

**To:** HUD/CDBG Environmental Staff  
**From:** Travis Crawford, AICP  
**Date:** 3/29/24  
**Subject:** Groveland Water System Project

---

The following is the environmental evaluation of alternatives for the proposed Groveland water system improvements project.

### **SECTION 1 - Introduction**

AM Consulting Engineers prepared an Engineering Design Report for the proposed Project which included potential Project alternatives. The CSD evaluated three different options and determined that the construction and operation of the proposed Project is the best option. For purposes of CDBG requirements, potential alternatives have been environmentally evaluated below. The Engineering Report provided the following alternatives:

Alternative 1 – No Project

Alternative 2 – Improvements on Existing Alignment

Alternative 3 – Improvements on Altered Alignment

Alternative 3 is the selected alternative and is the proposed project.

### **SECTION 2 – Proposed Project Description (Alternative 3 – Improvements on the Altered Alignment)**

The Project involves installing or replacing approximately 10,203 linear feet of 8-inch diameter water main as well as new gate valves, pressure reducing valves, and four fire hydrants in the downtown Groveland water distribution system; approximately 10,306 linear feet of 8-inch diameter water main as well as new gate valves, pressure reducing valves, and nine fire hydrants in the Big Oak Flat water distribution system; approximately 7,212 linear feet of 8-inch water main and two fire hydrants in the connection between the communities of Groveland and Big Oak Flat; and approximately 1,956 linear feet of 8-inch water main and one fire hydrant in the water distribution system that feeds White Gulch.

Specifically, the Project is broken down as follows:

Anticipated improvements to the downtown Groveland water distribution system:

- Construct 4,995 linear feet (LF) of 6" water main on the lots to the north of Highway 120.
- Construct 160 LF of 6" water main to connect the existing water main to the new water main north of Highway 120.
- Construct 2,610 LF of 6" water main on the lots to the south of Highway 120 and along Back Street.
- Construct 1,310 LF of 6" water main along Foote Street and extending to the east.
- Construct 2 segments of water main, 440 LF and 290 LF respectively, connecting the new water main south of Highway 120 to the new water main along Foote Street.
- Construct 215 LF of 6" water main along Power House Street connecting the new water main on Back Street to the new water main along Foote Street.
- Construct 385 LF of 6" water main connecting the new water mains north of Highway 120 to the new water mains south of Highway 120.
- Construction of new gate valves, pressure reducing valves and fire hydrants along the new water mains, as needed.

Anticipated improvements to the Big Oak Flat water distribution system:

- Replace 2,000 LF of 4" water main with 6" water main along Wards Ferry Road, including two (2) gate valves and three (3) fire hydrants.
- Replace 1,015 LF of 4" water main with 6" water main along Scofield Street including one (1) gate valve and three (3) fire hydrants.
- Replace 1,040 LF of 4" water main with 6" water main along Big Oak Road including one (1) gate valve and one (1) fire hydrant.
- Replace 320 LF of 4" water main with 6" water main along Henderson Street including one (1) gate valve and one (1) fire hydrant.
- Replace 295 LF of 4" water main with 6" water main along Black Road including one (1) gate valve and two (2) fire hydrants.
- Replace 745 LF of 4" water main with 6" water main along Harper Street.
- Replace 250 LF of 4" water main with 6" water main along School Street including two (2) gate valves.



- Replace 1,150 LF of 4" water main with 6" water main along Yates Street including one (1) gate valve and one (1) fire hydrant.
- Replace 305 LF of 4" water main with 6" water main along Vassar Street including one (1) fire hydrant and a crossing underneath highway 120.
- Construct 1,200 LF of 6" pipe along Ward Ferry Road and Scofield Street to loop the system including one (1) new PRV, three (3) new fire hydrants, and two (2) new gate valves.

Anticipated improvements to the water distribution system in the White Gulch area:

- Replace 5,170 LF of 6" water main along White Gulch Road, near Highway 120.
- Replace 1,200 LF of 4" water main with 6" water main along Old Highway 120.
- Construction of new gate valves, pressure reducing valves and fire hydrants along the new water mains, as needed.

Both conventional trenching methods and pipe bursting were considered for water mains to be replaced. Conventional construction requires detailed geotechnical investigations and topographical surveys to locate existing utilities that may be impacted by the excavation of the sewer line. Conventional construction uses heavy equipment to dig the trenches and requires surface restoration of the excavated trench.

Pipe bursting is a method by which the existing pipe is forced outward and opened by a bursting tool. In pipe bursting the existing pipe is used as a guide for inserting the expansion head (part of the bursting tool). The expansion head, typically pulled by a cable rod and winch, increases the area available for the new pipe by pushing the existing pipe radially outward until it cracks. The bursting device pulls the new pipeline behind itself.

During the pipe bursting process, the rehabilitated pipe segment must be taken out of service by rerouting flows around it. After the pipe bursting is completed, laterals are re-connected, typically by conventional excavation methods.

## **SECTION 2A – Description of Alternatives**



The following Alternatives were considered and are described in more detail below:

**Alternative 1 – No Project (See Section 4.2 of the Engineering Report for a full description)**

**Description:** This alternative consists of the continuation of the existing water distribution system.

**Alternative 2 – Improvements on Existing Alignment (See Section 4.3 of the Engineering Report for a full description.)**

**Description:** This alternative is similar to the proposed project, except it does all the improvements on the existing alignment.

**Alternative 3 – Improvements on Altered Alignment (See Section 4.4 of the Engineering Report and Section 2 of this document for the full description)**

**Description:** In order to not duplicate text, please refer to Section 2 of this report for the description of Alternative 3.

Project Objective:

The primary objectives of the proposed project are as follows:

- The Groveland Community Services District primary objective is to provide clean drinking water to the communities it serves.
- The Groveland Community Services District seeks to effectively distribute its' water supply and ensure sufficient water pressure is available for multiple users.
- The District seeks to operate the water distribution system with the most cost-effective methods available that meet the District's overall system performance and regulatory compliance requirements.

**SECTION 3 – Environmental Evaluation of Alternatives**

**3.1 FARMLAND**

**3.1.1 AFFECTED ENVIRONMENT**



The Farmland Mapping and Monitoring Program has not mapped farmland in Tuolumne County and as such, the Project does not include conversion of designated farmland to non-farmland. The proposed Project includes the installation of new and replacement water mains and associated appurtenances. The pipeline and associated infrastructure will largely occur within the existing right of way and will be installed underground. The purpose of the Project is to improve the existing Groveland CSD water infrastructure and does not have the potential to result in the conversion of farmland to non-agricultural uses or forestland uses to non-forestland.

### 3.1.2 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT

**Proposed Project (Alternative 3)** – The Project does not include conversion of farmland to non-farmland. There is *no impact*.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts to farmland.

**Cumulative Impacts:** No farmland would be lost as a result of the proposed Project. Therefore, there are no cumulative impacts to farmland.

### ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact (same as proposed project)

**Alternative 2** –No impact (same as proposed project)

### 3.1.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):** No mitigation measures are necessary or required.

**Alternative 1 – No Project.** No mitigation measures are necessary or required (Same as project).

**Alternative 2** –No mitigation measures are necessary or required (Same as project).

## 3.2 FLOODPLAIN

### 3.2.1 AFFECTED ENVIRONMENT



Most of the District is in Flood Zone X (Outside the 100-year flood zone). However, small portions of the District are in Flood Zone D (as identified by FEMA Flood Insurance Rate Map 06109C1225C, accessed August 2018). However, there is no housing associated with the project and therefore, there is *no impact*.

### 3.2.2 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT

**Proposed Project (Alternative 3)** – There is no housing or other building associated with the project and therefore there is *no impact*.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts to flooding.

**Cumulative Impacts:** No flooding impacts would occur as a result of the proposed Project. Therefore, there are no cumulative impacts.

### ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact (same as proposed project)

**Alternative 2** –No impact (same as proposed project)

### 3.2.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):** No mitigation measures are necessary or required.

**Alternative 1 – No Project.** No mitigation measures are necessary or required (Same as project).

**Alternative 2** –No mitigation measures are necessary or required (Same as project).

## 3.3 WETLANDS

### 3.3.1 AFFECTED ENVIRONMENT

The Project site consists of developed and disturbed land cover including roads, residential development, and commercial development. The surrounding land cover is composed of cismontane woodland. Intermittent and ephemeral waterways are present within 50 feet of each work location.



### 3.3.2 PRESENCE OF WETLANDS

The proposed Project site was surveyed by a qualified biologist (See the project Biological Report) and it was determined that there are no wetlands affected by the Project or in the Project vicinity.

### 3.3.3 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT

**Proposed Project (Alternative 3)** – There are no wetlands associated with the project and therefore there is *no impact*.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts to wetlands.

**Cumulative Impacts:** No wetlands impacts would occur as a result of the proposed Project. Therefore, there are no cumulative impacts.

### ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact (same as proposed project)

**Alternative 2** –No impact (same as proposed project)

### 3.3.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):** No mitigation measures are necessary or required.

**Alternative 1 – No Project.** No mitigation measures are necessary or required (Same as project).

**Alternative 2** –No mitigation measures are necessary or required (Same as project).

### 3.4 CULTURAL RESOURCES

A cultural resources assessment was prepared for the project which included records searches, site surveys and analysis. The report concluded that there were no known cultural or historical resources that would be impacted by the project. Refer to the cultural report.

#### 3.4.1 TRIBAL LANDS/FEDERAL REGISTER SITES



The proposed project site APE (Area of Potential Effect) is not occupied by Native American tribal lands or National Register of Historic Places listed features or eligible features.

### **3.4.2 GROUND DISTURBANCE**

The area of potential effect (APE) for the proposed Project is included in the Cultural Report. All construction activities, equipment staging and installation of utilities will be restricted to these parcels.

### **3.4.4 REGIONAL INFORMATION CENTER RECORDS SEARCH**

As described in the cultural report and CEQA document, an in-house records search (CCIC File # 10783/O) was completed on 26 July 2018 by SVCP archaeologist Douglas S. McIntosh with the assistance of staff of the Central California Information Center (CCIC) of the California Historical Resources Information System to identify areas previously investigated and to identify known cultural resources present within or in close proximity to the Project APE. This records search served to augment the 2016 records search (CCIC File # 10116 O) completed for the Groveland CSD Sewer Collection Service Project. Both records searches are included as Attachment A of Appendix C. According to the Information Center records, there are a minimum of 30 cultural resources within the general study area, and more than 60 resources within a 1/2-mile radius of the project study area. One historic-period site, the Big Oak Road (P-55-004140), is located within the project APE. California Historic Landmark #406 (P-55- 005093) which includes the town of Big Oak Flat is located adjacent to the APE. No other previously recorded cultural resources are situated within the APE. There have been over 25 previous investigations within the study area, with over 55 additional studies within 1/2-mile radius of the APE; seven investigations have been completed within 1/4 mile of the APE. No cultural resource sites listed on the National Register of Historic Places, the California Register of Historic Resources, California Points of Historical Interest, or the California Inventory of Historic Resources have been documented within the Project APE.

### **3.4.5 ARCHEOLOGICAL SURVEY**

On June 4, 2018, Sierra Valley Cultural Recourses archaeologists Douglas S. McIntosh, under the direction of Kristina Roper, conducted a reconnaissance-level archaeological survey of proposed new water main and replacement water main routes within the Groveland Community Services





District. This survey was conducted in conjunction with a proposed water distribution system improvements project.

The cultural resources survey focused on proposed new water main and replacement water main routes as defined in the Groveland Community Services District Water Distribution Improvements Engineering Design Report (May 2017, Figures 4-1, 4-2, 4-3). GCSD employee Brandon Klein was instrumental in helping Mr. McIntosh locate, identify and inspect the proposed pipeline routes within the GCSD.

Based on these results, the Project does not have the potential to result in significant impacts or adverse effects to historical resources or historic properties.

#### **3.4.6 SHPO CONCURRENCE LETTER**

Pursuant to Section 106 of the National Historic Preservation Act, the Waterboard will provide the SHPO with an analysis and determination regarding historic or archeological resource impacts, and ask for the SHPO to concur if required. It does not appear that SHPO concurrence will be required as the Regional Information Center has not identified historic properties or archeological sites in the area of potential effect (APE) and the archeological survey conducted for the proposed project does not identify properties that are possibly eligible for inclusion in the National Register of Historic Places.

#### **3.4.7 TRIBAL CONSULTATION**

In accordance with Public Resources Code Section 21080.3.1 - Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project.

A Sacred Lands File Request was submitted to the Native American Heritage Commission (NAHC) in June 2018, who provided a list of applicable Native American Tribes. Tribal organizations on the NAHC contact list were sent letters requesting their concerns or the opportunity to consult on the project on August 11, 2018. Follow-up phone calls were completed by September 1, 2018. Copies of the consultation letters and a description of methods of contact are described in Appendix B of Appendix C.



The following Tribes were consulted based on the list provided by the NAHC:

- Chicken Ranch Rancheria of Me-Wuk Indians
- Tuolumne Band of Me-Wuk Indians
- Washoe Tribe of Nevada and California

Pursuant to AB 52, a 30-day period was allowed in order to receive any comments or input from any Tribe. As of September 14, 2018 no Tribe has responded and therefore the District has complied with the provisions of Public Resources Code Section 21080.3.2.

Therefore, there is a *less than significant impact*.

### 3.4.8 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT

**Proposed Project (Alternative 3)** – Less than significant impact. As described in the Cultural Resources Report, the records search, background historical research, Native American outreach and a pedestrian survey revealed that no cultural resources occur on the Project site or in the Project area.

The survey did not result in the discovery or documentation of any previously unrecorded cultural resources within the APE. A majority of the proposed water pipeline routes are with asphalt paved or gravel covered road ways or along the edge State Highway 120. Two cultural resources located near the APE include the “Old Cemetery, 1849-1852, also known as Chinese Cemetery”. A sign at the cemetery also states that “Early Day Chinese Also Buried Here”. This small cemetery is surrounded by a low chain link fence and is located near the west end of the proposed new water main route at the western end of Henderson Road in the community of Big Oak Flat. UTM coordinates at the cemetery entrance are 10 741232E/ 4189869N (NAD 83). The other resource is the Groveland Jail. This structure is located along the northwest edge Ponderosa Lane, northwest of State Highway 120. The structure was constructed in 1895 in a neoclassic architectural style. See photos 9-11 and Maps 5-6 of Appendix C.

No other cultural resources were identified within the APE as a result of this study. Therefore, it is unlikely that the proposed action will have an effect on important archaeological, historical, or other cultural resources. No further cultural resources investigation is therefore recommended. In the unlikely event that buried archaeological deposits are encountered within



the project area, the finds must be evaluated by a qualified archaeologist. Should human remains be encountered, the County Coroner must be contacted immediately; if the remains are determined to be Native American, then the Native American Heritage Commission must be contacted as well.

Unidentified cultural resources could be uncovered during proposed Project construction which could result in a potentially significant impact; however, implementation of Mitigation Measure CUL-1 would ensure that significant impacts remain *less than significant with mitigation incorporation*.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts to cultural resources.

**Cumulative Impacts:** No cultural resource impacts would occur as a result of the proposed Project. Therefore, there are no cumulative impacts.

## ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact

**Alternative 2** –Less than significant impact with mitigation measures (same as proposed project).

### 3.3.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):**

*Mitigation Measure CUL-1:* In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.

**Alternative 1 – No Project.** No mitigation measures are necessary or required

**Alternative 2** –Same as project.

## 3.5 BIOLOGICAL RESOURCES



### **3.5.1 AFFECTED ENVIRONMENT**

The Project site consists of developed and disturbed land cover including roads, residential development, and commercial development. The surrounding land cover is composed of cismontane woodland. Intermittent and ephemeral waterways are present within 50 feet of each work location.

### **3.5.2 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT**

**Proposed Project (Alternative 3)** – Less than significant impact with mitigation.

Colibri Ecological Consulting, LLC, (CEC) was retained to conduct a reconnaissance survey to describe the biotic resources of the proposed Project site and to evaluate potential impacts to those resources that could result from proposed Project development.

#### **Methodology**

CEC performed a search of the California Natural Diversity Database (CNDDDB) and the California Native Plant Society's Inventory of Rare and Endangered Plants (CNPS) for records of special-status plants and animal species in the proposed Project area. Regional lists of special-status species were compiled using U.S. Fish and Wildlife Service, CNDDDB, and CNPS database searches confined to the Groveland 7.5-minute United States Geological Survey topographic quad, which encompasses the proposed Project site, and the eight surrounding quads. Local lists of special-status species were compiled using CNDDDB records from within five miles of the proposed Project site and species for which the Project site does not provide suitable habitat were eliminated from further consideration. Field surveys were conducted in April and May of 2018. As part of the intensive effort, biologists met with project design engineers and Groveland CSD staff on site to determine the specific limits of impact, method of construction and other relevant information in order to better evaluate the potential biological impacts of the Project. The results of these database searches and surveys are summarized herein and the full reports are included in Appendix B – Biological Resource Evaluation (May 2018).

#### **Land Use and Habitats**



The Project site consists of developed and disturbed land cover including roads, residential development, and commercial development. The surrounding land cover is composed of cismontane woodland. Intermittent and ephemeral waterways are present within 50 feet of each work location.

### **Observed Species**

In total, 94 plant species (59 native and 35 nonnative) were found during the reconnaissance survey (See Table 2 of Appendix B). One amphibian species, 29 bird species, and four mammal species were also detected (Table 2 of Appendix B).

### **Nesting Birds and the Migratory Bird Treaty Act**

Migratory birds are likely nest on or near the Project site. Species that may use the Project site or adjacent areas include, but are not limited to, red-shouldered hawk (*Buteo lineatus*), bushtit (*Psaltriparus minimus*), band-tailed pigeon (*Patagioenas fasciata*), mourning dove (*Zenaida macroura*), California scrub-jay (*Aphelocoma californica*), lesser goldfinch (*Spinus psaltria*), house finch (*Haemorhous mexicanus*), cliff swallow (*Petrochelidon pyrrhonota*), California towhee (*Melospiza crissalis*), spotted towhee (*Pipilo maculatus*), Nuttall's woodpecker (*Picoides nuttallii*), black phoebe (*Sayornis nigricans*), and Hutton's vireo (*Vireo huttoni*).

### **Regulated Habitats**

Multiple Project work locations were within 50 feet of intermittent and ephemeral streams that are hydrologically connected to the Tuolumne River, a navigable waterway under the regulatory jurisdiction of the USACE, the RWQCB, and the CDFW. The Project will likely impact four of these jurisdictional waterways – three in Big Oak Flat, where work could involve trenching across an ephemeral tributary of Rattlesnake Creek, an intermittent drainage that ultimately drains to the Tuolumne River via Priest Reservoir, or installing concrete pillars on the banks of the high-flow channel of Rattlesnake Creek – and one in Groveland, where concrete pillars could be installed on the severely eroded banks of an unnamed intermittent stream that is tributary to the Tuolumne River above Pine Mountain Lake.

No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the survey area; all tributaries to the Tuolumne River, the nearest potential migratory route for anadromous fishes, is effectively blocked by numerous manmade dams. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources



necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the survey area. And no federally protected wetlands, such as vernal pools, were found in the survey area.

The Project site is not within a flood plain (Federal Emergency Management Agency, 2018). The nearest flood plain limit is at Priest Reservoir, approximately 1.2 miles southwest of the Project site.

### **Special Status Species**

A total of three special-status species have the potential to occur on or near the Project site based on the presence of suitable habitat and CNDDDB occurrence records from within 5 miles (See Table 1 of Appendix B).

Northwestern pond turtle, western red bat, and Small's southern clarkia were identified in the desktop review as potentially occurring in the survey area due to the presence of suitable habitat conditions in the survey area (Table 1 of Appendix B).

The Project could have a substantial, direct adverse effect on northwestern pond turtle, a native reptile designated by the CDFW as a Species of Special Concern. Northwestern pond turtle uses a variety of aquatic habitats including streams, creeks, ponds, lakes, and canals for shelter, foraging, and basking and lays its eggs in uplands adjacent to these aquatic habitats. Because the Project will involve excavation and staging in and adjacent to multiple sections of intermittent and ephemeral streams that could support this species at some time during the year, incidental loss of animals or eggs from adjacent uplands nests could occur.

Western red bat uses trees, tree cavities, and peeling bark for roosting. Because no trees will be removed to facilitate water main installation activities, we conclude the Project will have no significant impact on this species. We also conclude the Project will have no impact on Small's southern clarkia, as the species was not found in the survey area during the flowering period. Additionally, we conclude that the Project will have a less than significant impact on other special status species due to the lack of habitat for such species in the survey area.

Implementation of the below mitigation measures will reduce any impacts to the northwestern pond turtle to *less than significant*.



**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts to biological resources.

**Cumulative Impacts:** No significant biological resource impacts would occur as a result of the proposed Project. Therefore, there are no cumulative impacts.

## ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact

**Alternative 2** –Less than significant impact with mitigation measures (same as proposed project).

### 3.3.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):**

#### **BIO – 1          Protect northwestern pond turtle**

1. To the extent practicable, construction in and adjacent to intermittent and ephemeral streams shall be scheduled to occur when streams are dry (approximately mid-July through October) to avoid the possibility of northwestern pond turtle being present at the worksite.
2. If it is not possible to schedule construction between August and October, pre-construction surveys for northwestern pond turtle shall be conducted by a qualified biologist to determine if turtles are occupying stream-adjacent worksites. pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all sections of stream within 300 feet of planned work activities, including adjacent upland areas, for turtles and nests; northwestern pond turtle nests in upland areas within several hundred feet of water in the spring, typically during the months of April and May. If a turtle or nest is found within 300 feet of the worksite, a qualified biological monitor shall remain on site during construction to ensure that no turtles or turtle nests are impacted by work activities. Any turtle found on or adjacent to the worksite shall be allowed to leave on its own.



## **BIO – 2      Protect Nesting Birds**

- To the extent feasible, construction shall be scheduled to avoid the nesting season, which extends from February through August.
- If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

**Alternative 1 – No Project.** No mitigation measures are necessary or required

**Alternative 2** –Same as project.

## **3.6 WATER QUALITY**

### **3.6.1 AFFECTED ENVIRONMENT**

The proposed Project includes improvements to the water infrastructure system. The Project does not include any water treatment facilities or processes that would result in the production of chemicals or substances that would adversely impact local water quality. The project will not result in any additional water releases that could potentially impact groundwater or water quality. Construction activities near creeks and streams could potentially impact water quality due to runoff, or changes in streambeds. However, all activities will be conducted under the requirements and restrictions of the regulatory permits that will be required for the Project.

### **3.6.2 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT**





**Proposed Project (Alternative 3)** – Construction activities near creeks and streams could potentially impact water quality due to runoff, or changes in streambeds. However, all activities will be conducted under the requirements and restrictions of the regulatory permits that will be required for the Project (most notably the RWQCB 401/404 permit which ensures appropriate measures are taken to preserve water quality). Best Management Practices pertaining to stormwater runoff from construction activities will also be enforced. Refer to Section IV – Biological Resources for information pertaining to regulatory permits and water quality. The State Water Resources Control Board will have ultimate review and approval of the upgraded system, thereby ensuring adequate water quality standards. There are no aspects of the Project that would result in changes to waste discharge requirements. Any impacts would be *less than significant*.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts to water quality.

**Cumulative Impacts:** Less than significant impacts to water quality are anticipated as a result of the proposed Project. Therefore, there are no cumulative impacts to water quality.

## ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact

**Alternative 2** –Less than significant impacts (same as proposed project)

### 3.6.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):** No mitigation measures are necessary or required.

**Alternative 1 – No Project.** No mitigation measures are necessary or required (Same as project).

**Alternative 2** –No mitigation measures are necessary or required (Same as project).

### 3.7 Coastal Resources

Not Applicable.

### 3.8 SOCIO-ECONOMIC AND ENVIRONMENTAL JUSTICE ISSUES



### 3.8.1 AFFECTED ENVIRONMENT

The proposed Project will take place in three adjacent communities; Big Oak Flat, Groveland, and White Gulch, in western Tuolumne County (see Figure 1). The three communities are within the Groveland Community Services District (CSD or District) and lie generally along State Route 120, south and southwest of Pine Mountain Lake and east of State Route 49. Yosemite National Park lies approximately 23 miles southeast of the Project site. Project elevation ranges from approximately 2800 feet to approximately 3100 feet above mean sea level.

The District provides a treated water supply to approximately 3,500 customers.

### 3.8.2 ENVIRONMENTAL CONSEQUENCE (EFFECT) OF PROPOSED PROJECT

**Proposed Project (Alternative 3)** – The proposed Project does not include any actions or consequences that will impact or influence any particular group of people any more than any other group. Essentially, the Project is intended to upgrade the existing water distribution system. As such, there are no socio-economic or environmental justice issues associated with the Project.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts.

**Cumulative Impacts:** Less than significant impacts are anticipated as a result of the proposed Project. Therefore, there are no cumulative impacts.

### ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

**Alternative 1 – No Project.** No impact

**Alternative 2** –Less than significant impacts (same as proposed project)

### 3.8.3 MITIGATION MEASURES

**Proposed Project (Alternative 3):** No mitigation measures are necessary or required.

**Alternative 1 – No Project.** No mitigation measures are necessary or required (Same as project).



**Alternative 2** –No mitigation measures are necessary or required (Same as project).

### **3.9 OTHER RELEVANT ENVIRONMENTAL ISSUES**

#### **3.9.1 AIR QUALITY AND GREENHOUSE GAS EMISSIONS (GLOBAL CLIMATE CHANGE)**

The project is in the Tuolumne County Air Pollution Control District.

#### **3.9.2 ENVIRONMENTAL CONSEQUENCES (EFFECT) OF PROPOSED PROJECT**

**Proposed Project (Alternative 3)** – There are no on-going air emissions that would result from the water distribution system. The only emissions resulting from the project are construction related emissions, which are below established thresholds, as shown earlier in this document. Therefore, there are less than significant impacts to air quality and global climate change.

**Indirect Impacts:** The Project is not considered growth inducing because it is a distribution system. There are no secondary or indirect impacts.

**Cumulative Impacts:** Less than significant impacts are anticipated as a result of the proposed Project. Therefore, there are no cumulative impacts.

### **ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES**

**Alternative 1 – No Project.** No impact

**Alternative 2** –Less than significant impacts (same as proposed project)

#### **3.9.3 MITIGATION MEASURES**

**Proposed Project (Alternative 3):** No mitigation measures are necessary or required.

**Alternative 1 – No Project.** No mitigation measures are necessary or required (Same as project).

**Alternative 2** –No mitigation measures are necessary or required (Same as project).

### **CONCLUSION AND DETERMINATION**



The purpose of the water system improvement project is to rehabilitate or replace water mains throughout Groveland and Big Oak Flat to meet fire flow requirements and provide reliable service to customers. The anticipated useful life of new water mains is in excess of 50 years.

New laterals will need to be constructed in some locations to connect customers to the new water mains. The three alternatives considered are as follows:

- Alternative I – No Project
- Alternative II – Improvements on Existing Alignment
- Alternative III – Improvements on Altered Alignment

Alternative I was discounted as it does not address the long-term fire flow requirements and reliability needs of GCSD. Alternative II was discounted due to Caltrans not granting permits to perform water main replacement within their right of way.

### **Design Criteria/Compliance Issues**

Alternatives II and III would require the replacement of existing water mains within Big Oak Flat and Groveland. There are no anticipated design issues, as both alternatives implement standard, common construction methods. These alternatives may include excavation and/or ground disturbance near trees or shrubs.

Alternative III seeks to minimize the amount of excavation performed in streets and highways, such as Highway 120. Encroachment permits may be required if work is located on Caltrans right of way.

Easements from property owners will be required if water mains pass through private property. A SWPPP will be required, since the project would disturb over 1 acre of land.

### **Recommended Alternative**

The alternatives were evaluated for feasibility and design criteria/compliance. It is recommended that design move forward with Alternative III. Alternative III is recommended over Alternative II for a variety of reasons. Some of the existing water mains along Highway 120 are shallow and cannot be rehabilitated in place. A new alignment would be required in these areas. The existing water mains are made of asbestos. It is preferable to abandon these lines in place and construct new mains. Other existing water mains are located deep underground and Alternative III would eliminate those spots with deep lines.



Alternative III could be designed to improve accessibility of the water lines, as compared to the existing alignment. Alternative III also minimizes the amount of excavation required along transportation right of way.

Outside of the No Project/No Action Alternative, which is the environmentally superior alternative, Alternatives 2 and 3 (Proposed Project) would result in similar impacts. When weighed against the purpose and need for the Project, the CSD has reviewed the environmental implications of the alternatives and has determined that the proposed Project (Alternative 3) is the most environmentally, economically and fiscally feasible alternative.

