Auburn Lake Trails Water Treatment Plant Project

Environmental Assessment/Initial Study

Prepared for:

Georgetown Divide Public Utility District

AND

United States Department of Agriculture

April 2010

Prepared by:

FOOTHILL ASSOCIATES

Table of Contents

List of Tables

List of Figures

List of Appendices

1.0 LIST OF ABBREVIATIONS AND ACRONYMS

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ALT	Auburn Lake Trails
APE	Area of Potential Effect
AQMD	Air Quality Management District
BIA	Bureau of Indian Affairs
BMP	Best Management Practices
Cal-EPA	California Environmental Protection Agency
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health
CDTSC	California Department of Toxic Substances Control
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWHRS	California Department of Fish and Game's Wildlife Habitat Relationships System
dB	decibel

dBA	A-weighted decibels
EA	Environmental Assessment
EA/IS	Environmental Assessment/Initial Study
EID	El Dorado Irrigation District
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
et.seq.	"and the following"
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FR	Federal Register
FTW	Filter to Waste
GDPUD	Georgetown Divide Public Utility District
GDRD	Georgetown Divide Recreation District
HCP	Habitat Conservation Plan
INRMP	Integrated Natural Resources Management Plan
IS	Initial Study
Leq	equivalent continuous noise level
Ldn	day-night equivalent noise level
Lmax	maximum A-weighted noise level recorded for a single noise event
LOS	Level of Service
LUP	Linear Underground Project
MCAB	Mountain Counties Air Basin
MBTA	Migratory Bird Treaty Act
MGD	Million Gallons per Day

MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MRF	Materials Recovery Facility
MRZ	Mineral Resource Zones
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Naturally Occurring Asbestos
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NSAQMD	Northern Sierra Air Quality Management District
NWR	National Wildlife Refuge
O_3	Ozone
OES	Office of Emergency Services
OHWM	Ordinary High Water Mark
OSHA	Occupational Safety and Health Administration
PER	Preliminary Engineering Report
PM_{10}	particulate matter with an aerodynamic diameter of 10 micrormeters or less
$PM_{2.5}$	particulate matter with an aerodynamic diameter of 2.5 micrormeters or less
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROG	Reactive Organic Gas

ROWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SMAQMD	Sacramento Metropolitan Air Quality Management District
SR	State Route
SRA	State Responsible Areas
State	State of California
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWTR	Surface Water Treatment Regulations
TAC	Toxic Air Contaminants
UBC	Uniform Building Code
USDA	United States Department of Agriculture
USACE	United States Army Corp of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
UV	Ultraviolet
WDRs	Waste Discharge Requirements
WTP	Water Treatment Plant

2.0 INTRODUCTION AND STATEMENT OF PURPOSE AND NEED

2.1 INTRODUCTION

The Georgetown Divide Public Utility District (GDPUD) was formed in 1946 and currently provides irrigation water and treated water to residents in the unincorporated areas of western El Dorado County, as well as wastewater services to the Auburn Lake Trails subdivision. The Auburn Lake Trails (ALT) Water Treatment Plant (WTP) was constructed in 1974.

The USDA, Rural Utility Service, as the lead agency under the National Environmental Policy Act (NEPA), and the GDPUD, as the lead agency under the California Environmental Quality Act (CEQA), are preparing this joint Draft Environmental Assessment/Initial Study (EA/IS), consistent with their lead roles in releasing and utilizing federal funds to implement proposed operational upgrades to the existing GDPUD Auburn Lake Trails WTP. This EA/IS evaluates potential environmental consequences associated with development of the proposed improvements as a result of the Proposed Action.

2.2 BACKGROUND

In February 2004, the California Department of Public Health (CDPH) sent the Georgetown Divide Public Utility District an "Order to Correct Non Compliance" for the District's Walton Lake water treatment plant and for the Auburn Lake Trails WTP. The order required each treatment plant to upgrade their treatment processes from in-line filtration to one of four approved filtration technologies as specified in Section 64653, Surface Water Treatment Regulations (SWTR), Chapter 17, Title 22 of the California Code of Regulations (CCR).

2.3 PURPOSE AND NEED STATEMENT

GDPUD was issued an Order to Correct Non Compliance (Order) by the State of California (State), Office of Drinking Water in February 2004. The Order stated that GDPUD was in violation of the Safe Drinking Water Act (SDWA) since GDPUD had not either (1) installed a State approved process at ALT WTP that would provide adequate removal of pathogens, or (2) conducted a study of existing ALT WTP operations to demonstrate adequate removal of pathogens. GDPUD decided that the ALT WTP would be replaced with a new WTP constructed at an alternate location and made significant progress in that direction. However, during the design process of the new WTP, it was determined that construction of the alternate WTP was not economically feasible.

Once it was determined the new WTP was not an option, GDPUD immediately began planning for modifications of the ALT WTP to meet State and federal drinking water standards, as described in the Order. Part of the work included the ALT WTP Upgrade Feasibility Study (Peterson Brustad, Inc. 2009) which provided an analysis of the potential treatment processes available for meeting State requirements, miscellaneous improvements required to support the new processes, and other incidental improvements to allow efficient plant operations. GDPUD is coordinating with the State to ensure that all modifications to the ALT WTP are acceptable, and will provide adequate treatment into the foreseeable future. Due to the unexpected delays associated with efforts to build a new WTP, GDPUD must implement modifications at the ALT WTP. Although there have been no known or suspected risk of microbial contamination or elevated disinfection by-products due to the current treatment processes and operation of the ALT WTP, GDPUD is responsible for complying with State of California directives by implementing best available treatment technologies and accepted operating standards at the ALT WTP.

2.3.1 System Operations and Maintenance

Deficiencies in current plant operations are identified in the feasibility study. These include the required use of a state approved treatment method, backwash/solids handling capability, storage and contact time, and instrumentation and monitoring. The operational deficiencies identified are critical to meeting water treatment objectives and are included in the proposed facility improvements.

Backwash/solids handling improvements would include additional storage to provide effective settling and removal of solids from backwash and filter-to-waste water. Effective solids removal would allow nearly complete recycling of the process water, thereby virtually eliminating the need for off-site discharge. Due to State and federal clean water regulations, providing a self-contained system for process water is essential for long-term sustainable operation of the facility.

As part of the SDWA and the SWTR, continuous monitoring of turbidity, flow, and chemical concentrations is required. New instrumentation and controls are proposed to enhance current operation of these requirements, enhance treatment, and provide additional alarms for abnormal operations.

2.4 PURPOSE OF THIS DOCUMENT AND REGULATORY GUIDANCE

2.4.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA) establishes federal government environmental policy, provides interdisciplinary framework for environmental planning by federal agencies, and contains procedures ensuring that federal agencies take environmental factors into account prior to approving any proposed action. Each federal agency is required to prepare procedures for implementing NEPA, supplementing procedures outlined in the Council on Environmental Quality (CEQ) NEPA Regulations. The CEQ issued regulations (40CFR1500-1508) establishing standards for environmental impact assessment and review processes for the federal government. As required by CEQ regulations, the USDA Rural Utilities Service Water and Environmental Program has classified actions for which financial assistance shall be provided. It is the responsibility of the USDA Water and Environmental program to independently evaluate the probable environmental effects resulting from implementation of the Proposed Action and alternatives, based on the Environmental Assessment (EA).

This EA, prepared pursuant to NEPA and associated Federal Guidelines, was prepared with input from various disciplines and interested parties, and includes sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI). As required under NEPA, this EA provides information describing the Proposed Action, alternatives, and environmental consequences related to implementation of the Proposed Action and alternatives, as well as the agencies and persons consulted during environmental review. Before making a final decision on the Proposed Action or another alternative, the EA will be available for comment to public agencies and interested members of the public during a 30-day public review period. After public review of the EA, USDA intends to make a final decision regarding approval of the FONSI. Before approval of the FONSI, USDA will conclude consultation under Section 7 of the Federal Endangered Species Act of 1973, as amended, to seek concurrence that the Proposed Action would not jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

2.4.2 California Environmental Quality Act

An Initial Study (IS) is conducted by a Lead Agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063). An Environmental Impact Report (EIR)

must be prepared if an Initial Study indicates that the proposed project under review may have a significant impact on the environment. A Negative Declaration may be prepared instead, if the Lead Agency prepares a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and therefore does not require the preparation of an EIR. According to CEQA Guidelines Section 15070, a Negative Declaration shall be prepared for a project subject to CEQA when either:

a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

b) The Initial Study identifies potentially significant effects, but:

   (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

   (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If revisions are adopted in the project plans or proposals in accordance with CEQA Guidelines Section 15070(b)(1), a Mitigated Negative Declaration (MND) is prepared.

2.5 IMPLEMENTING AGENCY RESPONSIBILITIES

2.5.1 United States Department of Agriculture, Rural Development - Federal Agency Responsibilities

The GDPUD is applying to USDA for financial assistance to improve the ALT WTP to comply with CDPH directives for protection of public health. The USDA decision to provide financial assistance via the obligation of a loan will be contingent upon several factors, including completion of the environmental review process and subsequent determination by USDA relevant to the significance of the probable environmental effects resulting from implementation of the Proposed Action. As the federal agency considering funding assistance for proposed ALT WTP improvements, USDA is the NEPA Lead Agency for the Proposed Action.

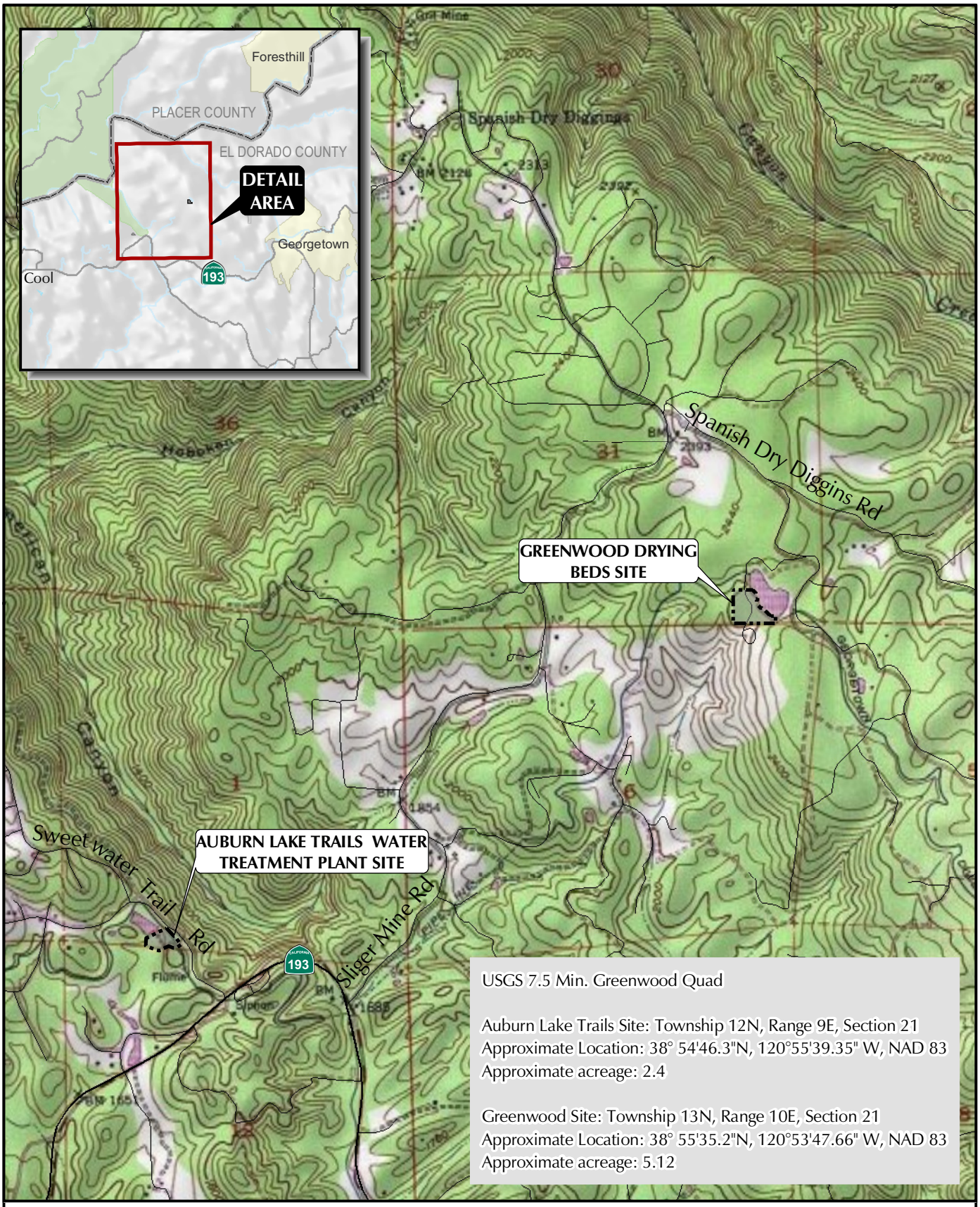
2.5.2 Georgetown Divide Public Utility District – Local Lead Agency Responsibilities

The Lead Agency is the public agency that has the principal responsibility for carrying out or approving a proposed project. CEQA Guidelines Section 15051 states that if a project will be carried out by a public agency, that agency shall be the Lead Agency, even if the project would be located within the jurisdiction of another public agency. The Georgetown Divide Public Utility District will oversee and implement the project; therefore District is considered the Lead Agency for the project for the purposes of CEQA.

2.6 PROJECT SITE

As shown on **Figure 2.6-1**, development of the Proposed Action would involve the construction and operation of improvements located on two sites. As shown on **Figure 2.6-1**, the current 8.5-acre GDPUD ALT WTP is located east of the town of Cool, within Township 12 North, Range 9 East, Section 21, and can be located on the *Greenwood* California United States Geologic Survey (USGS)

7.5-minute topographic quadrangle. The project site encompasses approximately 2.4 acres of the overall WTP site. Also shown on **Figure 2.6-1**, the proposed Greenwood off-site location is located on an existing GDPUD 34-acre parcel west of Georgetown, within Township 13 North, Range 10 East, Section 21, and can be located on the *Greenwood* California USGS 7.5-minute topographic quadrangle.



SITE AND VICINITY

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N

0 1000 2000
SCALE IN FEET

Drawn By: ACL
Date: 11/20/09

FIGURE 2.6-1

2.7 DOCUMENT ORGANIZATION

This document is divided into the following sections:

Section 1.0 List of Abbreviations and Acronyms

Section 2.0 Introduction and Statement of Purpose and Need

Section 3.0 Description of Alternatives

Section 4.0 Affected Environment, Regulatory Setting, and Environmental Consequences

Section 5.0 CEQA Determination

Section 6.0 Consultation and Coordination

Section 7.0 Report Preparation

Section 8.0 Sources Cited

3.0 DESCRIPTION OF ALTERNATIVES

3.1 NO ACTION ALTERNATIVE

The No Action Alternative would result in continued operations at the Auburn Lake Trails WTP under the existing water treatment process and would require no construction or modification to the ALT WTP or at the Greenwood site.

3.2 PROPOSED ACTION

The GDPUD is proposing to choose one of two treatment alternatives, either of which would meet CDPH treatment requirements. Alternative One proposes a Direct Filtration process. Alternative Two proposes a Contact Clarification process. In addition to the process alternatives, GDPUD proposes additional correction of operational deficiencies which would be common to both process alternatives. The Preliminary Engineering Report (PER) prepared by Carlton Engineering, Inc. (Carlton 2009) is the basis for the following descriptions of alternatives and project components. The two alternative processes and operational improvements are described in detail below and are shown on **Figure 3.2-1** and **Figure 3.2-2**.

All improvements proposed at the ALT site would occur within previously developed areas, with the exception of the proposed new clearwell site. The clearwell site is relatively undisturbed on the surface, with an underground pipe and leach field previously installed below the surface. Proposed improvements at the Greenwood site would occur within currently undeveloped areas of the site that have been subject to periodic vegetation maintenance and removal by equipment and by burning.

3.2.1 Alternative One: Direct Filtration Process Components

Direct Filtration Process Components (Alternative One) would consist of the following improvements:

- Installation of two flocculation units for enhancement of the existing filters. These units would consist of structures approximately 12 feet in diameter and 15 feet in height. They would be added upstream of the existing filters to provide additional contact and coagulation. The flocculation units are tanks equipped with slow moving paddles that gently agitate the water to encourage contact of suspended particles. Polymer coagulants are injected ahead of the flocculation units to allow coalescing, thus enabling removal by the filters. This process is an accepted technology by the CDPH. These units would be located on an equipment pad next to the proposed equipment/chemical building.

- Rebuilding and upgrading the existing filters due to the age of the units. These upgrades would include pipe rerouting and additional lift pumps.

3.2.2 Alternative Two: Contact Clarification Process Components

Contact Clarification Process Components (Alternative Two) would consist of the following improvements:

- Installation of a pre-manufactured package water treatment process that would include both clarification and filtration. The physical components of this process would be housed within the proposed equipment/chemical building.

- Removal of the existing three filter units.

3.2.3 Additional Correction of Operational Deficiencies Common to Both Processes

Improvements to correct operational deficiencies that will occur under either process include:

A. Correction of deficiencies at the ALT site:

1. Construction of a new clearwell storage tank for post-treatment disinfection contact time. This capacity of this tank would be approximately 500,000 gallons if Alternative One is chosen and approximately 250,000 gallons if Alternative Two is chosen. A 250,000 gallon tank would be approximately 48 feet in diameter and 20 feet in height. A 500,000 gallon tank would be approximately 60 feet in diameter and 24 feet in height. This structure would be south of and adjacent to the driveway entrance to the ALT site, in the open field on the east side of the existing filters.

2. Elimination of existing settlement ponds and construction of a washwater recovery tank (locations as shown on **Figure 3.2-1** and as described below may vary within the existing developed footprint of the current WTP site).

   The proposed washwater recovery tank would be located at the southwest corner of the project site at the current location of the waste pond. This tank would be approximately 36 feet in diameter and 20 feet in height.

3. Modification of two existing on-site tanks for filter to waste (FTW) storage. Proposed improvements would not require changes the existing dimensions of the tanks. All proposed modifications would be constructed internal to the existing tanks.

4. Construction of an equipment/chemical building. This building would be located on the west side of the existing control building (location as shown on **Figure 3.2-1** and as described above may vary within the existing developed footprint of the current WTP site).

   For Alternative One, this building would be approximately 36 feet wide, 40 feet long and 20 feet in height. There would be an additional uncovered pad (approximately 36 feet wide by 24 feet long) on the south side of this building which would be the location of the two flocculation units described in Alternative One above.

   For Alternative Two, this building would be approximately 36 feet wide, and 64 feet long with a height of 20 feet with all components housed inside the building.

5. Demolition of an existing lab and trailer and construction of a storage/equipment building for future use. This future storage/equipment building would be approximately 20 feet wide by 36 feet long and 20 feet in height.

6. Telemetry upgrade including a new radio antennae mast at the ALT site (maximum height of 40 feet), and piping realignment, upsizing of pumps, and upgrade of controls.

7. Realignment and repaving of driveway and repaving between buildings and facilities at the ALT site.

B. Correction of deficiencies at the Greenwood site:

1. Construction of two drying beds and associated truck access for solids trucked from the ALT site. The backwash and FTW processes produce suspended solids, organic matter, and coagulant. These solids would be collected in the FTW settling tank during the rain season. The solids would be removed from the settling tank in the spring and transported to the Greenwood site. The residuals would be approximately 95 percent water at time of removal and would require approximately twelve trips between the ALT and the Greenwood site. The drying beds would be constructed on the southwest side of the GDPUD's Greenwood Lake Reservoir, adjacent to Loghouse Road. The physical footprint of these drying beds would be approximately 30 feet wide by 120 feet long, with an approximate depth of two feet. The beds would be lined with material such as plastic or concrete to prevent direct contact with soil. Once solids are deposited in the beds, dewatering would occur by evaporation. The solids would be in the beds for a temporary time period each year (spring to fall) and the beds would be clean and empty during the rainy season. The expected maximum volume of material at the beginning of each drying season would leave approximately 15 inches of freeboard in the two foot high beds. This freeboard would increase during the evaporation phase. At completion of drying (prior to each fall season), the material would be analytically tested to determine final disposal requirements. The beds would be swept clean with all material removed for disposal before commencement of the rainy season. If required per testing, the solids would be trucked to a permitted solid waste facility that accepts sludge waste. If the results of analytical testing allow for alternative disposal (e.g. dried solids made available to third parties for land application as soil amendment), the GDPUD would consult with the Regional Water Quality Control Board to determine the appropriate oversight, including waste discharge requirements. During the winter, precipitation entering the cleaned beds would be drained and dispersed in a manner (e.g. rock energy dissipaters) that would minimize erosion. The drying beds would be routinely inspected for liner integrity.

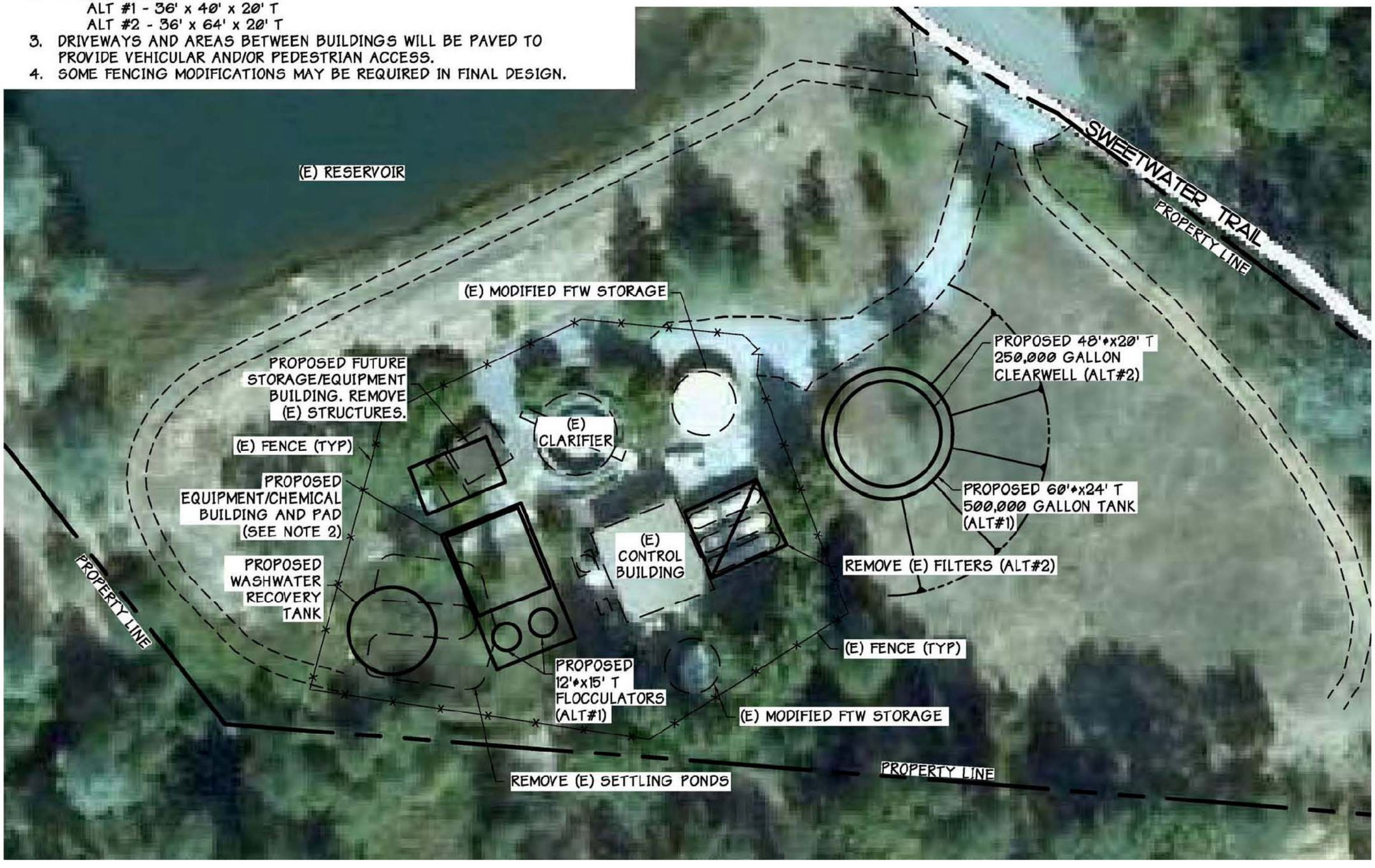
2. Installation of a radio pole and antenna for telemetry needs. A self supporting telemetry pole/tower no greater than 40 feet in height would be installed to support a radio antenna and solar panel. This feature would be located between Loghouse Road and the reservoir water's edge. The antenna would be omni-directional with maximum power of 45 watts. There would be a small equipment enclosure located next to the telemetry pole to protect electrical equipment.

Notes

1. ALT #1 - DIRECT FILTRATION
   ALT #2 - CONTACT CLARIFICATION
2. BUILDING SIZE:
   ALT #1 - 36' x 40' x 20' T
   ALT #2 - 36' x 64' x 20' T
3. DRIVEWAYS AND AREAS BETWEEN BUILDINGS WILL BE PAVED TO PROVIDE VEHICULAR AND/OR PEDESTRIAN ACCESS.
4. SOME FENCING MODIFICATIONS MAY BE REQUIRED IN FINAL DESIGN.

40 0 20 40 80

1 inch = 40 ft.



Note: Figure provided by Carlton Engineering Inc., 12/16/09

PROPOSED PROJECT - AUBURN LAKE TRAILS WTP SITE

AUBURN LAKE TRAILS WTP PROJECT

FIGURE 3.2-1

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PROPOSED PROJECT - GREENWOOD SITE

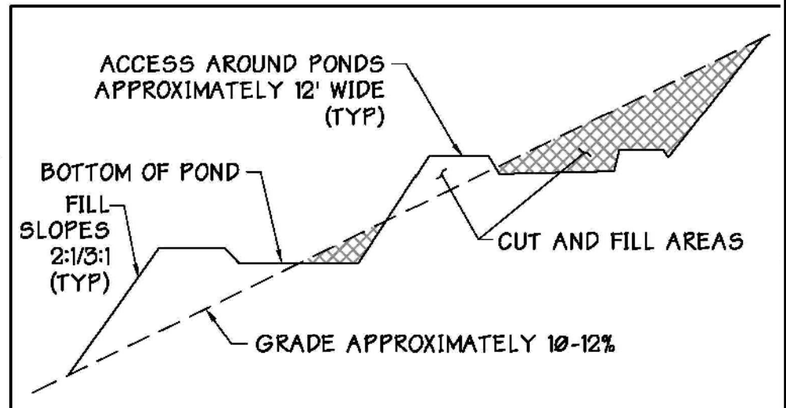
AUBURN LAKE TRAILS WTP PROJECT

60 0 30 60 120

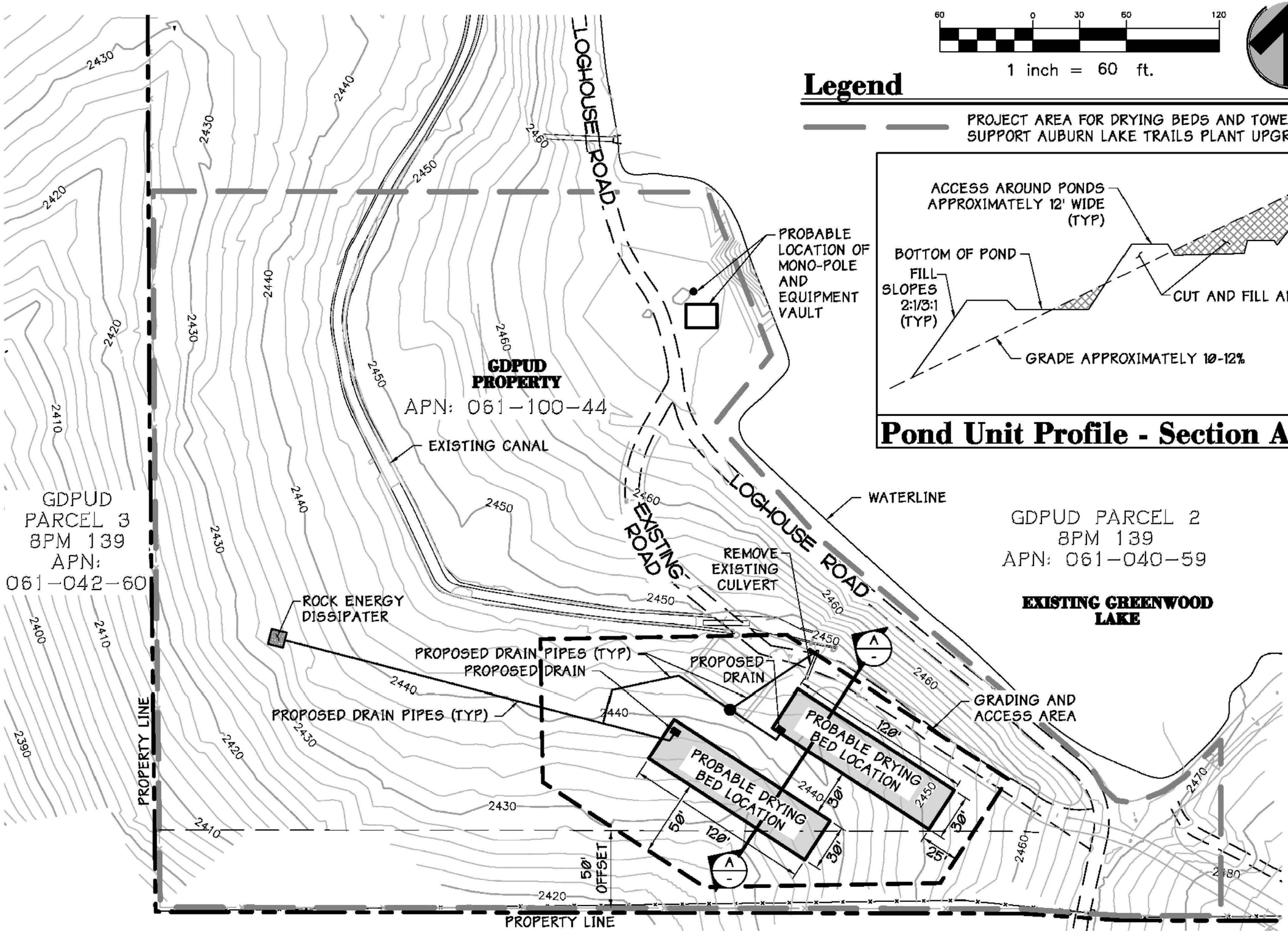
1 inch = 60 ft.

Legend

PROJECT AREA FOR DRYING BEDS AND TOWER TO SUPPORT AUBURN LAKE TRAILS PLANT UPGRADE.



Pond Unit Profile - Section A-A NTS



Note: Figure provided by Carlton Engineering Inc., 12/16/09

FIGURE 3.2-2

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3.2.4 Project Construction

Construction Phasing

Expected construction phasing would be as follows:

1. Construction of clearwell, construction of equipment/chemical building and installation of new treatment equipment, and construction of washwater recovery tank.

2. Installation of plumbing between ALT facilities and construction of drying beds and tower at the Greenwood site.

3. Demolition of existing filters after new treatment system is tested and implemented.

Earthwork

Quantities of earthwork cut and fills would include approximately 1,000 cubic yards of cut and approximately 1,000 cubic yards of fill. It is expected that the earthwork will result in an approximate balance of cut and fill at both the ALT and Greenwood sites, with the cut earthwork being utilized on-site for fill.

Construction Timeframe

Construction of the project would be expected to begin in May 2011, with completion expected in approximately eighteen months. Within this time frame, construction at the Greenwood site would occur during the dry season and would take approximately two months.

Construction Staging Areas

Construction staging areas at ALT would be located on GDPUD property adjacent to the access driveway for the ALT WTP site and also on GDPUD property for the Greenwood site. Temporary fencing may be provided for site security during construction.

3.2.5 Other Required Project Approvals

In addition to project and environmental approval by the GDPUD Board of Directors, the proposed project may require the following approvals:

- El Dorado County Building Permit(s);
- Notice of Intent (NOI) to Comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit; and
- Report of Waste Discharge/Waste Discharge Requirements.

4.0 AFFECTED ENVIRONMENT, REGULATORY SETTING AND ENVIRONMENTAL CONSEQUENCES

4.1 THRESHOLDS OF SIGNIFICANCE

Determining the significance of an activity considers the natural and man-made conditions/use of the property at the time the initial study is written. Any proposed change in that condition is weighed along with scientific, technical, and factual data, consultation with other agencies, and existing uses on the property.

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment. {CEQA Guidelines sec. 15358} Environment as used in this definition includes the land, air, water, minerals, flora, fauna, ambient noise, and objects which are historical or aesthetic in nature. The guidelines in the following initial study focus on rigorously exploring and evaluating these elements against scientifically accepted standards, as well as statutory and regulatory standards as tools to determine the potential of whether or not a proposed action would result in adverse environmental impacts or effects {CEQA Guidelines Section 15065}. The potential for effects to occur directly, indirectly or cumulatively as a result of development of the Proposed Project are also evaluated. The analyses of potential environmental impacts within this document include an evaluation of the development of the Proposed Project, or Proposed Action, as well as analyses for all proposed alternatives.

4.2 TERMINOLOGY USED IN THIS DOCUMENT

This Environmental Checklist in this document utilizes the following terminology to describe the levels of significance associated with project-related impacts:

Potentially Significant Impact: An impact that may have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382); the existence of a potentially significant impact requires the preparation of an EIR with respect to such an impact

Less Than Significant With Mitigation Incorporated: A potentially significant impact that could be mitigated to a level of less than significant through the incorporation of mitigation measures.

Less Than Significant Impact: An impact which is less than significant and does not require the implementation of mitigation measures; and

No Impact: Utilized for checklist items where development of the project would not have any impact and does not require the implementation of mitigation measures.

The level of impact of the Proposed Action and the No Action Alternative is estimated by comparing potential effects against baseline conditions. Under CEQA, the environmental setting normally represents existing baseline conditions for the project site(s). Under NEPA, however, the No Action Alternative (expected future conditions without the project) represents the baseline upon which potential effects are evaluated. Therefore, evaluations and analysis related to the potential environmental effects resulting from development of the Proposed Action are evaluated against existing conditions, pursuant to CEQA, and against the No Action Alternative pursuant to NEPA. However, within this EA/IS, conditions under the No Action Alternative are considered to be substantially equivalent to existing conditions.

4.3 AESTHETICS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Environmental Setting

The County has a broad range of landscapes that change with the gradual increase in elevation.

Elevations range from 200 feet in the western rolling foothills, adjacent to Sacramento County, to more than 10,000 feet along the Sierra Nevada crest on the edge of the Lake Tahoe Basin.

The diverse environments of the region are represented by distinct natural communities and landforms that display different development patterns and historical features. This broad diversity is an important element of El Dorado County's visual heritage and one that many residents value as part of their quality of life (El Dorado County 2003).

The current GDPUD ALT WTP is located approximately four miles east of the town of Cool. The proposed Greenwood off-site location is located west of Georgetown. The visual setting at the ALT WTP consists of rolling hills and residential parcels. The existing WTP buildings and facility are located within a low area on the west side of Sweetwater Trail. The visual setting at Greenwood consists of a moderately forested area and the GDPUD's Greenwood reservoir. Due to the surrounding topography and trees, the Greenwood site is not visible from any public vantage points.

The project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP, as well as the construction of solids drying beds, installation of a telemetry tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir, associated fencing at the WTP proposed clearwell site and the Greenwood telemetry tower, and restoration planting.

Regulatory Setting

The State of California Department of Transportation (Caltrans) administers State scenic route designations within El Dorado County for state and federal roadways. Portions of U.S. Highway 50 and SR 89 in El Dorado County are designated as State Scenic Highways. The nearest state

highway to the project site is SR 193, approximately ¼ mile from the ALT WTP site. There are no portions of SR 193 designated as scenic.

El Dorado County has not created a scenic highway ordinance and there are no formally county designated scenic highways within the county.

The federal Wild and Scenic Rivers Act of 1968 led to the establishment of the national Wild and Scenic Rivers System. Multiple federal agencies along with states share the management responsibilities for the designated rivers and river segments.

Federal agencies also evaluate impacts to scenic resources associated with Formally Classified Lands, including National Parks and Monuments; National Landmarks or Battlefield Sites; National Historic Parks or Sites, Wilderness Areas; Wildlife Refuges, state parks, federally administered forest or other land; or Native American owned and leases administered by the Bureau of Indian Affairs (BIA).

Impact Analysis

a) Have a substantial adverse effect on a scenic vista?

No Impact. Views of the ALT WTP site are limited to a small number of nearby residences. There is a limited view of the WTP site as vehicles leave the Auburn Lake Trail community on the privately owned and maintained Sweetwater Trail. Due to the surrounding topography and trees, the Greenwood site is not visible from any public vantage points. There are no designated scenic vistas on or near the proposed project sites. The sites are not located near a designated Wild and Scenic River. The nearest such designation is on the Lower American River from Sacramento to Nimbus Dam (approximately 23 miles from the proposed project sites) and the North Fork of the American River near Colfax, approximately 13 miles from the proposed project sites (National Wild and Scenic Rivers 2010). Neither of the sites is located within a National Park, National Forest, State Park, or State Recreation Area. Neither site is visible from National Parks/Forests as the nearest National Parks are over 100 miles from the sites (Lassen National Volcanic Part to the north and Yosemite National Park to the southeast). The nearest National Historic Parks are in the San Francisco Bay area, approximately 100 miles to the southwest. The El Dorado National Forest is located two miles northeast of the Greenwood site. The nearest state park is in Coloma, approximately eight miles south of the project sites. A portion of the Auburn State Recreation Area is located to the east and north of the ALT WTP site, but the site itself is not located within the Auburn SRA. The nearest National Wildlife Refuges (NWR), Sutter NWR and Stone Lake NWR, are in Yuba City and Elk Grove respectively, each approximately 40 miles from the proposed project sites. The nearest National Wilderness Area, Desolation Wilderness, is also approximately 40 miles east from the project sites. The nearest Native American tribal lands are located in Shingle Springs, approximately 18 miles south of the project sites. The nearest location of any structure on the National Register of Historic Places is the Bailey House near Pilot Hill, approximately six miles southeast of the ALT project site. Therefore, there are no impacts related to scenic vistas with Alternative One, Alternative Two, or the No Action Alternative.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The project sites are not located within a state scenic highway nor are the sites visible from a state highway, including any state highways designated as scenic highways. Therefore, there are no impacts related to scenic resources within a state scenic highway with Alternative One, Alternative Two, or the No Action Alternative.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant With Mitigation Incorporated. At the ALT WTP site, construction activities would be visible from nearby residences and from vehicles on Sweetwater Trail. Construction activities at the Greenwood site would not be visible from public viewpoints. Under both Alternative One and Alternative Two, construction activities would be temporary and therefore would be considered a less than significant impact to the existing visual character and quality of the sites.

After construction, the Greenwood drying beds would be low to the ground and not visible except from the private road at the reservoir. The proposed telemetry tower and antenna would be a maximum of 40 feet, within the allowed height limit for the Agricultural zoning of the parcel, and would be in an area of trees of similar or greater height. The radio tower would be visible from the private Loghouse Road and from the opposite side of the reservoir. The tower would not be visible from public vantage points due to the height and significant number of mature trees surrounding the reservoir. The placement of the drying beds and radio tower would not be expected to substantially degrade the existing visual character or quality of the site under Alternative One and Alternative Two.

After construction, the ALT WTP facility would include a new clearwell tank with a maximum diameter of 60 feet and a maximum height of 24 feet. This structure would be south of and adjacent to the driveway entrance to the ALT site, in the open field on the east side of the existing filters. This structure would be the most significant visual change to the WTP site due to its placement on the hillside between Sweetwater Trail and the lower sited WTP facilities. Although there are existing trees located on the GDPUD site on both sides of the WTP entrance driveway which would provide a degree of visual screening, the tank would be visible from nearby residences and from the Sweetwater Trail roadway. This could be a significant impact to the visual character of the site without mitigation. Implementation of **Mitigation Measure AES – 1 through Mitigation Measure AES – 4** would reduce impacts to less than significant for development proposed under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to the visual character or visual quality of the site.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less Than Significant With Mitigation Incorporated. Construction activities would temporarily introduce equipment and vehicles to the project site. To the extent that construction activities would occur in the evening hours (up to 7:00 pm) after sunset, impacts from construction lighting may occur. However, construction related impacts would be temporary. The expected construction start for the proposed project is May 2011, with a duration of approximately eighteen months. The project does not propose any new operational lighting. However, additional lighting at the ALT WTP may be placed on structures for early evening hours of operations and for the safety of personnel. Additional sources of lighting may affect day or nighttime views, therefore, impacts under Alternative One and Alternative Two are considered less than significant with mitigation incorporated. Compliance with **Mitigation Measure AES – 5** would ensure that any proposed additional exterior lighting would be contained within the facility site, and not affect surrounding views.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to light or glare.

Mitigation Measures

Mitigation Measure AES – 1: Exterior coatings for the clearwell tank shall incorporate earthtone colors with neutral tones to reduce the contrast of the structure with the surrounding landscape as viewed from the Auburn Lake Trails community gate.

Mitigation Measure AES – 2: Site design considerations for proposed improvements shall preserve natural landscape wherever feasible and shall incorporate natural features such as rock outcroppings, native tree stands, and existing topographic features. Development footprints shall be minimized to the maximum extent practicable.

Mitigation Measure AES – 3: All excavations shall be graded and planted to produce a natural-looking appearance.

Mitigation Measure AES – 4: The final plans for the construction of the WTP clearwell shall include tree and/or vegetative plantings to the extent necessary to provide a level of visual screening at plant maturity that would introduce vegetative foreground visual elements between the tank and Sweetwater Trail adjacent to the WTP.

Mitigation Measure AES – 5: All exterior lighting shall be hooded, shielded or opaque. No unobstructed beam of light shall be directed beyond any exterior lot line.

4.4 AGRICULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☒	☐

Environmental Setting

Agricultural influences and activities contribute to the economic stability of the County through crop production, serve as the foundation of the county's rural lifestyle, and serve as a key element in the sense of community of many rural regions. In 2000, the County had a crop production value (including timber) of more than $52.3 million. The agricultural contribution to the County's economy totaled approximately $320 million in 2000 (County of El Dorado 2003).

Gentle slopes and rich soils characterizing lands on the west slope of the County are considered the most valuable for agriculture. Historically, grazing of cattle and other livestock was the primary economic contributor in El Dorado County, although current production of fruit (including wine grapes) and nuts has become a major contributor to the County's agricultural production value. The leading crops by production value include apples, wine grapes, pasture and rangeland, Christmas trees, and cattle and calves, and timber (County of El Dorado 2003).

The General Plan designated land use for the project site at the existing ALT WTP is Medium Density Residential, with a R2A (Residential 2 acre) zoning. Surrounding land uses are primarily medium density residential to the northwest (the Auburn Lake Trails community), open space to the east, and estate residential to the south.

The General Plan designated land use for the project site at the Greenwood site is Agricultural Lands, with an A (Agricultural) zoning. Surrounding land uses are primarily rural residential.

Regulatory Setting

Federal Regulations

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is a component of the Agriculture and Food Act of 1981 and is intended to minimize the impact federal actions may have on the conversion of farmland to

non-agricultural uses, by ensuring that proposed federal actions are implemented consistently with State and local programs designed to protect farmlands. Under the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance, and does not have to be actively farmed. Farmland according to FPPA, may include forest land, pastureland, cropland, or other land, but does not include water or urban built-up land.

State Regulations

The State Farmland Mapping and Monitoring Program (FMMP) produces maps and data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status with the best quality land identified as Prime Farmland. The program also identifies land that qualifies as Farmland of State Importance, Unique Farmland, and Farmland of Local Importance. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance.

Impact Analysis

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?

No Impact. The project sites are not located in areas designated as Prime, Unique, or Farmland of Statewide Importance (California Department of Conservation 2008). Therefore, there would be no conversion of designated Prime, Unique, or Farmland of Statewide importance to non-agricultural use.

There would be no impact under Alternative One, Alternative Two, or the No Action Alternative.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less Than Significant Impact. The existing ALT WTP project site is located on lands designated and zoned for residential land use. The Greenwood project site is designated as Agricultural Lands by the County General Plan, and is located within the "A" Agricultural Zoning District. Public utility facilities are allowed on sites zoned as Agricultural per the El Dorado County Zoning Code Section 17.14.070. The sites are not utilized for agricultural purposes and neither site is currently under a Williamson Act contract. Although development proposed under Alternative One and Alternative Two would develop non-agricultural uses on lands designated by the County General Plan and Zoning Ordinance as Agricultural, the development of public utility facilities is permitted within the Agricultural zoning district. Therefore the project as proposed under Alternative One and Alternative Two would not conflict with existing zoning or conflict with a Williamson Act contract, and impacts would be considered less than significant.

The No Action Alternative would not include any improvements or construction at either site location. Therefore, no impact would result under the No Action Alternative.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

Less Than Significant Impact. Development proposed under Alternative One or Alternative Two would result in the development of utility facilities to support proposed ALT improvements on lands designated Agricultural Lands by the County's General Plan, and located within the Agricultural zoning district. However, public utilities facilities are permitted land uses pursuant to the El Dorado County zoning ordinance. No project-related changes are proposed that would further result in conversion of Farmland to non-agricultural use. Therefore, there would be a less than significant impact from development of the project under Alternative One or Alternative Two.

The No Action Alternative would not include any improvements or construction at either site location. Therefore, there would be no impact.

Mitigation Measures

No mitigation is warranted.

4.5 AIR QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district is relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The project site is within the portion of the Sierra Nevada Foothills situated within the Mountain Counties Air Basin (MCAB), which includes portions of Plumas, Sierra, Nevada, Placer (middle portion), El Dorado (western portion), Amador, Calaveras, Tuolumne, and Mariposa counties. The MCAB lies along the northern Sierra Nevada mountain range, close to or contiguous with the Nevada border, and covers an area of roughly 11,000 square miles. The MCAB includes the western slope of El Dorado County, from Lake Tahoe on the east to the Sacramento County boundary on the west. The prevailing wind is southwesterly and air pollution generally moves west to east through the air basin.

Air quality concerns in western El Dorado County include the most common pollutants including ozone, particulate matter from dust and diesel exhaust, and state defined Toxic Air Contaminants (TACs). Two TACs of concern in the county are diesel exhaust particulates and naturally occurring asbestos.

The El Dorado County Air Quality Management District's (AQMD) Guide to Air Quality Assessment (2002) and the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Guide to Air Quality Assessment (2009) provide the primary background for the following discussion on climate and air pollutants.

Climate

The proximity to the Sierra range and changes in elevation create considerable variation in the climate of the MCAB. There is a wide variation in rainfall, temperature, and winds throughout the

basin. Temperature variations have significant influence on wind flow, dispersion along ridges, vertical mixing, and photochemistry. Precipitation in winter can be high in the upper elevations and then decrease rapidly towards the western side of the basin. The topography and climate create local conditions that become the dominant effect on emissions within the air basin. These local conditions can affect regional airflows and create areas of high pollutant concentrations. Inversion layers of warm air over cooler air often occur and trap pollutants close to the ground. Stagnant air in summer combines with high temperatures and sunshine to create ground level ozone from photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NOx). These two ozone precursors are also transported into the MCAB by winds from the San Francisco Bay Area and the Sacramento area.

Air Pollutants

Ozone and particulate matter are pollutants of particular concern and importance within the region. These are the pollutants for which the region still periodically exceeds state and/or national standards. These pollutants are individually described below.

- Ozone (O_3) — Ozone occurs at both ground level and in the upper atmosphere. Ozone can be either helpful or harmful depending upon its location in the atmosphere. The layer closest to the Earth's surface is the troposphere. Here, ground-level or "bad" ozone is present as an air pollutant that is harmful to breathe and also damages crops and other vegetation. Ground-level ozone is one of the main components of urban smog. The troposphere generally extends to an upward depth of approximately six miles, where it meets the stratosphere. The stratosphere or "good" ozone layer extends upward to a depth ranging from approximately six to 30 miles, and protects life on Earth from the sun's harmful ultraviolet (UV) rays (USEPA 2008).

  Ground-level ozone is not created directly from sources and emitted directly into the air, but is formed instead by photochemical reactions between oxides of nitrogen (NOx) and reactive organic gases (ROG) in the presence of sunlight. NOx and ROG are known as ozone precursors. Ozone levels are the highest from late spring through autumn when sunlight intensity is high and the hours of sunlight are longest. The major sources of NOx and ROG are emissions from motor vehicle exhaust, gasoline vapors, coatings and solvents, industrial facilities and electric utilities. In California, motor vehicles create the majority of reactive organic gas and nitrogen oxide emissions.

  Ozone is a public health concern due to the fact that it acts as a respiratory irritant and increases susceptibility to respiratory infections and diseases. Exposure to levels of ozone above current ambient air quality standards can lead to human health effects such as lung inflammation and tissue damage and impaired lung functioning. Ozone exposure is also associated with symptoms such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms.

- Particulate Matter (PM_{10}) — PM_{10} consists of particulate matter that is $_{10}$ microns or less in diameter. A micron is one-millionth of a meter. Airborne dust contains PM_{10} and can include a wide range of solid or liquid particles, including smoke, dust, and aerosols. The health effects of PM_{10} exposure depends upon the specific composition of the particulate matter. Effects may include aggravated asthma, chronic bronchitis, and decreased lung function. A sub-set of PM_{10} is $PM_{2.5}$ which includes particles less than $_{2.5}$ microns in diameter.

  Respirable particulate matter, especially $PM_{2.5}$, is unhealthy to breathe and has been associated with premature mortality and other serious health effects. PM_{10} poses a health concern because these particulates can be inhaled into and accumulate in the respiratory system. $PM_{2.5}$ is believed to pose the greatest health risks. Because of their small size (approximately three percent of the average width of a human hair), fine particles can lodge deeply into the lungs. Extensive research reviewed by the California Air Resources Board

(CARB) indicates that exposure to outdoor PM10 and PM2.5 levels exceeding current ambient air quality standards is associated with increased risk of hospitalization for lung and heart-related respiratory illness, including emergency room visits for asthma.

Other pollutants of concern relative to the area include toxic air contaminants, including diesel exhaust and naturally occurring asbestos (NOA). Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The U.S. EPA has adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially. These went into effect in late 2006.

Locations within El Dorado County have been identified as having NOA or having the potential for NOA to be present in the ground. NOA is prevalent in at least 44 of California's 58 counties. Asbestos is the name for a group of naturally occurring silicate minerals, and may be found in serpentine rock, other ultramafic rock, and volcanic rock. When rock containing NOA is broken or crushed, asbestos may be released from the rock and may become airborne, potentially causing a health hazard (El Dorado County 2009).

Areas to the southwest and to the northeast of the ALT WTP site have been designated as locations "more likely to contain asbestos" as identified by the California Department of Conservation, Mines and Geology and as shown on the El Dorado County Asbestos Review Areas map. The ALT WTP site is identified as being within a ¼ mile buffer zone of such an area or within a ¼ buffer zone of a geologic fault that may include NOA. The Greenwood site is not designated as being in either a "more likely to contain asbestos" area nor within a buffer zone for such an area.

Regulatory Setting

Federal Regulations

The federal Clean Air Act (CAA) governs air quality in the United States. The United States Environmental Protection Agency (EPA) administers the CAA. The EPA has established ambient air quality standards (AAQS) for common pollutants. The ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the EPA regulates them by developing human health-based and/or environmentally based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards.

As required by the federal Clean Air Act, standards have been established for the following criteria pollutants: carbon monoxide (CO), nitrogen oxides (NOx), ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead.

The EPA classified El Dorado County, as a serious non-attainment area for the eight-hour federal ozone standard and the western portion of the county as non-attainment for $PM_{2.5}$. For all other federal criteria pollutants, El Dorado County is designated as attainment or unclassified.

State Regulations

Air quality in California is governed by the CCAA. The CCAA is administered by CARB at the state level and by air quality management districts at the regional and local levels. Pursuant to the CCAA, the State of California has also established ambient air quality standards. California standards are generally considered more stringent than the corresponding federal standards, and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. CARB classifies El Dorado County, including the project area, as a non-attainment area for state ozone, as well as non-attainment for PM_{10}. For all other state criteria pollutants, El Dorado County is designated as attainment or unclassified.

Regional Regulations

El Dorado County's Air Quality Management District (AQMD) is a Division of the Environmental Management Department. The AQMD administers the California and Federal Clean Air Acts via guidelines set forth by State and Federal Agencies and establishes emission thresholds of significance.

The AQMD is also responsible for adopting and enforcing rules and regulations concerning air pollution sources, issuing permits for stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education and awareness campaigns including regional “Spare the Air” days.

The El Dorado County AQMD has established significance thresholds for emissions of the ozone precursors ROG and NOx. Construction or operational emissions of ROG and NOx greater than the threshold of 82 lbs/day would normally be considered significant and require mitigation.

Impact Analysis

The impact analysis below focuses on impacts from project construction. Operation of the project after construction at the existing WTP would consist of continued water treatment but no increase in treatment volume. There would be no additional employees at the WTP due to the proposed project. Operation of the project at the Greenwood site would result in no buildings at the site and no employees as the site would only be used for drying of solids and would require approximately two dozen truck trips per year to deliver and remove the material. Impacts from project operation under Alternative One and Alternative Two would be less than significant. Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to construction or continued operations at the WTP.

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. The project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP, as well as the construction of drying beds for solids and the installation of a telemetry tower at the Greenwood site adjacent to the GDPUD’s existing Greenwood reservoir. The project is consistent with the site land use and zoning and construction and buildout of the project site would not conflict with or obstruct implementation of the air quality plan. The project would not result in emissions beyond those accounted for in the regional emissions inventory. Therefore, there would be no impact under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impact.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant With Mitigation Incorporated. Short-term air quality impacts are the result of the use of construction equipment, transport of materials (i.e. equipment, supplies, and construction material) to and from the sites, and construction employee commute trips. Short-term air quality emissions typically consist of ROG, NO_x, and fugitive dust. ROG and NO_x are largely generated from the operation of gas and diesel powered equipment. Fugitive dust and particulate matter is largely generated from earth moving activities and wind erosion.

Due to the small size of the project impact (less than one acre at the WTP site and approximately one and one-half acre at the Greenwood site), the AQMD would not require quantitative modeling of construction emissions. However, short term construction related emissions from project ground disturbance and construction equipment would result in ROG, NOx, and PM_{10} emissions, and under certain conditions (e.g. amount of ground disturbance, number of equipment operating simultaneously), could exceed applicable air quality standards. Short term construction related impacts to air quality could be significant without mitigation.

The AQMD's Guide to Air Quality Assessment provides a methodology to determine potential significance of emissions resulting from construction of projects. Based upon the AQMD's experience with construction activities and the non-continuous and temporary nature of construction emissions, the AQMD has established initial project screening criteria to determine if a project's ROG and NOx construction emissions would be expected to exceed the 82 lbs/day threshold. One screening criteria estimates the project's ROG and NOx construction emissions based upon fuel use. The other criteria estimates the project's ROG and NOx emissions based upon equipment type and fuel type. Incorporation of **Mitigation Measure AQ – 1** would reduce impacts related to ROG and NOx construction emissions to a less than significant level under Alternative One and Alternative Two.

Site grading and construction would produce PM_{10} and $PM_{2.5}$ emissions from grading operations. The AQMD assumes that emissions of fugitive dust PM10 would not be significant if the project includes mitigation measures that will prevent visible dust beyond the project property lines. The project would be required to meet all applicable requirements of the AQMD's Rule 223, Fugitive Dust-General Requirements and Rule 223-1, Fugitive Dust-Construction Requirements. Rule 223-1 requires preparation and approval of a "Fugitive Dust Plan" and a combination of control activities, including watering of active and inactive disturbed surface areas, watering of roads, track-out control, and watering or covering of open storage piles. Contingency conditions such as high winds require additional controls. Compliance with the AQMD Rule 223 and 223-1 would reduce impacts to a less than significant level under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impact.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Less Than Significant With Mitigation Incorporated. As previously stated, the operation of the project after construction would not be expected to create significant emissions of criteria air pollutants. As discussed in b) above, short term emissions from construction activities for the project would be reduced to a less than significant level with mitigation. Implementation of **Mitigation Measure AQ – 1** and compliance with AQMD Rules 223 and 223-1 would reduce project specific emissions and therefore the project would not result in a cumulatively considerable net increase of particulate matter, ozone, and ozone precursors under Alternative One and Alternative Two.

The No Action Alternative would not include any improvements or construction at either site location. Therefore, no impact would result under the No Action Alternative.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant With Mitigation Incorporated. Construction impacts from the project would be temporary and sporadic. Construction would occur at an existing WTP near the Auburn Lake Trails community and at a reservoir location in a rural residential area. As discussed under b) and c) above, implementation of **Mitigation Measure AQ – 1** and compliance with AQMD Rule 223 and Rule 223-1 would reduce ozone precursor and dust particulate emissions to a less than significant level. Implementation of **Mitigation Measure AQ – 2** would reduce impacts related to diesel exhaust to a less than significant level under Alternative One and Alternative Two.

As discussed above, areas to the southwest and to the northeast of the ALT WTP site have been designated as locations "more likely to contain asbestos" as identified by the California Department of Conservation, Mines and Geology and as shown on the El Dorado County Asbestos Review Areas map. The ALT WTP site is identified as being within a ¼ mile buffer zone of such an area or within a ¼ buffer zone of a geologic fault that may include NOA. Ground disturbance activities during construction could potentially be a significant impact in areas where NOA is present. Implementation of **Mitigation Measure AQ – 3** would reduce impacts related to NOA to a less than significant level under Alternative One and Alternative Two.

The No Action Alternative would not include any improvements or construction at either site location. Therefore, no impact would result under the No Action Alternative.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Operation of the project after construction at the existing WTP would consist of continued water treatment with enhanced treatment capability for water quality purposes but no increase in treatment volume. Operation of the project at the ALT WTP after construction would not be expected to create additional odors that would affect a substantial number of people. Operation of the drying beds at the Greenwood site may produce localized odors at the immediate site during evaporation but due to the topography and with the nearest residence being located over 1000 feet away, any odors would not be expected to affect a substantial number of people. Construction of the project could potentially create odors, primarily diesel odors and odors from any repaving or painting at the WTP site. However, these odors would be temporary and sporadic and would not be expected to affect substantial numbers of people. Therefore, the impact is less than significant under Alternative One and Alternative Two.

The No Action Alternative would not include any improvements or construction at either site location. Therefore, no impact would result under the No Action Alternative.

Mitigation Measures

Mitigation Measure AQ – 1: The project shall incorporate one of the following four mitigations to reduce construction ROG and NOx emissions:

1. If all diesel-powered construction equipment is older than 1995, the average daily fuel use per quarter must not exceed 337 gallons per day to ensure that the ROG and NOx emissions remain under 82 lbs/day. If all of the equipment is model year 1996 or later, average daily fuel use must not exceed 402 gallons per day, or

2. The prime contractor shall provide an approved plan demonstrating that heavy-duty (i.e., greater than 50 horsepower) off-road vehicles to be used in the construction project, and operated by either the prime contractor or any subcontractor, will achieve, at a minimum, a fleet-averaged 15 percent NOx reduction compared to the most recent CARB fleet average. The prime contractor shall submit a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during the construction project. This inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. This inventory list shall be updated and submitted monthly throughout the duration of the construction activity, or

3. The prime contractor shall use an alternative fuel, other than diesel, verified by the CARB or otherwise documented through emissions testing to have the greatest NOx and PM10 reduction benefit available, provided each pollutant is reduced by at least 15 percent, or

4. The prime contractor shall use aqueous emulsified fuel verified by the CARB or otherwise documented through emissions testing to have the greatest NOx and PM_{10} reduction benefit available, provided each pollutant is reduced by at least 15 percent.

Mitigation Measure AQ – 2: The following measures shall be implemented to control diesel exhaust emissions:

- The prime contractor shall ensure that diesel equipment is tuned and maintained per manufacturers' specifications.

- Diesel equipment standing idle for more than five minutes shall be turned off unless staged away from residences. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite and staged as far away from residences as practicable

Mitigation Measure AQ – 3: Project construction at the ALT WTP site shall comply with AQMD Rule 223-2, Fugitive Dust, Asbestos Hazard Mitigation. If the project does not qualify for an exemption to Rule 223-2 through an on-site geologic evaluation, the project shall comply with the additional dust control measures required in Rule 223-2, including the preparation of an asbestos dust mitigation plan for approval by the AQMD and compliance with the approved plan during construction.

4.6 BIOLOGICAL RESOURCES

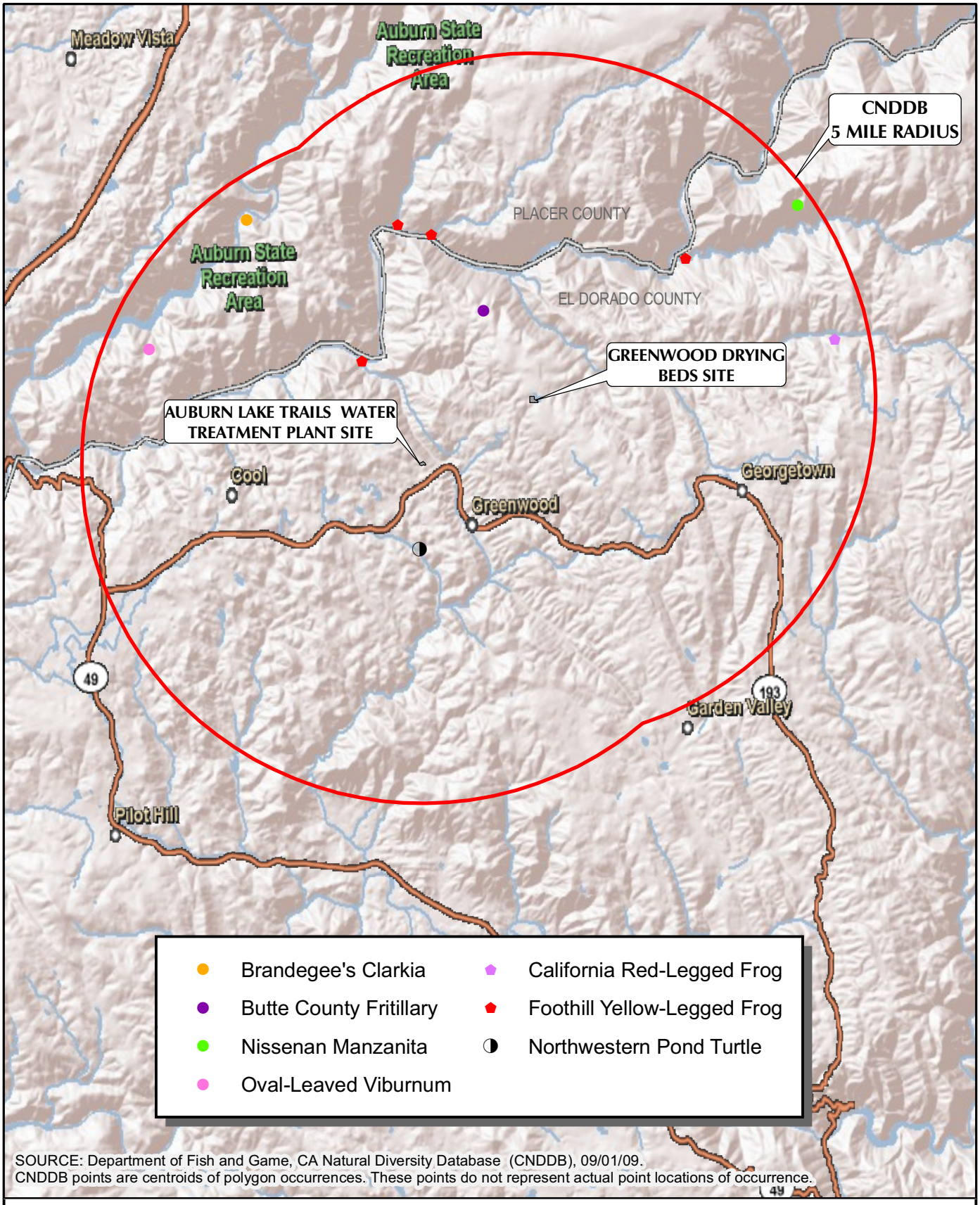
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status 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?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?	☐	☐	☐	☒
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?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

Methodology

In order to compile a list of potentially occurring species and sensitive habitats, local resource databases were reviewed prior to conducting a field habitat assessment. Special-status species considered for this analysis are based on queries of the California Natural Diversity Database (CNDDB) and the online versions of the U.S. Fish and Wildlife Service (USFWS) and California Native Plant Society (CNPS) for species occurrence lists for the 7.5- minute USGS *Greenwood, CA* topographic quadrangle map. **Appendix A** represents the results of these queries and includes the common name and scientific name for each species, regulatory status (federal, state, local, CNPS),

habitat requirements, and potential for occurrence within the site. **Figure 4.6-1** depicts the locations of special-status species recorded in the CNDDB within five miles of the site.



SOURCE: Department of Fish and Game, CA Natural Diversity Database (CNDDB), 09/01/09.
CNDDB points are centroids of polygon occurrences. These points do not represent actual point locations of occurrence.

CNDDB

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N

0 1 2
SCALE IN MILES

Drawn By: ACL
Date: 12/03/09

FIGURE 4.6-1

AUBURN LAKE TRAILS WATER TREATMENT PLANT

cnddb.mxd

The CNDDB is a natural heritage database program maintained by the California Department of Fish and Game (CDFG) Habitat Conservation Division that provides natural history and location information on rare, threatened, endangered, and other special-status species to the public, other agencies, and conservation organizations (CDFG 2010). The CNDDB is often used as a tool by natural resource specialists and project planners to identify special-status plant and wildlife species that have been reported as occurring in specific geographic areas and habitat types since this database tracks occurrences and records of rare and sensitive species. The CNDDB was reviewed in order to determine the potential for special-status species to occur in the project vicinity. Based upon review of the USGS *Greenwood and Georgetown, CA* topographic quadrangle maps, two special-status wildlife species including California red-legged frog (*Rana draytonii*), northwestern pond turtle (*Actinemys marmorata marmorata*), and nesting birds and raptors protected by the Migratory Bird Treaty Act were identified as potentially occurring in the project area (**Appendix A**). A third species, foothill yellow-legged frog (*Rana boylii*), was identified in the CNDDB (**Figure 4.6-1**); however, this species was determined not to have any potential for occurrence because no suitable habitat for this species exists onsite.

The following set of criteria has been used to determine each species' potential for occurrence onsite:

- **Present:** Species known to occur onsite, based on CNDDB records, and/or were observed onsite during the field survey(s).

- **High:** Species known to occur on or near the site (based on CNDDB records within 5 miles, and/ or based on professional expertise specific to the site or species) and there is suitable habitat onsite.

- **Low:** Species known to occur in the vicinity of the site, and there is marginal habitat on the site and/ or species is not known to occur in the vicinity of the site; however, there is suitable habitat onsite.

- **No:** Species is not known to occur on or in the vicinity of the site and there is no suitable habitat for the species on the site and/ or species was surveyed for during the appropriate season with negative results.

After compiling a list of potentially occurring special-status species and sensitive habitats, a reconnaissance-level habitat assessment was performed on August 7, 2009 in order to document habitat types and plant and wildlife communities occurring within the project site. During the site assessment, observed plant and wildlife species were recorded and biological communities onsite were categorized and assessed for the potential to support special-status species. Representative ground-level photographs were taken. Biotic communities were classified according to the California Department of Fish and Game's Wildlife Habitat Relationships System (CWHRS) which is a wildlife habitat classification system for California's regularly occurring birds, mammals, reptiles, and amphibians (Mayer and Laudenslayer 1988).

Biological Communities

El Dorado County supports a wide diversity of plant and wildlife species and ranges in elevations from 200 in the western portion of the County to over 10,800 feet in elevation in the eastern portion of the County ("El Dorado County" 2009). Generally, El Dorado County can be described as gently rolling annual grassland and oak woodland slopes in the east transitioning to more dominant coniferous pine and fir forests at higher elevations and more xeric landscape on the eastern slope. El Dorado County supports a variety of habitats that are important for movement corridors, and resident, breeding, and foraging habitat areas (El Dorado County 2004). A more in-depth discussion of wildlife movement corridors and those that occur in El Dorado County and the project vicinity are included below under Sensitive Habitats.

Based upon aerial photograph review and a reconnaissance-level habitat assessment, the project site supports two biological communities, montane hardwood-conifer and annual grassland (Mayer and Laudenslayer 1988). Montane hardwood-conifer includes both hardwood (broad-leaved) and conifer vegetative species and often occurs as a closed-canopy forest with small, intermixed stands of each. To meet this classification, at least one third of the species should be broadleaved species and at least one third should be coniferous species (Mayer and Laudenslayer 1988). The Greenwood site is dominated entirely by this habitat type. Acorn and pine cone crops are important for birds and mammals and canopy cover is important for several species of amphibians and reptiles at higher elevations, especially in mesic areas. The understory of the Greenwood site consists largely of Himalayan blackberry (*Rubus discolor*), which is not a typical associate species, but is likely a result of seepage from Greenwood Lake located immediately upslope. The Greenwood site was characterized in part by the following plant species black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), ponderosa pine (*Pinus ponderosa*), Himalayan blackberry (*Rubus discolor*), coyote brush (*Baccharis pilularius*), and California mugwort (*Artemesia douglasiana*).

Annual grassland is typified by the dominance of annual herbaceous species and the lack of a significant overstory. Introduced annual grasses are the dominant species of this habitat. This habitat exists on the WTP site; however, it is important to note that this site is routinely mowed in order to suppress weeds and associated fire danger. While there are a few landscape trees onsite, they do not dominate the site and provide very limited, fragmented cover. Interspersed through the annual grasses onsite are annual herbaceous, weedy species, many of which are not introduced as well. The WTP site was dominated by the follow species: oat (*Avena* sp.), ryegrass (*Lolium* sp.), narrow tarweed (*Holocarpha virgata*), yellow star thistle (*Centaurea solistitialis*), and turkey mullein (*Eremocarpus setigerus*).

Sensitive Habitats

Wildlife movement corridors consist of a mix of plant cover types including tree canopy, shrub, and herbaceous cover and typically occur in association with riparian corridors and/or stream courses. Wildlife movement corridors provide two primary purposes: one to allow migrating wildlife (primarily deer) to move seasonally between winter and summer habitat areas, and two to allow resident wildlife to move within their home ranges in order to meet food, cover, and reproductive requirements.

The western portion of El Dorado County supports important migratory deer populations. Deer populations throughout the County have been characterized by both the California Department of Fish and Game and the Tahoe National Forest as stable to slightly declining (California Department of Fish and Game 2009).

Other sensitive habitats that occur near the project site (Greenwood and WTP) include reservoirs and associated riparian habitats. Two water settling ponds associated with WTP operation are routinely cleared of vegetation up to the property boundary. This management practice precludes the establishment or presence of any riparian vegetation and reduces the likelihood that the ponds would be used by California red-legged frog and northwestern pond turtle. The ponds are relatively shallow and barren, which further reduces their habitat value for these two species. Because of the close proximity of the reservoir, these water settling ponds represent low quality habitat for these California red-legged frog and northwestern pond turtle. Wetlands and riparian areas in combination with each other serve as important habitats and critical components in animal movement and migration and provide habitat for several plant and wildlife species.

Regulatory Setting

Federal, state, and local regulations that apply to the project include:

Federal Regulations

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

The FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR §17.3). Harassment is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR §17.3). Actions that result in take can result in civil or criminal penalties.

The FESA and Clean Water Act (CWA) Section 404 guidelines prohibit the issuance of wetland permits for projects that jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. The U.S. Army Corps of Engineers (USACE) must consult with the USFWS and/or the National Oceanic and Atmospheric Administration (NOAA) when threatened or endangered species under their jurisdiction may be affected by a project. In the context of the project, FESA would be triggered if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species or adversely modify critical habitat of such a species.

Executive Order 11990 "Protection of Wetlands"

Executive Order 11988 requires federal agencies to take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. The Order further requires that federal agencies avoid undertaking or providing assistance for new construction located in wetlands unless a finding can be made that the proposed action is the only practicable alternative and that this alternative includes all practicable measures necessary to minimize harm to wetlands.

State Regulations

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to state-listed endangered and threatened species. CESA requires state agencies to consult with the CDFG when preparing CEQA documents to ensure that lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). The CESA directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows CDFG to authorize exceptions to the state's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code §2081).

CDFG Species of Concern

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFG and lead agencies during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern", developed by these resource agencies. It tracks species in California whose numbers, reproductive success, or habitat may be in decline.

California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Plants of California* (CNPS 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

- List 1A: Plants presumed Extinct in California
- List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- List 3: Plants about which we need more information – A Review List
- List 4: Plants of limited distribution – A Watch List

Migratory Bird Treaty Act and California Fish and Game Codes

The Migratory Bird Treaty Act (MBTA), first enacted in 1916, prohibits any person, unless permitted by regulations, to:

"pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird." (16 U.S.C. 703). Thus, it is illegal under MBTA to directly kill, or destroy a nest of, nearly any bird species, not just endangered species. Activities that result in removal or destruction of an active nest (a nest with eggs or young being attended by one or more adults) would violate the MBTA. Removal of unoccupied nests, or bird mortality resulting indirectly from disturbance activities, is not considered a violation of the MBTA.

Section 3503.5 of the CDFG Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Disturbance activities that result in abandonment of an active bird-of-prey nest in areas adjacent to the disturbance may also be considered a violation of the CDFG Code.

Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. "Discharges of fill material" is defined as the addition of fill material into waters of the United States, including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 C.F.R. §328.2(f)]. In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a

pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the United States include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of waters is present. Methods for delineating wetlands and non-tidal waters are described below.

- Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Presently, to be a wetland, a site must exhibit three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the "normal circumstances" for the site.
- The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4(c)(1)]. The OHWM is defined by the USACE as "the line on the shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

California Department Fish and Game Code Section 1600

CDFG is a trustee agency that has jurisdiction under Section 1600 et seq. of the CDFG Code. Under Section 1602, any public or private entity must notify CDFG if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds except when the department has been notified pursuant to Section 1600." If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFG may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFG identifying the approved activities and associated mitigation measures.

El Dorado County General Plan

The El Dorado County General Plan Conservation and Open Space Element identify specific goals, objectives, and policies pertaining to the management, preservation, and conservation of natural resources and open space (El Dorado County General Plan 2004). The General Plan states that existing natural resources and open space to be conserved and improved include water, native plants, fish, wildlife species and habitat, and federally classified wilderness areas; and preserve resources of significant biological and ecological importance.

Goal 7.4 *Wildlife and Vegetation Resources*

Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

Objective 7.4.1 *Rare, Threatened, and Endangered Species*

The County shall protect State and Federally recognized rare, threatened, or endangered species and their habitats consistent with Federal and State laws.

Policy 7.4.1.6 *All development projects involving discretionary review shall be designed to avoid disturbance or fragmentation of important habitats to the extent reasonably feasible. Where avoidance is not possible, the development shall be required to fully mitigate*

the effects of important habitat loss and fragmentation. Mitigation shall be defined in the Integrated Natural Resources Management Plan (INRMP).

Objective 7.4.2 Identify and Protect Resources

Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

Policy 7.4.2.5 Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.

Policy 7.4.2.9 The Important Biological Corridor (-IBC) overlay shall apply to lands identified as having high wildlife habitat values because of extent, habitat function, connectivity, and other factors. Lands located within the overlay district shall be subject to the following provisions except that where the overlay is applied to lands that are also subject to the Agricultural District (-A) overlay or that are within the Agricultural Lands (AL) designation, the land use restrictions associated with the -IBC policies will not apply to the extent that the agricultural practices do not interfere with the purposes of the -IBC overlay.

- *Increased minimum parcel size;*
- *Higher canopy-retention standards and/or different mitigation standards/thresholds for oak woodlands;*
- *Lower thresholds for grading permits;*
- *Higher wetlands/riparian retention standards and/or more stringent mitigation requirements for wetland/riparian habitat loss;*
- *Increased riparian corridor and wetland setbacks;*
- *Greater protection for rare plants (e.g., no disturbance at all or disturbance only as recommended by U.S. Fish and Wildlife Service/California Department of Fish and Game);*
- *Standards for retention of contiguous areas/large expanses of other (non-oak or non-sensitive) plant communities;*
- *Building permits discretionary or some other type of "site review" to ensure that canopy is retained;*
- *More stringent standards for lot coverage, floor area ratio (FAR), and building height; and*
- *No hindrances to wildlife movement (e.g., no fences that would restrict wildlife movement).*

The standards listed above shall be included in the Zoning Ordinance.

Wildland Fire Safe measures are exempt from this policy, except that Fire Safe measures will be designed insofar as possible to be consistent with the objectives of the Important Biological Corridor

Objective 7.4.4 Forest and Oak Woodland Resources

Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

Policy 7.4.4.4 For all new development projects (not including agricultural cultivation and actions pursuant to an approved Fire Safe Plan necessary to protect existing structures, both of which are exempt from this policy) that would result in soil disturbance on parcels that (1) are over an acre and have at least 1 percent total canopy cover or (2) are less than an acre and have at least 10 percent total canopy cover by woodlands habitats as defined in this General Plan and determined from base line aerial photography or by site survey performed by a qualified biologist or licensed arborist, the County shall require one of two mitigation options: (1) the project applicant shall adhere to the tree canopy retention and replacement standards described below; or (2) the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.

Option A
The County shall apply the following tree canopy retention standards:

Percent Existing Canopy Cover	***Canopy Cover to be Retained***
80–100	60% of existing canopy
60–79	70% of existing canopy
40–59	80% of existing canopy
20–39	85% of existing canopy
10-19	90% of existing canopy
1-9 for parcels > 1 acre	90% of existing canopy

Under Option A, the project applicant shall also replace woodland habitat removed at 1:1 ratio. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8. Woodland replacement shall be based on a formula, developed by the County, that accounts for the number of trees and acreage affected.

Option B
The project applicant shall provide sufficient funding to the County's INRMP conservation fund, described in Policy 7.4.2.8, to fully compensate for the impact to oak woodland habitat. To compensate for fragmentation as well as habitat loss, the preservation mitigation ratio shall be 2:1 and based on the total woodland acreage onsite directly impacted by habitat loss and indirectly impacted by habitat fragmentation. The costs associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8.

Policy 7.4.4.5 Where existing individual or a group of oak trees are lost within a stand, a corridor of oak trees shall be retained that maintains continuity between all portions of the stand. The retained corridor shall have a tree density that is equal to the density of the stand.

Objective 7.4.5 Native Vegetation and Landmark Trees

Protect and maintain native trees including oaks and landmark and heritage trees.

Policy 7.4.5.2 It shall be the policy of the County to preserve native oaks wherever feasible, through the review of all proposed development activities where such trees are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. To ensure that oak tree loss is reduced to reasonable acceptable levels, the County shall develop and implement an Oak Tree Preservation Ordinance that includes the following components:

A. Oak Tree Removal Permit Process. Except under special exemptions, a tree removal permit shall be required by the County for removal of any native oak tree with a single main trunk of at least 6 inches diameter at breast height (dbh), or a multiple trunk with an aggregate of at least 10 inches dbh. Special exemptions when a tree removal permit is not needed shall include removal of trees less than 36 inches dbh on 1) lands in Williamson Act Contracts, Farmland Security Zone Programs, Timber Production Zones, Agricultural Districts, designated Agricultural Land (AL), and actions pursuant to a Fire Safe plan; 2) all single family residential lots of one acre or less that cannot be further subdivided; 3) when a native oak tree is cut down on the owner's property for the owner's personal use; and 4) when written approval has been received from the County Planning Department. In passing judgment upon tree removal permit applications, the County may impose such reasonable conditions of approval as are necessary to protect the health of existing oak trees, the public and the surrounding property, or sensitive habitats. The County Planning Department may condition any removal of native oaks upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for inch replacement of removed oaks. The total of replacement trees shall have a combined diameter of the tree(s) removed. Replacement trees may be planted onsite or in other areas to the satisfaction of the County Planning Department. The County may also condition any tree removal permit that would affect sensitive habitat (e.g., valley oak woodland), on preparation of a Biological Resources Study and an Important Habitat Mitigation Program as described in Policy 7.4.1.6. If an application is denied, the County shall provide written notification, including the reasons for denial, to the applicant.

B. Tree Removal Associated with Discretionary Project. Any person desiring to remove a native oak shall provide the County with the following as part of the project application:

- *A written statement by the applicant or an arborist stating the justification for the development activity, identifying how trees in the vicinity of the project or construction site will be protected and stating that all construction activity will follow approved preservation methods;*
- *A site map plan that identifies all native oaks on the project site; and*
- *A report by a certified arborist that provides specific information for all native oak trees on the project site.*

Impact Analysis

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?

Special-Status Plant Species

Three plant species identified in **Appendix A** have been determined to have a low potential to occur within the site including Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeae*), Butte County fritillary (*Fritillaria eastwoodiae*), and oval-leaved viburnum (*Viburnum ellipticum*). A fourth plant species, Nissenan manzanita (*Arctostaphylos nissenana*), was identified in **Figure 4.6-1**; however, this species was determined not to have any potential for occurrence onsite based on the results of a biological survey. Brandegee's clarkia, Butte County fritillary, and oval-leaved viburnum occur in cismontane pine woodlands, lower montane coniferous forest, and chaparral. Additionally, Butte County fritillary often times occurs within serpentine soils (**Appendix A**). Various CNDDB records occur for these species within five miles of the site (**Figure 4.6-1)** and with potential soils types and marginal habitat types in the appropriate elevation range of the project site, these special-status plant species have a low potential to occur within the site.

Special-Status Wildlife Species

Two wildlife species including nesting and foraging raptors and migratory birds were determined to have a low potential to occur in the project site (**Appendix A**). California red-legged frog has a low potential to occur within and in close proximity to the reservoirs adjacent to the ALT WTP and Greenwood sites. California red-legged frog prefers slower water flows in established creeks and steams with intermixed deep-water pools and emergent vegetation. There is one CNDDB record for this species, which dates back to an observation made in 2009. Due to the sensitive nature of this occurrence, information pertaining to the exact location has been suppressed. However, the approximate location is about 4.5 miles east of the junction of Highway 193 and Wentworth Springs Road in Georgetown, California. While the water settling ponds on the WTP site are relatively shallow and unvegetated, due to the nearby reservoir and proximity of the CNDDB occurrence, the settling ponds represent low quality habitat for this species. Furthermore, the presence of bullfrogs (*Rana catesbeiana*) in the settling ponds further reduces the likelihood of California red-legged frog occurring within this low quality habitat.

Northwestern pond turtle was determined to have a low potential to occur within and in the proximity of the reservoirs adjacent to the ALT WTP and Greenwood sites, and within and near the water settling ponds. Northwestern pond turtle occurs within a variety of aquatic habitats, but is typically found along quiet streams and ponds with basking sites (Zeiner *et al.* 1988). This species nests and over winters in upland habitats such as annual grassland and oak woodland habitats adjacent to summer aquatic habitats.

Various raptor and migratory birds protected by MBTA were determined to have a low potential to occur due to marginally suitable nesting and foraging habitat present within the project sites and numerous species being commonly known to nest and occur in pine and coniferous forests of the foothill region. There are no CNDDB records for members of these species within five miles of the project site; however, nesting birds and raptors are known to occur in the foothills to the Sierra Nevada mountain range and are not commonly reported in the CNDDB.

Less Than Significant With Mitigation Incorporated. Both Alternatives One and Two have the potential to impact special-status plant and wildlife species as result of construction of the WTP improvements and associated alteration of terrestrial habitat. Potential tree removal could impact nesting birds and altering uplands near the off-site reservoirs that provide low habitat value for California red-legged frog and northwestern pond turtle. Additionally, special-status plants have a potential to occur within grading areas. To the extent practical, impacts to native trees would be

avoided or minimized; however, construction of the improvements at both sites could require tree removal (the potential for tree impacts is discussed in further detail in sub-section "e"). Potential project-related impacts to special-status plant species, nesting birds, California red-legged frog, and northwestern pond turtle would be potentially significant and mitigation would be required. Therefore, with implementation of **Mitigation Measures BIO – 1 through Mitigation Measures BIO – 4**; impacts related to special-status species would be considered less than significant with either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to special-status species.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant With Mitigation Incorporated. Sensitive habitats that occur near the project site (Greenwood and WTP) include ponds, reservoirs and associated riparian habitats. Two water settling ponds associated with WTP operation are routinely cleared of vegetation up to the property boundary. This management practice precludes the establishment or presence of any riparian vegetation and reduces the likelihood that the ponds would be used by California red-legged frog and northwestern pond turtle. The ponds are relatively shallow and barren, which further reduces their habitat value for these two species. However, due to the close proximity of the ponds to the reservoir, these water settling ponds represent low quality habitat for these California red-legged frog and northwestern pond turtle. In addition, biological communities on the project site(s) have the potential to support special-status species. Three plant species have also been determined to have a low potential to occur within the site including Brandegee's clarkia, Butte County fritillary, and oval-leaved viburnum associated with soils types and marginal habitat types in the appropriate elevation range of the project site. In addition, various raptor and migratory birds protected by MBTA were determined to have a low potential to occur due to marginally suitable nesting and foraging habitat present within the project sites and numerous species being commonly known to nest and occur in pine and coniferous forests of the foothill region. Potential project-related impacts to sensitive/riparian habitats would therefore be considered potentially significant and mitigation would be required. With implementation of **Mitigation Measure BIO – 1** and **Mitigation Measure BIO – 4**; impacts related to sensitive and riparian habitat would be considered less than significant with either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the CDFG or USFWS.

c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?

No Impact. A professional biologist with eleven years experience conducted a field habitat assessment on October 27, 2009 and determined that there are no federally protected wetlands or Waters of the U.S. as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pools, coastal, etc.) occurring on the sites that could be potentially impacted by the proposed project. Therefore, there are no impacts related to federally protected wetlands would occur with Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to federally protected wetlands.

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?

Less Than Significant With Mitigation Incorporated. Both Alternatives One and Two will result in construction activities within portions of El Dorado County designated as an "Important Biological Corridor". As stated in the General Plan, the "Important Biological Corridor overlay shall apply to lands identified as having high wildlife habitat values because of extent, habitat function, connectivity, and other factors" (El Dorado County 2004). As mentioned in sub-section "a", trees on both the WTP and Greenwood sites could be used as nesting substrate for raptors or migratory birds. **Mitigation Measure BIO – 1** would reduce impacts to any nesting raptors or bird species protected by the MBTA to below the level of significance. The majority of the WTP site is developed or mowed; therefore, proposed improvements to the WTP site are not expected to substantially interfere with any other native resident or migratory fish or wildlife species, established native or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Although the Greenwood site is less disturbed and supports higher quality habitat than the WTP site, it has been undergone periodic vegetation maintenance and removal by equipment and by burning and is not known to contain a corridor or nursery site for any native resident or migratory fish or wildlife. Wildlife could utilize the Greenwood site for occasional use or forage. However, it is not expected that this site holds any importance above other similar lands nearby. Therefore, with the implementation of **Mitigation Measure BIO – 1**, impacts related to the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, or the use of native wildlife nursery sites would be reduced to less than significant with either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to the movement of any native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, or the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant With Mitigation Incorporated. Pursuant to the El Dorado General Plan, potential impacts to plant or wildlife species that are State and federally recognized are expected to be avoided or minimized with **Mitigation Measure BIO – 1 through Mitigation Measure BIO – 4**. Sub-section "a" provides a more detailed discussion or listed species and their corresponding mitigation measures, where applicable.

Numerous trees occur on the Greenwood site and a smaller number of planted trees occur on the WTP site. Trees, together and individually, compose the character of each site and serve as habitat for several species of wildlife. Some species of trees and oak woodland on the sites are regulated by multiple objectives and policies. **Mitigation Measure BIO – 5** would reduce any impacts to trees regulated by the County's tree ordinance to a less than significant level.

Policy 7.4.2.5 in the El Dorado General Plan requires that a setback from all rivers streams, and lakes be included in the Zoning Ordinance for all ministerial and discretionary development projects. Both sites are located adjacent to reservoirs and the site boundaries abut the water bodies. There is currently no formally designated setback for water bodies in the Zoning Ordinance; however, a setback of 100 feet is in place through the General Plan Conservation and Open Space Element until a setback is implemented through the Zoning Ordinance. **Mitigation Measure BIO – 6**, would reduce potential impacts to the nearby reservoirs to below the level of significance. Therefore, with implementation of **Mitigation Measure BIO – 5** and **Mitigation Measure BIO – 6**, no conflicts with any local policies or ordinances protecting biological resources would occur as a result of Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no conflicts with any local policies or ordinances protecting biological resources.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?

No Impact. There are no adopted or proposed Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional, or state habitat conservation plans for the project site areas. Therefore, no conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plans would occur as a result of Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plans.

Mitigation Measures

Mitigation Measure BIO – 1: A pre-construction raptor survey within suitable nest trees shall be conducted if construction activities are scheduled to begin during the raptor nesting season (January 1 – September 31). A qualified biologist shall conduct the survey no more than 30 days prior to the onset of construction activities. If active nests are found on or within 500 feet of the site, CDFG shall be consulted and most likely CDFG will require that an appropriate buffer be established around the nest until the young have fledged or until the biologist has determined that the nest is no longer active. If the construction activities are scheduled to begin during the non-breeding season (October 1-December 31), a survey is not required, and no further mitigation measures are expected to be necessary. If tree removal is determined necessary, timing tree removal to occur during this time frame would also reduce the potential for raptors to nest within the construction limits of the site during the nesting season.

Mitigation Measure BIO – 2: A pre-construction survey for California red-legged frog species shall be performed. The survey(s) only needs to be conducted within 100 feet of the frog's associated aquatic and bank habitats, as well as the water setting ponds on the WTP site. Surveys shall be conducted by a qualified biologist, in accordance with CDFG guidelines, and during the appropriate time of year for optimal detection of this species, from February through May when this species is most active.

If this species is not found on the project site during the focused pre-construction survey, no further mitigation would be required. However, if this species is found during focused surveys, then a detailed mitigation plan shall be prepared upon consultation with CDFG and/or USFWS which may include measures to minimize adverse effects of construction on California red-legged frog and its associated habitat. The mitigation plan would include a monitoring plan for this species during the period of construction.

Mitigation Measure BIO – 3: A pre-construction survey for northwest pond turtle shall be performed. The survey(s) only needs to be conducted in the turtle's associated aquatic and upland habitats (portions of the sites within 200 feet of the reservoirs and water settling ponds). Surveys shall

be conducted by a qualified biologist, in accordance with CDFG guidelines, and during the appropriate time of year, from February through late October, when this species is most active.

If this species is not found on the project site during the focused pre-construction survey, no further mitigation would be required. However, if this species is found during focused surveys, then a detailed mitigation plan shall be prepared upon consultation with CDFG and/or USFWS which may include measures to minimize adverse effects of construction on northwestern pond turtle and its associated habitat. The mitigation plan would include a monitoring plan for this species during the period of construction.

Mitigation Measure BIO – 4: A pre-construction survey(s) for the special-status plant species listed above under 'special-status plant species' with potential to occur on the site(s) shall be performed to determine their presence or absence within the project sites prior to the installation of WTP improvements or installation of the Greenwood drying beds. The focused botanical survey(s) shall be performed within the optimum identification period, to the extent possible, of each species identified in **Appendix A**.

If these species are not found on the project site then no further mitigation would be required. However, if these species are found, then consultation with the appropriate resource agencies would be required and a mitigation plan shall be prepared. The mitigation plan should detail the various mitigation approaches to ensure "no-net-loss" of special-status plants. Examples of mitigation include avoidance of the plant species, acquisition of credits at an approved mitigation bank, or acquisition and preservation of property that supports these species.

Mitigation Measure BIO – 5: Potentially regulated trees may occur in the project grading areas. Prior to any tree impacts occurring from project related construction/improvements, an arborist survey shall be performed by an International Society of Arboriculture certified arborist based on the preparation of final site grading plans. Per the General Plan, the amount of tree impacts, oak tree canopy and oak woodland occurring on the sites, if any, shall be determined during the arborist survey and results presented in the arborist report. Only tree species subject to protection under the El Dorado County General Plan would require inventory and possible mitigation required by the El Dorado County General Plan policies and Oak Woodland Ordinance. If indirect impacts to a tree's dripline or root protection zone may occur, measures to minimize impacts during construction shall be implemented. All impact avoidance measures identified in the El Dorado General Plan shall be implemented prior to, during, and following construction as appropriate.

Mitigation Measure BIO – 6 Project activities shall be conducted outside of the temporary setback distance of 100 feet from the reservoirs adjacent to the Greenwood and WTP site, where possible. At a limited area in the northeast portion of the Greenwood project site, a telemetry antenna and associated equipment enclosure would be placed immediately east of Loghouse Road for optimum operation. The placement of these installations at this proposed location would reduce the amount

of vegetative and tree disturbance to the minimum level possible. Furthermore, because the riparian vegetation is primarily limited to the portion of bank immediately adjacent to the reservoir, the installation of the telemetry antenna and associated equipment enclosure is not expected to disturb any riparian vegetation. Since the telemetry antenna and associated equipment enclosure will not be installed outside of the 100-foot buffer, an entrenched silt fence adjacent to the eastern extent of work, such that it encompasses the down-slope portion of the work area, shall be installed to prevent any silt or sediment from entering the reservoir. The northernmost edge of the proposed drying beds on the Greenwood site would also be potentially located within 100 feet of the reservoir; however, they are located downhill from the reservoir and require no additional protective measures for their placement.

If unavoidable project activities on either site must occur within the 100-foot setback, uphill from the respective reservoir, then an entrenched silt-fence shall be installed adjacent to the downhill limit of work to fully encompass the lower side of the active area. Silt fences shall be installed per guidelines included in the California Stormwater Quality Association (California Stormwater Quality Association 2003). Additionally, no work will occur within 10 feet of the edge of any wetland or riparian vegetation associated with either reservoir. Prior to the removal of any silt fences, or during the implementation of best management practices (BMP), a Certified Professional in Storm Water Quality or Certified Professional in Erosion and Sediment Control be consulted on best stabilization and sediment control options.

4.7 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

The ALT WTP site encompasses approximately 8.5 acres located between Sweetwater Trail on the east and north, and State Route 193 on the south, in northern El Dorado County, California. Lands affected at the Greenwood site are located within a portion of the southeast quarter of Section 31 of Township 13 North, Range 10 East, while the Auburn Lake Trails facility is located within the southwest quarter of Section 1 of Township 12 North, Range 9 East, as shown on the USGS *Greenwood, California*, 7.5-minute series quadrangle.

Much of the land in this general area has been subjected to mining, logging, agricultural and light residential development, while the area has been subjected to extensive past mining and ranching since the middle of the 19th Century. A number of important water courses are located near the project area, including the Middle Fork of the American River, which is located approximately four miles northwest of the Area of Potential Effect (APE) (Jensen 2010).

Most of the ALT WTP APE has been subjected to intensive disturbance. The existing facility consists of multiple structures, tanks, effluent ponds, underground components, fencing and utilities. The existing facility consists entirely of contemporary water treatment components and structures. The location of the proposed 500,000 gallon tank consists of a moderately steep slope of mowed grasses (Jensen 2010).

The Greenwood APE consists of gently sloping lands dominated by conifers and brush, with evidence of past tree and brush removal. Likewise, adjacent construction activities associated with the dam and reservoir have resulted in substantial previous disturbance to surface and subsurface soils within the APE. Evidence of land re-contouring and grading were observed at various locations throughout the APE (Jensen 2010).

Based on available topographic and other maps, but notwithstanding the effects of past and on-going land uses, the project area appeared to contain lands moderate in sensitivity for both prehistoric and historic sites and features (Jensen 2010).

Geology

El Dorado County is located within the Sierra Nevada geomorphic province of California consisting of Pliocene and older deposits and characterized by steep-sided hills and narrow, rocky stream channels. Geologic deposits have been subject to uplifting as a result of plate tectonics, granitic intrusion, and volcanic activity. The east-west orientation of stream channels within the County is a result of glaciation and volcanic activity (County of El Dorado 2003).

Methodology

Compliance with CEQA requires completion of projects in conformity with the amended (October 1998). Guidelines, including in particular Section 15064.5, Compliance with Section 106 of the National Historic Preservation Act (NHPA) requires completion of projects in conformity with the standards, guidelines, and principles in the Advisory Council's Treatment of Archaeological Properties: A Handbook (1980), and Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (1983). Based on these rules, regulations and laws, the following tasks were considered an adequate and appropriate Scope of Work for the archaeological inventory:

- Conduct a records search at the North Central Information Center of the California Historical Resources Information System at CSU-Sacramento and consult with the Native American Heritage Commission (NAHC) and Native American representatives on the NAHC contact list. The goals of the records search and consultation are to determine (a) the extent and distribution of previous archaeological surveys, (b) the locations of known archaeological sites and any previously recorded archaeological districts, and (c) the relationship between known sites and environmental variables. This step is also designed to ensure that, during subsequent field survey work, all significant/eligible cultural resources are discovered, correctly identified, and properly interpreted.

- Conduct a complete-coverage, intensive pedestrian survey of the APE. The purpose of the pedestrian survey is to ensure that previously recorded sites identified during the records search and consultation are re-located and eligibility evaluations updated on the basis of existing conditions vis-à-vis site integrity and condition. For previously undocumented sites discovered, the field survey would involve formally recording these on State DPR-523 Primary Records. For both previously identified and newly identified resources, the level of field work would be sufficient to recommend measures to avoid, minimize or mitigate adverse effects of the undertaking to any sites recommended eligible or potentially eligible for listing on the National Register of Historic Places.

- Upon completion of the records search, consultation and pedestrian survey, prepare an archaeological inventory survey report that identifies project effects and that includes an Historic Properties Treatment Plan for any eligible or potentially eligible properties affected by the undertaking.

Several information sources were considered relevant to evaluating the types of sites and site distribution that might be encountered within the project area. The information evaluated includes data maintained by the North Central Information Center of the California Historical Resources Information System (CSU-Sacramento), consultation with the NAHC and Native American representatives on the NAHC contact list, and published and unpublished documents relevant to regional ethnography, prehistory, and early historic developments.

North Central Information Center Records

The records of the North Central Information Center (CSU-Sacramento) were examined for existing recorded prehistoric and historic sites and previous archaeological survey within or near the project area (Records Search dated November 25, 2009, NCIC File # ELD-09-90), with the following results:

Previous Archaeological Survey

Approximately 50 percent of the Greenwood site has been subjected to survey by a professional archaeologist. Windmiller (1997) conducted a survey for the Pilot Hill Ranch water treatment facility, which involved a linear corridor bisecting the Greenwood site. As well, Napton and Greathouse (2007) conducted a survey for the Greenwood Lake water treatment plant, which involved survey of the western portion of the present Greenwood APE. As a result of these surveys, one historic-era resource (CA-ELD-959-H), a segment of the Georgetown Divide Water Conveyance System at Greenwood Lake Reservoir, was recorded within/adjacent to the present APE. The State Historic Preservation Officer (SHPO), along with a federal agency, reached a consensus for the ditch system and classified the resource as 6Y2 (not eligible for listing on the NRHP).

None of the Auburn Lake Trails treatment plant facility has been subjected to survey by a professional archaeologist. Three surveys have been conducted on lands immediately adjacent to the facility. However, these previous investigation areas do not appear to overlap with the Auburn Lake Trails water treatment plant facility (Jensen 2010).

Recorded Cultural Resources

One historic-era site (CA-ELD-959-H), a segment of the Georgetown Divide Water Conveyance System at Greenwood Lake Reservoir, has been recorded within/immediately adjacent to both APE areas. Both Windmiller (1997) and Napton and Greathouse (2007) concluded that the site's integrity had been sufficiently compromised as to render it not eligible for inclusion on the National Register of Historic Places (Jensen 2010).

Native American Consultation

In conjunction with the records search for the present project, the Native American Heritage Commission was contacted regarding Sacred Land Listings. The NAHC indicated that there are no Sacred Land listings for the project area or adjacent lands (response dated December 3, 2009, copy attached). The contact list from the Native American Heritage Commission included the following individuals and groups, all of whom were contacted and requested to supply any information they might have concerning prehistoric sites or traditional use areas within the project area:

1. El Dorado County Indian Council, El Dorado, California.

2. United Auburn Indian Community of the Auburn Rancheria, Auburn, California.

3. Todd Valley Miwok-Maidu Cultural Foundation, Foresthill, California.

4. April Wallace Moore, Colfax, California.

To date, no responses have been received from these contacted groups.

Other Sources

In addition to examining records at the North Central Information Center at CSU-Sacramento and Native American consultation, the following sources were also reviewed by the Information Center, or separately:

- The National Register of Historic Places (1986, and supplements through 2009).
- The California Register of Historical Resources.
- The California Inventory of Historic Resources (State of California 1976).
- The California Historical Landmarks (State of California 1996).

- The California Points of Historical Interest (May 1992 and updates).
- The Historic Property Data File (OHP 2009).
- Caltrans Bridge Inventory.
- 1871 GLO Plat for T12N/R9E; 1871 GLO Plat for T13N/R10E; 1849 USGS 7.5' Greenwood quad.

Published and unpublished documents relevant to environment, ethnography, prehistory and early historic developments in the vicinity, providing context for assessing site types and distribution patterns for the project area (summarized below).

Pedestrian Survey and Inventory

Pedestrian field survey was undertaken by Archaeologist Sean Michael Jensen in December 2009. Both of the project APE land areas were subjected to intensive pedestrian survey by walking back and forth across the two-acre and the five-acre land areas respectively with systematic transects spaced at approximate 10 meter intervals. In searching for cultural resources, the surveyor considered the results of background research and was alert for unusual contours, soil changes, distinctive vegetation patterns, exotic materials, artifacts, feature or feature remnants and other possible markers of cultural sites.

Prehistory

Initial human entry into California occurred at the beginning of the paleo-Indian Period – between about 10,000 and 6,000 B.C. (Fredrickson 1974). Within portions of the Central Valley, fluted projectile points have been found at Tracy Lake (Heizer 1938) and around the margins of Buena Vista Lake in Kern County. Similar materials have been found to the north, at Samwel Cave near Shasta Lake and near McCloud and Big Springs in Siskiyou County. These early peoples are thought to have subsisted using a combination of hunting and lacustrine exploitation (Moratto 2004).

These early cultural assemblages were followed by an increase in Native population density after about 7,500 years ago. Archaeologically defined as the Lower Archaic Period (6,000 to 3,000 BC), the transition to a less specialized foraging strategy clearly coincides with a middle Holocene climatic change to generally drier conditions which brought about desiccation of many of the West's pluvial lakes. Hunting and gathering populations of this period were small, mobile groups which focused increasingly on diverse environmental settings. By the beginning of the Middle Archaic Period (from about 3,000 to 1,000 BC), the broad regional patterns of foraging subsistence strategies had given way to more intensive procurement strategies, manifest in part by the establishment of year-round use of select village sites which in turn were located along major waterways. One of the most securely dated of these Archaic assemblages in north-central California is from the Squaw Creek Site located north of Redding. Here, a charcoal-based C-14 date suggests extensive Native American presence around 6,500 years ago, or 4,500 BC. Most of the artifactual material dating to this time period has counterparts further south, around Borax (Clear) Lake and the Farmington Area a short distance east of Sacramento. Important artifact types from this time period include large wide-stemmed projectile points and manos and metates.

Toward the end of this period, between about 1,000 BC and AD 100, sociopolitical complexity and the development of status distinctions appear, partially defining the Upper Archaic Period. Archaeological expressions within the northern and north-central Sierra Nevada during this period are defined as the Martis Complex, which maintained a huntergathering subsistence strategy and a high degree of mobility. Distinctive artifact types include manos and metates used for processing food, and relatively large, heavy projectile points and bifaces manufactured from locally available basalt.

Defining the Emergent Period, from AD 300-500 through AD 1,800, within both northern and north-central Sierra Nevada and Central Valley contexts, Penutian-speaking Native American peoples are

thought to have arrived, including those (i.e., Nisenan) who occupied the Lanza-Cool project area at the time of initial contact with European-American populations. Arriving ultimately from southern Oregon and the Columbia and Modoc Plateau region and proceeding down the major drainage systems (including the Feather, Yuba, Bear and American Rivers), these Penutian-speaking arrivals may have begun to displace the Martis populations, especially along the major river systems (Moratto 2004:303- 304). Presumably introduced by these Penutian arrivals were more extensive use of bulbs and other plant foods, animal and fishing products more intensively processed with mortars and pestles, and perhaps the bow and arrow and associated small stemmed- and cornernotched projectile points (Ragir 1972) (Jensen 2010).

Ethnography

The ALT APE is located within territory occupied by the Hill Nisenan (Wilson and Towne 1978: Figure 1), Native American peoples who are also referred to as "Southern Maidu." These Penutian-speaking peoples occupied the drainages of the southern Feather River and Honcut Creek in the north, through Bear River and the Yuba and American River drainages in the south. Villages were frequently located on flats adjoining streams, with the larger villages inhabited mainly in the winter as it was usually necessary to go out into the hills and higher elevation zones to establish temporary camps during food gathering seasons (i.e., spring, summer and fall).

As with all northern California Indian groups, economic life for the Nisenan revolved around hunting, fishing and the collecting of plant foods. The Nisenan were very sophisticated in terms of their knowledge of the uses of local animals and plants, and of the availability of raw material sources which could be used in manufacturing an immense array of primary and secondary tools and implements. Unfortunately, only fragmentary evidence of the material culture of these people remains, due in part to perishability, and in part to the impacts to archaeological sites resulting from later (historic) land uses.

Based on the results of previous survey work within and near the project area and similar Sierra Nevada contexts, the range of prehistoric site types within the present project area was anticipated to include, or already documented as including, the following:

- Surface scatters of lithic artifacts and debitage associated with midden accumulations and occasionally other surface features (i.e., circular housepit depressions, mortar holes) resulting from protracted occupation along the margins of stream channels, particularly where such channels merge with one another.
- Surface scatters of lithic artifacts and debitage without midden accumulations, resulting from short-term occupation and/or specialized economic activities, such as possible quarry and lithic reduction activity.
- Bedrock milling stations, including mortar holes and metate slicks.
- Petroglyphs.
- Isolated finds of aboriginal artifacts and flakes.

It was not expected that all of these site types would be present within the project area; however, these site types represent the most likely types present based on the results of the previous survey involving all of the present project area (Jensen 2010).

History

There is clear historic evidence that Spanish and Mexican expeditions and early fur trapping ventures visited the northern Sacramento Valley area, including the drainages of the Feather, Yuba, Bear, and American Rivers, during the early 19th century. However, the first major incursion by Euroamericans occurred in 1833 with the John Work Expedition through the Central Valley (Cook 1955), an

expedition which introduced several devastating diseases to the Native inhabitants of the Sacramento Valley and nearby foothill regions. More permanent Euroamerican occupation followed within a decade as settlers acquired large land grants from the Mexican government throughout California.

In 1849, the discovery of gold at nearby Coloma led immediately to exploration and intensive placer mining along all virtually every stream in California (Clark 1970), including in particular Greenwood Creek, Georgetown Creek, and of course all other tributaries to and including as well the various Forks of the American River.

Mining dominated the economy and supported the growth of ancillary industry such as drygoods stores, saloons, toll roads and stage lines, foundries, lumber mills, and water companies. As mining became more corporate and began to eliminate small-scale participation, many miners turned to agriculture and support industries. Most of the early ranches that resulted were self-sufficient operations which included a variety of kept animals, small plots dedicated to growing vegetables and grain, and orchards and vineyards.

Water storage and transportation and related hydroelectric development represent additional important historic themes in El Dorado County, along with logging, ground transportation, public land entry, and homesteading.

The early mining activity, coupled with historic through contemporary logging, ranching and associated water distribution projects, have all impacted prehistoric and early historic sites in this portion of El Dorado County and the project area. The present land area may have fared somewhat better than other areas of the County, however, being located within a region that appears to have remained ranch land until relatively recently (Jensen 2010).

Regulatory Setting

Federal Regulations

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies or state and local agency projects using federal funds to take into account the effect of the undertaking on historic properties.

State Regulations

Cultural resources can include historic and archaeological objects, structures, records, and sites which are associated with past human activities. A substantial adverse change in the significance of an historical resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. (Section 15064.5 (b)(1), CEQA Guidelines).

Per the CEQA Guidelines, historical resources include the following:

- A resource listed in, or eligible for listing in, the California Register of Historical Resources (California Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.);
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code;
- Any object, building, structure, site, area, place, record, or manuscript, which:
    - is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    - is associated with the lives of persons important in our past;

- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or
- has yielded, or may be likely to yield, information important in prehistory or history.

Per Public Resources Code Section 21083.2(g), an archaeological resource shall be considered unique if "it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

California Health and Safety Code

Section 7050.5 of the California Health and Safety Code defines general provisions for the treatment of dead bodies, and requires that the County coroner be contacted in the event of the inadvertent discovery of human remains and all excavation or disturbance of the site or nearby areas be immediately ceased until such time as the Coroner has made a determination pursuant to Section 27491 of the Government Code. In the event that the Coroner .recognizes or has reason to believe that the remains are of Native American ancestry, the Native American Heritage Commission shall be contacted within 24 hours.

El Dorado County General Plan

The El Dorado County General Plan identifies the following goal and policy related to Cultural Resources relevant to the Proposed Project:

GOAL 7.5: CULTURAL RESOURCES

Ensure the preservation of the County's important cultural resources.

Policy 7.5.1.3: Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Impact Analysis

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

No Impact. As discussed above, a segment of the Georgetown Divide Ditch Water Conveyance System at Greenwood Lake Reservoir (site CA-ELD-959-H) has been formally recorded and evaluated within the Greenwood Lake APE. Initial construction for the Georgetown Divide-Pilot Hill Ditch system began in the 1850's in order to serve mining activities in the area. Greenwood Lake was constructed along this conveyance system in 1874, with additional ditches and features added over the next century. During his recordation of the ditch in 1997, Windmiller noted that while the ditch had been originally constructed during the 1850's, numerous modifications and upgrades during

the 1960's and 1970's had resulted in a loss of historic integrity. Consequently, Windmiller recommended the site not eligible for inclusion on the NRHP. Similarly, Napton and Greathouse (2007) noted that while the ditch "generally follows its historic route, it had been "realigned or otherwise modified, and at numerous locations it has been lined with gunite to reduce leakage, and throughout its route it has been stabilized and maintained by ditch tenders. Like Windmiller, the researchers recommended that due to a lack of integrity the site no longer represented an historic property, and therefore was not eligible for inclusion on the NRHP. Consequently, a federal agency, along with the State Historic Preservation Officer, reached a consensus for the ditch system and classified the resource as 6Y2 (not eligible for listing on the NRHP).

During the present pedestrian survey, it was determined that a small segment of the ditch is present within the APE. Within the APE, the ditch exits Greenwood Lake before leaving the APE some 30 feet to the west. A service road crosses the ditch, via a contemporary culvert, at this point. The contemporary routing of the ditch at this point, combined with concrete stabilizing walls and a fully contemporary culvert proceeding under the service road further support the observations made by past researchers, all of which result in the recommendation that this segment of site CA-ELD-959-H does not retain sufficient integrity to constitute an historic property, and therefore is not eligible for inclusion on the NRHP.

Based on the findings of the present archaeological inventory, no historic properties will be affected by the undertaking, as presently proposed. Therefore no impact would result from development of Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore, no impact related to historic resources would result.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant With Mitigation Incorporated. Neither the pedestrian survey, existing records at CSU-Sacramento, consultation with tribal representatives, nor consultation with the Native American Heritage Commission yielded any information concerning prehistoric sites or features, traditional use areas or Sacred Land listings within or adjacent to the project area. However, although unlikely, archaeological resources could be discovered during ground disturbing construction activities. If such resources were to be discovered, the impact to archaeological resources could be significant without mitigation. Therefore, under the development proposed by Alternative One or Alternative Two implementation of **Mitigation Measure CR – 1** and **Mitigation Measure CR – 2** would reduce impacts to a less than significant level.

Under the No Action Alternative, no improvements would be implemented and therefore, no impact related to archaeological resources would result.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less Than Significant Impact. No comprehensive studies addressing the potential occurrence of paleontological resources within El Dorado County have been conducted, and therefore information is not currently available regarding the sensitivity of certain areas within the County to contain these resources (County of El Dorado 2003). Development of Alternative One or Alternative Two would involve construction activities including excavation, trenching, grading, and other ground-disturbing activities which would have the potential to result in adverse changes to paleontological resources. However, paleontological resources are generally found in sedimentary geologic formations. Although it may be possible for paleontological resources to be present in alluvial deposits within the County, the presence of these resources is not anticipated within County geologic formations. Geology throughout El Dorado County is primarily characterized by igneous (volcanic) formations, and sedimentary formations are virtually non-existent within the County. There are no known unique

geologic features within either project site. Impacts related to paleontological resources and unique geologic features are therefore considered less than significant under Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore, no impact related to paleontological or unique geologic resources would result.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant With Mitigation Incorporated. There are no known formal cemeteries or known interments outside of formal cemeteries within the project site. Though unlikely, should human remains be discovered during ground disturbing construction activities, such discovery would be considered a significant impact without mitigation. Therefore, under the development proposed by Alternative One or Alternative Two implementation of **Mitigation Measure CR – 1** and **Mitigation Measure CR – 2** would reduce impacts to a less than significant level.

Mitigation Measures

Mitigation Measure CR – 1: Should archaeological deposits or artifacts such as structural features or unusual amounts of bone or shell, artifacts, human remains, architectural artifacts, historic archaeological artifacts be inadvertently exposed during the course of any construction activity, work shall immediately cease in the immediate area and the GDPUD project manager shall be contacted. GDPUD shall retain a qualified archaeologist to document the find, assess its significance, and recommend further treatment. The GDPUD shall implement any mitigation required for the recordation and/or protection of the cultural resources.

Mitigation Measure CR – 2: In the event that any human remains or any associated funerary objects are encountered during construction, all work will cease within the vicinity of the discovery and the GDPUD project manager shall be immediately notified. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the El Dorado County coroner shall be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects. Construction activities in the immediate vicinity will not resume until a notice-to-proceed is issued.

4.8 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the 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?	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

Geology

El Dorado County is located within the Sierra Nevada geomorphic province of California consisting of Pliocene and older deposits and characterized by steep-sided hills and narrow, rocky stream channels. Geologic deposits have been subject to uplifting as a result of plate tectonics, granitic intrusion, and volcanic activity. The east-west orientation of stream channels within the County is a result of glaciation and volcanic activity (County of El Dorado 2003).

Seismicity

Fault systems mapped within western El Dorado County include: West Bear Mountains Fault; the East Bear Mountains Fault; the Maidu Fault Zone; the El Dorado Fault; the Melones Fault Zone of the

Clark, Gillis Hill Fault; and the Calaveras-Shoo Fly Thrust. No active faults have been mapped within the County, although a portion of the Rescue Lineament-Bear Mountains fault zone is a late-Quaternary fault and is therefore considered potentially active (County of El Dorado 2003).

El Dorado County is not identified by the California Geological Survey as a city or county affected by Alquist-Priolo Earthquake Fault Zones (California Geological Survey 2007).

The potential intensity of seismic events is varied throughout the County, although generally, potential intensity increases to the east (County of El Dorado 2003). No portion of El Dorado County is located within a Seismic Hazard Zone, therefore hazards related to seismically-induced liquefaction, lateral spreading, and landslides are not present within the County (County of El Dorado 2003).

Soils

According to mapping completed by the Natural Resources Conservation Service, two soil map units are mapped on the ALT site (USDA 2005), as shown on **Figure 4.8-1**. Individual soil map units are identified in **Table 4-1**.

Table 4-1 — Auburn Lake Trails Soil Map Units

Soil Map Unit Symbol	Soil Map Unit	Erosion Hazard	Shrink/Swell Potential
MbE	Mariposa Very Rocky Silt Loam, 3 to 50 percent slopes	Slight to High	Low
MbF	Mariposa Very Rocky Silt Loam, 50 to 70 percent slopes	High	Low

Source: USDA, 1974

The Mariposa soil series consists of a pink surface layer, medium acid gravelly silt loam approximately eight inches thick. Subsoil is reddish-yellow, medium and strong acid gravelly silt loam approximately 18 inches thick. This soil series is generally underlain by schists or slate at approximately 26 inches depth. Permeability is moderate, surface runoff is medium to rapid, and the erosion hazard is slight to high. The Mariposa Series is poorly suitable for topsoil, but provides fair road fill (USDA 1974).

The Mariposa Very Rocky Silt Loam, 3 to 50 percent slopes soil is characterized by south and west facing slopes along narrow ridge tops. Permeability is moderate and surface runoff is medium to rapid. Woodland is the primary use for this soil.

The Mariposa Very Rocky Silt Loam, 50 to 70 percent slopes soil is found adjacent to major rivers, and is characterized by rapid surface runoff.

In addition, the Natural Resources Conservation Service has mapped a single soil map unit on the Greenwood site (USDA 2005). The individual soil map unit mapped on the Greenwood site is identified in **Table 4-2**.

Table 4-2 — Greenwood Soil Map Unit

Soil Map Unit Symbol	Soil Map Unit	Erosion Hazard	Shrink/Swell Potential
BkD	Boomer Very Rocky Loam, 3 to 30 percent slopes	Slight to Moderate	Low to Moderate

Source: USDA, 1974

The Boomer soil series consists of well-drained soils underlain by basic schists at a depth of 24 to 52 inches. These soils are used for woodland and range. The Boomer Very Rocky Loam, 3 to 30 percent slopes soil map unit is characterized by moderately slow permeability, and medium surface runoff.

Regulatory Setting

State Regulations

Relevant State regulations are discussed in detail in **Section 4.10**, **Hydrology and Water Quality**.

El Dorado County General Plan

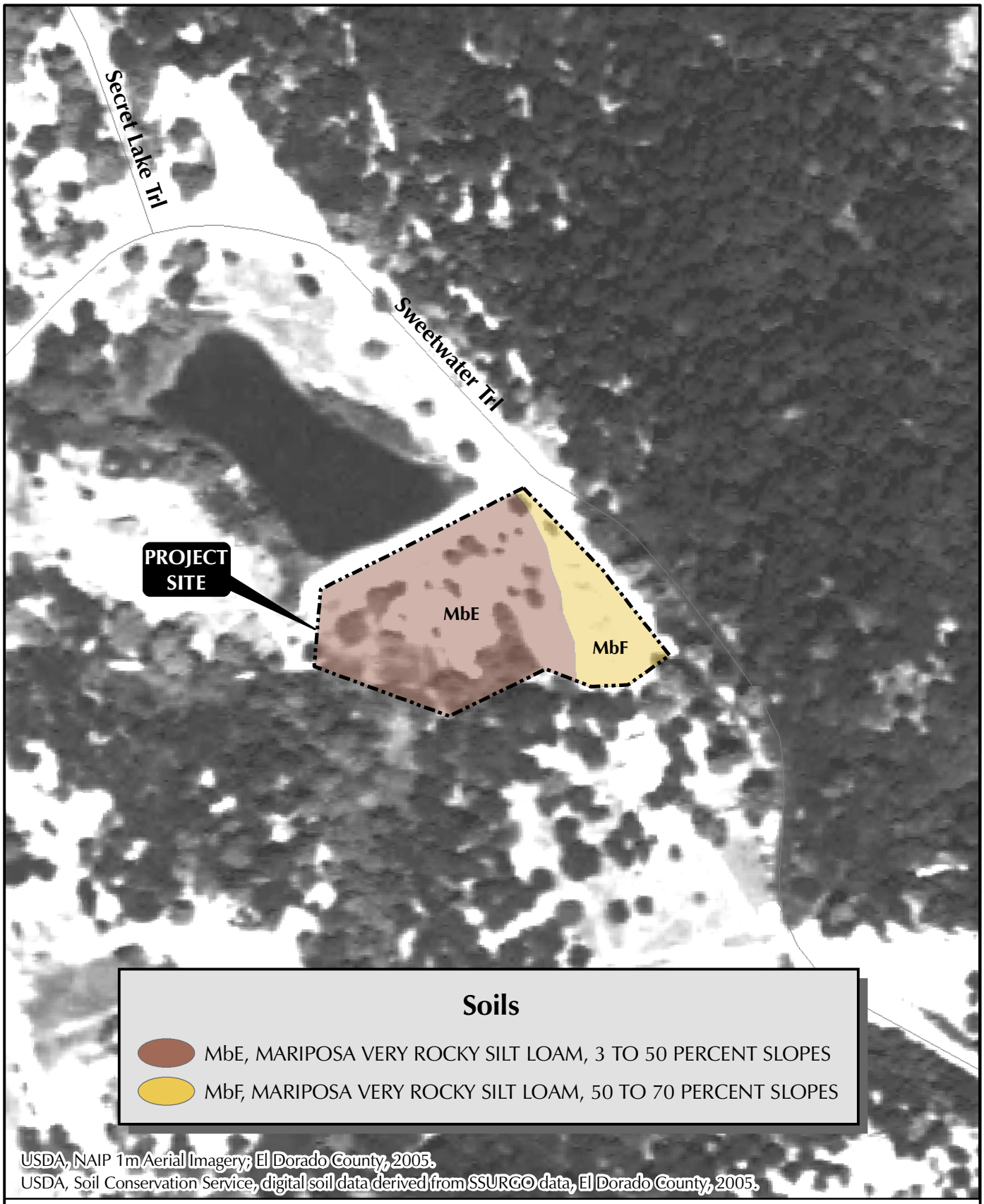
The El Dorado County General Plan identifies the following goal and objectives related to Geology and Soils and relevant to the Proposed Project:

Goal 6.3: *Minimize the threat to life and property from seismic and geologic hazards.*

Policy 7.1.2.2: *Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.*

El Dorado County Code

Chapter 15.14 of the El Dorado County Code establishes and defines the County's Grading Ordinance for the purpose of regulating grading within the unincorporated area of El Dorado County to safeguard life, limb, health, property and public welfare; to avoid pollution of watercourses; and to ensure that the intended use of a graded site is consistent with the El Dorado County General Plan, any adopted Specific Plans, the adopted Storm Water Management Plan, California Fire Safe Standards and applicable El Dorado County ordinances including the Zoning Ordinance and the California Building Code.



AUBURN LAKE TRAILS SITE SOILS

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

0 100 200
SCALE IN FEET

Drawn By: ACL
Date: 12/03/09

FIGURE 4.8-1

Impact Analysis

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:

a.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?

Less Than Significant Impact. El Dorado County is not identified by the California Geological Survey as a city or county affected by Alquist-Priolo Earthquake Fault Zones (California Geological Survey 2007). Areas within the County may be subject to periodic ground shaking, with the potential magnitude of seismic events increasing from west to east (County of El Dorado 2003). The project does not propose the construction of any structures for human habitation or for public gathering places. The potential magnitude of seismic events within the County is considered low to moderate (County of El Dorado 2003), and any proposed structural construction or renovation would be subject to the provisions of current UBC requirements as overseen by the County Building Division. Therefore impacts are considered less than significant relevant to development of Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore, no impact related to rupture of known earthquake fault would result.

a.ii) Strong seismic ground shaking?

Less Than Significant Impact. The potential magnitude of seismic events within the County is considered low to moderate (County of El Dorado 2003), and any proposed structural construction or renovation would be subject to the provisions of current UBC requirements as overseen by the County Building Division. Development of the Proposed Project would not result in the construction of structures for human habitation or public gathering places. Impacts are therefore considered less than significant relevant to development of Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore, no impact related to seismic ground shaking would result.

a.iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. No portion of El Dorado County is located within a mapped Seismic Hazard Zone, therefore areas within the County are not considered to be a risk from liquefaction hazards (County of El Dorado 2003). No impact would result from development of the Proposed Project related to liquefaction. Additional seismic-related effects include lateral spreading, seismically induced landslides, or other ground failure. The potential for these secondary seismic effects is considered minimal (County of El Dorado 2003). Therefore, impacts related to seismic-related ground failure are considered less than significant relevant to development of Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore, no impact related to seismic ground failure would result.

a.iv) Landslides?

Less Than Significant With Mitigation Incorporated. The majority of improvements proposed by GDPUD are proposed on relatively flat, level ground and/or within areas previously graded and currently developed. However, GDPUD proposes the construction of a new clearwell tank for water storage on currently undisturbed ground east of, and adjacent to, the current ALT facility. The

proposed new clearwell would be constructed on sloping, undisturbed ground. Geologic characteristics, including the potential for slope failure within the project area proposed for construction of the new clearwell remain unknown. Therefore, impacts related to landslides are considered Less than Significant with Mitigation Incorporated relevant to development of development of Alternative One and Alternative Two. Compliance with **Mitigation Measure GEO – 1** would require that GDPUD contract with a licensed geotechnical engineer to evaluate the geologic characteristics of the proposed new clearwell site, and implement all feasible recommended measures to ensure stability of the clearwell site for Alternative One and Alternative Two, thereby reducing potentially significant impacts to less than significant levels.

Under the No Action Alternative, GDPUD would not develop any improvements, and therefore no impacts related to landslides would result.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant With Mitigation Incorporated. Regulatory provisions addressing erosion and soils loss as relevant to water quality include, but are not limited to, the National Pollutant Discharge Elimination System (NPDES) program for management of construction and municipal storm water runoff, as part of the federal Clean Water Act and the State Porter-Cologne Water Quality Control Act. The Program is implemented at the State and local level through issuance of permits and preparation of site-specific Storm Water Pollution Prevention Plans (SWPPP). Although the primary purpose of these regulations and standards is the protection of surface water resources from the effects of land development (such as turbidity resulting from erosion and sediment loss), measures included in these regulations and standards also reduce the potential for erosion and soil loss. State regulations pertaining to the management of erosion and sedimentation are described in detail in **Section 4.10**, **Hydrology and Water Quality**.

Site disturbance related to clearing, grading, and excavation activities associated with implementation of the Proposed Project would have the potential to result in increased erosion and sediment loss within the project area. Project-related grading activities would also be subject to the requirements of the RWQCB for filing a Notice of Intent (NOI) to comply with the Construction General Permit for projects over an acre or for projects that are part of a larger common plan of development encompassing over one acre. NOI Applicants are required to develop a SWPPP specifying individual BMPs as well as scheduling for regular monitoring and maintenance of BMPs for effectiveness. However, until such time as GDPUD has prepared a site-specific SWPPP, impacts relate to erosion and soil loss would be considered potentially significant for Alternative One and Alternative Two. Compliance with **Mitigation Measures GEO – 2 through GEO – 7** would require GDPUD to file an NOI with the Central Valley Regional Water Quality Control Board and prepare a site-specific SWPPP and identify post-construction BMPs defining timing and methods for BMP implementation, monitoring and maintenance in sufficient detail to ensure that federal, State and locally adopted standards for erosion an sediment control, and water quality are met throughout project construction, as well as following completion of construction activities and throughout implementation of the proposed improvements, reducing potential impacts to less than significant levels. Compliance with **Mitigation Measures GEO – 2 through GEO – 7** is relevant to the development of Alternative One and Alternative Two.

Under the No Action Alternative, GDPUD would not implement any improvements, and no ground disturbing activities. Therefore under the No Action Alternative, no impact related to erosion would result.

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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant With Mitigation Incorporated. Secondary seismic-related effects include lateral spreading, seismically induced landslides, or other ground failure. The potential for these

secondary seismic effects is considered minimal (County of El Dorado 2003). Therefore, impacts related to seismic-related ground failure are considered less than significant. However, GDPUD proposes the construction of a new clearwell tank for water storage on currently undisturbed ground east of, and adjacent to, the current ALT facility. The proposed new clearwell would be constructed on sloping, undisturbed ground. Geologic characteristics, including the potential for slope failure within the project area proposed for construction of the new clearwell remain unknown. Therefore, impacts related to landslides are considered Less than Significant with Mitigation Incorporated for Alternative One and Alternative Two. Compliance with **Mitigation Measure GEO – 1** would require that GDPUD contract with a licensed geotechnical engineer to evaluate the geologic characteristics of the proposed new clearwell site, and implement all feasible recommended measures to ensure stability of the clearwell site relevant to the development of Alternative One and Alternative Two, thereby reducing potentially significant impacts to less than significant levels.

Under the No Action Alternative, GDPUD would not development any improvements and no impact related to unstable soils or geology would result.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. As described in **Table 4-1** and **Table 4-2**, the shrink/swell potential for project area soils on both sites ranges from low to moderate. However, development of the Proposed Project would not involve the construction of structures, for human habitation or for public gathering places and all structures proposed for construction would be subject to the provisions of current UBC requirements as overseen by the County Building Division. Therefore development of the Proposed Project would not create substantial risks to life or property related to expansive soils. No impact would result from development of the project relevant to the development of Alternative One or Alternative Two.

Under the No Action Alternative, GDPUD would not implement any improvements, and therefore no impact related to risks associated with expansive soils would result.

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?

No Impact. Existing ALT WTP facilities include the use of septic systems and leach fields. No septic systems or facilities have been developed on the Greenwood site. Development of the Proposed Project would not involve the expanded use of septic tanks or alternative wastewater disposal systems. Therefore no impact would result from development of Alternative One or Alternative Two. Similarly, under the No Action Alternative, GDPUD would not implement any improvements and therefore no impact related to alternative septic systems would result.

Mitigation Measures

Mitigation Measure GEO –1: The project proponent shall hire a California-registered geotechnical engineer experienced and knowledgeable in the practice of soils engineering to perform site-specific geotechnical studies for construction of the proposed clearwell. The studies shall identify the potential for potential impacts related to geology and soils and shall recommend design alterations, considerations, or other features which could reduce the potential impacts. The feasible recommendations from the study(s) shall be required as part of the project approval. The project applicant's contractor shall ensure adherence to the design and construction-related recommendations and any other site-specific geotechnical recommendations.

Mitigation Measure GEO – 2: To the extent possible, all clearing, grading, and excavation activities shall occur between April 15 and October 15. Grading and excavation activities conducted after October 15 shall only be permitted during dry-weather conditions.

Mitigation Measure GEO – 3: Prior to commencement of ground disturbing activities, GDPUD shall file an NOI to obtain coverage under the current NPDES Construction General Permit with the Central Valley Regional Water Quality Control Board. Pursuant to the terms of the General Permit, GDPUD shall prepare a Storm Water Pollution Prevention Plan (SWPPP) identifying site-specific BMPs to effectively control erosion and sediment loss. If required by the General Permit risk assessment, GDPUD shall also develop and implement a Rain Event Action Plan (REAP) designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event.

Mitigation Measure GEO – 4: During construction, BMPs for erosion and sediment control identified by the project SWPPP shall be implemented by the project contractor. At a minimum, erosion control measures shall include placement of mulch, straw wattles, straw bales, geotextiles and mats, earthen berms, sediment barriers or traps, or the construction of silt fences to intercept and retain sediment transported by storm water runoff in all areas disturbed by construction activities. For all project areas subject to ground disturbance and any grading and excavation activities occurring between October 15 and April 15, the project contractor shall be responsible for ensuring that a qualified professional, contractor staff, or GDPUD staff trained in storm water erosion control techniques and practices monitor the effectiveness of BMPs on the project site daily Monday through Friday, on weekends if rain events occur, and recommend additional BMPs or corrective measures for any BMPs not meeting water quality objectives.

Mitigation Measure GEO – 5: Erosion protection shall be provided for all disturbed areas and shall be monitored and maintained to effectively control areas of potential erosion and sediment loss.

Mitigation Measure GEO – 6: Post-construction restoration of all disturbed areas shall include soil and bank stabilization through seeding and/or revegetation utilizing native plant species.

Mitigation Measure GEO – 7: Soil stockpiles shall be protected from erosion by maintaining effective covering (e.g. plastic tarp) over any stockpiled materials, or through the implementation of other BMPs designed to effectively control erosion and sediment loss.

4.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☒	☐
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) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐

Environmental Setting

The project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP on Sweetwater Trail, as well as the construction of waste material solids drying beds and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir.

The General Plan designated land use for the project site at the existing ALT WTP is Medium Density Residential, with a R2A (Single Family, Residential 2 acre) zoning. Surrounding land uses are primarily medium density residential to the northwest (the Auburn Lake Trails community), open space to the east, and estate residential to the south.

The General Plan designated land use for the project site at the Greenwood site is Agricultural Lands, and the site is located in the "A" (Agricultural) zoning district. Public utility facilities are allowed on sites zoned as Agricultural per the El Dorado County Zoning Code Section 17.14.070. Surrounding land uses are primarily rural residential.

Regulatory Setting

Hazardous materials are regulated by the following federal, State, and local laws, ordinances, and regulations relevant to the Proposed Project.

Federal Regulations

Federal agencies that regulate hazardous materials include:

- Environmental Protection Agency (EPA) – EPA administers the Resource Conservation and Recovery Act (RCRA), which regulates the generation, transportation, treatment, storage and disposal of hazardous waste.
- Occupational Safety and Health Administration (OSHA) – OSHA is responsible for ensuring worker safety, including operations that may use, handle or dispose of hazardous materials.

State Regulations

State agencies with responsibility to regulate hazardous materials include:

- California Environmental Protection Agency (Cal-EPA) – Cal-EPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials. Within Cal-EPA, the California Department of Toxic Substances Control (DTSC) has primary regulatory responsibility. Enforcement of regulations has been delegated to local jurisdictions, which enter into agreements with CDTSC.
- California State Water Resources Control Board and Regional Water Quality Control Board (RWQCB) – These agencies regulate surface water and groundwater quality according to the Porter-Cologne Water Quality Act, the Toxic Pits Cleanup Act, the Underground Tank Law and Clean Water Act.

In January 1996, Cal-EPA adopted regulations implementing a "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). The six program elements of the Unified Program are: (1) hazardous waste generators and hazardous waste onsite treatment; (2) underground storage tanks; (3) above-ground storage tanks; (4) hazardous material release response plans and inventories; (5) risk management and prevention program; and (6) Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency – a Certified Unified Program Agency (CUPA) which is responsible for consolidating the administration of the six program elements within its jurisdiction.

Local Implementation of Regulations

The El Dorado County Department of Environmental Management, Hazardous Waste Division, is approved by Cal-EPA as the CUPA for El Dorado County.

Additional responsibilities of the Department of Environmental Health include Hazardous Materials Incident Response. The environmental management department staff and selected local firefighters who have completed the required hazardous materials response training, as specified in the Federal Code of Regulations Section 29 Part 1910.120, are designated as the El Dorado County Hazardous Materials Response Team.

El Dorado County Code

Hazardous Material Ordinance

Chapter 8.38 of the El Dorado County Code establishes the County Hazardous Material Ordinance. The Ordinance requires any person who: conducts, prepares or performs a site investigation, clean-up, monitoring program or environmental assessment; installs soil borings or monitoring wells; or utilities and/or stores hazardous materials pursuant to Chapter 6.95 of the California Health and Safety Code to apply, in advance, with the Environmental Management Department on a form provided by the county.

Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less Than Significant Impact. The project after construction, under Alternative One and Alternative Two, would consist of continued operation of the ALT WTP, the delivery of solids from the WTP to the Greenwood drying beds, and removal of the dried solids to an appropriate waste facility or other allowed use areas.

Currently used and expected water treatment chemicals to be used at the WTP include polymer coagulants, chlorine as a disinfectant, and soda ash for pH adjustment. The backwash and FTW processes produce suspended solids, organic matter, and coagulant. These solids would be collected in the FTW settling tank during the rainy season. The solids would be removed from the settling tank in the spring and transported by tanker truck to the Greenwood site. The residuals would be approximately 95 percent water and would require approximately twelve trips per year. The drying beds would be constructed on the southwest side of the GDPUD's Greenwood Lake Reservoir, adjacent to Loghouse Road. The physical footprint of these drying beds would be approximately 30 feet wide by 120 feet long, with an approximate depth of two feet. The beds would be lined with material such as plastic or concrete to prevent direct contact with soil. Once solids are deposited in the beds, dewatering would occur by evaporation. The solids would be in the beds for a temporary time period each year (spring to fall) and the beds would be clean and empty during the rainy season. The expected maximum volume of material at the beginning of each drying season would leave approximately 15 inches of freeboard in the two foot high beds. This freeboard would increase during the evaporation phase. At completion of drying (prior to each fall season), the material would be analytically tested to determine final disposal requirements. The beds would be swept clean with all material removed for disposal before commencement of the rainy season. If required per testing, the solids would be trucked to a permitted solid waste facility that accepts sludge waste. If the results of analytical testing allow for alternative disposal (e.g. dried solids made available to third parties for land application as soil amendment), the GDPUD would consult with the Regional Water Quality Control Board to determine the appropriate oversight, including waste discharge requirements. During the winter, precipitation entering the cleaned beds would be drained and dispersed in a manner (e.g. rock energy dissipaters) that would minimize erosion. The drying beds would be routinely inspected for liner integrity.

Operation of the project at the ALT WTP site after construction would be required to continue to comply with all regulatory requirements for the transportation, use, and storage of hazardous materials. Operation of the project at the Greenwood site would also be required to comply with all regulatory requirements. These regulatory requirements may include the preparation of a Hazardous

Material Business Plan. Pursuant to State statute and local regulatory requirements, the owner or operator of any business that handles a hazardous material in total quantity equal to or in excess of the following quantities is required to develop and submit a Hazardous Materials Business Plan to the local CUPA, which is the Hazardous Materials Division of El Dorado County Department of Environmental Management:

1. 500 pounds of solids;

2. 55 gallons of liquids;

3. 200 cubic feet of compressed gasses at standard temperature and pressure; and

4. Quantities of radioactive materials for which an emergency plan is required pursuant to Parts 30, 40 or 70 of Chapter 10, Title 10, Code of Federal Regulations (CFR), or equal to or greater than the amounts specified above, whichever amount is less. Cumulative quantity is defined as the total amount of hazardous materials categorized into one Department of Transportation Hazard Class as described in 49 CFR.

The Business Plan protects the public by providing the following:

- Hazmat storage information to emergency responders
- Community members have access to information about hazardous materials under the "community right to know" program
- Prevention of hazardous materials spills and releases through cooperation among businesses and local, state, and federal government authorities. Businesses are required to disclose all hazardous materials and wastes above certain designated quantities which are used, stored, or handled at their facility.

Businesses generating any quantity of hazardous waste are required to file a hazardous waste contingency plan, even if exempt from the requirements of filing a Hazardous Materials Business Plan.

Through the proposed project's compliance with these existing regulatory requirements, impacts related to hazardous materials exposure from project operation at both sites, under Alternative One and Alternative Two, would be considered less than significant. Additional relevant discussion can be found under subsection of **Section 4.18**, **Utilities and Service Systems**.

During construction, the project must comply with all federal, state, and local requirements for temporary storage of flammable and combustible materials at construction sites as well as comply with all federal, State, and local requirements for reporting releases of hazardous materials. The project's compliance with these requirements would reduce the risk of release of hazardous substances to a less than significant level. Therefore impacts related to development proposed under Alternative One or Alternative Two, as well as impacts associated with continued operations under the No Action Alternative would be considered less than significant.

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?

Less Than Significant Impact. The project after construction would consist of continued operation of the ALT WTP, the delivery of solids from the WTP to the Greenwood drying beds, and removal of the dried solids to an appropriate waste facility or other allowed use areas. Operation of the project at the ALT WTP site after construction would continue to comply with all regulatory requirements for the transportation, use, and storage of hazardous materials, as discussed in detail under subsection "a," above. Likewise, operation of the improvements proposed at the Greenwood site would also be

required to comply with all regulatory requirements. Impacts from project operation at both sites, under Alternative One and Alternative Two, would therefore be considered less than significant.

During construction, the project would be required to comply with all federal, State, and local requirements for temporary storage of flammable and combustible materials at construction sites as well as comply with all federal, State, and local requirements for reporting releases of hazardous materials. The project's compliance with these requirements would reduce the risk of release of hazardous substances used for construction purposes to a less than significant level.

The proposed project would include the demolition of one building and a trailer. Depending upon the age of these structures, they may have the potential to contain asbestos in their building materials. Asbestos is a natural mineral fiber that was once commonly used in building materials. Inhaling airborne asbestos fibers can increase the risk of developing certain lung diseases, including lung cancer and asbestosis. Asbestos is a recognized toxic material, and release of asbestos into the atmosphere would be considered a potentially significant impact. The project may be required to comply with the CARB requirements for demolition notification and construction debris handling. These state requirements implement EPA's National Emission Standard for Hazardous Air Pollutants for Asbestos (40 C.F.R. §61.140 et. seq.) and are intended to limit the emission of asbestos to the atmosphere. The project's compliance with these regulations, if applicable, would reduce impacts from construction demolition to less than significant under either Alternative One or Alternative Two.

Locations within El Dorado County have been identified as having naturally occurring asbestos (NOA) or having the potential for NOA to be present in the ground. NOA is prevalent in at least 44 of California's 58 counties. Asbestos is the name for a group of naturally occurring silicate minerals, and may be found in serpentine rock, other ultramafic rock, and volcanic rock. When rock containing NOA is broken or crushed, asbestos may be released from the rock and may become airborne, potentially causing a health hazard (El Dorado County 2009).

Areas to the southwest and to the northeast of the ALT WTP site have been designated as locations "more likely to contain asbestos" as identified by the California Department of Conservation, Mines and Geology and as shown on the El Dorado County Asbestos Review Areas map. The ALT WTP site is identified as being within a ¼ mile buffer zone of such an area or within a ¼ buffer zone of a geologic fault that may include NOA. The Greenwood site is not designated as being in either a "more likely to contain asbestos" area nor within a buffer zone for such an area. Impacts related to NOA are discussed within the Air Quality Section of this study (**Section 4.5**).

Therefore impacts related to development proposed under Alternative One or Alternative Two, as well as impacts associated with continued operations under the No Action Alternative would be considered less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

No Impact. The project site is not located within ¼ mile of an existing or proposed school. Therefore, there would be no impact relative to Alternative One, Alternative Two, or the No Action Alternative.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. A search of the California Department of Toxic Substances Envirostor database indicated that the project is not located on or near a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, it would not create a significant hazard to the public or to the environment. Therefore, there would be no impact

related to development of Alternative One or Alternative Two, as well as continued operation under the No Action Alternative.

e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The ALT WTP project site is not located within an airport land use area nor is it within two miles of a public airport. The Greenwood project site is located approximately 1½ miles from the Georgetown Airport, a public general aviation facility owned by El Dorado County. However, the runway orientation is south to north and therefore the corresponding airport safety zone designated on the General Plan land use map does not include the proposed Greenwood project site location which is located west of the airport. The project does not propose residences at the sites, and the drying beds would require only periodic site visits for drop off and removal of the solids material from the WTP. Therefore impacts related to development proposed under Alternative One or Alternative Two, as well as impacts associated with continued operations under the No Action Alternative would be considered less than significant.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact. The ALT WTP project site is not located in the vicinity of a private airstrip. The proposed Georgetown project site is located approximately 1,000 feet northwest from a private runway located on the private estate residential parcel to the south of the GDPUD parcel. This runway is orientated southwest to northeast. Minimal operations would be expected from this private runway. The project does not propose residences at the site, and the drying beds would require only periodic site visits for drop off and removal of the solids material from the WTP. Therefore impacts related to development proposed under Alternative One or Alternative Two, as well as impacts associated with continued operations under the No Action Alternative would be considered less than significant.

g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

No Impact. The project as completed would not result in any physical features that would impair implementation of, or physically interfere with, emergency evacuations. During construction, construction equipment would be staged on the project sites. Therefore, there would be no impact relative to Alternative One, Alternative Two, or continued operation under the No Action Alternative.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant With Mitigation Incorporated. The proposed project sites are located in rural residential areas. Operation of the facilities after construction would not be expected to expose people or structures to a significant risk involving wildland fires. The ALT WTP site is an existing developed facility. However, construction of the clearwell tank at the WTP site would occur on a relatively undisturbed grassy area. Construction of the drying beds and the telemetry tower at the Greenwood site would occur in a moderately forested area adjacent to the existing reservoir. Construction activities have the potential to cause wildfires which would be a potentially significant impact. Implementation of **Mitigation Measures HAZ – 1 and HAZ – 2** for construction activities associated with the development of Alternative One or Alternative Two would reduce the potential impact to a less than significant level. No construction activities would be implemented under the No Action Alternative, therefore no impact would result.

Mitigation Measures

Mitigation Measure HAZ – 1: If dry vegetation or other fire fuels exist on or near staging areas, welding areas, or any other area on which equipment will be operated, contractors shall clear the immediate area of fire fuel prior to construction. To the extent feasible, areas subject to construction activities will be maintained free of fire fuel and debris during the course of construction.

Mitigation Measure HAZ – 2: Contractors shall ensure that vehicles and all equipment (heavy equipment and hand-held equipment) that typically include a spark arrester are equipped with a spark arrester in good working condition during the duration of construction.

4.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) 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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami or mudflow?	☐	☐	☐	☒

Environmental Setting

The project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP and reservoir, as well as the construction of waste material solids drying beds and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir.

Regulatory Setting

Federal and State Regulation

The Federal Emergency Management Agency oversees the delineation of flood zones and provides disaster assistance. The agency manages the National Flood Insurance Program, which enables property owners in designated flood zones to purchase flood insurance. Flood zones are mapped on Flood Insurance Rate Maps that show the expected frequency and severity of flooding by area.

Federal Clean Water Act Section 402

The 1972 amendments to the Federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the Clean Water Act (CWA) created a new section of the CWA devoted to stormwater permitting (Section 402[p]). On November 16, 1990, the U.S. Environmental Protection Agency (EPA) published final regulations that establish storm water permit application requirements. The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five (5) or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II Rule) that became final on December 8, 1999 were expanded to address storm water discharges from construction sites that disturb land areas equal to or greater than one (1) acre and less than five (5) acres (small construction activity). The State of California Regional State Water Resources Control Board administers and enforces the provisions of the NPDES program.

NPDES is the primary federal program that regulates point-source and non point-source discharges to waters of the United States. The SWRCB issues both general and individual permits. Construction activities are regulated under the NPDES General Permit for Construction Activities provided the total amount of ground disturbance during construction exceeds one acre. The appropriate RWQCB enforces the general permit. Coverage under a general permit requires the preparation of a stormwater pollution prevention plan (SWPPP). The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, and a best management practice (BMP) monitoring and maintenance schedule. Construction activities that are subject to this General Permit includes clearing, grading, disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre of total land area.

Effective July 1, 2010 all dischargers are required to obtain coverage under the new Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, including construction associated with linear underground projects (LUP). Pursuant o the Permit, a discharger shall prepare a monitoring program prior to the start of construction and immediately implement the program at the start of construction for LUPs. The monitoring program must be implemented at the appropriate level to protect water quality at all times throughout the life of the project.

Executive Order 11988 "Floodplain Management"

Executive Order 11988 requires federal agencies to take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains. Each agency has the responsibility to evaluate if a proposed action would occur within a designated floodplain, and to consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the only practicable alternative is located within a floodplain, then the federal agency must demonstrate and provide public notice to the effect of how impacts to the floodplain will be minimized.

Waste Discharge Requirements

Article 4, Section 13260 of the California Water Code requires that any person discharging waste or proposing to discharge waste, other than to a community sewer system, that could affect the quality of the waters of the State, shall file a Report of Waste Discharge (ROWD) with the appropriate regional board. The Regional Board reviews the applicant's ROWD and may establish Waste Discharge Requirements (WDRs) for the proposed action. WDRs may include effluent limitations, as well as monitoring and reporting requirements.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant With Mitigation Incorporated. The Greenwood drying bed site drains downslope away from the Greenwood Reservoir. The Greenwood telemetry tower is proposed between Loghouse Road and the Greenwood Reservoir. The ALT WTP site drains towards the west property line. Water quality may be impacted during construction activities due to surface runoff from disturbed surfaces into drainages at both proposed project sites. Such impacts could be potentially significant without mitigation. Implementation of a Stormwater Pollution Prevention Plan and related erosion control best management practices are required under **Mitigation Measures GEO – 2 through GEO – 7** and **Mitigation Measure BIO – 6**. Implementation of these measures would reduce construction related impacts to water quality to a less than significant level under Alternative One and Alternative Two.

After construction of the WTP facilities and the Greenwood drying beds, waste solids from the WTP would be transported to the Greenwood site. The backwash and FTW processes at the WTP produce suspended solids, organic matter, and coagulant. These solids would be collected in the FTW settling tank during the rainy season. The solids would be removed from the settling tank in the spring and transported to the Greenwood site. The residuals would be approximately 95 percent water and would require approximately twelve trips per year. The drying beds would be constructed on the southwest side of the GDPUD's Greenwood Lake Reservoir, adjacent to Loghouse Road. The physical footprint of these drying beds would be approximately 30 feet wide by 120 feet long, with an approximate depth of two feet. The beds would be lined with material such as plastic or concrete to prevent direct contact with soil. Once solids are deposited in the beds, dewatering would occur by evaporation. The solids would be in the beds for a temporary time period each year (spring to fall) and the beds would be clean and empty during the rainy season. The expected maximum volume of material at the beginning of each drying season would leave approximately 15 inches of freeboard in the two foot high beds. This freeboard would increase during the evaporation phase. At completion of drying (prior to each fall season), the material would be analytically tested to determine final disposal requirements. The beds would be swept clean with all material removed for disposal before commencement of the rainy season. If required per testing, the solids would be trucked to a permitted solid waste facility that accepts sludge waste. If the results of analytical testing allow for alternative disposal (e.g. dried solids made available to third parties for land application as soil amendment), the GDPUD would consult with the Regional Water Quality Control Board to determine the appropriate oversight, including waste discharge requirements. During the winter, precipitation entering the cleaned beds would be drained and dispersed in a manner (e.g. rock energy dissipaters) that would

minimize erosion. The drying beds would be routinely inspected for liner integrity. Compliance with these testing and waste disposal requirements would result in less than significant impacts under Alternative One and Alternative Two.

Under the No Action Alternative, existing settling ponds at the ALT site would continue to accommodate process water generated from the filter to waste operations. The discharge of water related to water treatment plant operations is regulated by the Central Valley RWQCB. Continued operations under the No Action Alternative would utilize the existing facilities within the ALT site to accommodate process water generated by existing operations, and regulatory requirements exist through the RWQCB to protect water quality; therefore impacts are considered less than significant.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The project would include construction of two buildings and a washwater recovery tank on an existing developed parcel at the ALT WTP site with one additional component (the clearwell tank) being constructed on a grassy slope adjacent to the existing facility. The Greenwood drying beds would be constructed on previously undeveloped pervious surfaces. The square footage of the proposed WTP facilities is approximately 7,000 square feet. The physical footprint of the drying beds at the Greenwood site would be approximately 30 feet wide by 120 feet long and would also include a vehicle access road of approximately 12 feet around the beds. The minimal increase of impervious surfaces created by the proposed project would not be expected to substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The proposed project sites are not located in areas designated by the EPA as a sole source aquifer (USEPA 2010). Therefore, impacts related to groundwater supplies would be considered less than significant with either Alternative One or Alternative Two.

Under the No Action Alternative, GDPUD would remain entitled for water supply through surface water entitlements, although no improvements would be implemented. Therefore, there would be no impacts related to ground water.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less Than Significant With Mitigation Incorporated. After construction, the topography of the sites would be modified from their current state. At the ALT WTP site, the proposed clearwell would result in a change in the runoff pattern on the slope. However, the drainage would be directed to the existing site drainage on the west side of the project site. The drainage at the Greenwood site would be modified with the installation of the drying beds and is depicted in **Figure 3.2-2**. During the dry season, the water in the drying beds would evaporate. During the rainy season, the emptied drying beds would drain through a pipe to the west side of the parcel and would daylight at a proposed rock energy dissipater. Under Alternative One and Alternative Two, the use of the existing drainage feature at the WTP and the design of the drainage at the Greenwood drying beds would not be expected to substantially alter the existing drainage pattern of the sites in a manner that would result in substantial erosion or siltation.

During construction, excavation and fill required by the project could result in erosion on- and off-site primarily impacting drainages near the roadway and residences. Such erosion could be a significant impact without mitigation. Implementation of a Stormwater Pollution Prevention Plan and related erosion control best management practices are required under **Mitigation Measures BIO – 6 and GEO – 2 through GEO – 7**. Implementation of these measures would reduce impacts related to drainage pattern erosion to a less than significant level for Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no construction or operational impacts related to alteration of existing drainage patterns of the sites or areas.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Less Than Significant Impact. The drainage at the WTP would be directed to the existing site drainage on the west side of the project site. During the rainy season, precipitation entering the cleaned and empty Greenwood drying beds would drain through a pipe to the west side of the parcel and would daylight at a proposed rock energy dissipater. Under Alternative One and Alternative Two, the use of the existing drainage feature at the WTP and the design of the drainage at the Greenwood drying beds would not be expected to substantially alter the existing drainage pattern of the sites in a manner that would result in flooding on or off site. The minimal increase of impervious surfaces created by the proposed project would not be expected to substantially alter the existing drainage pattern of the site. Impacts would be less than significant under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no construction or operational impacts related to alteration of existing drainage patterns of the sites or areas.

e) 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?

Less Than Significant Impact. The minimal increase of impervious surfaces created by the proposed project would not be expected to create or contribute runoff water in quantities that exceed the capacity of the existing and planned drainage systems at the sites nor provide substantial additional sources of polluted runoff. Therefore, impacts would be less than significant under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no construction or operational impacts related to creation or additional contribution of runoff water.

f) Otherwise substantially degrade water quality?

Less Than Significant With Mitigation Incorporated. Please see answer to a) above.

g) 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?

No Impact. The proposed project would not involve the construction of housing. As depicted in **Figure 4.10-1** the project site is not located within a 100-year flood hazard area. Therefore, no impact would result from development of the project under Alternative One, Alternative Two, or the No Action Alternative.

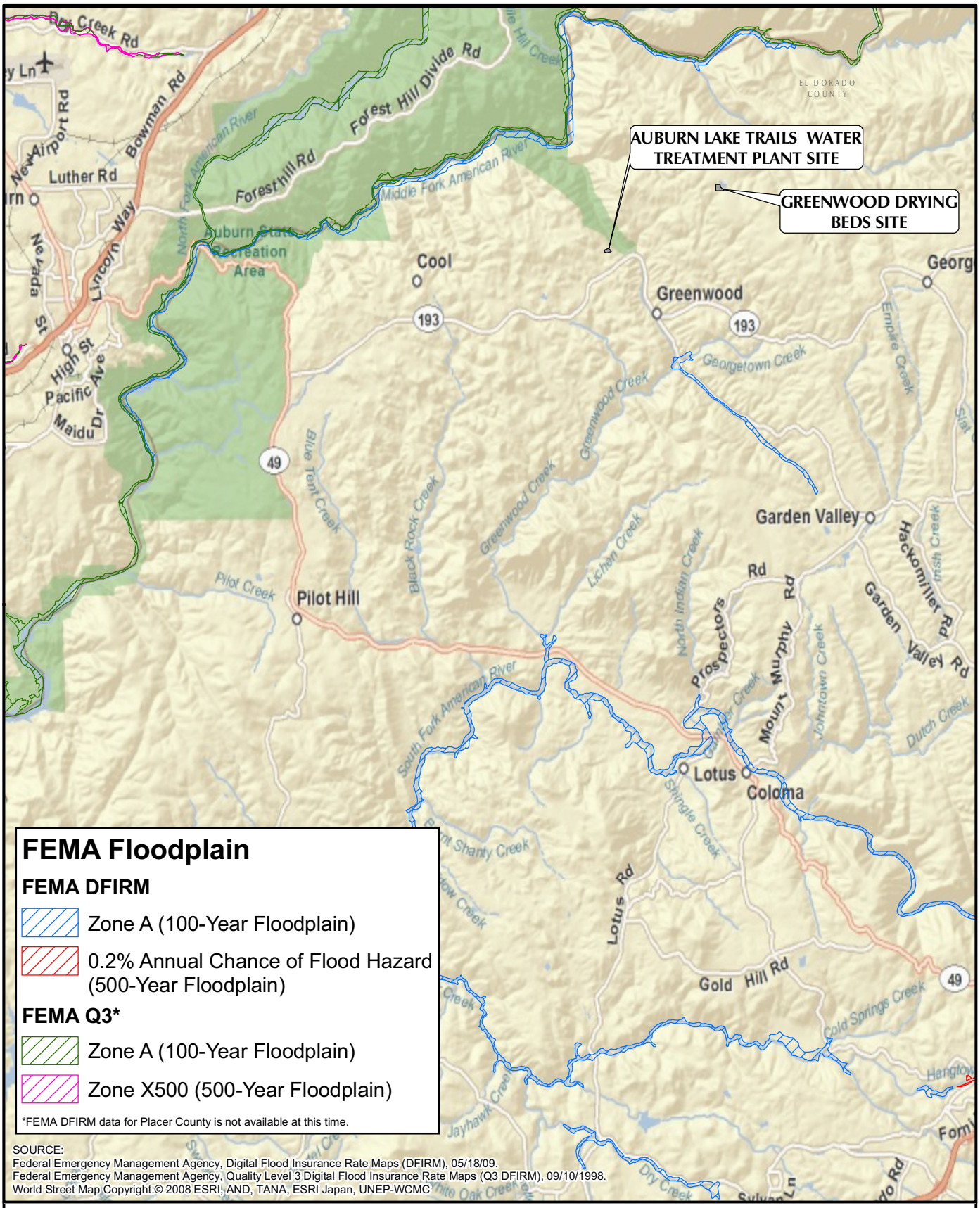
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact. As depicted in **Figure 4.10-1** the project site is not located within a 100-year flood hazard area and therefore, project development would not result in the placement of structures that would impede or redirect flood flows. Therefore, no impact would result from development of the project under Alternative One, Alternative Two, or the No Action Alternative.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?

No Impact. The project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP, as well as the construction of waste material solids drying beds and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir. The project does not propose additional employees at the WTP, or new housing or structures that could expose people to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam. Therefore, no impact would result from development of the project under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts.



FEMA Floodplain

FEMA DFIRM

- Zone A (100-Year Floodplain)
- 0.2% Annual Chance of Flood Hazard (500-Year Floodplain)

FEMA Q3*

- Zone A (100-Year Floodplain)
- Zone X500 (500-Year Floodplain)

*FEMA DFIRM data for Placer County is not available at this time.

SOURCE:
Federal Emergency Management Agency, Digital Flood Insurance Rate Maps (DFIRM), 05/18/09.
Federal Emergency Management Agency, Quality Level 3 Digital Flood Insurance Rate Maps (Q3 DFIRM), 09/10/1998.
World Street Map Copyright:© 2008 ESRI, AND, TANA, ESRI Japan, UNEP-WCMC

FLOODPLAIN LOCATION

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

0 1 2
Miles

Drawn By: RJM
Date: 02/09/09

FIGURE 4.10-1

AUBURN LAKE TRAILS WATER TREATMENT PLANT

fema_floodplain.mxd

j) Inundation by seiche, tsunami or mudflow?

No Impact. The project site is not located in an area subject to seiche, tsunami or mudflow. Therefore, no impact would result from development of the project under Alternative One, Alternative Two, or the No Action Alternative.

Mitigation Measures

Please see **Mitigation Measure BIO – 6** in the Biology section (**Section 4.6**) and **Mitigation Measures GEO – 2 through GEO – 7** in (**Section 4.8**) of this Initial Study for mitigation that addresses the impacts listed under a), c), and f) above.

4.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Environmental Setting

The County encompasses approximately 1,110,103 acres of land. Of this, approximately 46 percent is in public ownership and 54 percent is privately owned. Approximately 196,000 acres (approximately 17 percent of land in the County) has been developed, with the vast majority of this being residential units. In addition, the County has existing commitments (projects that have received a building permit, have an approved tentative parcel map or subdivision map, or are part of an approved development agreement) for 14,565 additional dwelling units in the western part of the County. Undeveloped lands within the County are largely comprised of agricultural lands and forestlands. Forestlands occupy 636,000 acres (55 percent of the County), with federally controlled timberlands encompassing approximately 377,000 in the El Dorado and Tahoe National Forests and 259,000 acres in private production. The County had 153,472 acres of agricultural land (farmland and grazing land) in 1997 (approximately 13 percent of the County), with 41,852 acres of that land being protected under the Williamson Act. Lands regulated or owned by entities not subject to County planning and land use authority within the County encompass approximately 531,924 acres (46 percent of the land). The Shingle Springs Rancheria is located approximately 29 miles south of the project vicinity and is owned by the Shingle Springs Band of Miwok Indians. The Rancheria is considered a sovereign nation (County of El Dorado 2003).

The General Plan designated land use for the project site at the existing ALT WTP is Medium Density Residential, and the site is located in the "R2A" (Single Family, Residential 2 acre) zoning district. General Plan overlay designations for the site include platted lands, important biological corridor, and mineral resources. Surrounding land uses are primarily medium density residential to the northwest (the Auburn Lake Trails community), open space to the east, and estate residential to the south.

The General Plan designated land use for the project site at the Greenwood site is Agricultural Lands, and the site is located within the "A" (Agricultural) zoning district. Public utility facilities are allowed on sites zoned as Agricultural per the El Dorado County Zoning Code Section 17.14.070. There is a single General Plan overlay designation for the site of important biological corridor. Surrounding land uses are primarily rural residential.

Impact Analysis

a) Physically divide an established community?

No Impact. The proposed project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP, as well as the construction of waste material solids drying beds and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood Reservoir. Neither Alternative One nor Alternative Two would result in the physical division of any established community and therefore there is no impact to established communities.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result.

b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed project would be developed in conformance with all applicable land use plans and ordinances, and would not conflict with any agency's plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project site is not located within a coastal zone management area (National Oceanic and Atmospheric Administration 2004). No impact would result from development proposed by either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project sites are not located within a designated Habitat Conservation Plan (HCP) area or within a designated Natural Community Conservation Plan (NCCP) area. Nor are the project sites located within or adjacent to any of the ecological preserve areas designated on the El Dorado County General Plan land use map. Development proposed under Alternative One, Alternative Two, or the No Action Alternative would not conflict with any conservation plans and therefore no impact would result.

Mitigation Measures

No mitigation is warranted.

4.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental Setting

El Dorado County contains a wide variety of mineral resources. Metallic mineral deposits, particularly gold, are considered the most significant extractive mineral resource. The 1849 California "Gold Rush" originated from gold discovered in El Dorado County. Other metallic minerals found in the county include silver, copper, nickel, chromite, zinc, tungsten, mercury, titanium, platinum, and iron. Nonmetallic mineral resources include building stone, limestone, slate, clay, marble, soapstone, sand, and gravel (County of El Dorado 2003).

The California State Department of Conservation, California Geological Survey is responsible for the classification and designation of areas within California containing or potentially containing significant mineral resources. The El Dorado General Plan (2004) includes a map of "Important Mineral Resource Areas" as identified as Mineral Resource Zones (MRZ) 2a and 2b by the California Geological Survey. The MRZ-2a designation pertains to areas underlain by mineral deposits where geologic data indicated that significant measured or indicated resources are present. The MRZ-2b designation pertains to areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. The General Plan map of Important Mineral Resource Areas was utilized to designate Mineral Resource overlay land use areas on the General Plan Land Use Map.

The proposed project site at the existing ALT WTP has a General Plan land use designation of Medium Density Residential, and is located in the "R2A" (Single Family, Residential two acre) zoning district. General Plan overlay designations for the site include "platted lands" and "important biological corridor". The southeastern portion of the ALT parcel is designated "mineral resources" general plan overlay. El Dorado County has established Mineral Resource zoning districts (MR) but has not established corresponding mineral resource combining districts to be applied to sites where extraction of mineral resources would be compatible with adjacent land uses. Surrounding land uses are primarily medium density residential to the northwest (the Auburn Lake Trails community), open space to the east, and estate residential to the south.

The General Plan designated land use for the project site at the existing Greenwood site is Agricultural Lands, and the site is located in the "A" (Agricultural) zoning district. There is a single General Plan overlay designation for the site of "important biological corridor." No designation for mineral resources is identified by the County General Plan. Surrounding land uses are primarily rural residential.

Impact Analysis

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?

Less Than Significant Impact. A small linear strip of land along the southeastern boundary of the proposed project site at the existing WTP is located in an area identified by the County's General Plan as an area within a Mineral Resource (-MR) overlay designation. The purpose of the –MR overlay designation is to identify areas designated as Mineral Resource Zone 2 by State Classification Reports. Prior to authorizing any land uses that would potentially threaten the potential for mineral extraction in these areas, the County is required to document the reason for approval and notify the relevant agencies, and must consider and document the values of the proposed land use versus the mineral resource value.

Although a portion of the ALT WTP site is identified by the County General Plan within the –MR overlay designation, the site currently supports WTP facilities, and proposed improvements would not preclude future mineral resource extraction (if such activities were deemed practicable). The Greenwood site is not located within a mineral resource land use designation or within any zoning district designating the area as an important mineral resource area. Therefore, impacts from potential loss of mineral resources would be less than significant under either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result.

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?

Less Than Significant Impact. A small linear strip of land along the southeastern boundary of the proposed project site at the existing WTP is located in an area identified by the County's General Plan as an area within a Mineral Resource (-MR) overlay designation. The purpose of the –MR overlay designation is to identify areas designated as Mineral Resource Zone 2 by State Classification Reports. Prior to authorizing any land uses that would potentially threaten the potential for mineral extraction in these areas, the County is required to document the reason for approval and notify the relevant agencies, and must consider and document the values of the proposed land use versus the mineral resource value.

Although a portion of the ALT WTP site is identified by the County General Plan within the –MR overlay designation, the site currently supports WTP facilities, and proposed improvements would not preclude future mineral resource extraction (if such activities were deemed practicable). The Greenwood site is not located within a mineral resource land use designation or within any zoning district designating the area as an important mineral resource area. Therefore, impacts from potential loss of mineral resources would be less than significant under either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result.

Mitigation Measures

No mitigation is warranted.

4.13 NOISE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

Noise is commonly defined as unwanted sound in the environment. This definition reflects a subjective reaction to the characteristics of the physical phenomenon of noise. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.” Although elevated noise levels can result in physiological damage and hearing loss, excessive noise in the environment more commonly impairs general human well being by contributing to psychological stress and irritation. Such health effects can result when noise interferes with everyday human activities such as sleep, talking, recreation, relaxation, and tasks requiring concentration. When noise is either disturbing or annoying, whether by its pitch or loudness, it may be considered objectionable.

The overall noise level associated with a given noise environment is called the “ambient” noise level. Ambient noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, trains, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Other contributing noise sources, often referred to as “background” sources, can include the sound of birds, people talking, occasional vehicles passing by, or televisions and radios.

Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). Environmental sound levels are usually measured in A-weighted decibels, or dBA, which is a method of taking into account the sensitivity of the human ear to various frequencies in the sound spectrum. In general, a difference of three decibels is barely perceptible to the human ear, while a difference of 10 decibels is perceived as a doubling of loudness. A common statistical tool used to measure the ambient noise level is the average, or equivalent, sound level (Leq), which is the sound level corresponding to a steady-state, A-weighted sound level containing the same total energy as a time-varying signal over a given period (usually one hour).

Factors that affect the transmission of noise between the noise source and the receptor include:

- Line of sight: Barriers, such as topography, sound walls and other structures, between a noise source and recipient can provide varying degrees of noise attenuation, particularly when placed near the noise source.
- Distance: A reduction in noise level of roughly 6 dBA occurs with each doubling of distance from a noise source, depending on the hardness of intervening surfaces.

Due to the rural residential setting at the project sites, existing noise levels would be expected to be low at the Greenwood site and low to moderate at the ALT WTP site. Existing noise sources at the ALT WTP project area primarily consist of roadway traffic and typical residential outdoor activities. Existing noise sources at the Greenwood site primarily consists of periodic outdoor activities associated with the rural setting.

At the ALT WTP site, the nearest residence is approximately 200 feet from the proposed clearwell tank construction site with some existing scattered trees located between the proposed tank site and the residence. Another residence is located approximately 400 feet to the west of the site, and a third residence is approximately 500 feet to the southwest. Other residences in the area are 1,000 feet or greater from the ALT site. The nearest residences to the proposed Greenwood drying beds site are greater than 1,000 feet from the site with a substantial number of mature trees between the residences and the proposed project site.

Regulatory Setting

Federal Regulations

The federal Occupational Safety and Health Administration (OSHA) defines potentially harmful noise exposure (the level at which hearing loss may occur from long-term exposure) as exposure to greater than 90 dBA averaged over eight hours. For noise greater than 90 dBA, the allowable exposure time is correspondingly shorter.

State Regulations

The State of California sets interior residential standards for multi-family dwellings at 45 dBA Ldn. This interior residential standard is meant primarily for sleep and speech protection.

Local Regulations

The current El Dorado County General Plan Noise Element, adopted July 19, 2004, establishes separate noise criteria for transportation-related noise sources and non-transportation noise sources. The General Plan also establishes allowable noise exposure for non-transportation construction noise. For rural residential areas, 50 db Leq and 60 db Lmax are the allowable construction noise limits between 7am and 7pm, with lower limits (45 Leq and 55 Lmax) from 7pm to 10pm and still lower limits (40 Leq and 50 Lmax) from 10pm overnight to 7am.

Impact Analysis

The impact analysis below focuses on impacts from project construction. Operation of the project after construction under both Alternative One and Alternative Two would consist of the continued operation of an existing WTP at the ALT site and the use of drying beds at the Greenwood site. The proposed project improvements at the ALT WTP would not require additional employees or additional traffic after construction. The operation of the drying beds at the Greenwood site would result in minor truck traffic to haul and remove the solids. Approximately twelve trips per year for deposition of solids would be expected and an additional twelve trips per year for removal of solids (potentially fewer trips for removal due to the reduced volume of material after drying). The operation of the proposed project after construction would not be expected to create significant increases in noise levels at the project sites.

Under the No Action Alternative, no improvements would be implemented and therefore no noise related operational impacts would result.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?

Less Than Significant With Mitigation Incorporated. Construction activities at the ALT and Greenwood sites would include excavation and fill operations. Additional activities at the ALT site would include cutting of the existing paved areas in the driveway and between buildings, construction of two tanks (one with a maximum diameter of 60 feet and the other with a maximum diameter of 36 feet) construction of two buildings (combined square footage of approximately 3,024 sq. ft.) and resurfacing of the driveway and areas between buildings. The construction of the project, although a temporary noise source, would be a potentially significant impact as noise levels could exceed the noise limits identified in the General Plan. With the incorporation of **Mitigation Measure NOISE – 1**, noise impacts under Alternative One or Alternative Two related to General Plan limits would be reduced to less than significant.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result related to increased noise.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant Impact. There are no federal, state, or local regulations for ground borne vibration. Construction activities at the ALT and Greenwood sites would include excavation and fill operations. Additional activities at the ALT site would include cutting of the existing paved areas in the driveway and between buildings, construction of two tanks (one with a maximum diameter of 60 feet and the other with a maximum diameter of 36 feet) construction of two buildings (combined square footage of approximately 3,024 sq.ft.) and resurfacing of the driveway and areas between buildings. These activities would result in ground borne vibration, but it would be expected that the vibrations would be less than significant due to their temporary nature and due to the standard construction equipment expected to be utilized. The project is not expected to involve blasting as an excavation method. Impacts would be less than significant under either Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result related to ground borne noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The operation of the project after construction (continued operation of an existing WTP at the ALT site and the use of drying beds at the Greenwood site) would not be

expected to create significant increases in noise levels under either Alternative One or Alternative Two at the project sites. Impacts would be less than significant.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result related to increased noise.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact With Mitigation Incorporated. Project construction related to development of Alternative One and Alternative Two would result in temporary increases in noise sources and therefore potentially significant impacts due to the existing moderate ambient noise levels surrounding and in the vicinity of the project sites. With the incorporation of **Mitigation Measure NOISE – 1**, impacts related to temporary or periodic noise increases would be reduced to less than significant levels for Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result related to increased ambient noise levels.

e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The ALT WTP project site is not located within an airport land use area nor is it within two miles of a public airport. The Greenwood project site is located approximately 1½ miles from the Georgetown Airport, a public general aviation facility owned by El Dorado County. However, the runway orientation is south to north and therefore the corresponding airport safety zone designated on the General Plan land use map does not include the proposed Greenwood project site location which is located west of the airport. The project does not propose residences at the site, and the drying beds would require only periodic site visits for drop off and removal of the solids material from the WTP. Therefore, impacts would be less than significant under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result related to airport related noise.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant Impact. The ALT WTP project site is not located in the vicinity of a private airstrip. The proposed Georgetown project site is located approximately 1,000 feet northwest from a private runway located on the private estate residential parcel to the south of the GDPUD parcel. This runway is orientated southwest to northeast. Excessive noise levels would not be expected from the minimal use of this private runway. The project does not propose residences at the site, and the drying beds would require only periodic site visits for drop off and removal of the solids material from the WTP. Therefore, impacts would be less than significant under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be implemented and therefore no impact would result related to increased noise.

Mitigation Measures

Noise – 1: The following measures shall be implemented to reduce construction related noise impacts:

- The construction hours for the project shall be limited to the hours of 7 am to 7 pm Monday through Friday, and from 8 am to 5 pm on weekends and on federally recognized holidays. Construction outside of these hours shall normally be avoided. Exceptions are allowed if it can be shown that construction beyond these times is necessary to meet regulatory deadlines, to alleviate traffic congestion or to prevent safety hazards.

- Construction equipment shall have sound control devices that meet or exceed original equipment specifications.

4.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The following data from the County's General Plan, as well as the U.S. Census Bureau provide the basis on which the potential for socioeconomic effects resulting from implementation of the proposed project and alternatives are evaluated. Additional relevant information is included in **Section 4.4**, **Agricultural Resources**, **Section 4.11**, **Land Use and Planning**, **Section 4.12**, **Mineral Resources**, and **Section 4.19**, **Mandatory Findings of Significance**.

GDPUD has been providing water supply for a population under 10,000 within approximately 72,000 acres of the Sierra Nevada Foothill communities of Garden Valley, Kelsey, Pilot Hill, Greenwood, Cool, and Georgetown for over 60 years. The Local Agency Formation Commission sphere of influence for GDPUD encompasses approximately 173,000 acres (County of El Dorado 2003). Annual water service provisions approximate 9,000 acre-feet and include treated water for residential and commercial uses, as well as untreated water for agricultural uses (County of El Dorado 2003).

The Cool/Pilot Hill area encompasses approximately 45,587 acres and is characterized by low-density and rural residential parcels and large-acreage ranch lands. Pockets of medium-density residential and commercial uses have been established near the two historic town sites. The Auburn State Recreation Area covers a large portion of the land along the North Fork American River (County of El Dorado 2003).

The Georgetown/Garden Valley area encompasses approximately 134,818 acres and covers a large region, including the historic towns of Georgetown, Garden Valley, Greenwood, and Kelsey. Commercial and limited industrial uses are located primarily in the two largest communities, Georgetown and Garden Valley, with predominantly medium to low-density residential land uses surrounding those communities. The rest of the western portion of the area consists of rural residential development trending toward private timberland and National Forest lands to the east (County of El Dorado 2003).

Provisions for accommodating population growth and economic development within the County are delegated through the land use designations identified by the County's General Plan as implemented through the Zoning Ordinance.

U.S. Census American Community data for 2006-2008 indicates the County supports a population of approximately 175,000. Approximately 74 percent of the population is white/Caucasian, and approximately five percent of the County's families live below the poverty level. Since 2000, the proportion of white/Caucasian residents has declined from 89 percent, although the percentage of families in the County living within the poverty level has remained fairly constant. The County's minority population and families living within the poverty level percentages are below State percentages (U.S. Census Bureau 2000, 2008).

As of 2006-2008, the County supported approximately 82,000 housing units, representing less than one percent of estimated statewide housing units (U.S. Census Bureau 2000, 2008).

Impact Analysis

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

No Impact. The current ALT WTP receives water from Pilot Creek through a 26-mile system of open-canals, and small reservoirs operated by GDPUD, that convey water to the Auburn Lake Trails Reservoir. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 Million Gallons per Day (MGD) ALT surface water treatment facility as well as drying beds proposed at the currently undeveloped Greenwood site. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment to correct deficiencies in the treatment process to comply with state and federal drinking water regulations. Implementation of Alternative One, Alternative Two, or the No Action Alternative would not induce population growth, either directly or indirectly. No new housing or commercial land uses are proposed for development, and no roads or infrastructure would be expanded or extended. Therefore, implementation of Alternative One and Alternative Two, as well as the No Action Alternative would not induce population growth. No impact would result from Alternative One, Alternative two, or the No Action Alternative.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. Implementation of Alternative One or Alternative Two, as well as the No Action Alternative, would not displace any existing housing and would therefore not result in the necessity for the construction of replacement housing at an alternate location(s). No impact would result from project development.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Implementation of Alternative One or Alternative Two, as well as the No Action Alternative, would not result in the displacement of substantial numbers of people necessitating the construction of replacement housing in any other location(s). No impact would result from project development.

Mitigation Measures

No mitigation is warranted.

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Environmental Setting

Fire Protection

Thirteen fire protection districts within El Dorado County are responsible for responding to structural fires and wildland fires, as well as providing emergency medical services within their assigned areas. The project sites are located within the vicinity of the El Dorado County and Georgetown Fire Protection Districts. Mutual aid agreements exist between the local fire protection districts, and other agencies, including the California Department of Forestry and Fire Protection (CALFIRE) (County of El Dorado 2003).

CALFIRE is responsible for fire protection in the State Responsible Areas (SRAs), and is also required by law to respond to and abate uncontrolled fire that threatens to destroy life, property, or natural resources outside the SRAs (County of El Dorado 2003).

First response to medical emergencies is provided by the local fire protection districts and CALFIRE (County of El Dorado 2003).

Regulatory Setting

There are no federal or State regulations pertaining to fire protection services relevant to the Project.

El Dorado County Code

Fire District Improvement Fee

Chapter 13.20 of the County Code establishes the Fire District Improvement Fee, which is paid by developers at the issuance of building permits for all new discretionary and ministerial projects. The fee is used to finance public improvements and equipment for fire protection purposes. Each building permit applicant in the County pays a fair share of the total cost of improvements and equipment needed to serve the development proposed.

Police Protection

The El Dorado County Sheriff's Office provides service to the unincorporated areas of El Dorado County with a staff of 383 people, including 185 sworn officers. Secondary response is provided by the California Highway Patrol. The County has not adopted a goal for response times, as response times vary by priority and location. The Georgetown Substation is the closest office within the vicinity of the project site (County of El Dorado 2003).

Regulatory Setting

There are no federal, State, or local regulations pertaining to police protection services relevant to the Project.

Schools

The project site is located within the boundaries of the Black Oak Mine Unified School District (County of El Dorado 2003).

Regulatory Setting

There are no federal, State or local regulations pertaining to schools relevant to the Project.

Parks

The project site is located within the Georgetown Divide Recreation District. Two of the District's facilities are located within the vicinity of the project area, including Georgetown Park and Beam Field (County of El Dorado 2003).

Regulatory Setting

There are no federal, State or local regulations pertaining to parks relevant to the Project.

Impact Analysis

a) Fire protection?

No Impact. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 MGD ALT surface water treatment facility, as well as improvements proposed at the currently undeveloped Greenwood site. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment or improve the treatment process to comply with state and federal drinking water regulations. Project development would not include residential development, and would not result in population growth or the need for additional or impacts to existing fire protection services. In addition, prior to issuance of building permits for all ministerial and discretionary development projects, project applicants are required to pay a fair share contribution to finance fire protection service improvements and facilities. Therefore no impact would result from project development under Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented, and therefore no further demand could be accommodated by the ALT facility. Therefore no population growth would occur and no additional demand would be created related to fire protection services. No impact would result from the No Action Alternative.

b) Police protection?

No Impact. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 MGD ALT surface water treatment facility, as well as improvements proposed at the currently undeveloped Greenwood site. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the existing capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment or improve the treatment process to comply with state and federal drinking water regulations. Project development would not include residential development, and would not result in population growth and the need for additional or impacts to existing fire protection services. Therefore no impact would result from project development under Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented, and therefore no further demand could be accommodated by the ALT facility. Therefore no population growth would occur and no additional demand would be created related to fire protection services. No impact would result from the No Action Alternative.

c) Schools?

No Impact. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 MGD ALT surface water treatment facility, as well as improvements proposed at the currently undeveloped Greenwood site. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment or improve the treatment process to comply with state and federal drinking water regulations. Project development would not include residential development, and would not result in population growth and the need for additional or impacts to existing school facilities. Therefore no impact would result from project development under Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented, and therefore no further demand could be accommodated by the ALT facility. Therefore no population growth would occur and no additional demand would be created related to school facilities. No impact would result from the No Action Alternative.

d) Parks?

No Impact. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 MGD ALT surface water treatment facility, as well as improvements proposed at the currently undeveloped Greenwood site. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment or improve the treatment process to comply with state and federal drinking water regulations. Project development would not include residential development, and would not result in population growth and the need for additional or impacts to existing park facilities. Therefore no impact would result from project development under Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented, and therefore no further demand could be accommodated by the ALT facility. Therefore no population growth would occur and no additional demand would be created related to park facilities. No impact would result from the No Action Alternative.

e) Other public facilities?

No Impact. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 MGD ALT surface water treatment facility, as well as improvements proposed at the currently undeveloped Greenwood site. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment or improve the treatment process to comply with state and federal drinking water regulations. Project development would not include residential development, and would not result in population growth and the need for additional or impacts to other public facilities. Therefore no impact would result from project development under Alternative One or Alternative Two.

Under the No Action Alternative, no improvements would be implemented, and therefore no population growth would occur and no further demand could be accommodated by the ALT facility. Therefore no impact to public facilities would result from the No Action Alternative.

Mitigation Measures

No mitigation is warranted.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
b) Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

El Dorado County currently has three county operated park facilities. These include Bradford Park in Shingle Springs, Pioneer Park in Somerset, and Henningsen Lotus Park in Lotus. Henningsen Park is the facility closest to the proposed project sites, approximately 13 miles from the ALT WTP site and 15 miles from the Greenwood site.

The project sites are located within the Georgetown Divide Recreation District (GDRD). Georgetown Park and Beam Field in Georgetown are the two closest GDRD park and recreation facilities to the project sites.

Within the immediate Auburn Lake Trails private community area, there are private recreation facilities and equestrian trails. At the Greenwood site, minimal unauthorized equestrian activity has entered the site parcel at the southwest corner and proceeded across the parcel.

Impact Analysis

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?

No Impact. The proposed project would include construction of water treatment plant process facilities on and adjacent to the existing Auburn Lake Trails WTP, as well as the construction of solids drying beds and the installation of a telemetry tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir.

The proposed project does not include the construction of recreational facilities and does not include housing or components that would result in population growth. There are no components of the project under either Alternative One or Alternative Two that would require the construction or expansion of new parks or recreational facilities, nor would development of either alternative result in residential or commercial land uses generating population growth, facilitating increased use of existing facilities which would cause or accelerate substantial physical deterioration of existing facilities. The Greenwood drying beds and access road would not be fenced and would not impact any potential unauthorized equestrian activity. Therefore, no adverse physical impacts related to recreational facilities would result from development of Alternative One and Alternative Two.

Under the No Action alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to recreational facilities.

b) Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. See answer to a) above.

Mitigation Measures

No mitigation is warranted.

4.17 TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Environmental Setting

The proposed project would include construction of water treatment plant process facilities on and adjacent to the existing ALT WTP, as well as the construction of waste material solids drying beds, associated access road and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir.

The ALT site is located at 3650 Sweetwater Trail between State Route (SR) 193 and the Auburn Lake Trails residential community. Sweetwater Trail is a two-lane privately maintained road within the Auburn Lake Trails community (El Dorado County Department of Transportation 2008). The ALT WTP site is approximately one-quarter mile from SR 193.

The Greenwood site is located on Loghouse Road, south of Spanish Dry Diggins Road and west of Reservoir Road. Loghouse Road is a private road which serves the GDPUD parcel and currently provides access to the parcel immediately south of the Greenwood project site. Loghouse Road is a two-lane road, both paved and unpaved.

Regulatory Setting

Level of Service (LOS) is a quantitative measure of traffic operating conditions using letter grades "A" through "F" to characterize operating conditions at intersections and along roadway segments. LOS A through F represents progressively worsening traffic conditions, with LOS A representing the best condition (minimal delay times) and LOS F representing the worst condition.

Construction within County roadways and roadway right-of-ways within El Dorado County require an encroachment permit from the Department of Transportation. Encroachment permits contain conditions to ensure safe and orderly traffic control.

Impact Analysis

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact.

Temporary Construction Impacts:

Temporary construction impacts would occur due to increased traffic of construction vehicles and construction worker commute vehicles. Temporary construction impacts could also occur if the construction involved any encroachment into county owned and maintained roadways. For any construction within public road right of ways, the project would require an encroachment permit through the El Dorado County Department of Transportation.

Construction at the ALT WTP could include a minor realignment and repaving of the driveway entrance to the existing facility. This could potentially encroach into the shoulder of Sweetwater Trail. Sweetwater Trail is a privately maintained road (i.e., not a publicly county maintained road). Therefore no county encroachment permit would be required.

Due to the small footprint of the construction sites at both the ALT WTP and the Greenwood site, and combined with the planned sequencing and temporary nature of the construction activities, additional traffic related to construction vehicles would be expected to minimal and would not result in a substantial increase to the existing traffic load or create congestion at intersections. Therefore, impacts related to traffic increases for both Alternative One and Alternative Two would be considered less than significant.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to construction traffic.

Operational Impacts: After construction, continued operation of the ALT WTP would require no additional employees at the facility. Therefore, operation at the ALT WTP with Alternative One or Alternative Two would not create an increase in employee traffic, change the volume-to-capacity ratio, or create congestion at intersections.

Additional traffic from the ALT WTP to the Greenwood site would be required to transport waste material from the ALT WTP for drying at the Greenwood site. These trips would occur on a short segment of SR 193, Sliger Mine Road from SR 193 to Spanish Dry Diggins Road, Spanish Dry Diggins Road from its intersection with Sliger Mine Road southeast to Reservoir Road, and Reservoir Road to Loghouse Road. Sliger Mine Road and Spanish Dry Diggins Road are county maintained roads. However, only approximately twelve trips per year for deposition of solids would be expected and an additional twelve trips per year for removal of solids (potentially fewer trips for removal due to the reduced volume of material after drying). Therefore, impacts related to increased vehicle trips,

volume-to-capacity ratio on roads, and congestion at intersections would be less than significant under Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site although operations would continue at the current ALT WTP. However, no increased traffic would result from continued operations. Therefore, there would be no impacts related to traffic increases.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. For Alternative One and Alternative Two, see answer to a) above.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to level of service.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Less Than Significant Impact. The proposed project consists of the construction of water treatment plant process facilities on and adjacent to the existing ALT WTP, as well as the construction of waste material solids drying beds and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir. Neither Alternative One nor Alternative Two involve aircraft operations. The proposed communication tower at the Greenwood site would have a maximum height of 40 feet and would not exceed the height of surrounding mature trees. The nearest public airport (Georgetown Airport) is approximately 1½ miles away from the Greenwood site. A single private runway serving an adjacent residential parcel is located approximately 1,000 feet to the southeast of the Greenwood site. The runway orientation is southwest to northeast which allows for operations to be directed to the southwest or northeast of the proposed project site. The proposed project, either as Alternative One or Alternative Two, would not result in a change in air traffic patterns nor result in substantial safety risks. Therefore, impacts related to air traffic patterns would be less than significant.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there no impacts related to air traffic patterns would result.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project consists of the construction of water treatment plant process facilities on and adjacent to the existing ALT WTP, as well as the construction of solids drying beds and the installation of a telemetry tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir. The proposed project does not include traffic or roadway design features that would substantially increase hazards, nor does the proposed project increase hazards due to incompatible uses. During construction, staging and parking would be accommodated on each site. Therefore, no impacts related to transportation design or use hazards would result from implementation of Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to design or incompatible use hazards.

e) Result in inadequate emergency access?

Less Than Significant Impact. Development of the project as proposed by Alternative One or Alternative Two would not impact access to the site locations after construction. During construction, construction equipment would be utilized on each site which may result in temporary on-site

equipment congestion. However, access along both public and private roads would not be expected to be impacted. Therefore, impacts related to emergency access for Alternative One and Alternative Two would be less than significant.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, there would be no impacts related to emergency access.

f) Result in inadequate parking capacity?

Less Than Significant Impact. As proposed by Alternative One or Alternative Two, project development would not create additional parking needs at the ALT WTP site as no additional employees would be required. The completed project would result in a small number of vehicle trips to the Greenwood site for drop off and pick up of drying bed materials. Parking needs would be temporary and sporadic and would be accommodated by the access designed for the site. Additional parking during construction would be provided at project site staging areas. Impacts are anticipated to be less than significant impact for both Alternative One and Alternative Two.

Under the No Action Alternative, no improvements would be constructed at either site. Therefore, no additional parking demand would be created and no impacts related to parking capacity would result.

g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. As proposed by Alternative One and Alternative Two, project development would consist of the construction of water treatment plant process facilities on and adjacent to the existing ALT WTP, as well as the construction of waste material solids drying beds and the installation of a communication tower at the Greenwood site adjacent to the GDPUD's existing Greenwood reservoir. The project would not result in any conflicts with adopted policies, plans, or programs supporting alternative transportation. No existing alternative transportation facilities would be affected. Therefore, no impacts are anticipated associated with development of Alternative One or Alternative Two, as well as the No Action Alternative.

Mitigation Measures

No mitigation is warranted.

4.18 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

Wastewater

Two types of wastewater treatment systems are used within the County: (1)Centralized Community Wastewater Treatment Plants and wastewater collection system, and (2) private onsite septic treatment systems, which are either connected to individual residences and nonresidential buildings in areas not served by the community collection and disposal systems and which rely upon septic tanks and/or onsite, soil absorption systems.

Septic wastewater generated from current ALT operations is treated by an onsite septic system.

Regulatory Setting

Federal Regulations

Federal Clean Water Act - 33 U.S.C. §1251 et seq. (1972)

Originally enacted in 1948 as the Federal Water Pollution Control Act, the Federal Clean Water Act was substantially reorganized and expanded in 1972, and amended in 1977. The Clean Water Act establishes the regulatory structure relevant to discharges of pollutants to waters of the United States, and regulating surface water quality standards. Under the Clean Water Act, point source discharges of pollutants to jurisdictional surface waters are prohibited without a permit. The United States Environmental Protection Agency (EPA) administers the Clean Water Act.

During the early 1970's water quality protection focused on the chemical integrity of surface water, while more recent regulatory guidance also emphasizes the physical and biological integrity of surface waters to achieve a broader foal of "protecting and propagating fish, shellfish, and wildlife and recreation." Recent Clean Water Act programs now emphasize watershed-based strategies placing equal emphasis on protecting healthy water bodies and restoring impaired water bodies. The more recent strategies strive to address issues not only addressed by Clean Water Act regulatory authority, but the entire range of issues influencing a given watershed. Stakeholder involvement in achieving and maintaining water quality goals and other environmental goals is another symbol of the modern approach.

The EPA delegates authority for implementation and enforcement of the CWA to the Regional Water Quality Control Boards. Within the project area, the Central Valley RWQCB is responsible for enforcement. Water quality standards for the project area are defined by the Central Valley RWQCB within the Sacramento and San Joaquin River Basin Plan, prepared pursuant to the federal Clean Water Act and the State Porter-Cologne Water Quality Control Act.

State Regulations

Porter Cologne Water Quality Control Act (California Water Code, Division 7)

The SWRCB and the nine Regional Water Quality Control Boards (Regional Boards) are designated responsibility for ensuring implementation and compliance with the provision of the federal CWA through the provisions of California's Porter-Cologne Water Quality Control Act. Regional Boards have the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within their jurisdiction and through multiple enforcement mechanisms.

Regional Water Quality Control Boards

The SWRCB and the nine Regional Water Quality Control Boards (Regional Boards) are responsible for ensuring implementation and compliance with the provision of the federal CWA and California's Porter-Cologne Water Quality Control Act. The project area is located within the jurisdiction of the Central Valley Regional Water Quality Control Board.

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. Where multiple beneficial uses exist, water quality standards must protect the most sensitive use.

Waste Discharge Requirements

Article 4, Section 13260 of the California Water Code requires that any person discharging waste or proposing to discharge waste, other than to a community sewer system, that could affect the quality of the waters of the State, shall file a Report of Waste Discharge (ROWD) with the appropriate regional board. The Regional Board reviews the applicant's ROWD and may establish Waste

Discharge Requirements (WDRs) for the proposed action. WDRs may include effluent limitations, as well as monitoring and reporting requirements.

Local Regulations

El Dorado County has established a Private Sewer Disposal System Ordinance. Water Supply

The GDPUD is a public utility located in Georgetown, California, currently providing potable water service to approximately 3,600 water connections. GDPUD purveys treated surface water to the community through two water treatment facilities, the Walton Lake Water Treatment Plant and the Auburn Lake Trails Water Treatment Plant. The operation of both water treatment facilities is permitted and regulated by the State of California.

Regulatory Setting

There are no federal or State regulations pertaining to water supply relevant to the Proposed Project.

El Dorado County General Plan

Goal 5.2: The development or acquisition of an adequate water supply consistent with the geographical distribution or location of future land uses and planned developments.

Policy 5.2.1.13: The County shall encourage water purveyors to design water supply and infrastructure projects in a manner that avoids or reduces significant environmental effects to the maximum extent feasible in light of the water supply objectives of a given project.

Solid Waste

Assembly Bill 939 (AB 939) (Public Resources Code 41780) was enacted to increase landfill life and conserve other resources through increased source reduction and recycling. AB 939 requires cities and counties to prepare Solid Waste Management Plans to implement AB 939's goals, particularly to divert approximately 50 percent of solid waste from landfills. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements. These elements are designed to develop programs to achieve diversion goals, stimulate local recycling in manufacturing and stimulate the purchase of recycled products. Public Resources Code 41780 as amended April 22, 2009 (AB 479) requires 60 percent diversion from landfills by January 2015 through source reduction, recycling, and composting activities. In addition, AB 470 also mandates additional recycling requirements for commercial businesses.

El Dorado County is divided into two waste management regions: the Tahoe Basin and the west slope and has franchise agreements with private solid waste companies to provide disposal, recycling, and collection services. There are no solid waste disposal sites located in the County. Solid waste from the west slope is taken to the Materials Recovery Facility at Diamond Springs, or hauled to a Materials Recovery Facility (MRF) in the City of Lodi, San Joaquin County. Solid waste is ultimately hauled outside of the County to permitted facilities. The County has introduced a number of programs addressing hazardous waste disposal and recycling programs (County of El Dorado 2003).

Regulatory Setting

Federal requirements established under the Resource Conservation and Recovery Act include definitions and controls of hazardous materials and are regulated by the EPA. The SWRCB and Cal Recycle regulate state solid waste disposal under classifications of both waste and disposal facilities

depending upon whether waste material is classified hazardous, designated (non-hazardous but may adversely impact waters), non-hazardous, or inert.

Impact Analysis

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The project does not propose any expansion of the existing septic system at the ALT site. No septic system is required or proposed for the Greenwood site.

Under Alternative One and Alternative Two, proposed backwash/solids handling improvements include additional storage to provide effective settling and removal of solids from backwash and filter-to-waste water. Effective solids removal would allow nearly complete recycling of the process water, thereby eliminating the need for off-site discharge, therefore impacts related to exceedance of wastewater treatment requirements would be less than significant under development of Alternative one and Alternative Two.

Under the No Action Alternative, existing settling ponds would continue to accommodate process water generated from water treatment operations. The discharge of water related to water treatment plant operations is regulated by the Central Valley RWQCB under waste discharge regulations. Existing facilities are present within the ALT site to accommodate process water generated by existing operations, and multiple regulatory requirements are in place requiring monitoring and reporting of on-site discharges and water quality; therefore impacts are considered less than significant.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant With Mitigation Incorporated. The GDPUD is proposing to choose one of two treatment alternatives, either of which would meet CDPH treatment requirements. Alternative One proposes a Direct Filtration process. Alternative Two proposes a Contact Clarification process. In addition to the process alternatives, GDPUD proposes additional operational improvements which would be common to both process alternatives. As shown on **Figure 2.6-1**, development of the Proposed Action would involve the construction and operation of improvements located on two sites. All improvements proposed at the ALT site would occur within previously significantly developed areas, with the exception of the proposed new clearwell site which would be located within an open field which contains a previously installed underground pipe and septic leach field. Proposed improvements at the Greenwood site would occur within currently undisturbed areas of the site.

In addition, improvements proposed by GDPUD under Alternative One and Alternative Two would include construction of two drying beds for solids trucked from the ALT site. The backwash and FTW processes produce suspended solids, organic matter, and coagulant. These solids would be collected in the FTW settling tank during the rain season. The solids would be removed in the spring and transported to the Greenwood site. The residuals would be approximately 95 percent water and would require approximately twelve trips per year. The drying beds would be constructed on the southwest side of the Greenwood site, adjacent to Loghouse Road. The physical footprint of these drying beds would be approximately 30 feet wide by 120 feet long, with an approximate depth of two feet. The beds would be lined with material such as plastic or concrete to prevent direct contact with soil. Once solids are deposited in the beds, dewatering would occur by evaporation. At completion of drying (prior to each fall season), the material would be removed and the beds would be swept clean before commencement of the rainy season.

As identified by this EA/IS, potential environmental impacts have been identified related to aesthetics, air quality, biology, cultural resources, geology and soils, hazards and hazardous materials, hydrology

and water quality, and noise. For each resource issue area for which potentially significant impacts have been identified, mitigation measures are proposed to reduce all potentially significant impacts to less than significant levels. Therefore, impacts related to the construction of new, or the expansion of existing water supply facilities as proposed by Alternative One or Alternative Two are considered less than significant with mitigation incorporated. Please refer to individual resource issues area impact analyses for proposed mitigation measures.

Under the No Action Alternative, no improvements would be implemented and no construction would occur. Therefore no impact would result.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant With Mitigation Incorporated. Project development under Alternative One and Alternative Two would consist of modifications to an existing 3.0 MGD surface water treatment facility, as required to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. Project development would also involve the construction of drying beds on the Greenwood site. During the winter, precipitation entering the drying beds would be drained and dispersed in a manner that would minimize erosion (e.g. rock energy dissipaters). Mitigation measures identified for **Section 4.8**, **Geology and Soils**, would require the preparation of a SWPPP, identifying construction and post-construction BMPs for the control of erosion and sediment loss within all disturbed areas, reducing potential impacts related to stormwater runoff and drainage. Therefore impacts are considered less than significant with mitigation incorporated.

Under the No Action Alternative, no improvements would be implemented and no construction would occur. Therefore no impact would result.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The current ALT WTP receives water from Pilot Creek through a 75-mile system of open-canals and small reservoirs operated by GDPUD that convey water to the Auburn Lake Trails Reservoir. Implementation of Alternative One and Alternative Two would consist of modifications to the existing 3.0 MGD ALT surface water treatment facility. Improvements are necessary to comply with CDPH requirements to meet the Federal Safe Drinking Water Act. The improvements will not expand the capacity of the facility (Carlton 2009). Most of the existing facility components will remain as is, or be modified/upgraded to accept the new equipment or improve the treatment process to comply with state and federal drinking water regulations. Therefore no impact related to expanded entitlements would result from project development.

Under the No Action Alternative, GDPUD would remain entitled for water supply, although no improvements would be implemented. No impact related to the need for expanded water supply entitlements would result from implementation of the No Action Alternative.

e) Result in a determination by the wastewater treatment provider that 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?

No Impact. The ALT site currently utilizes an onsite septic system. The project does not propose any expansion of the existing septic system at the ALT site. No septic system is required or proposed for the Greenwood site. Implementation of the Proposed Project would not involve the development of land uses generating wastewater and would therefore not require any wastewater treatment capacity/facilities. Backwash/solids handling improvements include additional storage to provide effective settling and removal of solids from backwash and filter-to-waste water. Effective solids removal will allow nearly complete recycling of the process water, thereby eliminating the need for off-

site discharge. Therefore, no impact would result from implementation of Alternative One and Alternative Two.

Under the No Action Alternative, existing settling ponds at the ALT site would continue to accommodate process water generated from water treatment operations. The discharge of water related to water treatment plant operations is regulated by the Central Valley RWQCB. Continued operations under the No Action Alternative would utilize the existing facilities within the ALT site to accommodate process water generated by existing operations, and regulatory requirements exist through the RWQCB to protect water quality; therefore impacts are considered less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Any solid waste generated by project-related construction activities would be required to be disposed of in compliance with State and local statutory requirements and regulations. El Dorado County currently contracts with private companies for solid waste collection, disposal, and recycling services. The County contracts with a private carrier for long haul of unrecyclable solid waste outside of the County.

The project would include the construction of drying beds for solids at the Greenwood site. At completion of drying (prior to each fall season), the material would be analytically tested to determine final disposal requirements. The beds would be swept clean with all material removed for disposal before commencement of the rainy season. If required per testing, the solids would be trucked to a permitted solid waste facility that accepts sludge waste.

The Western Regional Landfill located in the City of Lincoln accepts sludge and has adequate remaining capacity for disposal of project-generated solid/sludge waste (CalRecycle 2010). Alternately, GDPUD may choose to haul the solids to another facility that accepts sludge. However, this alternative would be subject to confirmation of an existing facility which could accommodate this material.

If the results of analytical testing allow for alternative disposal (e.g. dried solids made available to third parties for land application as soil amendment), the GDPUD would consult with the Regional Water Quality Control Board to determine the appropriate oversight, including waste discharge requirements.

Existing permitted facilities/resources are available within El Dorado County to accommodate construction-related solid waste generated by project construction and the Western Regional Landfill has adequate capacity to accept project-generated sludge waste, if applicable; therefore impacts related to solid waste disposal needs related to development of Alternative One and Two are considered less than significant.

Under the No Action Alternative, solid waste disposal demands would continue as currently generated by the existing WTP. No additional demands would be generated and no impact would result.

g) Comply with federal, state and local statutes and regulations related to solid waste?

No Impact. Solid waste disposal services/facilities are currently available to accommodate project-related construction waste, as well as drying beds solids in compliance with federal, State and local statutes and regulations. Therefore no impact would result from development of Alternative One, Alternative Two, or the No Action Alternative.

Mitigation Measures

Compliance with Mitigation Measures identified throughout all resource issues areas discussed within this document would ensure that potential environmental effects resulting from development of Alternative One or Alternative Two would be reduced to less than significant, as discussed under subsection b.

Compliance with **Mitigation Measures GEO – 2 through GEO – 7** would reduce potential impacts identified by subsection c to less than significant levels, by ensuring water quality objectives related to stormwater drainage are maintained.

4.19 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Does the Project:				
a) Have the potential to 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, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.	☐	☒	☐	☐
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact Analysis

a) Have the potential to 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, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant With Mitigation Incorporated. Project development as proposed by Alternative One or Alternative Two would have the potential to degrade the quality of the existing environment. Potential impacts have been identified related to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Noise, and Utilities and Service Systems. Mitigation measures have been identified related to individual potential resource-specific impacts. Proposed mitigation measures would reduce the level of all project-related impacts to less than significant levels. Therefore, impacts are considered less than significant with mitigation incorporated.

GDPUD was issued an *Order To Correct Non Compliance* by the State of California (State), Office of Drinking Water in February 2004. The Order stated that GDPUD was in violation of the Safe Drinking Water Act since GDPUD had not either (1) installed a State approved process at ALT WTP that would provide adequate removal of pathogens, or (2) conducted a study of existing ALT WTP operations to demonstrate adequate removal of pathogens. GDPUD decided that the ALT WTP would be replaced with a new WTP constructed at an alternate location and made significant progress in that direction.

However, during the design process of the new WTP, it was determined that construction of the alternate WTP was not economically feasible. Under the No Action Alternative, GDPUD would continue operation under the existing Order To Correct Non Compliance. Alternative solutions for GDPUD remain unknown, and it would be speculative to list potential solutions other than those previously investigated and currently proposed by GDPUD. Therefore, under the No Action Alternative, GDPUD would continue operations in non compliance with the Safe Water Drinking Act. However, no physical impacts to the environment would result.

b) Have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project.

The project as proposed by Alternative One or Alternative Two would have the potential to result in impacts to the environment but these impacts, in addition to being fully mitigated, are primarily related to construction and would therefore be short-term, and temporary. Long term operational impacts from the project are minimal and existing laws, ordinances and regulations exist to ensure that compliance with statutory and regulatory standards is maintained through the operational life of the project. These impacts, construction-related and operational, are therefore not cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects. Where applicable, this Initial Study identifies Mitigation Measures by individual resource area as relevant to potential environmental impacts resulting from implementation of the project and alternatives. Impacts resulting from project-related improvements as proposed by the development of Alternative One or Alternative Two are therefore considered less than significant with the incorporation of mitigation measures.

GDPUD was issued an *Order To Correct Non Compliance* by the State of California (State), Office of Drinking Water in February 2004. The Order stated that GDPUD was in violation of the Safe Drinking Water Act since GDPUD had not either (1) installed a State approved process at ALT WTP that would provide adequate removal of pathogens, or (2) conducted a study of existing ALT WTP operations to demonstrate adequate removal of pathogens. GDPUD decided that the ALT WTP would be replaced with a new WTP constructed at an alternate location and made significant progress in that direction. However, during the design process of the new WTP, it was determined that construction of the alternate WTP was not economically feasible. Under the No Action Alternative, GDPUD would continue operation under the existing Order To Correct Non Compliance. Alternative solutions for GDPUD remain unknown, and it would be speculative to list potential solutions other than those previously investigated and currently proposed by GDPUD. Therefore, under the No Action Alternative, GDPUD would continue operations in non compliance with the Safe Water Drinking Act. However, no physical impacts to the environment would result.

c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Project development as proposed by Alternative One or Alternative Two, would have the potential to significantly impact the environment through adverse effects on human beings. Compliance with **Mitigation Measures AES – 1 through AES – 5** would reduce potential impacts related to Aesthetics to less than significant levels. Compliance with **Mitigation Measure AQ – 1 through AQ – 3** would reduce potential impacts related to Air Quality to less than significant levels. Compliance with **Mitigation Measures BIO – 1 through BIO – 7** would reduce impacts related to Biological Resources to less than significant levels. Compliance with **Mitigation Measures CR – 1 and CR – 2** would reduce potential impacts related to Cultural Resources to less than significant levels. Compliance with Mitigation **Measures GEO – 1 through GEO – 7** would reduce potential impacts related to Geology and Soils to less than significant levels. Compliance with **Mitigation Measures HAZ – 1 and HAZ – 2** would reduce potential impacts related to Hazardous Materials to less than significant levels. Compliance with Mitigation **Measures BIO – 6 and GEO – 2 through GEO – 7** would reduce potential impacts related to Hydrology and Water Quality to less than significant levels.

Compliance with **Mitigation Measures Noise – 1** would reduce potential impacts related to Noise to less than significant levels. Compliance with **Mitigation Measures GEO – 2 through GEO – 7** would reduce potential impacts related to Utilities and Service Systems to less than significant levels. Therefore, impacts resulting from implementation of the Proposed Project are considered less than significant with mitigation incorporated.

GDPUD was issued an *Order To Correct Non Compliance* by the State of California (State), Office of Drinking Water in February 2004. The Order stated that GDPUD was in violation of the Safe Drinking Water Act since GDPUD had not either (1) installed a State approved process at ALT WTP that would provide adequate removal of pathogens, or (2) conducted a study of existing ALT WTP operations to demonstrate adequate removal of pathogens. GDPUD decided that the ALT WTP would be replaced with a new WTP constructed at an alternate location and made significant progress in that direction. However, during the design process of the new WTP, it was determined that construction of the alternate WTP was not economically feasible. Under the No Action Alternative, GDPUD would continue operation under the existing Order To Correct Non Compliance. Alternative solutions for GDPUD remain unknown, and it would be speculative to list potential solutions other than those previously investigated and currently proposed by GDPUD. Therefore, under the No Action Alternative, GDPUD would continue operations in non compliance with the Safe Water Drinking Act. However, no physical impacts to the environment would result.

4.20 SOCIOECONOMIC EFFECTS AND ENVIRONMENTAL JUSTICE

Executive order 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of activities on minority populations and low-income populations. Pursuant to NEPA, the interrelationships of economic and social effects should be discussed when connected to natural or physical effects resulting from implementation of a proposed action. In addition, all federal agencies are required to evaluate the extent to which a proposed action would have an adverse effect on low income or minority populations.

In support of this directive, USDA Departmental Regulation 5600-2 requires consideration of environmental justice within NEPA review. When complying with NEPA, federal agencies are required to:

1. Analyze the environmental effects of proposed Federal actions, including human health, economic, and social effects on minority and low-income populations;

2. Whenever feasible, identify mitigation measures that reduce significant and adverse environmental effects of proposed Federal actions on minority and low-income populations;

3. Provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of meetings, crucial documents, and notices; and

4. When reviewing NEPA documents, ensure that the agency preparing NEPA analyses and documentation has appropriately analyzed environmental effects on minority and low-income populations, including human health, social, and economic effects.

As discussed in the environmental consequences discussions and findings preceding this discussion, project-related effects have been determined to result in no adverse impacts, or would result in less than significant impacts to the environment. Mitigation measures are proposed as relevant to individual resource issues areas where the potential for environmental impacts have been identified. Compliance with these mitigation measures would reduce all potential environmental impacts to less than significant levels for all resource issue areas discussed within this document. It is therefore the conclusion of these analyses that implementation of the proposed federal action and alternatives (Alternative One or Alternative Two) would facilitate water treatment facility improvements proposed by GDPUD for the continued provision of water supply to meet the needs of western El Dorado County communities, and would not result in adverse socioeconomic effects or disproportional effects minority groups or low-income populations.

GDPUD was issued an *Order To Correct Non Compliance* by the State of California (State), Office of Drinking Water in February 2004. The Order stated that GDPUD was in violation of the Safe Drinking Water Act since GDPUD had not either (1) installed a State approved process at ALT WTP that would provide adequate removal of pathogens, or (2) conducted a study of existing ALT WTP operations to demonstrate adequate removal of pathogens. GDPUD decided that the ALT WTP would be replaced with a new WTP constructed at an alternate location and made significant progress in that direction. However, during the design process of the new WTP, it was determined that construction of the alternate WTP was not economically feasible. Under the No Action Alternative, GDPUD would continue operation under the existing *Order To Correct Non Compliance*. Alternative solutions for GDPUD remain unknown, and it would be speculative to list potential solutions other than those previously investigated and currently proposed by GDPUD. Therefore, under the No Action Alternative, GDPUD would continue operations in non compliance with the Safe Water Drinking Act.

Neither development of Alternative One, Alternative Two, or the No Action Alternative would impact sovereign land.

5.0 CEQA DETERMINATION

Pursuant to Section 15063, CEQA Guidelines, GDPUD has utilized an Environmental Checklist to evaluate the potential environmental effects of the Proposed Project. The checklist provides a determination of these potential impacts and includes the substantiation developed in support of the conclusions checked on the form.

The environmental factors checked below would be potentially affected by this project as indicated by the checklist on the previous pages.

☐	Aesthetics	☐	Agriculture Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Geology /Soils
☐	Hazards/Hazardous Materials	☐	Hydrology/Water Quality	☐	Land Use/Planning
☐	Mineral Resources	☐	Noise	☐	Population/Housing
☐	Public Services	☐	Recreation	☐	Transportation/Traffic
☐	Utility/Service Systems	☐	Mandatory Findings of Significance	☒	None with Mitigation

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.

☒ 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 the mitigation measures described on the attached sheets have been added to the project (see previous pages). 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 significant effect 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 upon the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." 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, there will NOT be a significant effect in this case 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.

Signature

4/27/10
Date

HENRY N. WHITE
Printed Name:

For:

Henry N. White, General Manager

Georgetown Divide Public Utility District

6.0 CONSULTATION AND COORDINATION

In accordance with NEPA/CEQA review requirements, the draft EA/IS will be distributed for a 30-day agency and public review and written comment period from April 29, 2010 through May 28, 2010, as specified in the Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) and the Notice of Availability (NOA). The NOI/NOA distribution will include a brief description of the Project, alternatives, and location, and will describe why the Proposed Project would not result in adverse environmental impacts or effects to the human environment. The Notice will also solicit comments from agencies with jurisdiction and/or technical expertise relevant to the proposed action, as well as interested members of the public regarding the potential significant environmental effects resulting from implementation of the Proposed Project or alternatives, and will include the date and time of any scheduled public hearings on the project, the address where copies of the IS/EA-MND/FONSI are available for review, whether any listed toxic sites are present, and any other relevant information required by statute or regulation.

As required by CEQA Guidelines Sections 15072 and 15073, GDPUD as the CEQA Lead Agency will facilitate the following notifications regarding the Draft IS/EA-MND/FONSI:

- Provide NOI to the public, responsible and trustee agencies, and the El Dorado County Clerk, sufficiently before adoption by GDPUD and USDA of the MND/FONSI to allow the public and agencies a 30-day review period;
- Publish the NOI at least one time in a newspaper of general circulation in the area affected by the Proposed Action (the notice shall be published in the newspaper of largest circulation from among the newspapers of general circulation within the areas of the Proposed Project);
- Submit the draft IS/EA-MND/FONSI to the State Clearinghouse for distribution to relevant State agencies; and
- Post the NOI/NOA and draft IS/EA-MND/FONSI on the GDPUD website.

6.1 PROJECT DEVELOPMENT TEAM CONFERENCE CALLS

Monthly project development team conference calls were scheduled between Carlton Engineering, Inc., H2O Group, Foothill Associates, and Georgetown Divide Public Utility District to discuss project scope, schedule and status.

6.2 NATIVE AMERICAN HERITAGE COMMISSION

In conjunction with the records search for the present project, the Native American Heritage Commission (NAHC) was contacted regarding Sacred Land Listings by Sean Michael Jensen, M.A., in correspondence dated November 23, 2009. The NAHC indicated that there are no Sacred Land Listings for the project area or adjacent lands (response dated December 3, 2009). The contact list from the Native American Heritage Commission included the following individuals and groups, all of whom were contacted on December 18, 2009 and requested to supply any information they might have concerning prehistoric sites or traditional use areas within the project area:

1. El Dorado County Indian Council, El Dorado, California.

2. United Auburn Indian Community of the Auburn Rancheria, Auburn, California.

3. Todd Valley Miwok-Maidu Cultural Foundation, Foresthill, California.

4. April Wallace Moore, Colfax, California.

To date, no responses have been received.

6.3 U.S. FISH AND WILDLIFE SERVICE

Species occurrence lists for the 7.5- minute USGS *Greenwood, CA* topographic quadrangle accessed from the U.S. Fish and Wildlife Service, online.

6.4 GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

September 4, 2009 site visit to ALT WTP with Kyrsten Shields, Foothill Associates, Carl Sloan, Carlton Engineering, Inc., and Kelley Shively and Rebecca Siren, GDPUD. Follow-up meeting at GDPUD Office between Kelley Shively, Hank White (GDPUD), Carl Sloan (Carlton Engineering, Inc.) Kyrsten Shields (Foothill Associates), Cort Abney (H2O Group).

October 27, 2009 site visit to ALT WTP and Greenwood site with Joe Looney, Project Manager and David Bise, Biologist (Foothill Associates), Carl Sloan, Carlton Engineering, Inc., and Kelley Shively and Rebecca Siren, GDPUD.

6.5 U.S. DEPARTMENT OF AGRICULTURE

October 28, 2009 telephone call with State Environmental Coordinator, Robert Nielsen to discuss environmental review approach for ALT WTP.

November 2, 2009 telephone call with Doug Colucci. Initial contact to discuss ALT WTP environmental review approach.

7.0 REPORT PREPARATION

7.1 LEAD AGENCY AND STAFF

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7.1.3 Consultant Staff

7.1.3.1 Foothill Associates

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Agricultural Resources	Joe Looney and Kyrsten Shields
Air Quality	Joe Looney
Biological Resources	David Bise, Eric Christensen, and Brian Mayerle
Cultural Resources	Joe Looney and Kyrsten Shields
Hazards/Hazardous Materials	Joe Looney
Hydrology/Water Quality	Joe Looney
Geology/Soils	Kyrsten Shields
Land Use/Planning	Joe Looney
Mineral Resources	Joe Looney and Kyrsten Shields
Noise	Joe Looney

Population/Housing	Kyrsten Shields
Public Services	Kyrsten Shields
Recreation	Joe Looney
Transportation/Traffic	Joe Looney
Utilities and Service Systems	Kyrsten Shields
Mandatory Findings of Significance	Kyrsten Shields
Environmental Justice	Kyrsten Shields

7.1.3.2 Carlton Engineering, Inc.

Preliminary Engineering Report	Carl Sloan, P.E.

7.1.3.3 H2O Group

Water System Planning/Design	Cort Abney, P.E.

7.1.3.4 Genesis Society

Cultural Resources	Sean Jensen

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Appendix A — Special-Status Species Table

Listed and Special-Status Species Potentially Occurring on the Site or in the Vicinity

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Identification Period	Potential for Occurence
Plants				
BRANDEGEE'S CLARKIA *Clarkia biloba ssp. brandgeeae*	--; --; --; 1B	Cismontane woodlands, grasslands, and chaparral. Often found associated with roadcuts.	May-July	**Low**; there is limited potential habitat for this species on both sites.
BUTTE COUNTY FRITILLARY *Fritillaria eastwoodiae*	--; --; --; 3	Cismontane woodland, chaparral, and lower montane coniferous forests. Often associated with serpentine soils.	March-June	**Low**; there is marginal potential habitat for this species on both sites. Unknown if the sites contain preferred serpentine soils.
NISSENAN MANZANITA *Arctostaphylos nissenana*	--;--;--;1B	Closed cone coniferous forests and rocky chaparral habitat.	February-March	**None;** species was not observed on sites during initial biological survey.
OVAL-LEAVED VIBURNUM *Viburnum ellipticum*	--; --; --; 2	Cismontane woodland, chaparral, and lower montane coniferous forests.	May-June	**Low**; there is limited potential habitat for this species on the sites.
Wildlife				
Invertebrates				
VALLEY ELDERBERRY LONGHORN BEETLE *Desmocerus californicus dimorphus*	FT; --; --; --	Blue elderberry shrubs usually associated with riparian areas.	Adults are active from March-June.	**No**; there is no suitable habitat for this species on the sites.
Reptiles and Amphibians				
CALIFORNIA RED-LEGGED FROG *Rana aurora draytonii*	FT;CSC;--;--	Requires a permanent water source and is typically found along quiet slow moving streams, ponds, or marsh communities with emergent vegetation.	January - August	**Low;** ponds at Auburn Lake Trails site and Greenwood drying bed at Loghouse Road sites provide potential habitat. Limited to no potential for occurrence in proposed upland construction areas.

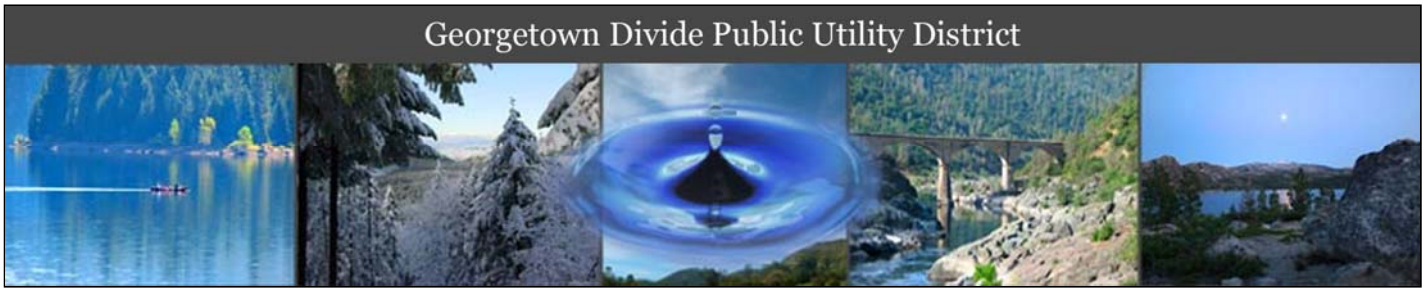
Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Identification Period	Potential for Occurence
FOOTHILL YELLOW-LEGGED FROG *Rana boylii*	--;CSC;--; --	Prefers gravelly, swiftly moving streams, rivers, or sandy streams with sunny banks and open woodlands nearby. Occur along western slope of Sierra Nevada up to 6,000 feet elevation.	January - August	**No;** no suitable habitat present on the sites.
NORTHWESTERN POND TURTLE *Actinemys marmorata marmorata*	--;CSC;--; --	Occurs in permanent or nearly permanent water in a wide variety of habitat types. Typically requires basking sites.	Year-round	**Low;** Ponds at Auburn Lake Trails site and Greenwood drying beds at Loghouse Road sites provide potential habitat. Limited to no potential for occurrence in proposed construction areas.
Fish				
DELTA SMELT *Hypomesus transpacificus*	FT;CT;--;--	Occurs in the estuarine waters of the San Joaquin and Sacramento rivers as well as the San Francisco Bay. The majority of their one-year life span is spent within the freshwater edge of the mixing zone (saltwater-freshwater interface).	Year-round	**No;** there is no suitable habitat for this species on the sites.
CENTRAL VALLEY STEELHEAD *Oncorhynchus mykiss*	FT;--;--;--	Restricted to the Sacramento River downstream of Keswick Dam; including the lower reaches of the Feather River, American River and other large tributaries downstream. Also within tributaries of the Sacramento River and the Sacramento-San Joaquin Delta.	Year-round	**No;** there is no suitable habitat for this species on the sites.
Birds				
VARIOUS RAPTOR SPECIES	MBTA; CDFG Fish and Game Codes	Various. Species onsite would be associated with vegetated habitats, especially those with trees present.	Year-round	**Low;** sites provide potential nesting habitat for various raptor species and migratory birds, especially where large trees are present.

Federally Listed Species:		**California State Listed Species:**	**CNPS* List Categories:**	**Other Special-status Listing:**
FE = federal endangered	FC = candidate	CE = California state endangered	1A = plants presumed extinct in California	SLC = species of local or regional concern or conservation significance
FT = federal threatened	PT = proposed threatened	CT = California state threatened	1B = plants rare, threatened, or endangered in California and elsewhere	
FSC = federal species of concern	FPD = proposed for delisting	CR = California state rare	2 = plants rare, threatened, or endangered in California, but common elsewhere	
		CSC = California Species of Special Concern	3 = plants about which we need more information	
Source: Foothill Associates			4 = plants of limited distribution	

Appendix B — Mitigation Monitoring and Reporting Program

Auburn Lake Trails Water Treatment Plant Project

Mitigation Monitoring and Reporting Program



April 2010

FOOTHILL ASSOCIATES

Introduction

In order to ensure compliance with the proposed revisions or mitigations during implementation of project development, as required by Section 21081.6 of the Public Resources Code, a Lead Agency must adopt a reporting or monitoring program for project revisions or required provisions intended to reduce or mitigate potential environmental effects. This MMRP has been prepared to provide monitoring and reporting for mitigation measures required by the Georgetown Divide Public Utility District (GDPUD) as the CEQA Lead Agency for the project, and set forth in the EA/IS –FONSI/MND for the project.

Section 15097(d) of the California Environmental Quality Act (CEQA) Guidelines specifies that the Lead Agency may exercise discretion in approach to fulfilling the requirements for monitoring and reporting of mitigation measures. As such, the GDPUD identifies the following program as the formal MMRP for the Auburn Lake Trails Water Treatment Plant Improvements Project (ALT WTP). A copy of this document is available to the public at the Georgetown Divide Public Utility District Office, located at 6425 Main Street, Georgetown, California.

Table 1 represents the MMRP developed for the ALT WTP EA/IS –FONSI/MND. The Mitigation Measure numbering found in **Table 1** duplicates the numbering identified in the Draft EA/IS – FONSI/MND.

MMRP Components

The components of the MMRP are briefly described below.

Impacts and Mitigation Measures

Impacts are summarized by resource area. Mitigation measures have been taken verbatim from the Draft EA/IS – FONSI/MND.

Monitoring and Enforcement Actions

Each Mitigation Measure requires the implementation of some action. This column summarizes the necessary actions to be taken and, in many cases, identifies the criteria for compliance.

Implementation and Timing of Activity

This column first identifies the entity responsible for implementing the Monitoring and Enforcement Actions, and secondarily identifies the timing for implementation of these actions. The timing for implementation can be found below the responsible entity. A key to abbreviations used for responsible entities follows below.

Key for Responsible Entities

- GDPUD – Georgetown Divide Public Utility District
- CDFG - California Department of Fish and Game
- RWQCB - Regional Water Quality Control Board

Party Responsible for Verifying Compliance

The Georgetown Divide Public Utility District and contractors working under contract to GDPUD are responsible for implementing all of the Mitigation Measures identified by this MMRP. GDPUD and,

where applicable, the resource agencies with jurisdiction over resources are responsible for verifying compliance.

Auburn Lake Trails Water Treatment Plant Project
Mitigation Monitoring and Reporting Program

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
Aesthetics				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed Project would have the potential to adversely affect the existing visual character of the project site and its surroundings.	**Mitigation Measure AES – 1**: *Exterior coatings for the clearwell tank shall incorporate earthtone colors with neutral tones to reduce the contrast of the structure with the surrounding landscape as viewed from the Auburn Lake Trails community gate.*		GDPUD During construction.	GDPUD
	Mitigation Measure AES – 2: *Site design considerations for proposed improvements shall preserve natural landscape wherever feasible and shall incorporate natural features such as rock outcroppings, native tree stands, and existing topographic features. Development footprints shall be minimized to the maximum extent practicable.*		GDPUD Prior to and During Construction.	GDPUD
	Mitigation Measure AES – 3: *All excavations shall be graded and planted to produce a natural-looking appearance.*		Contractors During Construction.	GDPUD
	Mitigation Measure AES – 4: *The final plans for the construction of the WTP clearwell shall include tree and/or vegetative plantings to the extent necessary to provide a level of visual screening at plant maturity that would introduce vegetative foreground visual elements between the tank and Sweetwater Trail adjacent to the WTP.*		GDPUD Clearwell Design Details	GDPUD
Development of the Proposed Project would have the potential to create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.	**Mitigation Measure AES – 5**: *All exterior lighting shall be hooded, shielded or opaque. No unobstructed beam of light shall be directed beyond any exterior lot line.*	Shield exterior lighting. Verify Compliance.	GDPUD During Construction.	GDPUD

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
Air Quality				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed Project would have the potential to: Violate air quality standards or contribute substantially to an existing or projected air quality violation; and/or Result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment.	**Mitigation Measure AQ – 1**: *The project shall incorporate one of the following four mitigations to reduce construction ROG and NOx emissions:* *1. If all diesel-powered construction equipment is older than 1995, the average daily fuel use per quarter must not exceed 337 gallons per day to ensure that the ROG and NOx emissions remain under 82 lbs/day. If all of the equipment is model year 1996 or later, average daily fuel use must not exceed 402 gallons per day, or* *2. The prime contractor shall provide an approved plan demonstrating that heavy-duty (i.e., greater than 50 horsepower) off-road vehicles to be used in the construction project, and operated by either the prime contractor or any subcontractor, will achieve, at a minimum, a fleet-averaged 15 percent NOx reduction compared to the most recent CARB fleet average. The prime contractor shall submit a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during the construction project. This inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. This inventory list shall be updated and submitted monthly throughout the duration of the construction activity, or* *3. The prime contractor shall use an alternative fuel, other than diesel, verified by the CARB or otherwise documented through emissions testing to have the greatest NOx and PM_{10} reduction benefit available, provided each pollutant is reduced by at least 15 percent, or* *4. The prime contractor shall use aqueous emulsified fuel verified by the CARB or otherwise documented through emissions testing to have the greatest NOx and PM_{10} reduction benefit available, provided each pollutant is reduced by at least 15 percent.*	Monitor Daily Volume of Fuel Use. Use of Alternative Fuels as Verified by CARB.	Construction/Grading and Excavation Contractors During Construction.	GDPUD/CARB

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
	Mitigation Measure AQ – 2: *The following measures shall be implemented to control diesel exhaust emissions:* • *The prime contractor shall ensure that diesel equipment is tuned and maintained per manufacturers' specifications.* • *Diesel equipment standing idle for more than five minutes shall be turned off unless staged away from residences. This would include trucks waiting to deliver or receive soil, aggregate or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite and staged as far away from residences as practicable.*	Proper Maintenance of Diesel Equipment Used for Construction. Limited Idling Time for Construction Equipment.	Construction/Grading /Excavation Contractor	GDPUD
Development of the Proposed Project could Expose sensitive receptors to substantial pollutant concentrations.	**Mitigation Measure AQ – 3**: *Project construction at the ALT WTP site shall comply with AQMD Rule 223-2, Fugitive Dust, Asbestos Hazard Mitigation. If the project does not qualify for an exemption to Rule 223-2 through an on-site geologic evaluation, the project shall comply with the additional dust control measures required in Rule 223-2, including the preparation of an asbestos dust mitigation plan for approval by the AQMD and compliance with the approved plan during construction.*	Prepare Asbestos Dust Mitigation Plan.	During Construction.	GDPUD/AQMD
Biological Resources				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed Project would have the potential to result in adverse effects to candidate, sensitive, or special-status species.	**Mitigation Measure BIO – 1**: *A pre-construction raptor survey within suitable nest trees shall be conducted if construction activities are scheduled to begin during the raptor nesting season (January 1 – September 31). A qualified biologist shall conduct the survey no more than 30 days prior to the onset of construction activities. If active nests are found on or within 500 feet of the site, CDFG shall be consulted and most likely CDFG will require that an appropriate buffer be established around the nest until the young have fledged or until the biologist has determined that the nest is no longer active. If the construction activities are scheduled to begin during the non-breeding season (October 1- December 31), a survey is not required, and no further mitigation measures are expected to be necessary. If tree removal is determined necessary, timing tree removal to occur during this time frame*	Contract with a Qualified Biologist for Pre-Construction Raptor Survey. Verify Survey Results. CDFG Coordination for Buffer Establishment	GDPUD Thirty Days Prior to Construction.	GDPUD/CDFG

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
	would also reduce the potential for raptors to nest within the construction limits of the site during the nesting season.	Surrounding Nesting Trees within 500 feet of Development.		
Development of the Proposed Project would have the potential to result in adverse effects to candidate, sensitive, or special-status species.	**Mitigation Measure BIO – 2***:* *A pre-construction survey for California red-legged frog species shall be performed. The survey(s) only needs to be conducted within 100 feet of the frog's associated aquatic and bank habitats, as well as the water setting ponds on the WTP site. Surveys shall be conducted by a qualified biologist, in accordance with CDFG guidelines, and during the appropriate time of year for optimal detection of this species, from February through May when this species is most active.* *If this species is not found on the project site during the focused pre-construction survey, no further mitigation would be required. However, if this species is found during focused surveys, then a detailed mitigation plan shall be prepared upon consultation with CDFG and/or USFWS which may include measures to minimize adverse effects of construction on California red-legged frog and its associated habitat. The mitigation plan would include a monitoring plan for this species during the period of construction.*	Contract with a Qualified Biologist for Pre-Construction California red-legged Frog Survey. Verify Survey Results. If Occurrences Recorded, Prepare Mitigation Plan.	GDPUD No More than Thirty Days Prior to Construction.	GDPUD
Development of the Proposed Project would have the potential to result in adverse effects to candidate, sensitive, or special-status species.	**Mitigation Measure BIO – 3**: *A pre-construction survey for northwest pond turtle shall be performed. The survey(s) only needs to be conducted in the turtle's associated aquatic and upland habitats (portions of the sites within 200 feet of the reservoirs and water settling ponds). Surveys shall be conducted by a qualified biologist, in accordance with CDFG guidelines, and during the appropriate time of year, from February through late October, when this species is most active.* *If this species is not found on the project site during the focused pre-construction survey, no further mitigation would be required. However, if this species is found during focused surveys, then a detailed mitigation plan shall be prepared upon consultation with CDFG and/or USFWS which may include measures to minimize adverse effects of construction on northwestern pond turtle and its associated habitat. The mitigation plan would include a monitoring plan for this species during the period of construction.*	Contract with a Qualified Biologist for Pre-Construction Northwest Pond Turtle Survey. Verify Survey Results. If Occurrences Recorded, Prepare Mitigation Plan.	GDPUD No More than Thirty Days Prior to Construction.	GDPUD

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
Development of the Proposed Project would have the potential to result in adverse effects to candidate, sensitive, or special-status species.	**Mitigation Measure BIO – 4** *A pre-construction survey(s) for the special-status plant species listed above under 'special-status plant species' with potential to occur on the site(s) shall be performed to determine their presence or absence within the project sites prior to the installation of WTP improvements or installation of the Greenwood drying beds. The focused botanical survey(s) shall be performed within the optimum identification period, to the extent possible, of each species identified in* ***Appendix A****.* *If these species are not found on the project site then no further mitigation would be required. However, if these species are found, then consultation with the appropriate resource agencies would be required and a mitigation plan shall be prepared. The mitigation plan should detail the various mitigation approaches to ensure "no-net-loss" of special-status plants. Examples of mitigation include avoidance of the plant species, acquisition of credits at an approved mitigation bank, or acquisition and preservation of property that supports these species.*	Contract with a Qualified Botanist for Pre-Construction 'special-status plant species' Survey. Verify Survey Results. If Occurrences Recorded, Develop Mitigation Approach.	GDPUD Prior to Commencement of Construction, [within floristically appropriate season].	GDPUD
Development of the Proposed Project would have the potential to result in adverse effects on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFG or USFWS.	Implementation of **Mitigation Measure BIO – 1 through Mitigation Measure BIO – 4**.	Contract with Qualified Biologist/Botanist for Pre-Construction Surveys for Special-status and Listed Species. Verify Survey Results.	GDPUD Prior to Construction within Individually Specified Timelines for each Mitigation Measure.	GDPUD
Development of the Proposed Project would have the potential to 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	Implementation of **Mitigation Measure BIO – 1**.	Contract with a Qualified Biologist for Pre-Construction Raptor Survey. Verify Survey Results.	GDPUD Prior to Construction.	GDPUD/CDFG

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
wildlife nursery sites		CDFG Coordination for Buffer Establishment Surrounding Nesting Trees within 500 feet of Development.		
Development of the Proposed Project would have the potential to conflict with local policies or ordinances protecting biological resources.	*Pursuant to the El Dorado General Plan, potential impacts to plant or wildlife species that are State and federally recognized are expected to be avoided or minimized with* ***Mitigation Measure BIO – 1 through Mitigation Measure BIO – 4****.* **Mitigation Measure BIO – 5**: *Potentially regulated trees may occur in the project grading areas. Prior to any tree impacts occurring from project related construction/improvements, an arborist survey shall be performed by an International Society of Arboriculture certified arborist based on the preparation of final site grading plans. Per the General Plan, the amount of tree impacts, oak tree canopy and oak woodland occurring on the sites, if any, shall be determined during the arborist survey and results presented in the arborist report. Only tree species subject to protection under the El Dorado County General Plan would require inventory and possible mitigation required by the El Dorado County General Plan policies and Oak Woodland Ordinance. If indirect impacts to a tree's dripline or root protection zone may occur, measures to minimize impacts during construction shall be implemented. All impact avoidance measures identified in the El Dorado General Plan shall be implemented prior to, during, and following construction as appropriate.* **Mitigation Measure BIO – 6**: *Project activities shall be conducted outside of the temporary setback distance of 100 feet from the reservoirs adjacent to the Greenwood and WTP site, where possible. At a limited area in the northeast portion of the Greenwood project site, a telemetry antenna and associated equipment enclosure would be placed immediately east of Loghouse Road for optimum*	Contract with Qualified Biologist/Botanist for Pre-Construction Surveys for Special-status and Listed Species. Verify Survey Results. Contract with ISA-certified Arborist for Completion of Arborist Survey. Project Design and Construction shall Adhere to/Implement Mitigation Pursuant to the County General Plan Standards.	GDPUD During Construction. GDPUD Prior to Construction.	GDPUD/CDFG

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
	operation. The placement of these installations at this proposed location would reduce the amount of vegetative and tree disturbance to the minimum level possible. Furthermore, because the riparian vegetation is primarily limited to the portion of bank immediately adjacent to the reservoir, the installation of the telemetry antenna and associated equipment enclosure is not expected to disturb any riparian vegetation. Since the telemetry antenna and associated equipment enclosure will not be installed outside of the 100-foot buffer, an entrenched silt fence adjacent to the eastern extent of work, such that it encompasses the down-slope portion of the work area, shall be installed to prevent any silt or sediment from entering the reservoir. The northernmost edge of the proposed drying beds on the Greenwood site would also be potentially located within 100 feet of the reservoir; however, they are located downhill from the reservoir and require no additional protective measures for their placement. *If unavoidable project activities on either site must occur within the 100-foot setback, uphill from the respective reservoir, then an entrenched silt-fence shall be installed adjacent to the downhill limit of work to fully encompass the lower side of the active area. Silt fences shall be installed per guidelines included in the California Stormwater Quality Association (California Stormwater Quality Association 2003). Additionally, no work will occur within 10 feet of the edge of any wetland or riparian vegetation associated with either reservoir. Prior to the removal of any silt fences, or during the implementation of best management practices (BMP), a Certified Professional in Storm Water Quality or Certified Professional in Erosion and Sediment Control be consulted on best stabilization and sediment control options.*		Contractor/GDPUD Install Entrenched Silt Fence within 100 feet of Reservoir. No Ground Disturbing Activities within 10 feet of Wetland or Riparian Vegetation. Consult with Certified Professional in Storm Water Quality or Certified Professional in Erosion and Sediment Control	
Cultural Resources				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed Project would have the potential to result in substantial adverse change in the significance of a historical or archaeological resource, or disturb human remains.	**Mitigation Measure CR – 1**: *Should archaeological deposits or artifacts such as structural features or unusual amounts of bone or shell, artifacts, human remains, architectural artifacts, historic archaeological artifacts be inadvertently exposed during the course of any construction activity, work shall immediately cease in the immediate area and the GDPUD project manager shall be contacted. GDPUD shall retain a qualified archaeologist to document the find, assess its significance, and recommend further treatment. The GDPUD shall*	Cease work and contact qualified archaeologist if archaeological deposits or artifacts are inadvertently exposed.	Contractors/GDPUD During Construction.	GDPUD

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
	implement any mitigation required for the recordation and/or protection of the cultural resources.			
Development of the Proposed Project would have the potential to result in substantial adverse change in the significance of a historical or archaeological resource, or disturb human remains.	**Mitigation Measure CR – 2**: *In the event that any human remains or any associated funerary objects are encountered during construction, all work will cease within the vicinity of the discovery and the GDPUD project manager shall be immediately notified. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the El Dorado County coroner shall be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects. Construction activities in the immediate vicinity will not resume until a notice-to-proceed is issued.*	Cease work and contact El Dorado County Coroner and Native American Heritage Commission if human remains or associated funerary objects are encountered.	Contractors/GDPUD During Construction.	GDPUD
Geology and Soils				
Impact	***Mitigation Measure (MM)***			
Construction of the Proposed Project would have the potential to Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving landslides. Project construction activities would have the potential to create areas of unstable soil conditions.	**Mitigation Measure GEO – 1**: *The project proponent shall hire a California-registered geotechnical engineer experienced and knowledgeable in the practice of soils engineering to perform site-specific geotechnical studies for construction of the proposed clearwell. The studies shall identify the potential for potential impacts related to geology and soils and shall recommend design alterations, considerations, or other features which could reduce the potential impacts. The feasible recommendations from the study(s) shall be required as part of the project approval. The project applicant's contractor shall ensure adherence to the design and construction-related recommendations and any other site-specific geotechnical recommendations.*	Contract with a California-registered geotechnical engineer experienced and knowledgeable in the practice of soils engineering to perform site-specific geotechnical studies for construction of the proposed clearwell.	GDPUD Prior to Construction.	GDPUD
Construction of the Proposed Project would have the	**Mitigation Measure GEO – 2**: *To the extent possible, all clearing, grading, and excavation activities shall*	Limit Timeframe for Clearing, Grading	Contractors/GDPUD	GDPUD

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
potential to result in erosion or sediment loss.	*occur between April 15 and October 15. Grading and excavation activities conducted after October 15 shall only be permitted during dry-weather conditions.*	and Excavation Activities to Dry Season.	During Construction Activities Involving Ground Disturbance.	
Development of the Proposed Project would have the potential to result in erosion or sediment loss.	**Mitigation Measure GEO – 3**: *Prior to commencement of ground disturbing activities, GDPUD shall file an NOI to obtain coverage under the current NPDES Construction General Permit with the Central Valley Regional Water Quality Control Board. Pursuant to the terms of the General Permit, GDPUD shall prepare a Storm Water Pollution Prevention Plan (SWPPP) identifying site-specific BMPs to effectively control erosion and sediment loss. If required by the General Permit risk assessment, GDPUD shall also develop and implement a Rain Event Action Plan (REAP) designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event.*	File NOI Pursuant to the NPDES Construction General Permit.	Contractor/GDPUD Prior to Commencement of Ground Disturbing Activities.	GDPUD
Development of the Proposed Project would have the potential to result in erosion or sediment loss.	**Mitigation Measure GEO – 4**: *During construction, BMPs for erosion and sediment control identified by the project SWPPP shall be implemented by the project contractor. At a minimum, erosion control measures shall include placement of mulch, straw wattles, straw bales, geotextiles and mats, earthen berms, sediment barriers or traps, or the construction of silt fences to intercept and retain sediment transported by storm water runoff in all areas disturbed by construction activities. For all project areas subject to ground disturbance and any grading and excavation activities occurring between October 15 and April 15, the project contractor shall be responsible for ensuring that a qualified professional, contractor staff, or GDPUD staff trained in storm water erosion control techniques and practices monitor the effectiveness of BMPs on the project site daily Monday through Friday, on weekends if rain events occur, and recommend additional BMPs or corrective measures for any BMPs not meeting water quality objectives.*	Implement Erosion and Sediment Control BMPs.	Contractors/GDPUD During Construction.	GDPUD/RWQCB
Development of the Proposed Project would have the potential to result in erosion or sediment loss.	**Mitigation Measure GEO – 5**: *Erosion protection shall be provided for all disturbed areas and shall be monitored and maintained to effectively control areas of potential erosion and sediment loss.*	Provide Erosion Protection for all Disturbed Areas. Monitor and Maintain BMPs.	Contractors/GDPUD During Construction Involving Ground-Disturbing Activities.	GDPUD/RWQCB

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
Development of the Proposed Project would have the potential to result in erosion or sediment loss.	**Mitigation Measure GEO – 6**: *Post-construction restoration of all disturbed areas shall include soil and bank stabilization through seeding and/or revegetation utilizing native plant species.*	Implement Post-construction Restoration and Revegetation.	Contractors/GDPUD During Construction Involving Ground-Disturbing Activities.	GDPUD
Development of the Proposed Project would have the potential to result in erosion or sediment loss.	**Mitigation Measure G – 7**: *Soil stockpiles shall be protected from erosion by maintaining effective covering (e.g. plastic tarp) over any stockpiled materials, or through the implementation of other BMPs designed to effectively control erosion and sediment loss.*	Implement Erosion and Sediment Control BMPs for Stockpiled Materials.	Contractors/GDPUD During Construction Involving Ground-Disturbing Activities.	GDPUD
Hazards and Hazardous Materials				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed Project could expose people or structures to wildfire hazards.	**Mitigation Measure HAZ – 1**: *If dry vegetation or other fire fuels exist on or near staging areas, welding areas, or any other area on which equipment will be operated, contractors shall clear the immediate area of fire fuel prior to construction. To the extent feasible, areas subject to construction activities will be maintained free of fire fuel and debris during the course of construction.*	To the extent feasible, areas subject to construction activities will be maintained free of fire fuel and debris during the course of construction. Clear areas of dry vegetation or other wildland fire fuels near equipment construction/staging/ maintenance/or fueling areas.	Contractors/GDPUD Prior to and During Construction.	GDPUD
Development of the Proposed Project could expose people or structures to wildfire hazards.	**Mitigation Measure HAZ – 2**: *Contractors shall ensure that vehicles and all equipment (heavy equipment and hand-held equipment) that typically include a spark arrester are equipped with a spark arrester in good working condition during the duration of construction.*	Ensure equipment used in project construction has spark arrestor (as appropriate per individual equipment	Contractors Prior to and During Construction	GDPUD

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
		types).		
Hydrology and Water Quality				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed Project would have the potential to result in impaired water quality.	**Mitigation Measures GEO – 2 through GEO – 7 and Mitigation Measure BIO – 6**.	File NOI to Comply with Construction General Permit with RWQCB. Limited Ground Disturbing Activities to Dry Season. Effective BMP Installation, Monitoring and Maintenance as Specified by Mitigation Measures GEO – 2 through GEO – 7 and Mitigation Measure BIO – 6	Contractor/GDPUD Prior to and During Construction Activities Involving Ground Disturbance.	GDPUD/RWQCB
Development of the Proposed Project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site	**Mitigation Measures GEO – 2 through GEO – 7 and Mitigation Measure BIO – 6**.	File NOI to Comply with Construction General Permit with RWQCB. Limited Ground Disturbing Activities to Dry Season. Effective BMP	Contractor/GDPUD Prior to and During Construction Activities Involving Ground Disturbance.	GDPUD/RWQCB

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
		Installation, Monitoring and Maintenance as Specified by Mitigation Measures GEO – 2 through GEO – 7 and Mitigation Measure BIO – 6		
Noise				
Impact	***Mitigation Measure (MM)***			
Construction of the Proposed Project would have the potential to result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies. Construction of the Proposed Project would have the potential to result in temporary or periodic increases in ambient noise levels.	**Mitigation Measure Noise – 1**: *The following measures shall be implemented to reduce construction related noise impacts:* • *The construction hours for the project shall be limited to the hours of 7 am to 7 pm Monday through Friday, and from 8 am to 5 pm on weekends and on federally recognized holidays. Construction outside of these hours shall normally be avoided. Exceptions are allowed if it can be shown that construction beyond these times is necessary to meet regulatory deadlines, to alleviate traffic congestion or to prevent safety hazards.* • *Construction equipment shall have sound control devices that meet or exceed original equipment specifications.*	Limit Construction Hours.	Contractors/GDPUD During Construction.	GDPUD
Utilities and Service Systems				
Impact	***Mitigation Measure (MM)***			
Development of the Proposed project would have the potential to result in the construction of new water or wastewater treatment	*Compliance **with Mitigation Measures AES – 1 through AES – 5** would reduce potential impacts related to Aesthetics to less than significant levels. Compliance with Mitigation **Measure AQ – 1 through AQ – 3** would reduce potential impacts related to Air Quality to less than significant levels. Compliance with **Mitigation Measures BIO – 1 through BIO – 7** would*	Actions Specified by Individual Mitigation Measures. Please Refer to Individual Resource Issue	Contractors/GDPUD Prior to and During Construction	GDPUD/CDFG/RWQCB

Impacts and Mitigation Measures		Monitoring and Enforcement Actions	Implementation/ Timing	Party Responsible for Verifying Compliance
facilities or expansion of existing facilities, which could cause significant environmental effects	*reduce impacts related to Biological Resources to less than significant levels. Compliance with **Mitigation Measures CR – 1 and CR – 2** would reduce potential impacts related to Cultural Resources to less than significant levels. Compliance with **Mitigation Measures GEO – 1 through GEO – 7** would reduce potential impacts related to Geology and Soils to less than significant levels. Compliance with **Mitigation Measures HAZ – 1 and HAZ – 2** would reduce potential impacts related to Hazardous Materials to less than significant levels. Compliance with **Mitigation Measures BIO – 6 and GEO – 2 through GEO – 7** would reduce potential impacts related to Hydrology and Water Quality to less than significant levels. Compliance with **Mitigation Measures Noise – 1** would reduce potential impacts related to Noise to less than significant levels. Compliance with **Mitigation Measures GEO – 2 through GEO – 7** would reduce potential impacts related to Utilities and Service Systems to less than significant levels.*	Areas Above for Complete Description of Required Actions.		
Development of the Proposed project would have the potential to result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	*Compliance with **Mitigation Measures GEO – 2 through GEO – 7** would reduce potential impacts to less than significant levels, by ensuring water quality objectives related to stormwater drainage are maintained.*	File NOI to Comply with Construction General Permit with RWQCB. Limited Ground Disturbing Activities to Dry Season. Effective BMP Installation, Monitoring and Maintenance as Specified by Mitigation Measures GEO – 2 through GEO – 7.	Contractors/GDPUD Prior to and During Construction	GDPUD/RWQCB