental Consulting. Final Biological Inventory: North San Juan Fire Suppression Project. July 2023.
28. Peak & Associates, Inc. Cultural Resources Report – Determination of Eligibility and Effect for the North San Juan Fire Suppression System Project. June 2023.
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