

# ENVIRONMENTAL ASSESSMENT

## **Middletown Rancheria of Pomo Indians of California** 62.87-Acre Fee-to-Trust Project

Lake County, California

### **Lead Agency**

Bureau of Indian Affairs  
Pacific Regional Office  
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## Section 1

# INTRODUCTION

## 1.1 INTRODUCTION

The U.S. Department of the Interior, Bureau of Indian Affairs (BIA) is the federal agency that is charged with reviewing and approving tribal applications pursuant to 25 Code of Federal Regulations (CFR) Part 151 to take land into federal trust status. This Environmental Assessment (EA) has been prepared for the BIA to support the application of the Middletown Rancheria of Pomo Indians of California (Tribe) for land to be placed into federal trust (Proposed Action).

This land consists of approximately 62.87 acres contiguous to the existing boundary of the Middletown Rancheria. The land is currently owned by the Tribe in fee simple status and is intended to be used for residential housing and an RV park. The BIA will use this EA to determine if the Proposed Action would result in adverse effects to the environment.

This document has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] § 4321 et seq.), the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508), and the BIA NEPA Guidebook (59 Indian Affairs Manual [IAM] 3-H). **Section 2.0** of this EA provides a detailed description of the Proposed Action and Project Alternatives. **Section 3.0** provides a description of the existing environmental conditions on and in the vicinity of the project site, an analysis of the potential environmental consequences associated with the Project Alternatives, and a discussion of impact avoidance and mitigation measures. Consistent with the requirements of NEPA, the BIA will review and analyze the environmental consequences associated with the Proposed Action and Project Alternatives, and either determine that a Finding of No Significant Impact (FONSI) is appropriate, request additional analysis, or request that an Environmental Impact Statement be prepared.

## 1.2 PROJECT LOCATION

The three proposed fee-to-trust parcels are in southern Lake County, California contiguous with the boundary of the Middletown Rancheria (**Figures 1-1, 1-2, 1-3**) near the unincorporated town of Middletown. The parcels are located within an unsectioned area of the Callayomi Rancho land grant, Township 10 North, Range 7 West (Mount Diablo base line and meridian) as shown on the Mount Saint Helena and Detert Reservoir, California 7.5-minute USGS quadrangles. **Table 1-1** provides parcel information.

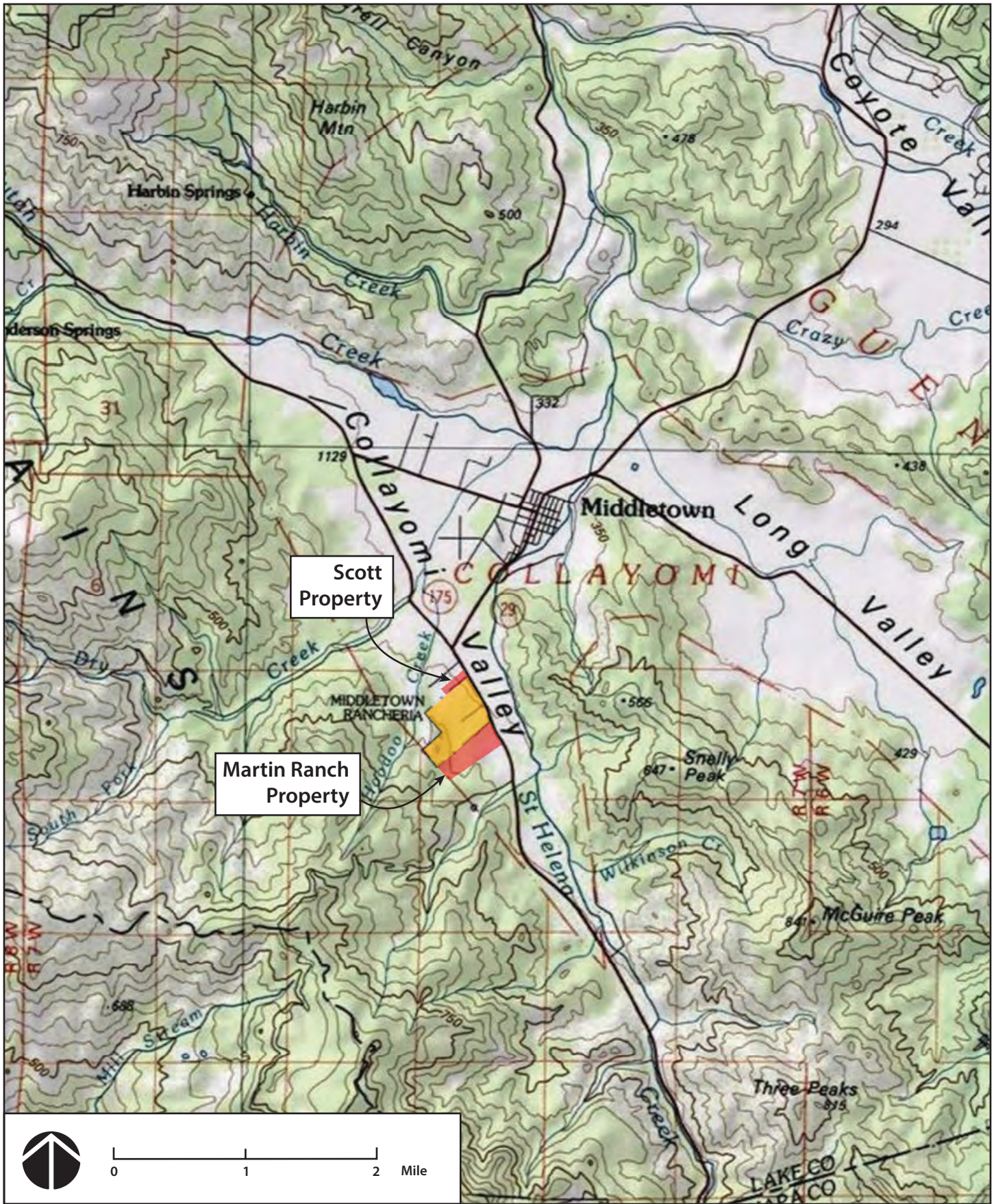




MIDDLETOWN RANCHERIA

**FIGURE 1-1**  
REGIONAL LOCATION MAP

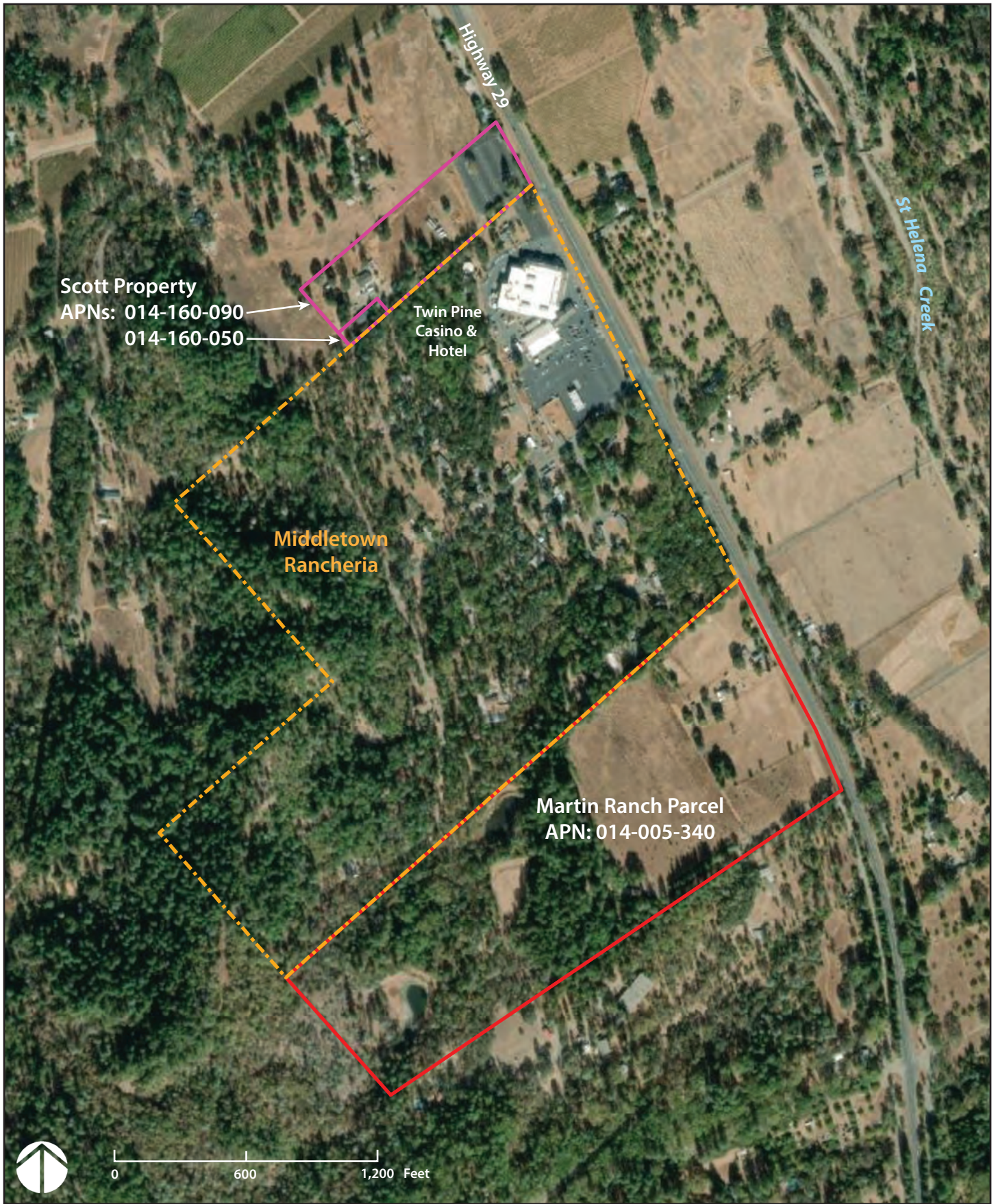




MIDDLETOWN RANCHERIA

FIGURE 1-2  
VICINITY MAP





MIDDLETOWN RANCHERIA

FIGURE 1-3  
PARCEL MAP

**Table 1-1**  
Project Parcel Details

Parcel	APN	Common Name Reference	Acres
1	014-160-050	Scott Property	0.46
2	014-160-090		8.39
3	014-005-340	Martin Ranch	54.02
Total			62.87

### 1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed fee-to-trust action would be to facilitate Tribal self-determination and allow the Tribe to exercise sovereignty over lands currently owned in fee-title. Owning the subject lands in fee-title does not allow the Tribe to exercise its complete authority over the land, because with such ownership, the Tribe would have oversight from external local governmental bodies. Additionally, the autonomy provided by the fee-to-trust action would allow for greater self-sufficiency.

There is a current need to alleviate the shortage of on-reservation housing for the Middletown Tribe. The Tribe has 42 residences on the Rancheria. The Tribe has a housing waiting list of over eight Tribal member families. Tribal members that do not live on the Rancheria live in Lake, Napa, Sonoma and Mendocino counties and out of state because of jobs or lack of affordable housing. Living a far distance from the Rancheria leaves these tribal members unable to participate in Tribal and family activities and meetings held on the Rancheria – particularly cultural activities and ceremonies which are vital to the Tribe and its people. To most effectively meet this housing need, the Tribe has determined that housing properties should be located adjacent to the Rancheria. Additionally, the Tribe has a need to diversify and expand accommodation options for its casino, to ensure a sustainable and stable revenue base for the Tribe.

The BIA's role under the Indian Reorganization Act (IRA) is to partner with tribes to help them achieve their goals for self-determination, while also maintaining its responsibilities under the Federal-Tribal trust and government-to-government relationships.

### 1.4 Overview of the Environmental Review Process

This EA has been prepared to analyze and document the environmental consequences associated with the approval of the fee-to-trust action and the subsequent residential development. The BIA will use this EA to determine if the Proposed Action would result in significant effects to the environment and whether a FONSI is appropriate or an EIS should be prepared and processed. This EA is intended to satisfy the environmental review process of 40 CFR 1501.3, 40 CFR 1508.9, and the BIA NEPA Guidebook (59 IAM 3-H).

### 1.4.1 Environmental Issues Addressed

Based on a review of the project site and the proposed development, as well as consultation with local and federal agencies, the following environmental issues are evaluated in this EA:

- Land Resources (topography, geology, soils, seismicity, and mineral resources);
- Water Resources (surface water, drainage and flooding, groundwater, and water quality);
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Socioeconomic Conditions;
- Transportation and Circulation,
- Land use and Agriculture);
- Public Services (water supply, wastewater service, solid waste service, electricity/natural gas/telecommunications, law enforcement, fire protection, and emergency medical services);
- Noise;
- Hazardous Materials; and
- Visual Resources.

### 1.5 Regulatory Requirements and Approvals

The following direct and indirect federal approvals and actions may be required for the Proposed Action or subsequent residential development:

- Transfer of the 3 parcels totaling approximately 62.87 acres into federal trust status for the Tribe by the Secretary of the Interior;
- National Pollutant Discharge Elimination System (NPDES) general permit for stormwater discharges by the U.S. Environmental Protection Agency as required by the Clean Water Act (pursuant to Section 402);
- U.S. Fish and Wildlife Service consultation under the Endangered Species Act;
- American Indian Religious Freedom Act consultation under applicable regulation 43 CFR 7, Archeological Resources Protection Act (ARPA) Permitting; and
- National Historic Preservation Act Section 106 consultation (36 CFR).



## Section 2

# PROPOSED ACTION AND PROJECT ALTERNATIVES

This section describes the Proposed Action and Project Alternatives. The Proposed Action consists of placing the three parcels totaling approximately 62.87 acres into federal trust status for the Tribe. The Project Alternatives include two development alternatives. This section also identifies the protective measures and best management practices (BMPs) incorporated into the Project Alternatives to avoid or reduce environmental impacts.

## 2.1 SELECTION OF ALTERNATIVES FOR DETAILED EVALUATION

The Project Alternatives selected for detailed evaluation in this EA consist of:

**Alternative A – Proposed Project:** 62.87+/- acre trust land acquisition, development of 45 homes, 5 cabins, and a 21-space RV park.

**Alternative B – Reduced-Density Alternative:** Identical trust land acquisition, development of 26 new homes and a 21-space RV park.

**Alternative C – No Action Alternative:** The BIA would not take the land into trust and no changes in land use would occur.

## 2.2 ALTERNATIVE A – PROPOSED PROJECT

The Proposed Project is the BIA's consideration of a request from the Tribe to take 62.87+/- acres of land into federal trust. A foreseeable consequence of BIA approval of the fee-to-trust request would be the construction of single-family homes, cabins, and an RV park. The discussion provided below addresses the components of the fee-to-trust request and residential development.

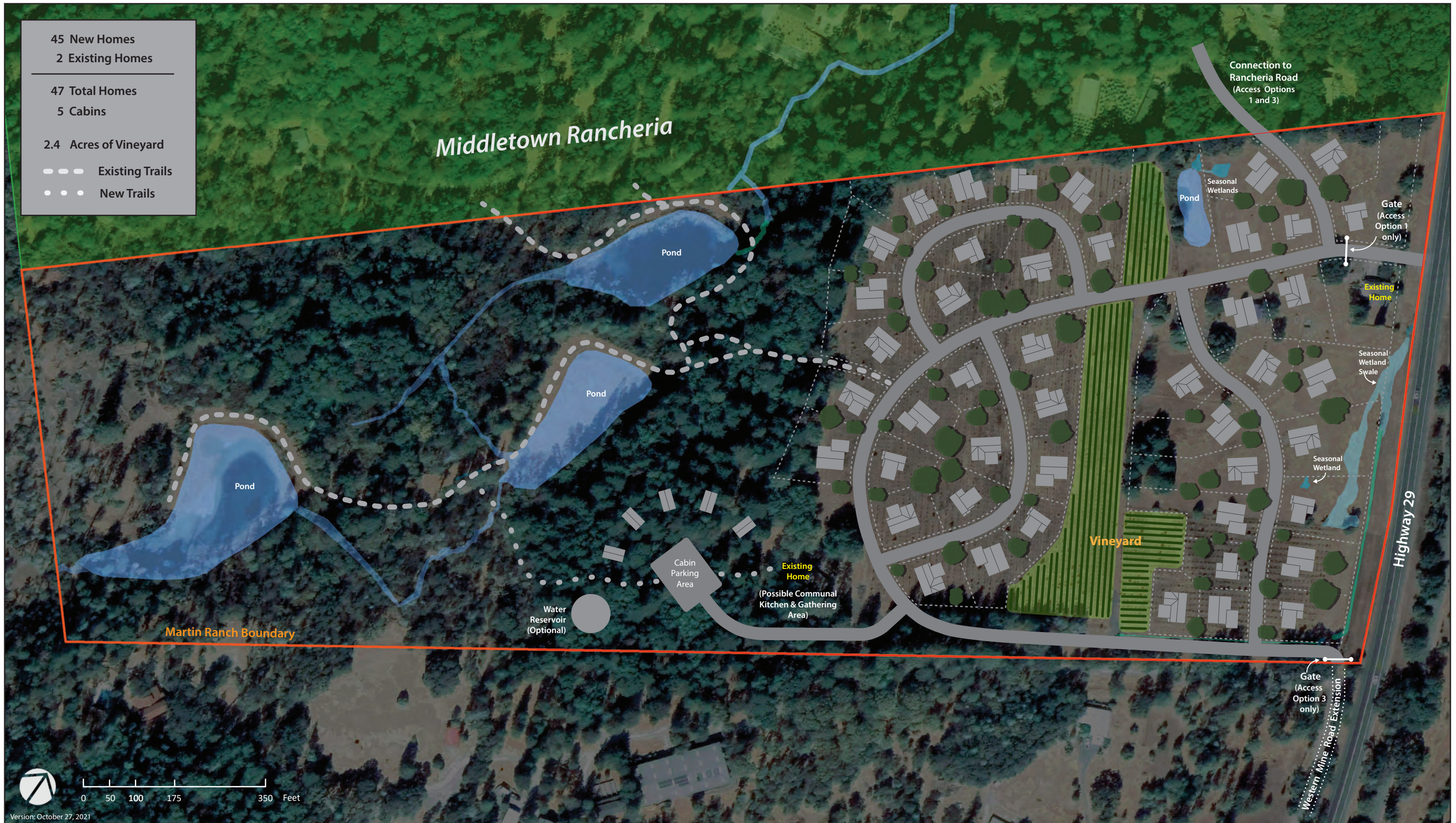
### 2.2.1 Fee-to-Trust Request

The Proposed Action consists of the fee simple conveyance of the three parcels totaling approximately 62.87 acres into federal trust status for the benefit of the Tribe. The land transfer would be in accordance with procedures set forth in 25 CFR § 151.3 and involves numerous steps. This land trust action would shift civil regulatory jurisdiction over the project site from the State of California (State) and Lake County to the Tribe and the federal government; the State and County would continue to exercise criminal jurisdiction under 18 USC § 1162 and other federal laws pertaining to jurisdiction in Indian country.

### 2.2.2 Development Plans

The foreseeable consequence of an approved fee-to-trust request for the 62.87+/- acres would be the development of 45 new homes for Tribal Members and 5 cabins for visiting Tribal Members on the Martin Ranch property (**Figure 2-1**) and a 21-space RV park on the Scott property. These developments are described below.





MIDDLETOWN RANCHERIA

FIGURE 2-1  
MARTIN RANCH SITE PLAN - PROPOSED ACTION



## **Residential Development**

The Tribe has developed preliminary plans for the residential development. Once accepted into trust, the Tribe would complete the final designs of the housing development, including water and wastewater services, access road improvements, and other related infrastructure development in a manner consistent with all applicable laws, agreements, and environmental requirements. Construction of the homes would occur in phases as funds become available. For the purposes of the environmental analysis, it is assumed that up to 10 homes or cabins would be developed each year. The phasing of residential development would be subject to the extension of supporting water and wastewater services and utilities.

### *Single-Family Homes*

The Tribe plans to construct approximately 45 single-family homes. The homes would range in size from two-bedroom units to four-bedroom units and have a total area of approximately 1,200 to 2,000 square feet. Attached and free-standing garages and carports may also be provided. The homes would be situated on lots ranging from approximately 0.2 to 0.6 acres. Maximum lot coverage would not exceed 35 percent. Most homes would be one-story, although some two-story homes may be developed. The maximum height of homes and associated structures would be 35 feet. All single-family residential (R1) setback requirements of the Lake County Zoning Ordinance would be met or exceeded along exterior boundaries of the Martin Ranch parcel. Asphalt-paved driveways would be provided off an asphalt-paved roadway.

### *Cabins*

The Tribe plans to build five cabins that would be made available to visiting Tribal Members, the cabins would be located in the south-central portion of the property and accessed from a common asphalt-paved driveway and parking area. The cabins would have 2 to 3 bedrooms with a floor area of approximately 1,200 square feet. The cabins would have a maximum height of approximately 25 feet. All single-family residential (R1) setback requirements of the Lake County Zoning Ordinance would be met or exceeded along exterior boundaries of the Martin Ranch parcel. The layout of the cabins, driveway and parking area would avoid mature trees to the extent feasible.

### **RV Park**

The Tribe plans to develop an RV park on the Scott property west of the existing overflow parking lot (**Figure 2-2**). Approximately 21 spaces would be provided for recreational vehicles. Approximately seven sites would have full hookups (water, sewer and electricity), with the remaining having partial hookups (water, electricity). A dump station would also be provided. The RV Park would have an office building with laundry facilities, restrooms, and showers. The RV Park would be developed with landscaping consistent with the Lake County Community Wildfire Protection Plan. This would include irrigated lawn around the sites and fire-resistant native shrubs and trees surrounding the development. All resort commercial (CR) setback requirements of the Lake County Zoning Ordinance would be met or exceeded along exterior boundaries of the Scott parcel.

### **Proposed Roadways and Access**

All proposed roadways would be developed consistent with Lake County standards with a minimum 22-foot-wide asphalt-paved surface.





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MIDDLETOWN RANCHERIA

FIGURE 2-2  
SCOTT PROPERTY SITE PLAN



### *Scott Property Access*

Access to the RV park on the Scott property would be provided from Rancheria Road through the existing casino and hotel parking lot. Direct access to Highway 29 would not be provided.

### *Martin Ranch Property Access*

Three points of access are under consideration for the residential development on the Martin Ranch property: connection to the existing roadways on the Rancheria, improving the existing ranch house/vineyard driveway connection to Western Mine Road Extension, and direct access with Highway 29 by improving the existing farmhouse driveway to meet California Department of Transportation (Caltrans) design standards. Three combinations of these access points are evaluated in this document. These options are illustrated in **Figure 2-3** and described below.

**Option 1** would provide access through the Rancheria and Western Mine Road Extension. Access to Highway 29 by the farmhouse driveway would be gated and only used for emergency access.

**Option 2** would use Western Mine Road Extension and the farmhouse driveway to provide access to Highway 29. A direct connection to Highway 29 via the farmhouse driveway is subject to approval by Caltrans.

**Option 3** includes full access via the Rancheria and the farmhouse driveway with gated access to Western Mine Road Extension. The gated access would only be used for emergency access. A direct connection to Highway 29 via the farmhouse driveway is subject to approval by Caltrans.

### ***Grading and Drainage***

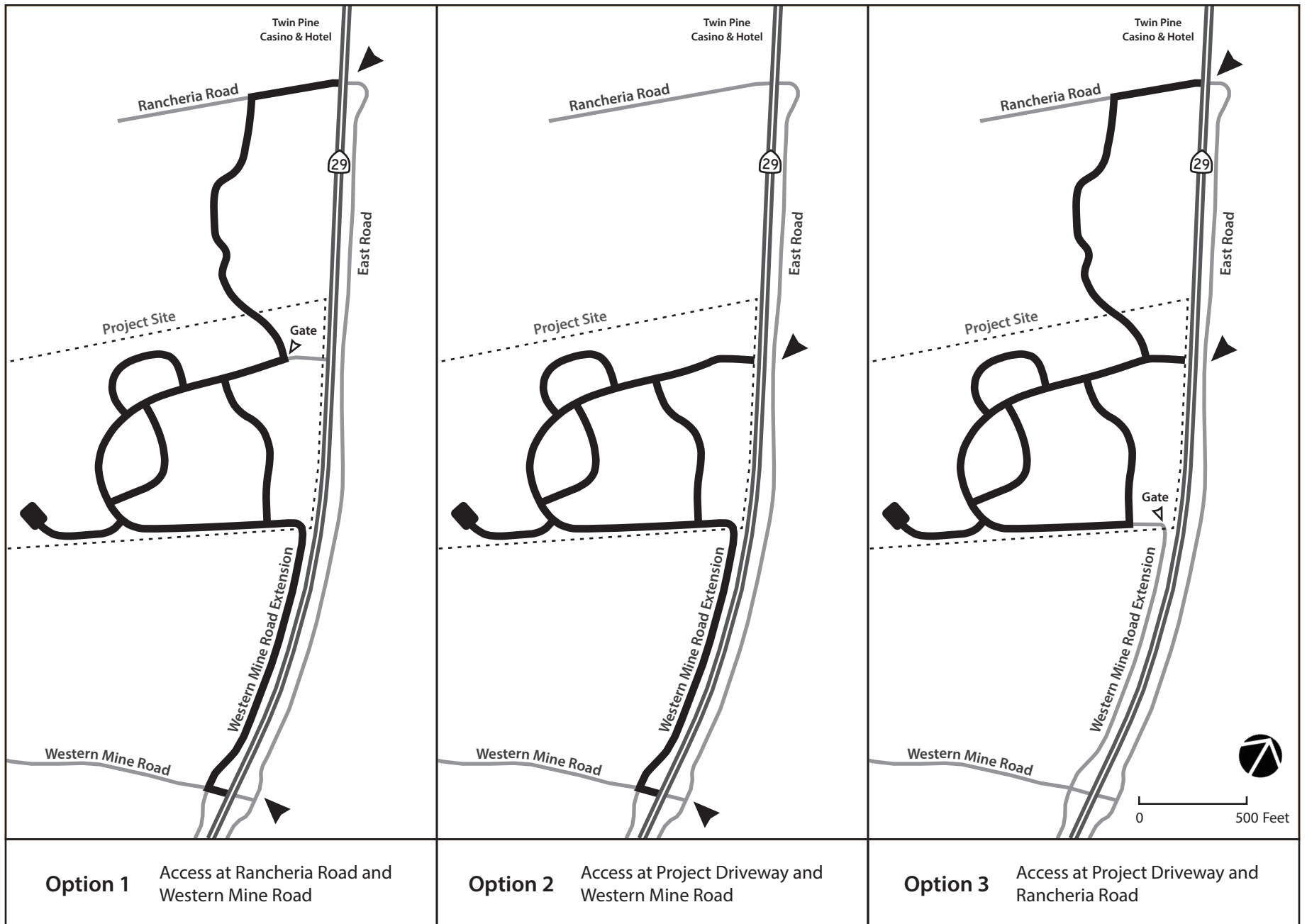
Construction would involve grading and excavation for building pads and roads. Approximately 6,500 cubic yards of fill material would be imported. All areas disturbed during construction would be revegetated and all cut slopes would have a slope ratio of 1.5 to 1 (horizontal to vertical) or flatter, and fill slopes would have a slope ratio of 2 to 1 or flatter. These standards would ensure that slopes are stable and would be revegetated, thereby minimizing long-term erosion potential.

Surface runoff from the proposed roadways would be directed through biofiltration swales (bioswales) to offset the added impervious area. The bioswales, planted with native grasses, would treat 100% of the runoff. Bioswales are specifically designed to remove fine sediment and pollution in water runoff. They are most commonly constructed as vegetated trapezoidal channels which receive and convey storm water flows while providing compliance with water quality and flow criteria. Pollutants are removed by a filtration process involving vegetation, the uptake by plant biomass, sedimentation, adsorption to soil particles, and infiltration through the soil. The bioswales would augment the existing drainage ditches and tie into existing wetland swales to help maintain the current hydrology of the site.

### ***Water Supply***

#### *Annexation to Callayomi County Water District*

The Callayomi County Water District (CCWD) currently provides water supply to the Rancheria and the Scott property and is the preferred water supply source for the proposed development. CCWD has allocated 45 connections to the Rancheria, 40 of which may be used for homes on the Martin Ranch



MIDDLETOWN RANCHERIA

**FIGURE 2-3**  
MARTIN RANCH ACCESS OPTIONS

property (**Appendix A**). The Rancheria and the Scott property are within the CCWD service area boundary, however the Martin Ranch property is not within CCWD's service area. Because the Martin Ranch property is located outside of the current CCWD service area boundary, water service cannot be provided to the parcel until the CCWD's water service area boundary is amended to include the Martin Ranch parcel. Amending the boundary and extension of service would require approvals from CCWD and the Local Agency Formation Commission for Lake County (Lake LAFCO). This process has been initiated and CCWD has provided a will-serve letter that is conditioned on the approval of the annexation (Appendix A). This Environmental Assessment addresses the proposed annexation to the CCWD service area and extension of CCWD water service to the Martin Ranch property.

Water service from CCWD would be provided as an extension of the existing water system on the Rancheria. Currently, CCWD service is provided from a 6-inch water main along Highway 29. A booster pump station located at the northeast corner of the Rancheria delivers water to a 44,000-gallon water tank located on the Rancheria. A gravity-fed pipeline system distributes water from the tank to individual homes on the Rancheria. To serve the proposed residential development, improvements to the existing system would be required. These improvements would include replacement of the existing booster pump station, a new water main, and the extension of pipelines to the project site. An additional water storage tank would be required to provide adequate operational reserve and fire flow for the proposed homes. The water storage tank would be located near the existing water tank on the Rancheria. Water service would be extended to the Martin Ranch property through the Rancheria via a new six-inch water main. The new water line would be installed along existing roadways within the Rancheria and along proposed roadways on the Martin Ranch site. Fire hydrants would be provided throughout the development, consistent with all applicable local and state standards.

#### *Alternative Water Supply Sources*

As an alternative to CCWD water supply, the Tribe has identified onsite water sources and water trucking as potential short-term or long-term supply options.

#### **Onsite Water Supply**

A combination of surface water and groundwater has historically been used to supply water to the Martin Ranch property. The Tribe has the right established under California's State Water Resources Control Board to divert up to 14 acre-feet annually from the unnamed stream on the property. Permitted uses for the water right are currently limited to stock watering and recreation, although the water has been used for residential uses and irrigation by previous landowners. This water right could be amended to allow for residential use.

Groundwater has been historically used on the project site. Several wells exist on the project site, none of which is currently in operation. The Tribe may develop one or more groundwater wells on the project site to provide a water supply.

Use of surface water or groundwater may require filtration and disinfection as well as routine monitoring. If an onsite water supply system serves more than 15 connections (homes) or 25 people, the system would be required to comply with the requirements of the Safe Drinking Water Act.

This option would include development of a water storage tank to provide adequate water supply for fire protection. Fire hydrants would be provided throughout the development, consistent with all applicable local and state standards.

### **Water Trucking**

Delivery of potable water by truck may be used as an interim or supplemental water supply. Water would be delivered to a water storage tank incorporated into the distribution system. The water storage tank would be sized to provide adequate operational reserve and fire flow for the proposed homes. Fire hydrants would be provided consistent with all applicable local and state standards.

### **Wastewater Service**

Wastewater service would be supplied by the Lake County Special Districts, which operates the Middletown Wastewater Collection and Treatment System that provides service to the Rancheria and the Scott property. Wastewater generated from the homes and RV park would be conveyed via pipeline to an existing 8-inch sewer line that extends from Dry Creek Cutoff Road to the Rancheria. All plumbing and connections would comply with the California Plumbing Code (Title 24, Part 5) and would be coordinated with Lake County Special Districts. A conditional will-serve letter is provided in **Appendix B**.

### **Development Standards**

The trust acquisition would eliminate the need for building permits to be issued from Lake County for the proposed homes. The Tribe, however, would ensure that equivalent housing standards are maintained for the health, safety, and comfort of the residents. Specifically, the residences and road/utility improvements would be constructed consistent with building code standards applicable in unincorporated Lake County at the time of construction (excepting any requirements affording jurisdiction to the State of California or Lake County, such as permit issuance or plan review). Applicable building code standards include the following:

#### *California Building Code*

The California Building Code (CBC) as set forth in Title 24 of the California Code of Regulations (CCR) contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. The CBC includes the Energy, Electrical, Mechanical, Plumbing and Fire Codes. The CBC also includes the California Green Building Standards.

#### *Lake County Code*

### **Fire Protection Standards (Chapter 17, Article XI)**

This ordinance identifies fire protection standards for subdivisions, including required fuel breaks, emergency access, and water distribution standards (e.g., fire flow, firefighting reserve, and hydrants).

### **Grading Ordinance (Chapter 30)**

This ordinance regulates grading, excavation, and earthwork to maintain slope stability, protect against erosion, protect drainage courses, avoid water pollution, and minimize fugitive dust and release of naturally occurring asbestos.

### *Other Development Standards*

Minimum building setbacks would be maintained for property boundaries between trust property and properties in Lake County's jurisdiction. The developer would utilize the Underground Service Alert (USA) service and would coordinate with Pacific Gas and Electric Company and phone/cable providers regarding excavation and extension of services.

Outdoor residential lighting would be hooded/screened to direct light downward onto the subject parcel and would not negatively impact adjacent parcels. Site lighting would not cause excessive glare or shine onto the roads in a manner which causes excessive glare or cause a traffic hazard. The layout of the homes and driveways would avoid wetlands and mature trees to the extent feasible.

The Tribe would require construction contractors to limit exterior construction to between the hours of 7 a.m. and 7 p.m.

### **Best Management Practices**

#### *Air Quality BMPs*

The following construction requirements would be included as part of the Proposed Project through contractual requirements to reduce temporary construction emissions:

- For any earth moving that is more than 100 feet from all property lines, watering shall be conducted as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
- For all disturbed surface areas, dust suppression shall be applied in a sufficient quantity and frequency to maintain a stabilized surface; any areas that cannot be stabilized, as evidenced by wind driven dust, shall receive an application of water at least twice per day to at least 80 percent of the unstabilized area.
- For all unpaved roads used for any construction vehicular traffic, the roads shall be watered as often as necessary to minimize dust or chemical stabilizer shall be applied to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
- Track-out control shall be provided to minimize tracking of soil onto neighboring roadways.

The following dust suppression BMPs would be implemented by the Tribe to control the production of fugitive dust and prevent wind erosion of bare and stockpiled soils:

- Dust emissions during transport of fill material or soil shall be minimized by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks and/or covering loads.
- Spills of transported material on public or private roads shall be promptly cleaned.
- On-site traffic shall be restricted to reduce soil disturbance and the transport of material onto roadways.
- Construction equipment and truck staging areas shall be located away from sensitive receptors, as practical and in consideration of potential effects on other resources.
- Dirt, gravel, and debris piles shall be covered as needed to reduce dust and wind-blown debris.

The following BMPs would be implemented by the Tribe to reduce emissions of criteria air pollutants (CAP), greenhouse gases (GHG), and diesel particulate matter (DPM):

- All diesel-powered equipment shall be properly maintained, and idling time shall be minimized to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required.
- Engines shall be kept in good mechanical condition to minimize exhaust emissions.
- All construction equipment with a horsepower rating of greater than 50 will be equipped with engines that meet or exceed US EPA or CARB Tier 2 off-road emission standards and have engines that are retrofitted with an CARB Level 3 Verified Diesel Emissions Control Strategy (VDECS), if one is available for the equipment being used (equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore a VDECS would not be required).

#### *Water Quality BMPs*

The following construction requirements would be included as part of the Proposed Project through contractual requirements to minimize the risk of water quality impacts during construction:

- A spill prevention and countermeasure plan will be developed that identifies proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, solvents, etc.) used on site.
- Petroleum products will be stored, handled, used, and disposed of properly in accordance with provisions of the CWA (33 USC § 1251 to 1387).
- Construction materials, including topsoil and chemicals, will be stored, covered, and isolated to prevent runoff losses and contamination of surface and groundwater.
- Fuel and vehicle maintenance areas will be designed to control runoff.

#### *Hazard Avoidance BMPs*

The following construction requirements would be included as part of the Proposed Project through contractual requirements to minimize the risk of fire during construction:

- Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but not be limited to, vehicles, heavy equipment, and chainsaws.
- During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.

### **Fire Management**

Currently, the Tribe manages its forested lands, including the Rancheria and Martin Ranch, under the 2019 Integrated Resource Management Plan (IRMP). The IRMP provides goals and objectives for forest protection and management. The IRMP includes firesafe clearance recommendations consistent with

local recommendations. The IRMP also identifies the establishment and maintenance of fire breaks around the Rancheria and Martin Ranch.

In addition to the IRMP, the Tribe is cooperating with the Lake County Community Wildfire Protection Plan. The purpose of the Wildfire Protection Plan is to identify priority projects that reduce risks and hazards from wildfire while protecting conservation values in Lake County. The Tribe would construct and manage the proposed improvements in a manner consistent with the IRMP and Wildfire Protection Plan. This would include establishing and maintaining fuel reduction zones, including fire-free zones around homes and RV sites, structural protection zones, defensible space zones, and wildland fuel reduction zones. Landscaping would use fire-resistant native species such as ponderosa pine, California black oak, and Oregon white oak. The proposed homes and buildings would incorporate fire-safe construction materials and features.

The proposed development would be supplied with hydrants supplied by water storage reservoirs on the Rancheria.

### **2.2.3 Other Land Uses**

#### ***Vineyards***

Approximately 2.4 acres of existing vineyards on the Martin Ranch would be preserved on the slope between the lower and upper residential areas. These wine-grape vines would be managed for commercial production and sale.

#### ***Recreational Trails***

The forested western portion of the Martin Ranch property has existing trails that provide access to the three ponds. These trails would be maintained for Tribal use and a new walking trail would be constructed from the cabin parking area to the existing trails. The trails would be unpaved with footbridges for stream crossings. The footbridges would be constructed to avoid any fill or disturbance within stream channels.

#### ***Overflow Parking***

The eastern portion of the Scott property is developed with an overflow parking lot that accommodates additional vehicles during casino special events and peak periods. No change in the overflow parking lot is proposed as part of the Proposed Action.

#### ***Other Residential***

Two existing homes on Martin Ranch would be retained – a farmhouse located near Highway 29 and a ranch house located in the south-central portion of the property. The farmhouse would be renovated and used as a single-family residence. The ranch house would be renovated as either a single-family home or as a communal kitchen and gathering area for Tribal Members staying at the proposed cabins.

The western portion of the Scott property is developed with two single-family homes. No change in these existing residential units is proposed as part of the Proposed Action.



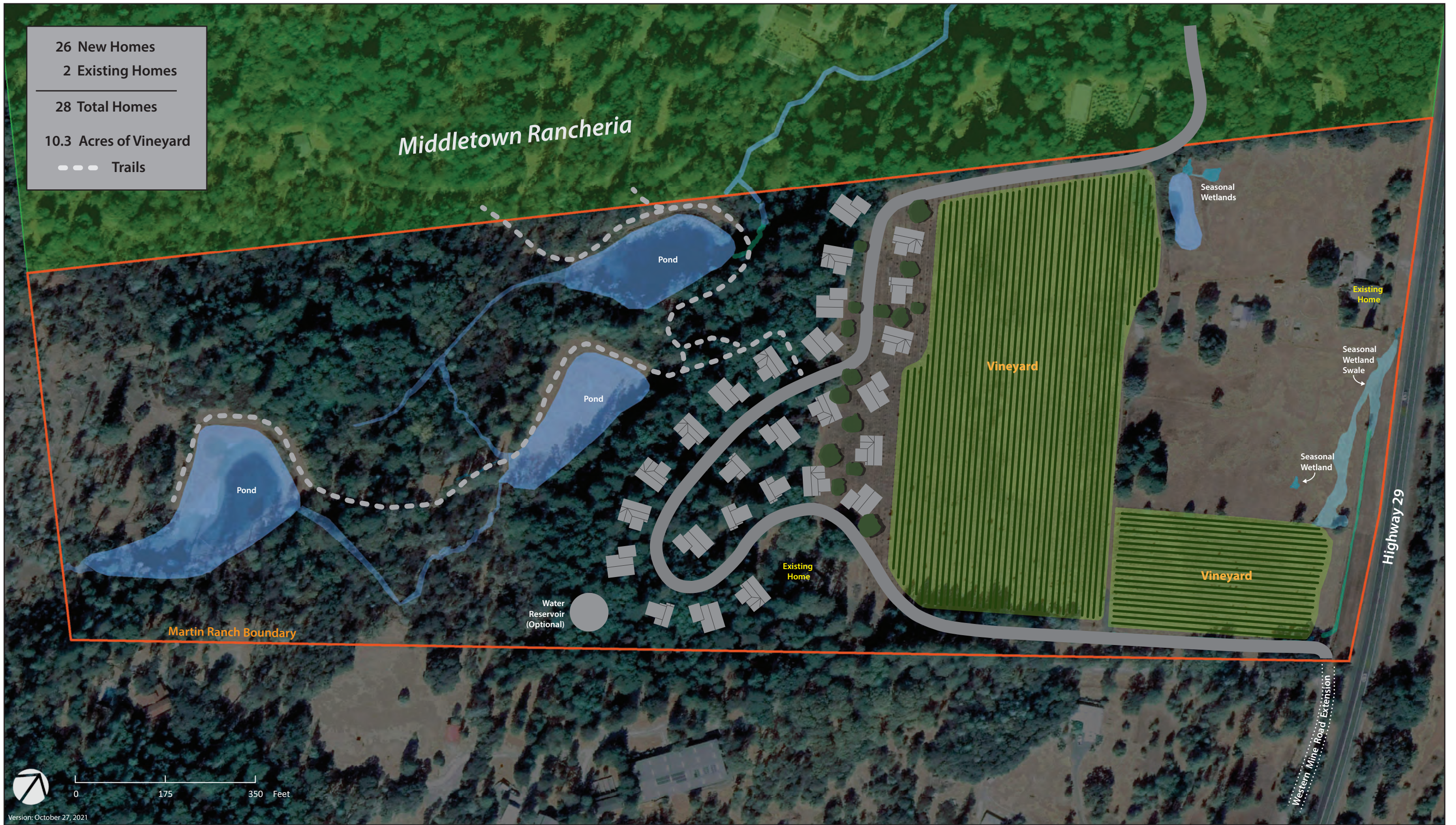
## 2.3 ALTERNATIVE B – REDUCED RESIDENTIAL ALTERNATIVE

This alternative includes the fee-to-trust action but with fewer homes provided. The Tribe would develop 26 new homes and would restrict development to the upper portion of the current vineyards and adjacent forest (**Figure 2-4**). Approximately 10.3 acres of vineyards would be maintained. This alternative would be developed consistent with the development standards, infrastructure and landscape and vegetation management standards described for the Proposed Action in Sections 2.1.2 above; however, no cabins would be developed. The proposed development of an RV park on the Scott property would be developed as described under the Proposed Action. The water supply options and would be the same as described for the Proposed Action. Wastewater service would be supplied by the Lake County Special Districts as described under the Proposed Action. Access for this alternative would be provided by Western Mine Road Extension and by extension to Rancheria Road as described for Access Option 1 under the Proposed Action.

## 2.4 NO ACTION ALTERNATIVE

Under the No Action Alternative, the land would not be taken into trust and no homes, cabins or roads would be developed. The current development on the site (two homes and approximately 13 acres of vineyards) is assumed to remain.





**FIGURE 2-4**  
MARTIN RANCH SITE PLAN - REDUCED RESIDENTIAL ALTERNATIVE



## Section 3.0

# AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION FOR THE ALTERNATIVES CONSIDERED

This section presents relevant information about existing resources and other values that may be affected by the development/operation of the proposed facilities. Resources that are described include Land Resources, Water Resources, Air Quality, Biological Resources, Cultural Resources, Socioeconomic Conditions, Transportation, Land Use/Agriculture, Public Services, Noise, Hazardous Materials and Visual Resources.

## 3.1 LAND RESOURCES

### 3.1.1 Topography

The project properties are situated in the Collayomi Valley at the headwaters of Putah Creek within the Coast Ranges. The region is defined by low mountain ranges and valleys that trend northwest-southeast. St. Helena Creek, located east of Highway 29 drains the Collayomi Valley, flowing north past Middletown to join Putah Creek.

#### ***Martin Ranch***

The eastern portion of the Martin Ranch property lies within the floor of the Collayomi Valley. From the valley floor, the property slopes up into hillsides cut by an unnamed drainage. Three ponds were constructed along the drainage by previous landowners. West of the ponds, the hillsides become steep toward the Mayacmas Mountains. Elevations on Martin Ranch range from about 1,175 feet on the east side to about 1,370 feet on the west side.

#### ***Scott Property***

The Scott property lies within the floor of the Collayomi Valley. The property has a gentle sloping topography with elevations ranging from approximately 1,160 to 1,170 feet.

### 3.1.2 Geology

The rocks of the Coast Ranges (referred to as the Franciscan Formation) formed as a massive pile of rock and sediment in an ancient subduction zone. The bulk of the formation is a sheared matrix with large blocks of various rock types (mélange) (CGS, 2015). The Franciscan Formation was originally deposited 125 million years ago at the edge of the Pacific Ocean, and the fluctuating sea levels caused alternating deposition of shale and sandstone. After the formation was deposited, it was uplifted and squeezed by movement of tectonic plates, forming most of the Coast Ranges as they are today. The Franciscan Formation forms the bedrock in most mountains and under valleys in Lake County (CDM, 2006a). Locally, the terrain transitions from alluvium terraces near St Helena Creek to mountainous hillsides made up of the Franciscan Formation.

### 3.1.3 Seismicity

Earthquakes on regional fault systems are expected to produce a wide range of ground shaking intensities within the Middletown area. Extensive fault zones have been mapped in the region. The closest faults to the project site are older faults that have not been active in the Holocene (the last 11,700 years). These older faults include the Collayomi Fault Zone, the Cobb Mountain Fault, and several unnamed faults that are located within 2.5 miles of the project site (**Figure 3-1**). No faults are located on the project site.

Seismic events in the region are generally low intensity events. Most of the local seismic activity is associated with the Geysers Geothermal Field located approximately five miles northwest of the project site in the Mayacamas Mountains. This seismic activity is not located along a fault and is typically low magnitude. The largest events in the last decade were a 4.5 magnitude event in 2014 and a 5.0 magnitude event in 2016 that produced mild shaking in the Middletown area (USGS, 2022). The closest major fault zone, the Maacama Fault Zone, is located approximately 12 miles from the project site.

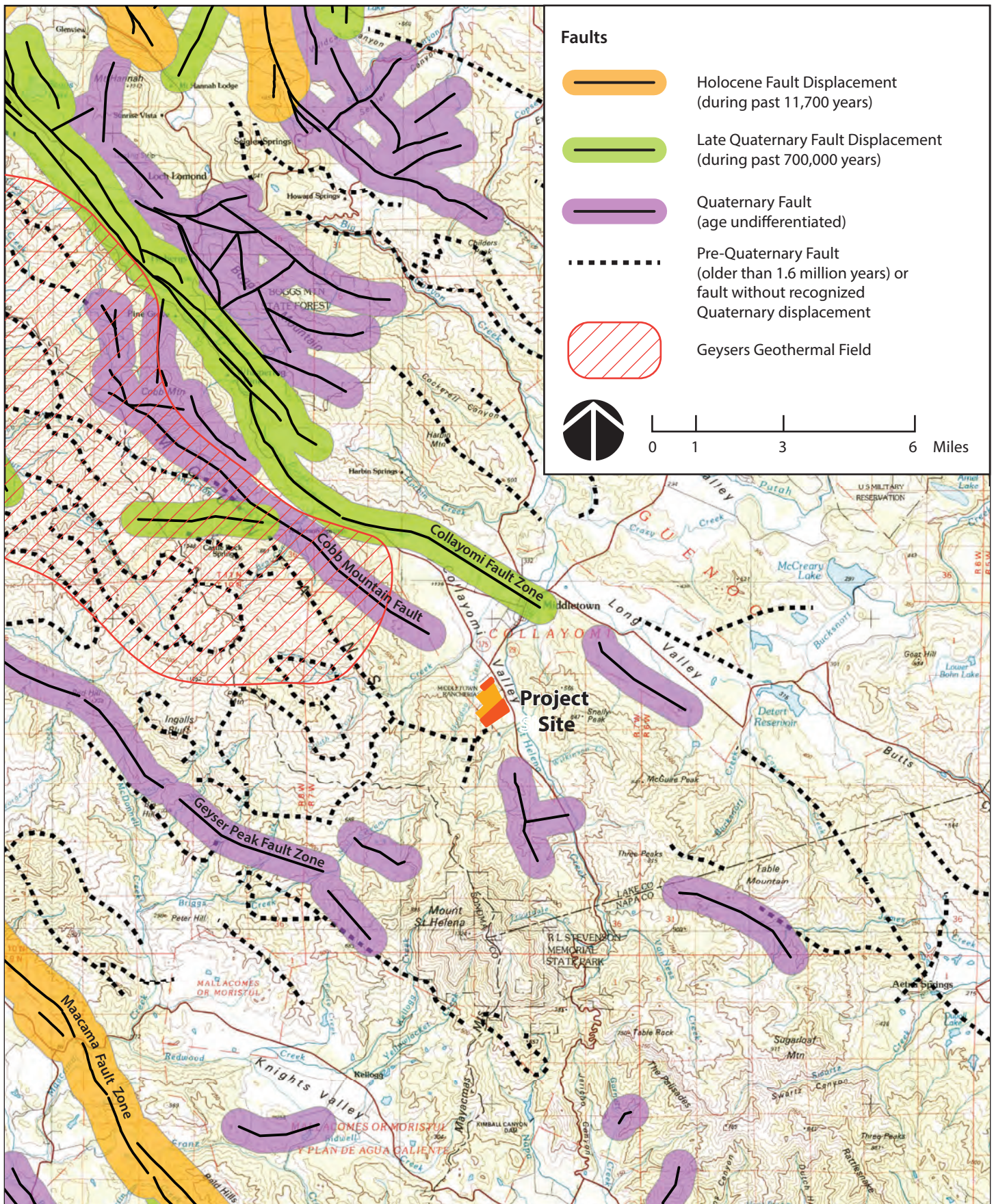
**Table 3-1** describes the location of nearby faults and provides information, where available, on the estimated maximum magnitude of seismic events along the faults.

**Table 3-1**  
Active and Potentially Active Regional Faults

Fault/Zone	Distance from Middletown Rancheria	Recency of Faulting <sup>a</sup>	Maximum Moment Magnitude <sup>b</sup>
Cobb Mountain Fault	2.5 Miles NW	Quaternary	n/a
Collayomi Fault Zone	2.5 Miles N	Late Quaternary	6.5
Geyser Peak Fault Zone	5 Miles SW	Quaternary	n/a
Maacama Fault Zone	12 Miles SW	Holocene	7.1
Hunting Creek Fault	13 Miles E	Quaternary	6.9
Alexander Fault	15 Miles SW	Quaternary	n/a
Healdsburg Fault Zone	17 Miles W	Late Quaternary	n/a
Rodgers Creek Fault	20 Miles SW	Quaternary	n/a
Sources: a) Jennings & Bryant 2010. Holocene: evidence of displacement during the last 11,700 years; Quaternary: evidence of displacement during the last 1.6 million years; Late Quaternary: evidence of displacement during the last 700,000 years. b) CDMG, 1996.			

Surface ground rupture during an earthquake is unlikely due to the distance of active faults from the project site. The primary earthquake hazards for the project site are the effects of ground shaking. Ground shaking may affect areas for hundreds of miles around a fault. Typical effects of maximum ground shaking include moderate structural damage to ordinary buildings, but negligible damage to buildings of good design and construction.





MIDDLETOWN RANCHERIA

FIGURE 3-1  
FAULT MAP



### 3.1.4 Soils

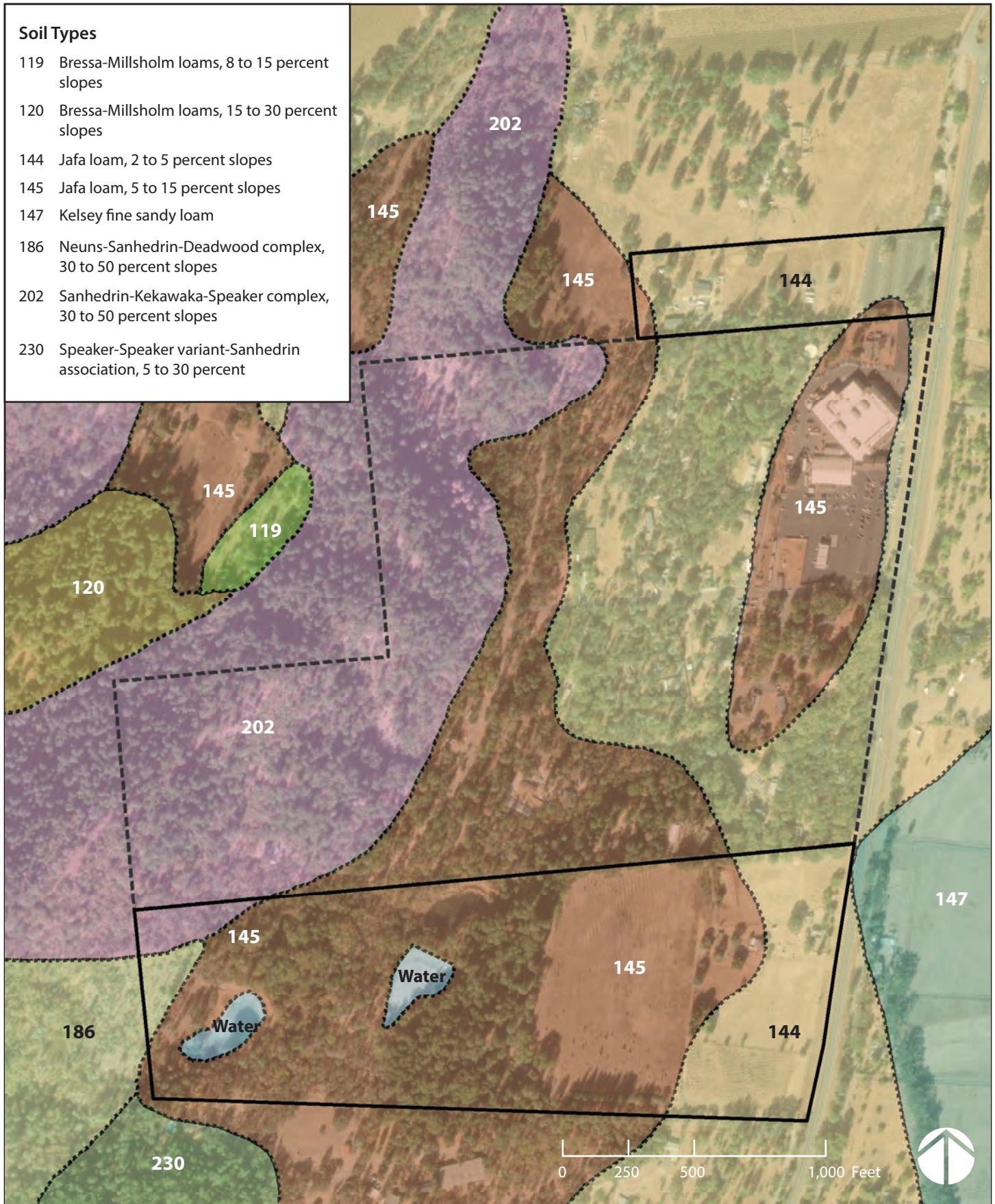
The NCRS Soil Survey identifies four soils within the project site. **Table 3-2** summarizes the properties of the soils mapped on the project properties. The location of the soil units is shown in **Figure 3-2**. None of the soils mapped on the project site are categorized as serpentinite soils.

**Table 3-2**  
Onsite Soil Properties

Soil Properties	Soil Types		
<b>Soil Name</b>	<b>144 – Jafa loam</b> 2 to 5 percent slopes	<b>145 – Jafa loam</b> 5 to 15 percent slopes	<b>186 – Neuns-Sanhedrin -Deadwood complex</b> 30 to 50 percent slopes
<b>Landform</b>	Terraces	Terraces	Mountains
<b>Parent material</b>	Alluvium	Alluvium	Residuum weathered from sandstone
<b>Profile</b>	0 to 16 in: loam 16 to 88 in: gravelly clay loam	0 to 16 in: loam 16 to 88 in: gravelly clay loam	0 to 4 in: gravelly loam 4 to 31 in: very gravelly sandy loam 31 to 41 in: unweathered bedrock
<b>Depth to water table</b>	More than 80 in.	More than 80 in.	More than 80 in.
<b>Drainage</b>	Well drained	Well drained	Well drained
<b>Infiltration Rate</b>	Slow	Slow	Slow
<b>Runoff class</b>	Low	Medium	Medium to high
<b>Erodibility (K factor)</b>	Moderate (.28)	Moderate (.28)	Low (.17)
<b>Hydric soil</b>	No	No	No
<b>Shrink-swell potential</b>	Low to moderate	Low to moderate	Low to moderate
Source: NRCS, 2021.			

### 3.1.5 Mineral Resources

In the 1800s and continuing into the 1900s, mining was an important industry in Lake County. Area mines supplied mercury, borax and chromite. The Great Western Mine, one of the largest quicksilver (mercury) ore mines in the County, was located one mile southwest of the project site and operated continuously from 1873 to 1911 and sporadically till 1962 (Averill, 1947; USGS, 2018). In the years between 1875 and 1900, the Great Western Mine became one of the most important and longest producing mercury mines in California (USGS, 2018). Currently, only rock, sand and gravel are quarried in Lake County. St. Helena Creek located just east of the project site has been a source of aggregate in the past, but no active quarries currently exist.



MIDDLETOWN RANCHERIA

**FIGURE 3-2**  
SOILS MAP

### 3.1.6 Paleontological Resources

Paleontology is the study of the remains, typically fossilized, of various plant or animal species such as dinosaurs and early mammals and not the traces of human cultural activity or human remains themselves. Paleontological remains are found in sedimentary rock formations. A search of the University of California Museum of Paleontology (UCMP) collections database identified a total of 224 specimens at 28 locations in Lake County. Paleontological resources include the fossilized remains of horses, snails, mollusks, and brachiopods. Most of the fossils have been found in the Cache and Martinez geological formations. The Cache Formation is characterized by sandstone and conglomerate which was deposited in streams and lakes in the Clear Lake basin and in the North Fork of Cache Creek area. The Martinez Formation is characterized by marine sandstone, conglomerate and shale near Clearlake and Lower Lake (UCMP, 2021).

The geology of the project area is underlain by the Franciscan Formation, which includes Cretaceous (79 to 145 million years ago) and Jurassic (145 to 201 million years ago) sandstones, mudstones, conglomerates, chert and a mixture of other rock types (CGS, 2010). Chert found within this formation frequently includes tiny fossils of marine zooplankton that are smaller than one millimeter in size. Vertebrate fossils in the Franciscan Formation are rare, and while none have been reported from Lake County, Mesozoic (66 to 252 million years ago) marine reptiles have been found in the Franciscan Formation elsewhere in California.

The age of the alluvium mapped in the project area is Pleistocene (11,700 to 2.58 million years ago) to Holocene (within the last 11,700 years) (CGS, 2010), and the soil types found the site are formed from alluvium terraces. While Holocene alluvium is too young to hold fossils (which take millions of years to form), Pleistocene aged alluvium does have the potential to contain fossils. Most of the soils on the project parcels (with the exception of the steep slopes) are described as loam and gravelly clay loam. Because the soils are extensively weathered, the potential for fossils is greatly diminished in upper soil levels.

Based on the description of geologic units in the project area and the lack of significant fossils found in similar geologic formations in Lake County, the potential for significant paleontological resources to occur on the project site is considered low.

### 3.1.7 Impacts to Land Resources

#### **Alternative A**

##### *Topography*

Development of the new residential homes and roadways would involve grading and the cutting and filling of slopes. These activities are not anticipated to result in significant impacts to topography. The homes and roadway would be located in areas of the project site with gentle to moderate (0 – 20 percent) slopes. No construction would occur in the portions of the site that have steep (over 30 percent) slopes. Accordingly, cut and fill slopes are expected to be less than 10 feet in elevation and



restricted to the immediate areas around the homes and road. Construction of the homes and road would have a less-than-significant effect to topography.

### *Geology and Soils*

Geology of the project site consists of alluvium and a mélange of various rock types, including sandstone and other sedimentary rocks associated with the Franciscan Formation. Grading activities deeper than three feet have the potential to encounter weathered and un-weathered bedrock. However, no unstable geologic units or steep slopes have been identified on the sites that could present a landslide or subsidence hazard. Any fills needed to level building sites would be engineered and compacted to provide a stable foundation. All construction, including fill and foundation work would comply with the California Building Code (CBC). Due to the stable geology of the project site, compliance with the CBC, and avoidance of the steep slopes, geological hazards are expected to be less than significant.

Construction can lead to soil erosion as unprotected soils are eroded by stormwater runoff. Soils in the development area are loams and gravelly loams with moderate erodibility factors. To ensure the reduction in soil erosion potential, the steeper slopes on the project site would be avoided; these steeper areas include the western portion of the project site and the slope between the lower and upper vineyards. As described in **Section 2.2**, all disturbed areas would be revegetated and all cut slopes would have a slope ratio of 1.5 to 1 (horizontal to vertical) or flatter, and fill slopes would have a slope ratio of 2 to 1 or flatter. These standards would ensure that slopes are stable and would be revegetated, thereby minimizing long-term erosion potential.

The disturbance footprint of the project site would exceed the one-acre threshold that triggers the National Pollutant Discharge Elimination (NPDES) requirement to prepare and implement a storm water pollution prevention plan (SWPPP). In compliance with the NPDES requirements, appropriate erosion-control measures would be incorporated into the SWPPP and implemented during site grading and construction. These measures would include but are not limited to control of surface flows over exposed soils and use of sediment traps such as straw wattles and silt fencing. The Tribe would be required under the Clean Water Act to submit an application for a NPDES General Permit for Construction Activities issued by the EPA (Region IX) and adhere to all guidelines therein.

Based on avoidance of steep slopes, incorporation of slope design and revegetation standards, and implementation of SWPPP erosion control measures, potential soil erosion effects are expected to be less than significant.

### *Seismicity*

The project site is not located within a fault zone and surface rupture is not expected. The seismic events in the Middletown area are generally small earthquakes associated with the Geysers Geothermal Field and result in mild shaking. The potential for strong shaking does exist, primarily from regional faults particularly those southwest of the project site. The potential for structural damage is greatest for old masonry buildings and buildings built on unconsolidated alluvium. Structural damage of buildings can be minimized by avoiding areas of geologic hazards such as soils with high shrink-swell characteristics and areas of slopes greater than 30 percent.

The homes and roadway would be located in areas of the project site that have soils identified as having low to moderate shrink-swell potential. Development would be located on areas with gentle to moderate (0 – 20 percent) slopes, and slopes greater than 30 percent would not be developed.

As identified in **Section 2.2.2**, all homes and road/utility improvements would be constructed in compliance with building code standards applicable in unincorporated Lake County at the time of construction, including the seismic design standards of the California Building Code. Accordingly, the homes and roadways would be designed and constructed to withstand seismic shaking. Therefore, seismic shaking hazards are expected to be less than significant.

#### *Mineral Resources*

Construction of the residential development would not result in the loss of any mineral resources. The only mineral resources quarried in Lake County are rock, sand and gravel. The closest known resource of aggregate is St. Helena Creek located just east of the project; however, no active quarries exist in the vicinity. No known mineral resources have been identified within the project site; therefore, no significant impacts would result.

#### *Paleontological Resources*

Geology of the project sites consists of Holocene and Pleistocene alluvium overlying sedimentary bedrock of the Franciscan Formation. Chert found within this formation frequently includes fossils of marine zooplankton that are smaller than one millimeter in size, but rarely contains vertebrate fossils. In addition, older (Pleistocene) alluvium that may occur on the project site has the potential to contain fossil remains. Grading activities required for the formation of building pads and roadways on the project site would require excavations that have the potential to encounter un-weathered bedrock or alluvium with intact fossil remains. While the potential for significant paleontological resources to occur on the project site is low, it cannot be ruled out entirely. This potentially significant impact would be reduced to a level of insignificance by implementing inadvertent discovery measures.

#### *Mitigation*

If, during the course of project implementation, paleontological resources (e.g., fossils) are discovered, the BIA shall be notified. All work within 50 feet of the find shall be halted until a professional paleontologist can assess the significance of the find. If the find is determined to be significant by the paleontologist, then representatives of the BIA shall meet with the paleontologist to determine the appropriate course of action, including the development of an evaluation report and/or mitigation plan, if necessary. All significant paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional paleontologist according to current professional standards.

### **Alternative B**

Under Alternative B, impacts to land resources related to topography, seismicity, soils, and mineral resources would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the impacts to land resources would be reduced accordingly.

*Mitigation*

The mitigation measures identified for Alternative A would also be required for Alternative B. With implementation of these measures, impacts to water resources from development of the Reduced Residential Alternative would be reduced to a less-than-significant level.

**Alternative C**

The No Action Alternative would not result in any alterations to the project site. No homes or RV park would be developed and no land clearing or grading would occur on the site. The topography, geology, soils, mineral resources and paleontological resources would not be affected. No land resource impacts would occur.

*Mitigation*

No mitigation measures would be required for Alternative C.

**3.2 WATER RESOURCES****3.2.1 Regional Climate**

The climate is classified as Mediterranean; summers are hot and dry, and winters are cool and moist. Average annual precipitation for the region is approximately 44 inches per year, and the average annual snowfall for the region is approximately 1.2 inches per year<sup>1</sup> (WRCC, 2021). A majority of the annual precipitation falls between October and April. The hottest month is July, which had an average high temperature of 96° F and an average low temperature of 55° F in 2021. The coolest month is January, which had an average high temperature of 55° F and an average low temperature of 28° F in 2021 (Wunderground, 2021).

**3.2.2 Surface Water, Drainage, Flooding*****Watershed***

The project properties are located within the Upper Putah Creek watershed, which drains to Monticello Dam and eventually to the Yolo Bypass of the Sacramento River. The upper watershed encompasses 576 square miles. The project properties are located within the sub-watershed of St. Helena Creek, which drains to Putah Creek north of Middletown. The lower portion of Putah Creek is listed as impaired for boron and mercury under Section 303(d) of the Clean Water Act. Mercury and borax (a boron compound) naturally occur in the upper watershed. These elements enter surface waters as the result of natural weathering, leaching of mining waste and venting of geothermal springs. Boron is an essential nutrient for some plants, but elevated levels can be toxic to plants. Mercury accumulates in fish as methylmercury, which is highly toxic and may expose people who eat fish to a wide range of health hazards.

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<sup>1</sup> Measured in depth of snow, not the water equivalent of snow.

### ***Martin Ranch***

Most of Martin Ranch is within a smaller sub-watershed of an unnamed drainage that crosses the western portion of the site. This sub-watershed drains approximately 300 acres and is located between the watersheds of St. Mary's Creek to the south and Hoodoo Creek to the north, all of which drain to St. Helena Creek. The historic Great Western Mine site is located within the Hoodoo Creek watershed.

The hydrology of the unnamed drainage was altered around the 1960s to 1970s when three ponds were developed on the property. Two of the ponds were developed within the drainage by the construction of earthen dams. The third pond was developed within a smaller side drainage by the construction of two ditches and excavation of the pond. The diversion and use of water within the ponds is permitted by the State of California State Water Resources Control Board for stockwatering and recreation. A fourth pond is located on the eastern side of the project site. This pond is fed by a spring located on the north side and has been used for watering livestock.

### ***Scott Property***

The Scott property drains north to St. Helena Creek. A shallow north-flowing swale bisects the site west of the existing parking lot.

### ***Flooding***

The applicable Flood Insurance Rate Maps (FIRM) for project properties are Community Panel Numbers 06033C0951D and 06033C0932D. These maps were published by the Federal Emergency Management Agency (FEMA) in 2005. The project properties are not located in a floodplain. The properties are mapped Zone X. This area is classified by FEMA as an area determined to be outside the 0.2% annual chance floodplain. The area currently has no drainage problems and no downstream drainage impediments.

## **3.2.3 Groundwater**

Groundwater basins in Lake County are primarily shallow alluvial deposits within valleys and within volcanic deposits around Clear Lake. Groundwater also occurs within the fractured rock of the Franciscan Formation. Locally, the Collayomi Valley Groundwater Basin consists of alluvium along Putah, Dry and St. Helena Creeks. The Collayomi Valley Basin is the source of water supply for Middletown and adjacent agricultural areas. The California Department of Water Resources (DWR) identifies no groundwater level declines (DWR, 2022). The Scott Property and eastern margin of Martin Ranch are located within the Collayomi Valley Basin as mapped by the California Department of Water Resources (DWR).

Beyond the alluvium deposits, groundwater is limited to fractured bedrock. The occurrence and geometry of the fractures dictate the flow patterns within the rocks. Some precipitation will infiltrate the soil and a portion will reach the lower permeability rock layer beneath the soils. At this point, the water will flow through the soil along the soil-rock boundary until a rock fracture conducts the water into the underlying rock or until the soil becomes too thin to support the flow, forming a seasonal

spring. The availability of groundwater in these fractured rock formations is variable and can be quite limited.

### 3.2.4 Water Quality

Surface water quality data is not available for St. Helena Creek. As identified in the watershed section above, the lower portion of Putah Creek is listed as impaired for boron and mercury under Section 303(d) of the Clean Water Act. Mercury and borax (a boron compound) naturally occur in the upper watershed.

Groundwater in the Collayomi Valley Basin is magnesium bicarbonate (alkaline) type waters. Total dissolved solids (TDS) range from 150 to 255 mg/L. Groundwater impairments include locally high iron and manganese. Boron levels in the groundwater may also limit irrigation use for some crops (DWR, 2004).

In 2005, a tanker truck overturned on the east side of Highway 29 east of the Scott Property. The tanker spilled 3,300 gallons of unleaded, MtBE-free gasoline into the ditch along the east side of the highway. Emergency cleanup recovered approximately 750 gallons of gasoline. Approximately 400 cubic yards of soil were removed from a 250-foot section of the ditch. Six monitoring wells were constructed around the spill location and groundwater was monitored from 2005 to 2013; one of the wells (MW-5) was constructed within the Highway 29 right-of-way adjacent to the Scott Property. By 2013, total petroleum hydrocarbons as gasoline (TPH-G) were not detectable in all of the monitoring wells except one located directly north of the spill site. TPH-G in this well was shown to have a declining trend and was expected to meet the State's water quality objective (for taste and odor threshold) in 5-11 years (approximately 2018 to 2024). In 2014, Central Valley Regional Water Quality Control Board, the State agency responsible for overseeing clean up of the site, determined that no further action was required at the site. The determination was based on residual soil contamination levels being below the State's human health screening levels for residential and commercial use (CVRWQCB, 2013; CVRWQCB, 2014; Taber Consultants, 2013). In 2020, the Tribe developed a new monitoring well on property east of the Scott Property close to the spill site. Water from the monitoring well was tested for in 2021 and TPH-G was not detected.

### 3.2.5 Impacts to Water Resources

#### **Alternative A**

##### *Surface Water and Drainage*

The construction of homes and roadways would increase impervious surfaces, and have the potential to increase stormwater runoff during wet weather events. Increases in the peak flow of runoff could impact adequate drainage on the project sites, or contribute to drainage and erosion hazards downstream. As described in **Section 2.2.2**, to offset the impervious conditions, bioswales would be constructed to treat 100% of the equivalent net increase impervious area of the roadway. The bioswales would reduce site runoff into the adjacent drainage and ensure a reduction in mobile pollutants and sediments. Some of the runoff from the roofs and other impervious surfaces around the homes would be collected in the bioswales along the roadway; other runoff would be dispersed and would not represent a substantial increase over existing conditions. Based on the avoidance of steep slopes, and incorporation of bioswales, potential drainage effects would be less than significant.

##### *Flooding*

All development areas are outside of FEMA designated flood hazard zones, with a less than 0.2% chance of annual flooding. The incorporation of bioswales as described in **Section 2.2.2** will reduce site runoff from impervious surfaces developed on the project site (i.e., homes and roads) and therefore the increased stormwater discharge from the project site is not expected to be significant. The proposed development would not expose residents directly to floods, restrict or redirect flood waters, or significantly increase stormwater runoff. The development of the homes and roadways are not expected to increase the likelihood of either an on-site or off-site flooding event. Potential flooding effects would be less than significant.

##### *Groundwater*

Water delivery to the homes would be provided by the Callayomi County Water District (CCWD), surface water, or water trucking as described in **Section 2.2.2**. CCWD currently supplies the Rancheria and 40 connections are available for use on the Martin Ranch property. CCWD supply is conditioned on approval of annexation of the Martin Ranch Property to the CCWD service area. Upon annexation, the Tribe would be able to request additional connections to provide for the ten additional connections to provide for the total number of homes and cabins. Alternatively, the Tribe could develop one or more wells to supply water to some of the homes. The use of groundwater would be conditioned on developing one or more wells with sustained yields that provide adequate capacity. According to DWR, no groundwater level declines have been identified in the Collayomi Valley Groundwater Basin. CCWD has indicated that despite recent drought conditions, CCWD has abundant groundwater supplies to meet expected demand (Todd Fiori, pers. comm., 2023). Based on available information of groundwater conditions and the limited additional water supply demand of the proposed development, the Proposed Project is not expected to affect groundwater conditions in the area.

Wastewater service would be provided by the Lake County Sanitation District. No on-site wastewater treatment and disposal would occur. Incorporation of bioswales in the site design would ensure that no

significant changes in groundwater infiltration rates would occur on the project site. Therefore, a less-than-significant effect on groundwater is expected.

#### *Water Quality*

The potential for soil erosion and impacts on water quality are greatest during construction, when removal of vegetation for initial clearing, grubbing, and grading activities exposes soil and makes it more susceptible to erosion. While the construction of homes would be phased, the initial construction to construct the roadways, water storage reservoir, utilities and initial site grading would be approximately five acres. Because the project site is over an acre in size, the Tribe would be required to adhere to the provisions of the Clean Water Act. The Tribe would submit an application for a National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities issued by the EPA (Region IX) and adhere to all guidelines therein. As required by the Permit, the Tribe would create and implement a Storm Water Pollution Prevention Program (SWPPP) that outlines Best Management Practices (BMP's). An erosion control plan would be developed as part of the final design.

No construction would occur within drainages, swales, or wetlands. Any construction near drainages, swales and wetlands would be undertaken in accordance with the SWPPP. The Tribe would comply with all NPDES permit conditions identified by the U.S. EPA to prevent any discharges that could adversely impact water quality. During operation of the project, water quality would be protected by the incorporation of bioswales, which would reduce site runoff into the adjacent drainage and ensure a reduction in mobile pollutants and sediments. Due to the incorporation of these provisions, potential water quality effects would be less than significant.

#### *Mitigation*

No mitigation measures would be required for Alternative A.

#### **Alternative B**

Under Alternative B, impacts to water resources related to surface water and drainage, flooding, groundwater, and water quality would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the impacts to water resources would be reduced accordingly.

#### *Mitigation*

No mitigation measures would be required for Alternative B.

#### **Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No impacts to water and drainage, flooding, groundwater, and water quality would occur.

#### *Mitigation*

No mitigation measures would be required for Alternative C.

### 3.3 AIR QUALITY/GREENHOUSE GASES

#### 3.3.1 Regulatory Context

##### ***Criteria Pollutants***

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The pollutants regulated by the United States Environmental Protection Agency (EPA) and California Air Resources Control Board (CARB) and subject to emissions control requirements adopted by federal, state and local regulatory agencies include ozone (O<sub>3</sub>), volatile organic compounds (VOCs), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Pb). These pollutants are referred to as “criteria air pollutants” because of the specific standards, or criteria, which have been adopted for them. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety, and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

##### ***Federal***

The EPA is responsible for implementing and enforcing the federal Clean Air Act (CAA) and developing the NAAQS. As part of its implementation responsibilities, the EPA requires each state to prepare and submit a state implementation plan (SIP) that demonstrates the means to attain and/or maintain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. EPA responsibilities under the CAA includes regulating mobile sources, such as cars, trucks, buses, and planes. The provisions of Title II of the CAA have resulted in tailpipe emission standards for vehicles, which have generally strengthened over time to improve air quality

##### *General Conformity*

The 1990 Amendment to CAA Section 176 requires the federal EPA to promulgate rules to ensure that federal actions conform to state efforts to control emissions of pollutants. These rules, known as the General Conformity Rule (40 C.F.R. Parts 51.850–51.860 and 93.150–93.160), require any federal agency responsible for an action in a federal nonattainment/maintenance area to demonstrate conformity to the applicable State Implementation Plan (SIP), by either determining that the action is exempt from the General Conformity Rule requirements or subject to a formal conformity determination.

Actions would be exempt, and thus conform to the SIP, if an applicability analysis shows that the total direct and indirect emissions of nonattainment/maintenance pollutants from project construction and operation activities would be less than specified emission rate thresholds, known as *de minimis* levels. If not determined exempt, a formal conformity determination would be required. The General Conformity Rule is applicable only for project criteria pollutants and their precursors for which an area is designated nonattainment or that is covered by a maintenance plan.



## *Climate Change*

On February 19, 2021, Secretary of the Interior Deb Haaland issued Secretarial Order (SO) 3399 to prioritize action on climate change throughout the Department and to restore transparency and integrity in the Department's decision-making processes. SO 3399 specifies that when considering the impact of GHG emissions from a proposed action, Bureaus/Offices should use appropriate tools, methodologies, and resources available to quantify GHG emissions and compare GHG quantities across alternatives. SO 3399 acknowledges that identifying the interactions between climate change and the environmental impacts of a proposed action in NEPA documents can help decision makers identify opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to protecting communities from the climate crisis.

On January 9, 2023, the Council on Environmental Quality (CEQ) issued National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (88 Fed. Reg. 1196). This interim guidance directs agencies to consider the potential effects of a proposed action on climate change and the effects of climate change on a proposed action and its environmental impacts. CEQ recommends that agencies quantify a proposed action's projected GHG emissions for the expected lifetime of the action and provide additional context for GHG emissions, including the use of the best available social cost of GHG (SC-GHG) estimates, to translate climate impacts into the more accessible metric of dollars. This guidance does not propose a specific, quantitative threshold of significance; however, it states that agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. CEQ recommends that agencies explain how the proposed action and alternatives would help meet or detract from achieving relevant climate action goals and commitments, including federal goals, international agreements, state or regional goals, Tribal goals, agency-specific goals, or others as appropriate.

### **State**

CARB is the state agency responsible for coordinating both state and federal air pollution control programs in California. It is primarily responsible for ensuring implementation of the 1988 California Clean Air Act (CCAA), for responding to the federal CAA requirements, and for regulating emissions from motor vehicles and consumer products within the state. CCAA requirements include annual emission reductions, development and use of low emission vehicles, establishment of the CAAQS, and submittal of air quality attainment plans by air districts for incorporation into the California SIP. The CCAA and other California air quality statutes invest local air districts, such as the El Dorado County Air Quality Management District (AQMD), with the responsibility for regulating most stationary sources, and to a certain extent, area sources.

The Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) is the overarching law that requires the State to set statewide GHG reduction targets. AB 32 required CARB to develop a Climate Change Scoping Plan that describes the approach California will take to reduce GHGs to achieve emission reduction goals, and to update the plan every five years. CARB approved the first Scoping Plan in 2008, and the first update was approved in 2014. The second update was approved by CARB in December 2017. The largest proposed GHG reductions recommended are from improving emission standards for light-duty vehicles, implementation of the Low-Carbon Fuel Standard, employing energy efficiency

measures in buildings and appliances, the widespread development of combined heat and power systems, and applying a renewable portfolio standard for electricity production.

### **3.3.2 Existing Air Quality**

#### ***Criteria Air Pollutant Standards***

CARB has established 15 air basins in California according to geographical and meteorological features. The Lake County Air Basin includes all of Lake County and does not include any surrounding areas. The basin includes extensive areas of national forest, state parks and open space. As a result of the rural nature of the county and its distance from major urban centers, the air quality in the basin is typically ranked among the best in California and the nation. The air basin has met all Federal Clean Air Standards and California Standards for the past 30 years (LCAQMD, 2021). Exceptions only occur during major wildfire events. Sources of pollution in Lake County include smoke from wildfires and agricultural burning, dust from unpaved roads, fuel combustion, and operation of motor vehicles and equipment.

#### ***Hazardous Air Pollutants***

Hazardous air pollutants (HAP) are a group of pollutants of concern that are a specific group of airborne chemicals designated by the USEPA. Sources of HAPs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different HAPs. The most important, in terms of health risk, are diesel particulate matter (DPM); benzene; formaldehyde; 1,3-butadiene; and acetaldehyde.

HAPs are less pervasive in the urban atmosphere than CAPs but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are different types of HAPs, with varying degrees of toxicity. The EPA currently lists over 188 HAPs. The majority of the estimated health risk from HAPs can be attributed to relatively few compounds, the most important being DPM. Diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The visible emissions in diesel exhaust are particulate matter that includes carbon. Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances.

#### ***Naturally Occurring Asbestos***

Portions of Lake County are underlain by ultramafic rock formations which contains naturally occurring asbestos. Asbestos is a health hazard when friable asbestos-containing materials become airborne. Inhalation of asbestos can cause fibrotic lung disease (asbestosis) and changes in the lining of the chest cavity (pleura). These diseases can lead to reduced respiratory function and death. Long-term inhalation of asbestos fibers also increases the risk of lung cancer and mesothelioma.

Naturally occurring asbestos is commonly found in ultramafic rock formations, including serpentine, and in the soils where these rock types are located. Several types of asbestos are found in California, with chrysotile, “white asbestos,” being the most common. Chrysotile is a soft, fibrous silicate mineral that is easily crumbled to fibrous strands. Other types of asbestos include tremolite and actinolite, which are crystal-forming minerals. Tremolite can occur in a variety of crystal shapes and sometimes occurs as asbestiform fibers. Actinolite can occur in multiple forms as dense and compact or brittle and fibrous.

The project site is not located in areas mapped as being likely to contain serpentinite and/or ultramafic rock. The closest serpentinite soils are mapped as being 0.5 mile from the project site (Lake County GIS Portal, 2018). Serpentinite bedrock was observed during a site survey in the western portion of the Martin Ranch property, on a steep hillside (NIC, 2023). The likelihood for naturally occurring asbestos to exist on the project site is limited to the steep western portion of Martin Ranch.

### 3.3.3 Federal Class I Areas

The project site is not located within or adjacent to a federal Class I area. The nearest federal Class I area is Point Reyes National Seashore, about 39 miles southwest of the project site.

### 3.3.4 Sensitive Receptors

Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residences.

The closest existing sensitive receptors are the existing homes on the Martin Ranch and Scott properties. Several homes on the Rancheria are located within approximately 50-100 feet of the project site. Two homes are located within 100 feet of the southern property boundary of Martin Ranch. Other homes are located approximately 200-300 feet east of the project site across Highway 29 and north of the Scott property.

### 3.3.5 Impacts to Air Quality

#### **Methodology**

Adverse impacts to ambient air quality could result if either construction or operation would result in violations of the CAA provisions, or if emissions would impede the ability of a state to meet NAAQSs. Construction and operation emissions were calculated using the USEPA-approved 2020 California Emissions Estimator Model, Version 2020.4.0 (CalEEMod).

Conformity regulations apply to federal actions that would cause emissions of CAPs above certain levels to occur in locations designated as nonattainment or maintenance areas for the emitted pollutants. As discussed in **Section 3.3.2**, the project site is in an area that is classified as being in attainment for all NAAQS. Accordingly, General Conformity regulations do not apply to the Proposed Action.

Consistent with SO 3399 and CEQ Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (2023), GHG emissions were calculated using CalEEMod. The social cost of GHG emissions was estimated using cost estimates provided by the Interagency Working Group on Social Cost of Greenhouse Gases (IWG, 2021), consistent with CEQ guidance. GHG emissions are reported by individual greenhouse gases and by carbon dioxide equivalent (CO<sub>2</sub>e), which is a measurement of total greenhouse gases emitted expressed in terms of the equivalent global warming potential of carbon dioxide, and is typically expressed in metric tons (MT).

The Lake County Air Quality Management District (LCAQMD) has jurisdiction over air quality in the Lake County Air Basin and regulates most air pollutant sources except for motor vehicles, locomotives, aircraft, agriculture equipment, and marine vessels. The Lake County Air Basin is currently classified by the federal EPA and CARB as being unclassified or in attainment for all criteria pollutants regulated

under the National and California Ambient Air Quality Standards. Accordingly, LCAQMD has not adopted air quality plans to meet air quality standards. LCAQMD rules are focused on limiting particulate matter and industrial emissions.

## **Alternative A**

### *Construction Emissions*

Construction of the proposed residential development would result in the temporary generation of emissions resulting from excavation, grading, material hauling, and worker trips. Fugitive dust, the dominant source of PM<sub>10</sub> and PM<sub>2.5</sub> emissions, is generated when vehicles and equipment disturb soil and other friable materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO<sub>x</sub> emissions, in addition to PM<sub>10</sub> and PM<sub>2.5</sub> emissions. Worker commute trips and asphalt paving are dominant sources of ROG emissions. Such air quality effects generally would be temporary and localized.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. The detailed output CalEEMod files generated for this analysis are included in **Appendix C**. The estimated construction emissions are summarized in **Table 3-3**.

**TABLE 3-3**  
ESTIMATED CONSTRUCTION EMISSIONS - ALTERNATIVE A

	ROG	NO <sub>x</sub>	CO	PM <sub>2.5</sub>	PM <sub>10</sub>
Maximum Emissions (tons/year)	1.6	2.4	2.5	0.2	0.4
Source: Appendix C					

Because Lake County is classified as attainment or unclassified for all pollutants under the National and State Ambient Air Quality Standards, no air quality plans have been adopted by the regional air quality district. Accordingly, construction emissions do not have the potential to violate air quality standards or any air quality management plans.

Implementation of construction BMPs identified in **Section 2.2.2** is expected to control the production of fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) and to reduce emissions of criteria pollutants and DPM. This would reduce the overall quantity of these emissions and dust that could disperse off-site and negatively affect neighboring areas. Air quality impacts from construction of the residential development would be less than significant.

### *Operational Effects*

Operational emissions were estimated using CalEEMod program. The analysis assumes the full buildout the proposed 45 homes, 5 cabins and RV park. Air quality effects associated with the operation of the proposed residential development and RV park would include emissions from vehicle traffic and area sources (e.g., landscape equipment, wood stoves and consumer products).

The detailed output CalEEMod files generated for this analysis are included in **Appendix C**. The estimated operational emissions are summarized in **Table 3-4**. The estimated emissions are typical of residential development and would not adversely impact surrounding land uses. The Proposed Action does not have the potential to violate air quality standards or any air quality management plans. Air quality impacts from operation of the residential development would be less than significant.

**TABLE 3-4**  
ESTIMATED OPERATIONAL EMISSIONS – ALTERNATIVE A

	ROG	NOx	CO	PM2.5	PM10
Maximum Emissions (tons/year)	4.1	0.7	7.7	0.7	1.0
Source: Appendix C					

### *Naturally Occurring Asbestos*

Lake County contains soil and geologic units that contain naturally occurring asbestos. The soils mapped on the project site are not associated with varieties of serpentine that constitute a potentially harmful form of asbestos. However, serpentine rock and associated vegetation was identified in the steep western hillsides of the project site. Soils mapped in this area are identified as being formed from weathered sandstone on mountain hillsides. The area where the serpentine rock and associated vegetation was observed is separated from the development area by the seasonal creek and ponds. The soil type mapped in the development area is Jafa loam, which forms on alluvial terraces and is not an identified source of naturally occurring asbestos. Because the development area is limited to alluvial terraces and avoids the steep hillsides where serpentine rock has been observed, it is unlikely that naturally occurring asbestos would be encountered during site grading and construction. Accordingly, potential health impacts from naturally occurring asbestos would be less than significant.

### *Greenhouse Gas Emissions/Climate Change*

Climate change has global impacts, such as more erratic weather patterns, more frequent droughts, and rising sea levels, as well as regional and local impacts. Climate change for California has the potential to reduce the snowpack in mountainous regions, increase drought periods, increase wildfire frequency and intensity, and reduce water availability in general (USEPA, 2016).

Consistent with interim CEQ guidance, this EA includes a quantification of GHG emissions resulting from Alternative A and a discussion of reduction measures. GHG emissions were estimated using CalEEMod (**Appendix A**). Estimated construction and operation GHG emissions are shown in **Table 3-5**. As shown, construction GHG emissions are estimated at 681 tons of CO<sub>2</sub>e. Annual GHG emissions from operation of Alternative A is estimated at 679 tons of CO<sub>2</sub>e. Of this annual amount, 500 tons would be indirect emissions generated by mobile sources (cars and trucks).

**TABLE 3-5**  
ESTIMATED GREENHOUSE GAS EMISSIONS – ALTERNATIVE A

Emission Source	MT of CO <sub>2</sub> e/year
<b>Construction (Total)</b>	
Construction	681
<b>Operation (Annual)</b>	
Area	76
Energy	67
Mobile	500
Waste	28
Water	8
<i>Operation Total</i>	679
Source: Appendix C	

The Interagency Working Group on Social Cost of Greenhouse Gases (IWG) has developed estimates of the social cost of GHGs (SC-GHG) (IWG, 2021). The SC-GHG is the monetary value of the net harm to society associated with adding an amount of that GHG to the atmosphere in a given year. In principle, it includes the value of all climate change impacts, including (but not limited to) changes in net agricultural productivity, human health effects, property damage from increased flood risk natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. Discount rates are used to account for the present value of future costs. Using a low discount rate increases the present value of future costs, whereas using a high discount rate decreases the present value of future costs. The IWG cost estimates are provided for 2.5, 3 and 5 percent discount rates. The cost estimates for carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) used in this analysis are based on the 3 percent discount rates provided by IWG (2021). **Table 3-6** presents the social cost of the GHG emissions from construction, annual operations, and the lifetime of the project alternatives (lifetime costs include construction and 30 years of operation).

As shown in **Table 3-5**, approximately 74 percent of the operational GHG emissions would come from indirect mobile emissions from vehicles. The State and federal governments are adopting measures to transition the transportation sector to zero emission vehicles. Through Executive Order N-79-20, California has adopted the goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. In 2022, the federal Inflation Reduction Act was passed, which provides incentives to promote the transition to zero-emission vehicles and to increase energy efficiency in homes. Because the proposed housing would be of new construction and would meet the current CBC, the homes would use energy efficient construction and appliances. As such, the proposed housing would be consistent with current efforts to improve energy efficiency and reduce GHG emissions. To reduce project related GHG emissions, BMPs have been provided in **Section 2.2**. Therefore, with the implementation of BMPs, implementation of Alternative A would not result in significant GHG emissions.

**TABLE 3-6**  
SOCIAL COST OF GHG EMISSIONS

GHG/Cost per metric ton	Alternative A	
	Tons	Cost
<b>Construction (2024-2025)</b>		
CO <sub>2</sub>	\$56	675.00
CH <sub>4</sub>	\$1,700	0.15
N <sub>2</sub> O	\$21,000	0.01
Total Cost		\$38,265
<b>Operation (2040)</b>		
CO <sub>2</sub>	\$73	646.26
CH <sub>4</sub>	\$2,500	0.90
N <sub>2</sub> O	\$28,000	0.04
Total Cost		\$98,865
<b>Lifetime</b>		
CO <sub>2</sub>		20,062.80
CH <sub>4</sub>		27.29
N <sub>2</sub> O		1.21
Total Cost		\$1,555,034
Source: Appendix C; costs from IWG, 2021 (3% discount rate).		

Alternative A includes components that would reduce exposure to the ongoing impacts from climate change. On-site heating and air conditioning will lessen the effects of increasing temperatures and frequency of extreme heat days or extreme weather conditions. The project site is not located near the sea and is therefore not susceptible to sea level rise risks. The project site is not located within or adjacent to a flood zone and is therefore not at risk of flooding impacts. Emergency services sufficiently service the project site and surrounding area due to the proximity of Highway 29. While wildfire risks exist and would be exacerbated by climate change, the Tribe has incorporated fire management measures to reduce the susceptibility to this risk (refer to **Section 2.2.2**). These measures include the use of fire-free zones and fuel reduction zones around homes and RV sites, use of fire-resistant landscaping, and use of fire-safe construction materials and features.

*Mitigation*

The development standards and BMPs identified in **Section 2.2.2** would reduce potential impacts to air quality to a less-than-significant level. No mitigation measures would be required for Alternative A.

**Alternative B**

Under Alternative B, impacts to air quality would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the air quality impacts would be reduced accordingly.

*Mitigation*

The development standards and BMPs identified in **Section 2.2.2** would reduce potential impacts to air quality to a less-than-significant level. No mitigation measures would be required for Alternative B.

**Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No impacts to air quality would occur.

*Mitigation*

No mitigation measures would be required for Alternative C.

**3.4 BIOLOGICAL RESOURCES**

A Biological Resources Assessment was completed for the project site and is provided as **Appendix D**.

**3.4.1 Regulatory Setting*****Migratory Bird Treaty Act***

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, is designed to protect birds that migrate and cross state lines to provide management of migratory birds at a federal level.

***Federal Endangered Species Act***

The United States Fish and Wildlife Service (USFWS) administers the Endangered Species Act (ESA – 16 United States Code [U.S.C.] Section 153 et seq.) and thereby has jurisdiction over federally-listed threatened, endangered, and proposed species. Projects that may result in “take” of a listed species must consult with the USFWS.

***Section 404 of the Clean Water Act***

The U.S. Army Corps of Engineers (USACE) is the agency responsible for regulating the discharge of dredged or fill material into jurisdictional wetlands and other waters of the U.S. under Section 404 of the CWA. The federal government defines wetlands as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR Section 328.3(b) and 40 CFR Section 230.3). “Other waters of the U.S.” refer to aquatic features that are regulated by the Clean Water Act but are not wetlands (33 CFR Section 328.3).

***Regional Habitat Conservation Plans***

The project area does not fall within the boundaries of any adopted habitat conservation plan (HCP) or natural community conservation plan.



## 3.4.2 Environmental Setting

### Regional Setting

The project site is located within the Inner North Coast Range geographic subregion, which is contained within the Northwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately-cold winters. The project site is characterized by the transition of habitat from the gently sloping toe of the eastern slope of the Mayacamas Mountains to the Collayomi Valley. At higher elevations, forest and woodlands are the primary vegetation type. These transition to vineyards and grasslands in the valley.

### Vegetative Communities and Wildlife Habitats

Vegetative communities found on the project site are summarized below. **Figure 3-3** summarizes the locations of each vegetation type found on the project site.

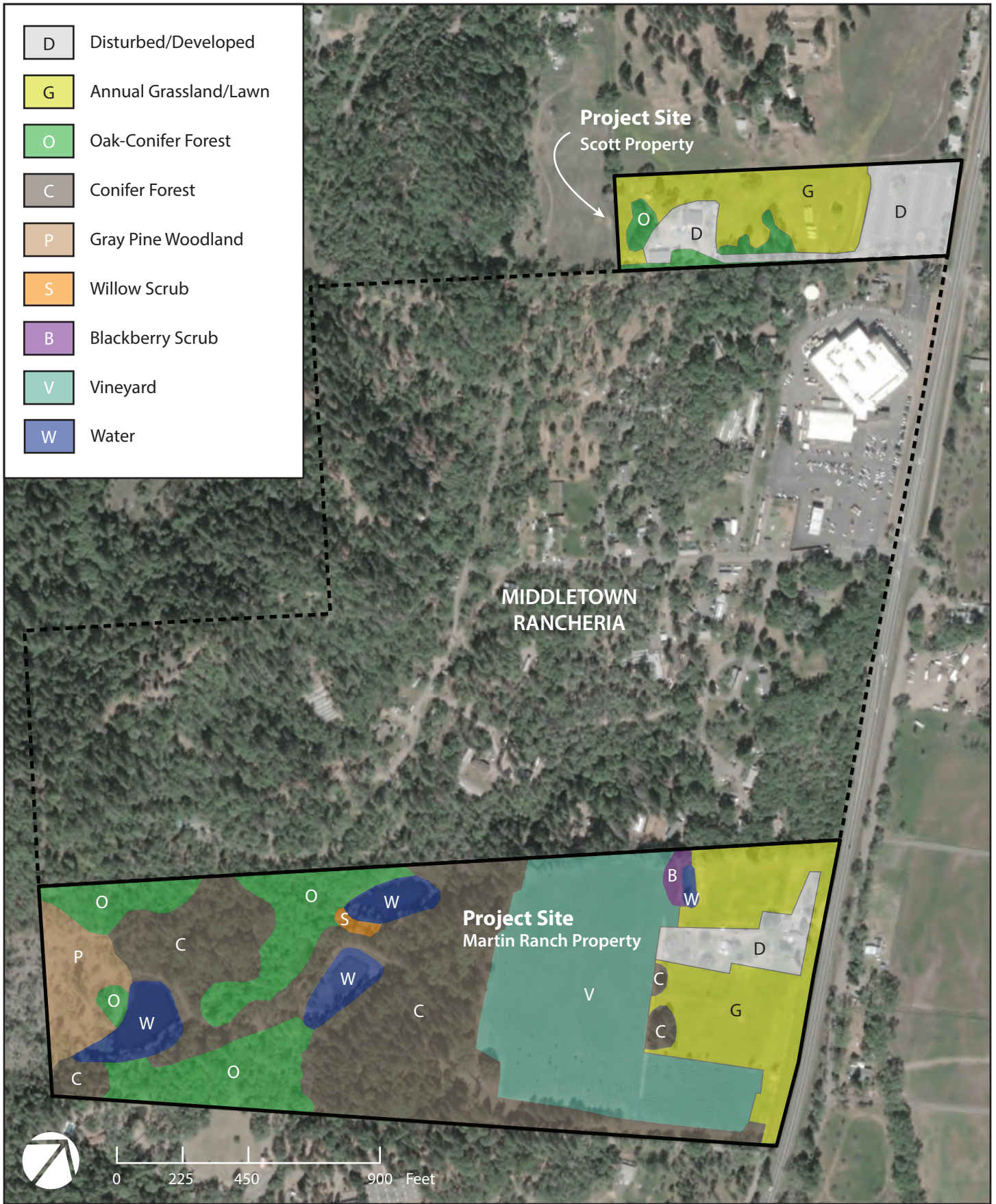
**Disturbed/Developed.** These areas consist of disturbed or converted natural habitat that is now either in ruderal state, graded, or urbanized with gravel roads. Vegetation within this habitat type consists primarily of nonnative weedy or invasive species lacking a consistent community structure. This habitat type provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages.

**Vineyard.** These areas of converted natural habitat are in agricultural production as vineyard. The understory in vineyards usually consist of bare soil (controlled by tillage and/or herbicides) or a cover crop of herbaceous plants. Some species of birds and mammals have adapted to the vineyard habitats. However, many have become "agricultural pests". Similar to the ruderal/developed habitat type, the disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages.

**Blackberry Scrub.** A large patch of blackberry brambles is found along the margin of the easternmost pond. Vegetation within this lacustrine habitat consists of a monoculture of Himalayan blackberry (*Rubus armeniacus*). This vegetation can be classified as the Holland Type "Great Valley Riparian Scrub" or as "63.906.01 Rubus armeniacus – Himalayan Blackberry Riparian Scrub" (CDFW, 2021).

**Annual Grassland.** The annual grassland habitat is comprised largely of non-native annual grasses and native herbs with some native perennial grasses also important. This vegetation has been heavily grazed. Plants common in this habitat type include slender wild oat (*Avena barbata*), California horkelia (*Horkelia californica*), ripgut brome (*Bromus diandrus*) and English plantain (*Plantago lanceolata*). This vegetation can be classified as the Holland Type "Non-native Grassland" or as "44.150.02 Avena barbata Wild Oats Grasslands" (CDFW, 2021).

**Black Oak Forest.** Portions of the Study Area are characterized by a tree canopy dominated by oak. The black oak forest consists of closed canopy of California black oak (*Quercus douglasii*) with occasional Douglas fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), madrone (*Arbutus menziesii*), French broom (*Genista monspeliensis*), common manzanita (*Arctostaphylos manzanita* ssp. *manzanita*) and toyon (*Heteromeles arbutifolia*). Recognition of understory plants within the oak forest was difficult



MIDDLETOWN RANCHERIA

**FIGURE 3-3**  
HABITAT MAP

because this vegetation layer was masticated during the summer. This vegetation can be classified as the Holland Type “Black Oak Forest” or as “71.010.26 *Quercus kelloggii* – *Pinus ponderosa* (California Black Oak Forest)” (CDFW, 2021).

**Gray pine woodland.** Found along the hills and slopes in the western portion of the Study Area is habitat dominated by gray pine. The pine woodland consists of an open canopy of gray pine (*Pinus sabiniana*) and occasional blue oak (*Quercus douglasii*) with an understory of toyon, whiteleaf manzanita (*Arctostaphylos viscida*) and poison oak (*Toxicodendron diversilobum*). This vegetation can be classified as the Holland Type “Non-Serpentine Gray Pine Woodland” or as “87.130.00 *Pinus sabiniana* Foothill Pine Woodland (CDFW, 2021).

**Ponderosa pine forest.** Conifer-dominated forest habitat is found throughout the western half of the Study Area. This forest habitat consists of a dense canopy of ponderosa pine, Douglas fir, California black oak, madrone, common manzanita and French broom. As with the black oak forest, the understory of the ponderosa pine forest has been masticated. The pine forest can be classified as the Holland Type “Coast Range Ponderosa Pine Forest” or as “87.400.04 Ponderosa pine – Douglas Fir Forest (CDFW, 2021).

**Willow scrub/Riparian.** Riparian (or lacustrine) habitat can be found along the margin of one of the ponds. The riparian vegetation consists of a narrow canopy of red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), valley oak (*Quercus lobata*) and Himalayan blackberry. The riparian forest can be classified as the Holland Type “Great Valley Mixed Riparian Forest” or as “61.205.02 *Salix laevigata*/*Salix lasiolepis* Red Willow Riparian Woodland and Forest (CDFW, 2021).

**Freshwater Marsh.** Two areas of freshwater marsh are mapped in the eastern half of the Study Area. The freshwater marsh vegetation is found within the annual grassland habitat, and has been heavily grazed to the point where species identification was not possible. This vegetation can be classified as the Holland Type “Coastal and Valley Freshwater Marsh.”

### **Wetlands and Waters of the U.S.**

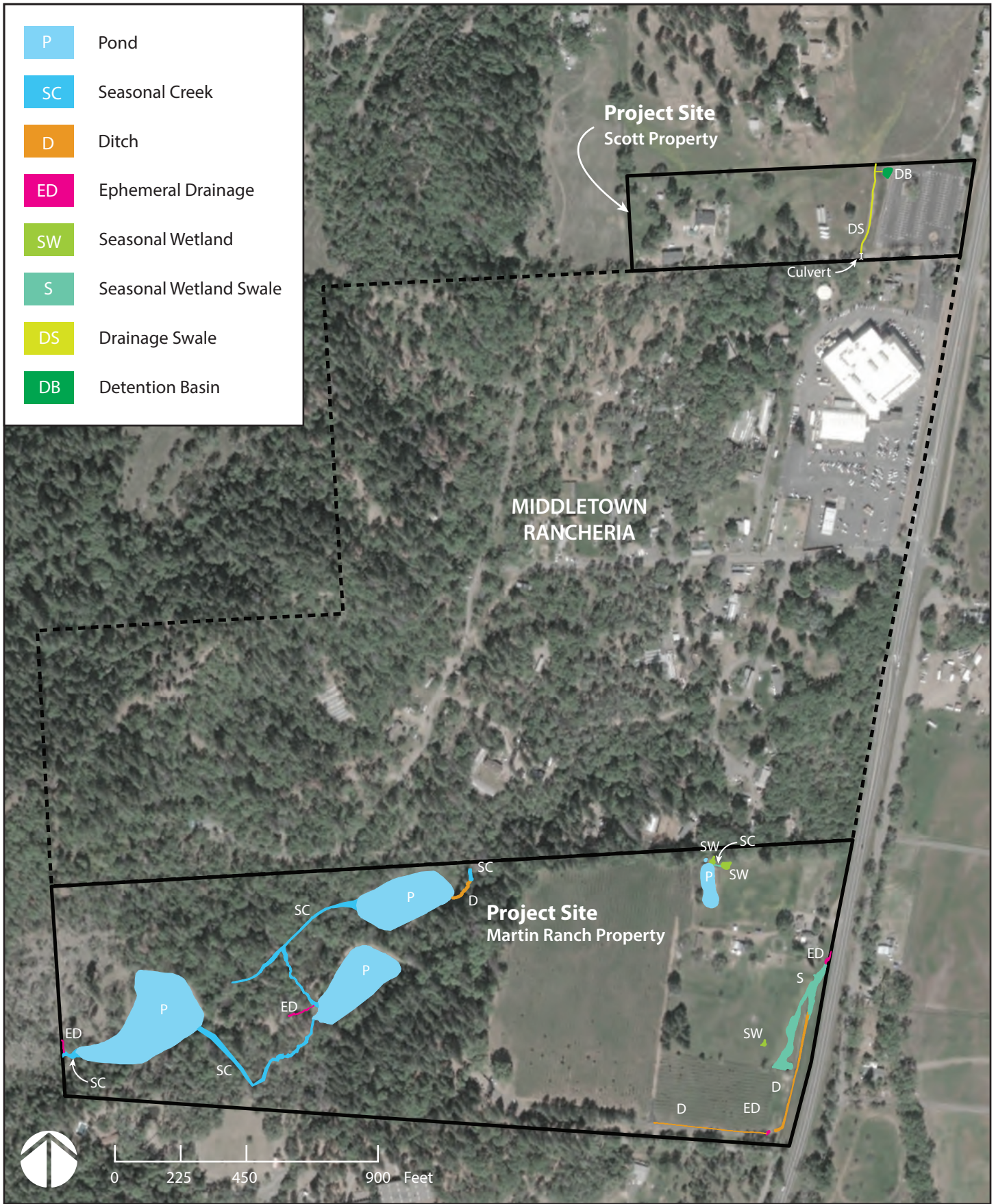
The project site contains ponds, ephemeral channels, and wetlands. Some of these features may be considered wetlands and waters of the U.S. under the jurisdiction of the Clean Water Act, while other features are likely not under the jurisdiction of the Clean Water Act. The potentially jurisdictional and potentially non-jurisdictional features are described below. **Figure 3-4** shows the locations of each wetland/water feature on the project site.

#### *Potentially Jurisdictional Features*

### **Ponds and Associated Lacustrine Wetlands**

Ponds are depressional areas that are permanently or semi-permanently inundated and support areas of open water during the growing season. Ponds exhibit an Ordinary High Water Mark (OHWM) but may or may not support hydrophytic vegetation and hydric soils. A modified groundwater spring forms two ponds in the northeastern portion of the Martin Ranch property which are connected by surface water at peak inundation. The smaller of these two features is dominated by a floating canopy of water lily (*Nymphaea* sp.). The larger of these two ponds functions as a stock pond for horses, and is primarily





MIDDLETOWN RANCHERIA

**FIGURE 3-4**  
WETLAND MAP

unvegetated. Vegetated portions of this pond are dominated by water starwort, pennyroyal (*Mentha pulegium*), common spikerush (*Eleocharis macrostachya*), and iris leaved rush (*Juncus xiphioides*).

Three additional ponds occur in the western portion of the Martin Ranch property as impoundments of the ephemeral channels. These ponds are primarily unvegetated due to their steep sides, depth, and seasonally fluctuating water levels. Vegetated portions of these ponds are dominated by red willow, broad leaf cattail (*Typha latifolia*), water starwort, and bog rush.

Lacustrine wetland habitat can be found along the margin of one of the ponds. The vegetation consists of a narrow canopy of red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), valley oak (*Quercus lobata*) and Himalayan blackberry (*Rubus armeniacus*).

A large patch of blackberry brambles is found along the margin of the easternmost pond. Vegetation within this lacustrine habitat consists of a monoculture of Himalayan blackberry.

### Channels

Ephemeral drainages and seasonal creeks are linear features that exhibit a bed and bank and an OHWM. These features typically convey runoff for short periods of time during and immediately following rain events and are not influenced by groundwater sources at any time during the year. Ephemeral drainages and seasonal creeks occur within the western portions of the Martin Ranch Property. These features are primarily unvegetated and consist of gravel and cobble beds with incised banks.

### Potential Wetlands

Within the eastern half of the Martin Ranch property, there are two areas that may have wetlands (freshwater marsh). The freshwater marsh vegetation is found within the annual grassland habitat, and has been heavily grazed to the point where species identification was not possible. This vegetation can be classified as the Holland Type “Coastal and Valley Freshwater Marsh.” A 2017 survey describes the following features that were mapped in 2017 but were not detected in 2021.

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short, and these wetlands are commonly dominated by nonnative annual, and sometimes perennial, hydrophytic species. Seasonal wetlands observed in the Project Area [Martin Ranch] are shallow features dominated by annual water miner’s lettuce (*Montia fontana*), water starwort (*Callitriche heterophylla*), annual bluegrass (*Poa annua*), and perennial ryegrass (*Festuca perennis*). The seasonal wetlands were saturated during the field visit.

Seasonal wetland swales are sloped wetland features that convey stormwater runoff. They typically have hydric soils and support a predominance of hydrophytic vegetation, but lack an OHWM. Seasonal wetland swales are typically inundated for short periods during and immediately after rain events, but usually maintain soil saturation for longer periods during the growing season. Seasonal wetland swales observed within the Project Area [Martin Ranch] were dominated by common meadowfoam (*Limnanthes douglasii*), flowering quillwort (*Triglochin scilloides*), perennial ryegrass, annual water miner’s lettuce, water starwort, and yellow owl’s clover. Seasonal wetland swales within the Project Area were saturated to partially inundated during the field visit (ECORP, 2017).

### *Potentially Non-Jurisdictional Features*

Ditches are linear features that are constructed to convey storm water and/or irrigation water. Ditches occur within the Martin Ranch property east and south of the vineyard. These ditches are primarily unvegetated due to scour caused by flowing water. One additional ditch occurs in the northern-central portion of the Martin Ranch Property. This feature is a concrete-lined portion of the creek channel which flows out of a pond. These linear features are not necessarily jurisdictional under the Clean Water Act.

Surface drainage on the Scott property collects in an upland swale, but this drainage feature contains upland vegetation and lacks any OHWM indicators, such as ranked vegetation, bank erosion, or bedrock exposure. A detention basin developed on the Scott Property provides stormwater attenuation and treatment and drains to the adjacent upland drainage swale. These features are not necessarily jurisdictional under the Clean Water Act.

### **Special-Status Species**

#### *Special-Status Species Observed During Field Surveys*

Wildlife and botanical field surveys were conducted in 2017, 2018 and 2021. No federally listed species were identified on the project during any survey. During focused plant surveys in 2018, three special-status plant species were observed in the western portion of the Martin Ranch property - Napa lomatium (*Lomatium repostum*), Mount Saint Helena morning glory (*Calystegia collina ssp. oxyphylla*), and Tracy's clarkia (*Clarkia gracilis ssp. tracyi*). These plant species are not listed pursuant to the federal or California Endangered Species Acts. These plants have been identified by the California Native Plant Society (CNPS) as California Rare Plants having limited distribution. Mount Saint Helena morning glory and Tracy's clarkia are further identified by CNPS as "fairly threatened in California" and Napa lomatium is identified as "not very threatened in California."

#### *Potential for Special-Status Species to Occur in the Project Area*

### **Plants**

No federally listed or special-status plants have been found on the project site during field surveys. However, based on the literature and resource agency database review, four federally listed plant species were identified as having potential to occur in the vicinity of the project site. The habitats and vegetation communities collectively found within the project site represent potentially suitable habitat for these special-status plant species: Pennell's bird's-beak (*Cordylanthus tenuis ssp. capillaris*), Kenwood Marsh Checker-mallow (*Sidalcea oregana ssp. valida*), Burke's goldfields (*Lasthenia burkei*), Contra Costa goldfields (*Lasthenia conjugens*), and Sebastopol meadowfoam (*Limnanthes vinculans*). Brief descriptions of the plant species that have the potential to occur within the project site are presented below.

#### Pennell's Bird's-Beak

Pennell's Bird's-Beak is listed as Endangered under the federal Endangered Species Act. This species occurs in soils with serpentinite parent material within closed-cone coniferous forest and chaparral. The gray pine woodland in the western portion of the Martin Ranch property has suitable habitat for Pennell's bird's-beak. The Scott property does not provide suitable habitat for this species.

Kenwood Marsh Checker-mallow

Kenwood Marsh checker-mallow is listed as Endangered under the federal Endangered Species Act. This species inhabits marshes and swamps at elevations between 375 and 500 feet. The project site, with an elevation above 1,100 feet is well above the elevation range of this species. There is no potential for Kenwood Marsh checker-mallow to occur on the project site.

Burke's Goldfields

Burke's Goldfields is listed as Endangered under the federal Endangered Species Act. Burke's Goldfields occurs in vernal pools and swales. There are no vernal pools or swales in the development area of the project site. There is no potential for this species to occur in the development area of the project site.

Sebastopol Meadowfoam

Sebastopol meadowfoam is listed as endangered pursuant to the federal ESA. The wetlands on the eastern side of the Martin Ranch property represent suitable habitat for Sebastopol meadowfoam, but ideal habitat is not present. The Scott property does not provide suitable habitat for this species.

**Animals**

Special-status animals have a low potential to occur in the disturbed/developed, vineyard, annual grassland, and blackberry scrub habitats. However, special-status animals have a moderate to high potential to occur in the forested habitats. The project site supports potentially suitable habitat for California red-legged frog (*Rana draytonii*), and northern spotted owl (*Strix occidentalis caurina*). Brief descriptions of the animal species that have the potential to occur within the project site are presented below.

California Red-Legged Frog

The California red-legged frog is federally listed as threatened. The ponds within the Martin Ranch property are occupied by predatory fish and bullfrogs and therefore represent low-quality habitat for the California red-legged frog. The California red-legged frog has low potential to occur within the project site.

Northern Spotted Owl

The northern spotted owl is federally listed as threatened. Northern spotted owl has potential to forage in the Study Area. A habitat and impact assessment for this species (Tanner, 2018) concluded that suitable nesting-roosting habitat is not present within and immediately adjacent to the Study Area.

Migratory Birds

Trees, shrubs, and poles within the project site may provide suitable nesting and perching habitat for migratory birds. While no nests were observed during the field surveys, suitable nesting habitat for five species identified by the USFWS as Birds of Conservation Concern (USFWS, 2021) is present within the project site. The bird species include Lewis's woodpecker (*Melanerpes lewis*), Nuttall's woodpecker (*Dryobates nuttallii*), olive-sided flycatcher (*Contopus cooperi*), oak titmouse (*Baeolophus inornatus*), and rufous-crowned sparrow (*Aimophila ruficeps*).

### **Wildlife Movement/Corridors**

Wildlife corridors in the project area include the riparian habitat along St. Helena Creek east of the project site and the largely undeveloped forest habitat of the Mayacmas Mountains west of the project site. Agriculture, residential and commercial development within the Collayomi Valley reduce the potential for wildlife movement. No wildlife corridors or fishery resources are located within the project site or adjacent areas.

### **3.4.3 Impacts to Biological Resources**

#### **Alternative A**

##### *Natural Communities*

Construction of the proposed residential and RV park development would result in the removal of existing vegetation on the project site. Most of the development would occur in areas previously developed areas and vineyards. The project site is not designated as critical habitat for any threatened and endangered species by the U.S. Fish and Wildlife Service (USFWS). The closest USFWS designated critical habitat is for northern spotted owl and is located approximately three miles southeast of the site at Three Peaks on the Napa County border.

The proposed residential alternative has been designed to avoid wetlands and riparian habitat that exist on the project site. The project would result in some impacts to California black oak and Oregon white oak trees that exist in the Ponderosa pine – Douglas fir forest that would be converted to residential development. As identified in **Section 2.0**, the layout of the homes and driveways will avoid mature trees to the extent feasible, and landscaping will incorporate native tree species including California black oak, and Oregon white oak.

Because the project site is not protected habitat, wetlands and riparian habitat will be avoided, and the habitat that will be converted is either disturbed or adjacent to existing development, which reduces the integrity of the habitat present, impacts to natural communities on the project site are considered less than significant.

##### *Wetlands and Waters of the U.S.*

The field surveys identified approximately 4.3 acres of potential Waters of the U.S. within the project site. A formal wetland delineation has not been conducted and the wetlands have not been verified by United States Army Corps of Engineers (USACE). Alternative A has been designed to avoid all wetlands and other waters. However, due to the proximity of the development area to wetlands, wetland swales and ditches, construction activities have the potential to impact wetlands and other waters. Mitigation measures identified below would reduce potential impacts to a less-than-significant level. These measures include installing exclusionary fencing prior to construction.

##### *Special-Status Species*

No special-status mammals, fish, or reptiles are identified as potentially occurring on the project sites. However, special-status plant, bird and amphibian species have the potential to occur on the project sites.



## Plants

The habitat assessment identified the potential for special-status plant species to exist on the project site in two locations – the ghost pine woodland in the steep western portion of the project site, and the grasslands and wetlands in the eastern portion of the project site. Focused special-status plant surveys were conducted in 2018. No federally-listed plants were found to occur in either area on the Martin Ranch property. The Scott property does not provide suitable habitat for these species.

Three plant species on the California Native Plant Society’s watch list were identified on the Martin Ranch property. These species, Napa lomatium (*Lomatium repostum*), Mount Saint Helena morning glory (*Calystegia collina* ssp. *oxyphylla*), and Tracy’s clarkia (*Clarkia gracilis* ssp. *tracyi*) were in the ghost pine woodland on a steep slope in the far western portion of the project site outside of the proposed development area. Due to the steepness of the terrain and the intervening ponds and seasonal creek, it is unlikely that this area would ever be developed. Accordingly, no impacts to special-status plant species that exist in this area are expected.

## Birds

The habitat assessment for the northern spotted owl determined that forests on the project site do not provide adequate nesting habitat. However, due to the presence of suitable nesting habitat within 1.3 miles, the California black oak forests and ponderosa pine and Douglas-fir forests on the project site may provide foraging habitat for northern spotted owls. Alternative A would include the construction of five cabins along with an access road and parking area within the ponderosa pine – Douglas fir forest in the central portion of the project site. As described in **Section 2**, development would avoid mature trees to the extent possible. This would preserve most of the forest canopy and would reduce degradation of foraging habitat. Mitigation measures are identified to reduce the potential for impacts to the northern spotted owl. These measures include avoiding trees with a trunk diameter greater than 30 inches, minimizing pavement, and restricting vegetation clearing to the non-breeding season. The implementation of these mitigation measures would reduce impacts to a less-than-significant level.

Suitable nesting habitat for migratory birds is present within the project site. These include Lewis’s woodpecker, Nuttall’s woodpecker, olive-sided flycatcher, oak titmouse, and rufous-crowned sparrow, which are identified by the USFWS as Birds of Conservation Concern. If present, the development of Alternative A could result in harassment to nesting individuals and may temporarily disrupt foraging activities. In addition to the above-listed birds, all native birds, including raptors, are protected under the federal Migratory Bird Treaty Act. Mitigation measures are identified to reduce the potential for impacts to nesting birds. These measures include a pre-construction nesting survey and establishment of buffers around nests, if found. The implementation of these mitigation measures would reduce impacts to a less-than-significant level.

## Amphibians

The California red-legged frog has the potential to occur within the ponds located on the project site. Because the ponds are occupied by predatory fish and bullfrogs, the ponds present low-quality habitat and the potential for California red-legged frogs to occur in the ponds is considered low. Except for a recreational trail, no development is proposed to occur within 100 feet of the ponds in the western portion of the project site. As described in **Section 2**, development of the recreation trail would avoid any fill or disturbance within stream channels. Development would occur within approximately 30 feet

of the pond in the eastern portion of the Martin Ranch property. However, the ponds within the Martin Ranch property are occupied by predatory fish and bullfrogs and therefore represent low-quality habitat for the California red-legged frog. Additionally, the nearest reported occurrence of the frog is 34 miles away from the project site. Due to the low quality habitat and distance to the nearest reported occurrence, no impacts to the California red-legged frog are expected to occur.

#### *Wildlife Movement/Corridors*

As described in **Section 3**, the western portion of the site includes a seasonal creek, ponds and forest that connect with the surrounding habitat and provide for wildlife movement, while the residential development in the eastern portion of the project site and Highway 29 to the east of the project site limit wildlife movement. Because the proposed residential development would occur in the eastern portion of the project site and would avoid the seasonal creek, ponds and adjacent forest, Alternative A is not expected to significantly affect wildlife movement and/or wildlife corridors.

#### *Mitigation*

- To avoid potential disturbance of wetlands and other waters that may be jurisdictional waters of the U.S. under Section 404 of the Clean Water Act:
  - Before construction activities commence, a qualified biologist will stake the boundaries of any channel, pond, or potential wetland area that is adjacent to proposed development areas. The construction contractor shall erect exclusionary fencing around these water resources to ensure that no construction equipment or personnel enter the channels or wetlands.
- To avoid potential impacts to northern spotted owl:
  - Vegetation clearing in the forested areas of the project site should be planned and conducted to remove as few trees as possible. No trees with a diameter at breast height (DBH) over 30 inches should be removed.
  - Building footprints, roads and parking areas in the forested areas of the project site should be minimized to the greatest extent possible and as little pavement or concrete as necessary should be used.
  - Vegetation clearing in the forested areas of the project site should be conducted during the non-breeding season or Limited Operating Period (August 31 – March 15).
- To avoid potential disturbance to nesting birds:
  - If construction activities will occur during the nesting season (usually March to September), pre-construction surveys for the presence of migratory birds or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, the appropriate wildlife agency should be consulted to develop measures to avoid “take” of active nests prior to the initiation of any construction activities. Avoidance measures may include

establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site.

- To avoid potential impacts to listed species:
  - Within 48 hours of the start of construction, a pre-construction survey for listed species should be performed by a qualified biologist to ensure that listed species are not present. If any listed species are detected, construction should be delayed, and the appropriate wildlife agency (CDFW and/or USFWS) should be consulted and project impacts and mitigation reassessed.

### **Alternative B**

Under Alternative B, impacts to biological resources would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the impacts to biological resources would be reduced accordingly.

#### *Mitigation*

The mitigation measures identified for Alternative A would also be required for Alternative B. With implementation of these measures, impacts to biological resources from development of the Reduced Residential Alternative would be reduced to a less-than-significant level.

### **Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No impacts to biological resources would occur.

#### *Mitigation*

No mitigation measures would be required for Alternative C.

## **3.5 CULTURAL RESOURCES**

Cultural resources reports were prepared in 2018 and 2020 by Tom Origer & Associates and are on file with the BIA Pacific Region. The report presents the results of the record searches and pedestrian surveys of the project site. Key information from the cultural resources reports is summarized below.

### **3.5.1 Cultural Setting**

Archaeological evidence indicates that human occupation of California began at least 11,000 years ago. Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on extended family units. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears coeval with the development of

sedentism, and population growth and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

At the time of European settlement, the study area was in a boundary area between territories controlled by the Lake Miwok and the Wappo. Both the Lake Miwok and Wappo were hunter-gatherers who lived in a rich environment that allowed for a dense population with complex social structures. They settled in large, permanent villages about which were distributed seasonal camps and task-specific sites. Primary villages were occupied throughout the year and other sites were visited seasonally to procure resources that were especially abundant or available only during certain times. Sites often were situated near fresh water sources and in ecotones where plant and animal life were diverse and abundant.

The study area lies within the Rancho Collayomi (sometimes Callayomi) Land Grant. Being one of three Mexican land grants in present day Lake County, Rancho Collayomi was granted to Robert Ridley in 1845. When granted, it consisted of some 8,242 acres.

### **3.5.2 Records Search and Survey Findings**

Archival research included a review of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park. Sources of information included, but were not limited to, the current listings of properties on the National Register of Historic Places, California Historical Landmarks, California Register of Historical Resources, and California Points of Historical Interest as listed in the Office of Historic Preservation's Historic Property Directory.

The Office of Historic Preservation has determined that structures in excess of 45 years of age should be considered potentially important historical resources, and former building and structure locations could be potentially important historic archaeological sites. Archival research included an examination of historical maps to gain insight into the nature and extent of historical development in the general vicinity, and especially within the study areas. Maps ranged from hand-drawn maps of the 1800s (e.g., General Land Office) to topographic quadrangles issued by the United States Geological Survey (USGS) and the Army Corps of Engineers (USACE) from the early to the middle 20th century.

In addition, ethnographic literature that describes Native American groups, county histories, and other primary and secondary sources were reviewed.

Archival research found no previous surveys or recorded cultural resources within the project site. A 1927 historical topographic map shows one building immediately west of Highway 29 on the Martin Ranch property. In a 1943 topographic map, one additional building is shown on Martin Ranch. These buildings are shown where the farmhouse and associated buildings currently stand. A review of more recent topographic maps shows that by 1980, two additional buildings and three small reservoirs were present on Martin Ranch. This includes the ranch house built in 1975 in the southcentral portion of the project site.

Field surveys were completed 2018 and 2020. Visibility of the ground surface ranged from excellent to poor, with dense vegetation, duff, fill, asphalt, imported gravel and buildings being the primary

hindrances. Hoes were used as necessary to clear small patches of vegetation so that the soil could be inspected. Transects were spaced no greater than 25 meters apart. In addition to the surface survey, three hand-dug auger borings were completed using a 2-inch diameter barrel auger to search for buried archaeological site indicators in the portion of the Martin Ranch property near Highway 29 where Holocene alluvium is present.

No significant archaeological resources were identified during the survey. Natural obsidian pebbles were observed in a gravel roadway west of the house on Martin Ranch along Highway 29; however, it was clear that the obsidian was a component of the imported road gravel. Additionally, mid-20th century to modern-era cans and glass were observed on a slope near the westernmost reservoir on Martin Ranch. It appeared that these items represent relatively recent causal discards from some unknown place that was cleaned up and dumped at this location. As a secondary deposit it lacks integrity and the ability to yield information, and accordingly does not meet criteria to be an historic archaeological resource.

On the Martin Ranch property, the farmhouse and an adjacent (unoccupied) cabin located near Highway 29 have concrete foundations and have been modified since they were built. The residential buildings are single-story with T1-11 wood siding and cross-gabled roofs. One building had most of the windows replaced with aluminum sashed, horizontal sliders. Additionally, the original roofs of the buildings have been altered (i.e., overlain with plywood, added support beams). These modifications contribute to their loss of historical and architectural integrity. The ranch house in the south-central portion of the Martin Ranch property is a single-story building with a hipped-roof with a combination of T1-11 siding and horizontal lapped siding. The windows are aluminum sashed, horizontal sliders. Additionally, the building has a concrete foundation.

On the Scott property, at the time of the survey in 2020, there was one modern building, a tractor shed, a collapsing barn, and several smaller sheds. The modern building has a galvanized corrugated metal roof, vertical wood board siding, and rests atop a concrete foundation. The windows, and possibly the roof and siding, appear to have been replaced. There was a smaller shed nearby that was built with the same material, which suggests that it was either built around the same time, or with leftover materials from the building. In addition, there was a tractor shed with a galvanized corrugated metal roof. There was a collapsing barn that had the remnants of a corrugated metal roof, corrugated metal siding, and rested atop concrete piers. There were also various other smaller corrugated metal sheds throughout the property. There was also one modern prefabricated shed that resembles something you can purchase at a home improvement store. Some of these buildings were removed and two new homes were installed in 2020 after the survey was completed.

All of the older buildings within the project site have lost architectural and historical integrity due to modification; therefore, they do not meet eligibility criteria for inclusion on the National Register of Historic Places.

Three auger borings were excavated to depths of 110, 90, and 85 centimeters on the Martin Ranch property. The soils excavated from the auger contained no archaeological site indicators.

### 3.5.3 Impacts to Cultural Resources

#### **Alternative A**

The cultural resources surveys conducted in 2018 and 2020 identified no significant archaeological resources on the project site. The buildings on the Martin Ranch property were determined to have lost architectural and historical integrity and the ability to yield information and therefore do not meet eligibility criteria for inclusion on the National Register of Historic Places. Likewise, no of the buildings located on the Scott property at the time of the 2020 survey were determined to be eligible for inclusion on the National Register of Historic Places. Development of the proposed homes, RV park and roadways would not impact any known cultural resources. However, there remains the potential to encounter buried archaeological resources during construction activities. With the implementation of mitigation measures identified below (i.e., standard procedures for the unanticipated discovery of archaeological or human remains), impacts to cultural resources would be less than significant.

#### *Mitigation*

In the event of inadvertent discovery of prehistoric or historic archaeological resources during construction-related earth-moving activities, all such finds shall be subject to Section 106 of the National Historic Preservation Act as amended (36 CFR 800), and the BIA shall be notified. Specifically, procedures for post-review discoveries without prior planning pursuant to 36 CFR 800.13 shall be followed. All work within 50 feet of the find shall be halted until a professional archaeologist meeting the Secretary of the Interior's qualifications (36 CFR 61) can assess the significance of the find. If any find is determined to be significant by the archaeologist, then representatives of the Tribe and the BIA shall meet with the archaeologist to determine the appropriate course of action, including the development of a Treatment Plan, if necessary. All significant cultural materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist according to current professional standards.

If human remains are discovered during ground-disturbing activities, pursuant to the Native American Graves Protection and Repatriation Act (NAGPRA), a BIA representative shall be contacted immediately. No further disturbance shall occur until the Tribe and BIA representative have made the necessary findings as to the origin and disposition. If the remains are determined to be of Native American origin, the BIA representative shall notify a Most Likely Descendant. The Most Likely Descendant is responsible for recommending the appropriate disposition of the remains and any grave goods.

#### **Alternative B**

Under Alternative B, impacts to cultural resources would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the impacts to cultural resources would be reduced accordingly.

#### *Mitigation*

The mitigation measures identified for Alternative A would also be required for Alternative B. With implementation of these measures, impacts to cultural resources from development of the Reduced Residential Alternative would be reduced to a less-than-significant level.

**Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No impacts to cultural resources would occur.

*Mitigation*

No mitigation measures would be required for Alternative C.

**3.6 SOCIOECONOMIC CONDITIONS****3.6.1 Socioeconomic Characteristics of Lake County*****Population***

The proposed fee-to-trust parcels are in Lake County. The County's current population is estimated to be approximately 67,407. There are only two incorporated cities in Lake County – Clearlake, with a population of 16,509, and Lakeport, with a population of 4,999 (California Department of Finance, 2022a). Both cities are located on the shores of Clear Lake in the middle of the county.

Most of the population resides in the County's unincorporated communities, including Hidden Valley Lake (population 6,155), Kelseyville (population 3,873), and North Lakeport (population 3,547). Middletown is the most southerly unincorporated community in Lake County with a population of 1,577. (US Census, 2023). The County's population is expected to remain stable over the next 40 years (California Department of Finance, 2021).

***Housing***

Lake County's housing consists primarily of single-family homes, which account for 69 percent of 34,294 total housing units. Multi-family units account for approximately 8 percent, and mobile homes make up about 23 percent. The average household has 2.4 persons (California Department of Finance, 2022b).

***Employment and Income***

As of November 2022, Lake County's unemployment rate was 5.2 percent, below the state's average jobless rate of 4.1 percent (CEDD, 2022). Median household income is approximately \$61,221, which is lower than the statewide average of \$84,907 (US Census, 2023). Based on estimates for 2021, about 12.9 percent of the population live below the poverty level in the county, compared to a statewide average of 12.3 percent (US Census, 2023).

**3.6.2 Socioeconomic Characteristics of Middletown Rancheria**

The Tribe currently has 266 enrolled members. The Tribe provides employment to 30 tribal members and approximately 200 non-tribal members. There are 42 homes on the Rancheria with 40 homes occupied by tribal members. The Tribe owns an additional eight homes on fee land (including the four existing homes on the project site), of which seven are occupied by tribal members.

### 3.6.3 Environmental Justice for Minority and Low-Income Populations

On February 11, 1994, President Clinton issued EO 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” and an accompanying Presidential Memorandum to focus federal attention on the environmental and human health conditions in minority communities and low-income communities. The EO, as amended, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. Compliance with this EO has been incorporated into the NEPA compliance requirements of the BIA for the Proposed Action.

Approximately 57 percent of Lake County residents identify as white, 40 percent identify as Hispanic, 3.3 percent identify as American Indian, 7.3 percent identify as black, 18 percent identify as Asian, and 34 percent identify as another race (US Census, 2023).

### 3.6.4 Socioeconomic Impacts

#### **Alternative A**

The development of Alternative A would directly benefit tribal members by providing needed affordable housing. The proposed RV park would expand accommodation options for its casino, to ensure a sustainable and stable revenue base for the Tribe. The proposed housing and RV park would be compatible with adjacent rural residential land uses. The only potential adverse environmental effects are short-term construction-related impacts. The incorporation of development standards and BMPs identified in **Section 2.2**, and mitigation measures identified in **Chapter 3**, ensure that all construction-related impacts would be less than significant. The surrounding community would not be adversely impacted by the proposed residential development. Accordingly, no minority or low-income populations would be adversely impacted.

The provision of up to 45 homes and relocation of tribal members would have no appreciable impact on the housing market as there are approximately 34,294 homes in Lake County.

Development of Alternative A would not significantly impact the County’s ability to provide governmental services. The removal of the parcels from the County’s jurisdiction would reduce annual property tax revenue by approximately \$20,871 (based on fiscal year 2023). For the 2022 fiscal year, the County collected \$97,901,844 (Lake County, 2022). The amount of lost property tax revenue is approximately 0.02 percent of the total property taxes collected by the County. The RV park would bring additional visitors to the County. In addition to supporting the Tribe’s existing businesses, the visitors would also bring additional revenue to other businesses in the County and would increase associated tax revenue collected by the County. The Tribe provides services to the Rancheria and contracts with other service providers for services. These services would expand with the development of the proposed homes and RV park, which in turn would expand the local economy and tax base. The additional economic activity and tax revenue would offset the loss of property tax revenue. Implementation of Alternative A would not result in significant socioeconomic or environmental justice impacts.



*Mitigation*

The surrounding community would not be adversely impacted by the proposed residential and RV park development. No mitigation measures would be required for Alternative A.

**Alternative B**

Under Alternative B, impacts to socioeconomic or environmental justice conditions would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the potential short-term construction-related impacts would be reduced accordingly.

*Mitigation*

No mitigation measures would be required for Alternative B.

**Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No socioeconomic or environmental justice impacts would occur.

*Mitigation*

No mitigation measures would be required for Alternative C.

## 3.7 TRANSPORTATION AND CIRCULATION

A traffic study was completed for the Proposed Action and is provided as **Appendix E**. The results of the traffic study are summarized below.

### 3.7.1 Existing Setting

**Existing Roads**

The following roadways are located in the vicinity of the proposed fee-to-trust property:

**Highway 29.** Highway 29 begins at the Napa/Lake County line and continues north through the community of Middletown to the community of Lower Lake and then proceeds north-west through the community of Kelseyville and the City of Lakeport to its terminus at Highway 20 in Upper Lake. The southern portion of SR Highway is classified a Rural Minor Arterial road. In the area of the proposed project, Highway 29 is a two-lane conventional highway with 12' travel lanes and paved shoulders.

**Rancheria Road.** Rancheria Road is a local roadway that provides access to the Twin Pine Casino and Hotel and the Middletown Rancheria. The road is about 24 feet wide without paved shoulders between Highway 29 and the casino/hotel driveways, after which it narrows to about 18 feet wide.

**Western Mine Road.** Western Mine Road provides access to the historic Western Mine (closed) and rural residential properties west of Highway 29. The road becomes Ida Clayton Road at the Sonoma County line and connects to Highway 128. The roadway near Highway 29 is paved and about 16' wide.

**Western Mine Road Extension.** Western Mine Road Extension is a narrow, paved road that serves as a frontage road on the west side of Highway 29, extending north and south from Western Mine Road. Western Mine Road provides access to the southeast corner of the project site. The driveway to the ranch house extends from this road.

### ***Bicycle and Pedestrian Facilities***

There are no sidewalks or bike lanes along Highway 29 in the vicinity of the project. The existing paved shoulder of Highway 29 along the project frontage ranges from four to six feet wide.

### ***Public Transit***

Lake Transit provides bus routes, regional flex route service and local dial-a-ride services within Lake County. Two Lake Transit bus routes utilize Highway 29 in the area of the project. Bus Route 2 provides service along Highway 175 between Kit's Corner to the Twin Pine Casino. Bus Route 3 which originates in the City of Clearlake uses Highway 29 from Lower Lake and travels into Calistoga and Deer Park in Napa County. Service is currently provided Monday through Friday.

### ***Existing Traffic Volumes***

The California Department of Transportation (Caltrans) regularly monitors the volume of traffic on state highways. The most recent Caltrans traffic counts (2019) indicates that Highway 29 carries an Annual Average Daily Traffic (AADT) volume of 9,100 vehicles per day (vpd) south of Rancheria Road and 9,900 vpd north of Rancheria Road.

### ***Existing Intersection Level of Service***

The *Highway Capacity Manual, 6<sup>th</sup> Edition* was used to provide a basis for describing the quality of existing traffic operating conditions. Level of Service (LOS) measures the quality of traffic flow and is represented by letter designations from "A" to "F", with a grade of "A" referring to the best conditions, and "F" representing the worst conditions. **Table 3-7** presents typical Level of Service characteristics.

### ***Level of Significance***

Caltrans employs various minimum Level of Service standards for its facilities depending on the type of facility and the characteristics of the location. Caltrans general minimum standard of LOS C is noted in Caltrans' Traffic Study Guidelines, but exceptions to that standard are documented in various planning and policy documents. The 2013 SR 29 Transportation Concept Report (TCR) identifies LOS E as the Concept Level of Service for Highway 29 in the Middletown area.

The conditions described using Levels of Service vary for different types of intersections. Where traffic signals or all-way stops are installed, the Level of Service is based on the length of delays experienced by motorists stopped at the intersection, and overall average Level of Service is considered. At unsignalized intersections controlled by side street stop signs, individual Levels of Service can be determined for all motorists who must yield the right of way.

**TABLE 3-7**  
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
A	Uncongested operations, all queues clear in a single-signal cycle. Delay < 10.0 sec	Little or no delay. Delay $\leq$ 10 sec/vehicle (veh)	Completely free flow.
B	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and < 20.0 sec	Short traffic delays. Delay > 10 sec/veh and < 15 sec/veh	Free flow, presence of other vehicles noticeable.
C	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and < 35.0 sec	Average traffic delays. Delay > 15 sec/veh and < 25 sec/veh	Ability to maneuver and select operating speed affected.
D	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and < 60.0 sec	Long traffic delays. Delay > 25 sec/veh and $\leq$ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
E	Severe congestion with some long-standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 60.0 sec and < 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and $\leq$ 50 sec/veh	At or near capacity, flow quite unstable.
F	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Source: Highway Capacity Manual, 6 <sup>th</sup> Edition, Transportation Research Board (TRB).			

### **Existing Traffic Operating Conditions**

Traffic counts were originally conducted in November 2017 and included counts from 6:00 a.m. to 7:00 p.m. The outbreak of the Covid-19 pandemic reduced traffic volumes throughout California roadways as places of employment, schools, social and recreational gatherings, sports events, restaurants, and many other types of activities were substantially reduced or prohibited. The use of new traffic volume count data collected during the pandemic could result in volumes that are unrepresentatively low. Based on

Annual Average Daily Traffic (AADT) information provided on the Caltrans Traffic Census website<sup>2</sup> traffic volumes along Highway 29 in the project vicinity are consistent with previous count data. A new 12-position gas station was constructed in 2020 at the casino/hotel, and the projected traffic was manually added to the network. The gas station generates and estimated 123 a.m. peak hour trips and 168 p.m. peak hour trips. After accounting for pass-by trips the gas station generates 49 new a.m. peak hour trips and 93 new p.m. peak hour trips.

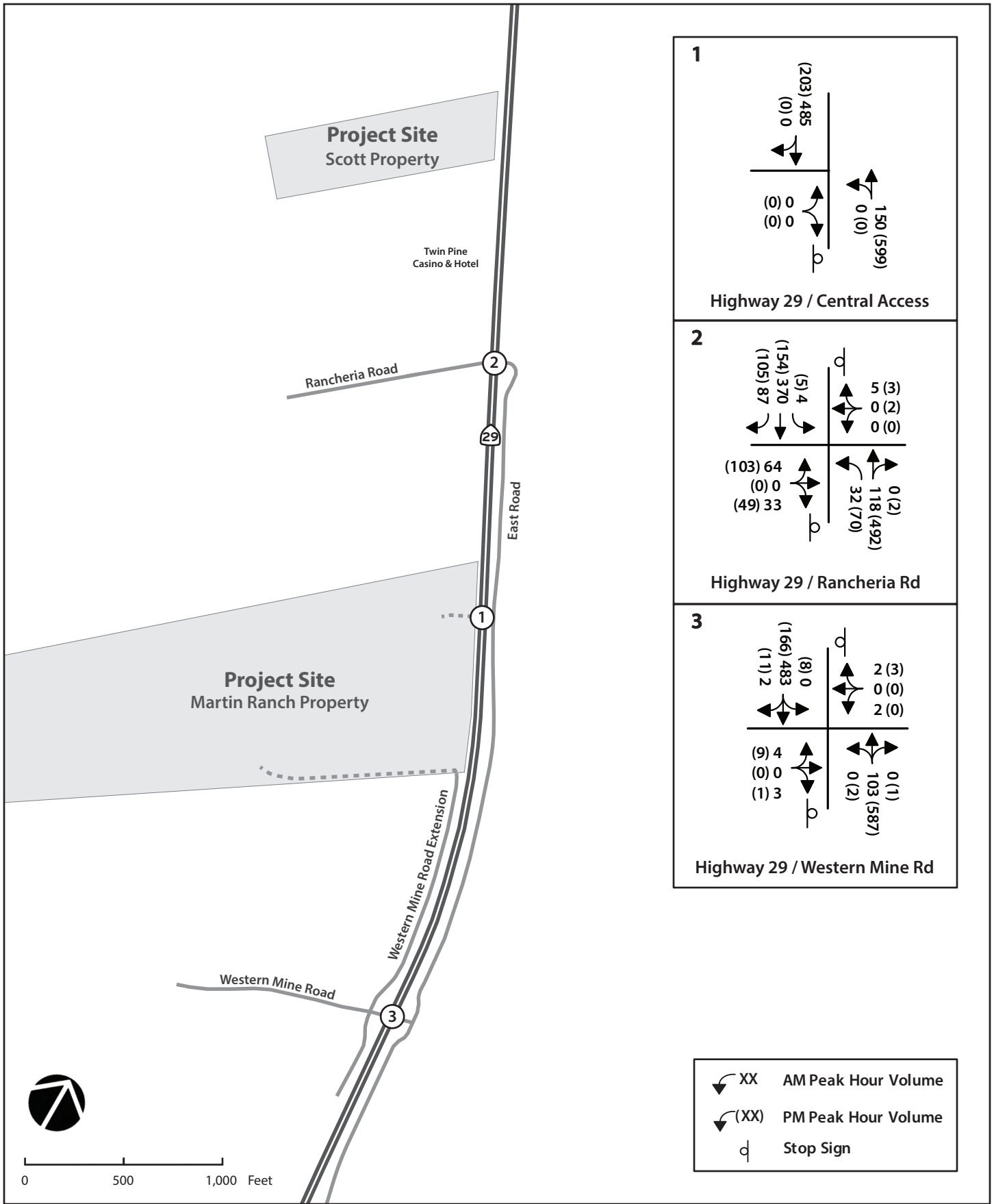
**Figure 3-5** identifies the current intersection lane configuration used for the Level of Service analysis, as well as the results of the peak hour turning movement counts.

**Table 3-8** summarizes current Levels of Service at the study area intersections during the highest volume hour within each analysis period. As shown, the current Levels of Service for traffic waiting to enter Highway 29 from Rancheria Road is LOS D in the p.m. peak hour. The current Levels of Service for traffic waiting to enter Highway 29 from Rancheria Road in the a.m. peak hour, and for all other approaches is LOS C or better. The Highway 29/Rancheria Road intersection exceeds the County’s LOS C goal but is within the TCR goal of LOS E.

**TABLE 3-8**  
EXISTING INTERSECTION LEVELS OF SERVICE

Location	Control	AM Peak Hour		PM Peak Hour	
		LOS	Average Delay	LOS	Average Delay
Rancheria Road / Highway 29	EB / WB Stop				
Northbound Left		A	8.5	A	8.0
Southbound Left		A	7.5	A	8.5
Eastbound		C	15.3	D	26.1
Westbound		A	8.9	C	15.3
Western Mine Road / Highway 29	EB / WB Stop				
Northbound Left		–	–	A	7.6
Southbound Left		–	–	A	8.8
Eastbound		B	13.2	C	17.6
Westbound		B	11.6	B	12.6
Note: Average delay is expressed in seconds per vehicle.					
Source: KD Anderson & Associates, 2021.					

<sup>2</sup> Caltrans Traffic Census website: <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes>



MIDDLETOWN RANCHERIA

**FIGURE 3-5**  
EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

## 3.7.2 Transportation and Circulation Impacts

### **Alternative A**

#### *Access Options*

Three access options were evaluated for Alternative A:

**Option 1** would provide access through the Rancheria and to Western Mine Road Extension. No access would be provided directly to Highway 29 by the farmhouse driveway.

**Option 2** would use Western Mine Road Extension and provide a project driveway at the existing farmhouse driveway for direct access to Highway 29.

**Option 3** includes full access via the Rancheria and a project driveway at the existing farmhouse driveway with gated access to Western Mine Road Extension. The gated access would only be used for emergency access.

#### *Trip Generation*

The trip generation was calculated using trip generation rates published in the Institute of Transportation Engineers' *Trip Generation Manual* for single-family residential. Under full buildout of Alternative A, the proposed homes and cabins would generate 46 new trips in the a.m. peak hour and 58 new trips during the p.m. peak hour. The proposed RV park would generate 6 new trips in the a.m. peak hour and 8 trips in the p.m. peak hour.

#### *Trip Distribution and Assignment*

The distribution of project traffic is based on existing traffic conditions and the distribution of residences in southern Lake County. For the proposed homes and cabins, it is projected that 67 percent of trips will use Highway 29 north of the Rancheria and 33 percent of trips will use Highway 29 south of the Rancheria. For the proposed RV park, it is projected that for the a.m. peak hour, 50 percent of trips will use Highway 29 north of the Rancheria and 50 percent of trips will use Highway 29 south of the Rancheria. For the a.m. peak hour, 40 percent of RV park trips will use Highway 29 north of the Rancheria and 60 percent of trips will use Highway 29 south of the Rancheria.

Project trips for the Martin Ranch property were assigned to the adjacent streets based on the three access options. The project includes access options utilizing the existing Western Mine Road Extension and Rancheria Road intersections with Highway 29. Access Option 1 uses both existing intersections while Access Option 2 uses a new intersection at the farmhouse driveway and Western Mine Road Extension, and Access Option 3 uses a new intersection at the farmhouse driveway and Rancheria Road. Project trips for the Scott property were assigned to Highway 29 through the Rancheria Road intersection. Traffic will proceed through the casino/hotel parking lot to the north side of the site to enter the RV park.

Intersection Levels of Service

**Access Option 1**

The impacts of operating Alternative A with access to the Martin Ranch property via the Western Mine Road and Rancheria Road intersections with Highway 29 were estimated by adding project trips onto the existing background conditions. **Table 3-9** compares existing and plus project peak hour LOS and average delay per vehicle at the access intersections under Access Option 1. Motorists entering Highway 29 from either intersection will experience delays that are characteristic of up to LOS C conditions in the a.m. peak hour while motorists entering Highway 29 from Rancheria Road will experience LOS D conditions in the p.m. peak hour; the remaining intersections and approaches will experience LOS C or better conditions.

**TABLE 3-9**  
INTERSECTION LEVELS OF SERVICE – ALTERNATIVE A, ACCESS OPTION 1

Location	AM Peak Hour				PM Peak Hour			
	Existing		With Project		Existing		With Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Rancheria Road / Highway 29								
Northbound Left	A	8.5	A	8.5	A	8.0	A	8.1
Southbound Left	A	7.5	A	7.5	A	8.5	A	8.5
Eastbound	C	15.3	C	16.7	D	26.1	D	30.7
Westbound	A	8.9	A	8.9	C	15.3	C	15.7
Western Mine Road / Highway 29								
Northbound Left	–	–	A	8.5	A	7.6	A	7.6
Southbound Left	–	–	–	–	A	8.8	A	8.9
Eastbound	B	13.2	B	12.9	C	17.6	C	15.4
Westbound	B	11.6	B	11.9	B	12.6	B	12.7
Notes:								
Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. No direct access to Highway 29 would be provided under this access option.								
Average delay is expressed in seconds per vehicle.								
Source: KD Anderson & Associates, 2021.								

**Access Option 2**

**Table 3-10** compares existing and plus project peak hour LOS and average delay per vehicle at the access intersections under Access Option 2. Motorists entering Highway 29 from any of the intersection will experience LOS C or better conditions in the a.m. peak hour while motorists entering Highway 29 from Rancheria Road will experience LOS D conditions in the p.m. peak hour; the remaining intersections and approaches will experience LOS C or better conditions.

**TABLE 3-10**  
INTERSECTION LEVELS OF SERVICE – ALTERNATIVE A, ACCESS OPTION 2

Location	AM Peak Hour				PM Peak Hour			
	Existing		With Project		Existing		With Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Martin Ranch Project Driveway / Highway 29								
Northbound Left	–	–	A	8.5	–	–	A	7.7
Eastbound	–	–	B	14.1	–	–	C	16.0
Rancheria Road / Highway 29								
Northbound Left	A	8.5	A	8.5	A	8.0	A	8.1
Southbound Left	A	7.5	A	7.5	A	8.5	A	8.6
Eastbound	C	15.3	C	16.0	D	26.1	D	29.5
Westbound	A	8.9	A	9.1	C	15.3	C	15.9
Western Mine Road / Highway 29								
Northbound Left	–	–	A	8.5	A	7.6	A	7.6
Southbound Left	–	–	–	–	A	8.8	A	8.9
Eastbound	B	13.2	B	13.1	C	17.6	C	16.6
Westbound	B	11.6	B	11.9	B	12.6	B	12.7
Notes:								
Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. Under this access option, direct access to Highway 29 would be provided at the project driveway with an eastbound stop sign.								
Average delay is expressed in seconds per vehicle.								
Source: KD Anderson & Associates, 2021.								



**Access Option 3**

**Table 3-11** compares existing and plus project peak hour LOS and average delay per vehicle at the access intersections under Access Option 3. Motorists entering Highway 29 from any of the intersection will experience LOS C or better conditions in the a.m. peak hour while motorists entering Highway 29 from Rancheria Road will experience LOS D conditions in the p.m. peak hour; the remaining intersections and approaches will experience LOS C or better conditions.

**TABLE 3-11**  
INTERSECTION LEVELS OF SERVICE – ALTERNATIVE A, ACCESS OPTION 3

Location	AM Peak Hour				PM Peak Hour			
	Existing		With Project		Existing		With Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Martin Ranch Project Driveway / Highway 29								
Northbound Left	–	–	A	8.5	–	–	A	7.8
Eastbound	–	–	B	13.7	–	–	B	14.6
Rancheria Road / Highway 29								
Northbound Left	A	8.5	A	8.5	A	8.0	A	8.1
Southbound Left	A	7.5	A	7.5	A	8.5	A	8.5
Eastbound	C	15.3	C	16.3	D	26.1	D	30.0
Westbound	A	8.9	A	9.0	C	15.3	C	15.8
Western Mine Road / Highway 29								
Northbound Left	–	–	–	–	A	7.6	A	7.6
Southbound Left	–	–	–	–	A	8.8	A	8.9
Eastbound	B	13.2	B	13.5	C	17.6	C	18.1
Westbound	B	11.6	B	11.8	B	12.6	B	12.8
Notes:								
Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. Under this access option, direct access to Highway 29 would be provided at the project driveway with an eastbound stop sign.								
Average delay is expressed in seconds per vehicle.								
Source: KD Anderson & Associates, 2021.								

*Intersection Level of Service Summary*

Under all Proposed Action access options, all intersections would meet Caltrans' standard of LOS E for Highway 29 in the Middletown area. No significant impacts to intersection level of service would occur and no mitigation measures would be required. Motorists entering Highway 29 from any intersection will experience LOS C or better conditions in the a.m. peak hour while motorists entering Highway 29 from Rancheria Road will experience LOS D conditions in the p.m. peak hour; the remaining intersections and approaches will experience LOS C or better conditions.

*Pedestrian & Bicycle Facilities*

There are no sidewalks or bike lanes along Highway 29 in the vicinity of the project site. No designated bicycle routes currently exist along Highway 29 in the vicinity. The Proposed Action would generate pedestrian and bicycle traffic typical of residential areas. Most pedestrian and bicycle traffic is expected to remain on the project site and Rancheria. Little to no pedestrian traffic, and minimal amounts of bicycle traffic, would use Highway 29. Pedestrians may use existing paths near the highway, and bicyclists may use the existing road and paved shoulders. Due to the minor amount of pedestrian and bicycle traffic expected to be generated and the adequacy of existing facilities, this is considered a less-than-significant impact.

*Transit Service*

The Rancheria and Twin Pine Casino is currently served by Lake Transit Bus Route 3, which provides service between Clearlake in Lake County and Calistoga and Deer Park in Napa County and provides connections to other regional bus routes. The Proposed Action would add a minor amount of additional demand for transit service. No significant impacts to transit service are expected.

*Mitigation*

No mitigation measures would be required for Alternative A.

**Alternative B***Intersection Levels of Service*

The impacts of operating the Reduced Residential Alternative with access to the site via the Rancheria Road and Western Mine Road intersections with Highway 29 were estimated by adding project trips onto the existing background conditions. **Table 3-12** compares existing and plus project peak hour LOS and average delay per vehicle at the access intersections. Motorists entering Highway 29 from any of the intersection will experience LOS C or better conditions in the a.m. peak hour while motorists entering Highway 29 from Rancheria Road will experience LOS D conditions in the p.m. peak hour; the remaining intersections and approaches will experience LOS C or better conditions. Motorists entering Highway 29 will experience delays that are characteristics of LOS B conditions in the a.m. peak hour and up to LOS C in the p.m. peak hour. All intersections would operate with acceptable levels of service. No significant impacts to intersection level of service would occur and no mitigation measures would be required.

**TABLE 3-12**  
INTERSECTION LEVELS OF SERVICE – ALTERNATIVE B

Location	AM Peak Hour				PM Peak Hour			
	Existing		With Project		Existing		With Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Rancheria Road / Highway 29								
Northbound Left	A	8.5	A	8.5	A	8.0	A	8.0
Southbound Left	A	7.5	A	7.5	A	8.5	A	8.5
Eastbound	C	15.3	C	16.2	D	26.1	D	28.6
Westbound	A	8.9	A	8.9	C	15.3	C	15.5
Western Mine Road / Highway 29								
Northbound Left	–	–	A	8.5	A	7.6	A	7.6
Southbound Left	–	–	–	–	A	8.8	A	8.9
Eastbound	B	13.2	B	12.8	C	17.6	C	16.4
Westbound	B	11.6	B	11.8	B	12.6	B	12.7
<p>Notes:</p> <p>Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. No direct access to Highway 29 would be provided under this access option.</p> <p>Average delay is expressed in seconds per vehicle.</p> <p>Source: KD Anderson &amp; Associates, 2018.</p>								

### *Pedestrian & Bicycle Facilities*

As described under the Proposed Action, there are no sidewalks, bike lanes or designated bicycle routes in the vicinity. The Reduced Residential Alternative would generate pedestrian and bicycle traffic typical of residential areas. Most pedestrian and bicycle traffic is expected to remain on the project site and Rancheria. Little to no pedestrian traffic, and minimal amounts of bicycle traffic, would use Highway 29. Pedestrians may use existing paths near the highway, and bicyclists may use the existing road and paved shoulders. Due to the minor amount of pedestrian and bicycle traffic expected to be generated and the adequacy of existing facilities, this is considered a less-than-significant impact.

### *Transit Service*

As described under the Proposed Action, Lake Transit Bus Route 3 which provides service to the Rancheria and Twin Pine Casino and provides connections to other regional bus routes. The Reduced

Residential Alternative would add a minor amount of additional demand for transit service. No significant impacts to transit service are expected.

#### *Mitigation*

No mitigation measures would be required for Alternative B.

#### **Alternative C**

There would be no traffic increase under the No Action Alternative. There would be no impacts to intersection level of service, pedestrian and bicycle facilities, or transit service.

#### *Mitigation*

No mitigation measures would be required for Alternative C.

## **3.8 LAND USE AND AGRICULTURE**

### **3.8.1 Land Use**

Land uses in the vicinity include undeveloped forest, agriculture and rural residences. Within the immediate vicinity of the project properties, the Middletown Rancheria is located between the Scott and Martin Ranch properties. The Rancheria is developed with the Twin Pine Casino and Hotel, Uncle Buddy's Pump (gas station), tribal offices and single-family homes. Other surrounding land uses include rural residences, agricultural land, and undeveloped forested land.

#### ***Martin Ranch***

Martin Ranch has been used for agriculture for many decades. A farmhouse is located on the eastern portion of the property near Highway 29. A building in this location first appeared on topographic maps in 1927. Several sheds and outbuildings are currently located near the farmhouse, along with six acres of field which are fenced and used to pasture horses. A ranch house built in 1975 is in the southcentral portion of the project site. This home is accessed by a driveway off Western Mine Road Extension. There are 13 acres of vineyards on the east side of the project site.

The western half of the project site has 27 acres of forest with a seasonal creek and three constructed ponds. A small creek connects the southern (higher) and northern (lower) ponds. The middle pond was excavation in a smaller side drainage and is connected to the seasonal creek by two ditches. Dense vegetation and areas of steep terrain surround the ponds. Trails provide access to the ponds from the vineyard. **Figure 3-6** provides photos of the project site.

#### ***Scott Property***

The Scott property is currently developed with two single-family homes on the western portion of the site and casino overflow parking on the eastern portion of the property. **Figure 3-7** provides photos of the project site.



**Photo 1** View of project site from southeast corner near Highway 29 looking west. Vineyard is visible in the middle ground.



**Photo 2** View of eastern border of the project site along Highway 29 looking north. A drainage ditch is visible on the right, with a seasonal wetland swale visible on the left.





**Photo 3** View of the northeast corner of the project site looking east toward the existing farmhouse and Highway 29. Pasture is visible in the foreground, horses and outbuildings visible in the middle ground.



**Photo 4** View of pond in the pasture at the northeast corner of the project site, looking north toward the Reservation.





**Photo 5** View of the existing ranch house in the southcentral portion of the project site, looking southwest.



**Photo 6** View of upper vineyard area in north central portion of the project site, looking southeast.



**Photo 7** View of pump house at the lower pond in the western portion of the project site, looking southwest.



**Photo 8** View of middle pond in the western portion of the project site, looking north.





**Photo 9** View of the upper pond in the western portion of the project site, looking west.



**Photo 10** View of trail through forest in the western portion of the project site, looking southwest.



**Photo 1** View of project site looking west across casino overflow parking area.



**Photo 2** View of central portion of the project site looking southwest.





**Photo 3** View of the northernmost single family home on the western portion of the project site.



**Photo 4** View of the southernmost single family home on the western portion of the project site.

### **Lake County General Plan**

The Lake County General Plan designates the Martin Ranch property as Agricultural and the Scott property as Rural Residential (**Figure 3-8**). The Agriculture designation includes areas with prime farmland, vineyard soils and grazing lands, along with areas characterized by steep slopes and limited services. The Agriculture designation has a residential density of one dwelling unit per 40 acres (Lake County, 2008). The Rural Residential designation provides for single-family residential development in a semi-rural setting. The Rural Residential designation has a residential density of one dwelling unit per 5 acres if the average cross slope is less than 30 percent, and one dwelling unit per 10 acres if the average cross slope is more than 30 percent (Lake County, 2008).

Two of the ponds on the Martin Ranch property have been designated as Resource Conservation, which is intended to assure the maintenance of natural resources, including waterways, significant habitat, and ground water recharge areas.

Parcels in the proximity of the project site are designated as Agriculture, Rural Lands and Rural Residential. The Rural Lands designation allows for rural development in areas that are primarily in their natural state. Typical uses permitted by right include animal raising, crop production (especially vineyards), single family residences, game preserves and fisheries. The Rural Lands category has a residential density of one dwelling unit per 20 to 60 acres. The Rural Residential designation provides for single-family residential development in a semi-rural setting. Typical uses permitted by right include single-family residences, crop production, raising stock and poultry. The Rancheria is designated as Resort Commercial, which provides for commercial uses oriented toward tourists (Lake County, 2008). While the County has included the Rancheria in its land use plans, the County does not have jurisdiction over the Rancheria.

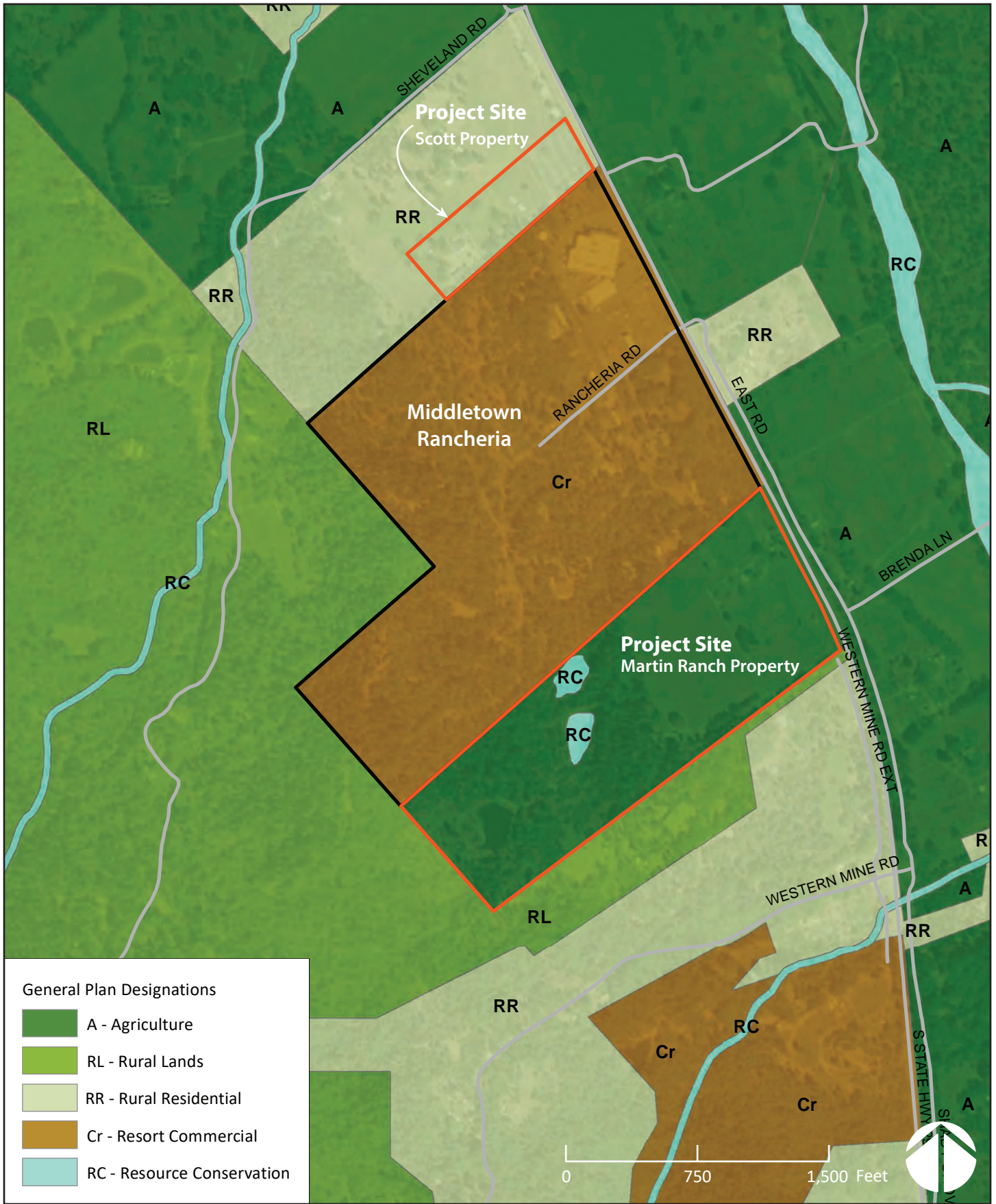
### **Lake County Zoning Ordinance**

The Martin Ranch property is zoned Agricultural Preserve by Lake County. This zone provides for lands in agriculture preserve and for the conservation and protection of land capable of producing agricultural products. Uses consistent with the California Land Conservation Act of 1965 (Williamson Act) are permitted, including one single-family home, greenhouses, farm labor housing, and game preserves. The minimum lot size is 40 acres.

The Scott property is zoned Rural Residential by Lake County. This zone provides for single-family residential development in a semi-rural setting along with limited agriculture. Permitted uses include: one single-family dwelling or mobile home; agricultural uses, including crop and tree farming, and livestock grazing; foster or small family home, family care home, supportive housing, transitional housing or small family day care home; and greenhouses, hothouses and incidental structures not exceeding a use area of six thousand (6,000) square feet. The minimum lot size is 5 acres.

Parcels in the proximity of the project site are zoned as Agricultural Preserve, Agricultural, and Rural Lands, Rural Residential and Timberland Preserve. These zones generally provide for agricultural and forestry land uses and limited residential development. Of these zones, Rural Residential allows the





MIDDLETOWN RANCHERIA

**FIGURE 3-8**  
GENERAL PLAN LAND USE MAP

most residential development, with up to two homes and a five-acre minimum parcel size (Lake County, 2014).

### ***Middletown Area Plan***

The Middletown Area Plan was adopted in 2010 to guide long-term growth and development in the area. The Area Plan supplements the County's General Plan by identifying objectives and policies specific to the region. In general, the objective of the Area Plan is to facilitate diverse development in a manner that protects community character and resources. The project site is located outside of the Middletown Community Growth Boundary, which consists of the downtown area and the surrounding residential development of Middletown. The Community Growth Boundary is intended to minimize sprawl, protect natural resources such as wetlands, riparian habitat, agricultural lands, and avoid natural hazard areas where wild fire and landslides threats are greatest. The Area Plan identifies Highway 29 in the project area as an open space corridor of significance.

### **3.8.2 Agriculture**

The Martin Ranch property is developed with approximately 12.7 acres of vineyards. The Scott property has been used for residential purposes for many years.

#### ***Williamson Act Provisions***

The Martin Ranch property is located on Williamson Act Mixed Enrollment Agricultural Land. The enrolled lands within the Williamson Act serve a purpose of restricting parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments lower than normal due to the parcel's limited market value of farming and open space. The Tribe has requested cancellation of the Williamson Act contract.

#### ***Farmland Protection Policy Act***

The goal of the Farmland Protection Policy Act (FPPA) is to minimize the extent that federal actions and programs result in the conversion of agricultural lands to non-agricultural uses. Pursuant to the FPPA, the Farmland Conversion Rating Form (Form AD 1006) is used to determine the value of the farmland under consideration and the level of protection such land should receive. The completed Form AD 1006 for the project site is provided in **Appendix F**.

### **3.8.3 Land Use and Agricultural Impacts**

#### ***Alternative A***

##### *Land Use*

The Tribe proposes to develop 45 single-family homes and 5 cabins on the Martin Ranch property and an RV park on the Scott property. With the 4 existing homes on these two properties, this would result in total of 54 dwelling units and 21 RV spaces on the project site. The current zoning of the Martin Ranch property as Agricultural Preserve allows for one single-family home along with farm labor housing. The current zoning of the Scott property as Rural Residential allows up to two homes. The Proposed Action would increase the residential density on the project site compared to what is currently envisioned in Lake County's current land use plans.

The Lake County General Plan designation of the Martin Ranch property within the Agricultural land use category recognizes the current agricultural use on the project site as it seeks to retain the County's agricultural resources. The Middletown Area Plan was adopted to guide development in a manner that protects community character and resources.

While the General Plan and the Middletown Area Plan are oriented toward the orderly growth of the County in general and Middletown specifically, the Proposed Action is proposed to provide for the orderly growth of the Rancheria. The Martin Ranch property is adjacent to the Rancheria and provides land that is suitable for development while avoiding hillsides and sensitive riparian and wetland habitats. LACOSAN has indicated an ability to provide wastewater service to the project site, and the Tribe has several water supply options. The project would also be served by roadways that would provide adequate access while maintaining acceptable levels of service.

The proposed residential development is of higher density than that permitted by the current zoning. However, the Tribe would voluntarily comply with the County's development standards, including minimum setback requirements. The proposed design of the residential development avoids steeper hillsides thereby reducing the visibility of the proposed development thereby helping to retain the rural character of the area. The avoidance of steeper hillsides would also reduce erosion hazards and provides better access for wildfire fighting. The Proposed Action incorporates native vegetation while providing fuel breaks and fuel reduction zones as well as an on-site water reservoirs and ponds that would reduce wildfire risks and facilitate wildfire response efforts. Approximately 2.4 acres of existing vineyard would be maintained on the steeper slopes to reduce erosion hazards and to retain the rural character of the site.

The proposed RV park would be located between the existing casino and hotel and rural residential land uses off the Rancheria. The RV park would provide a transition between the more intense commercial uses on the Rancheria to less intense residential development. Existing and proposed vegetation on the Scott property would further buffer residential development from more intense commercial development. There would be no land use conflicts such as blocking access or making adjacent off-site land uses infeasible.

While the Proposed Action would exceed the residential density currently identified for the site by Lake County, the design features described above would reduce significant changes to the rural character of the area. Likewise, the proposed RV park would provide a transition between the more intense commercial uses on the Rancheria to less intense residential development. Accordingly, inconsistencies with the Lake County land use plans and conflicts with the surrounding rural residential area would be less than significant.

### *Agriculture*

The project site contains approximately 9.4 acres of prime farmland that would be converted by development of Alternative A. The prime soils (Jafa loam, 2 to 5 percent slopes) are located on the Scott property and the eastern portion of the Martin Ranch property. These areas have been used for grazing and vineyards as well as residential development. The remaining soils of the project site are not designated as prime farmland.

A Farmland Conversion Impact Rating (FCIR) form was submitted to the USDA to determine value of the agricultural land to be converted under Alternative A in accordance with the FPPA. Per FPPA guidelines, if a site receives an FCIR combined score of 160 or more, alternative sites should be considered to determine if an alternative site would serve the proposed purpose and have a lower combined score or convert fewer acres of farmland (7 CFR § 658.4 (c)). The farmland conversion areas under Alternative A received a combined land evaluation and site assessment score of 154 (**Appendix F**).

While the proposed residential and RV park developments would convert approximately 9.4 acres of farmland, the conversion of the land would not interfere with agricultural uses (primarily grazing and home gardening) in the surrounding area. Impacts to agriculture would be less than significant.

#### *Mitigation*

No mitigation measures would be required for Alternative A.

#### **Alternative B**

Under Alternative B, impacts to land use and agriculture would be similar to those under Alternative A. However, under Alternative B, no Tribal homes would be developed in the eastern portion of the Martin Ranch property and the conversion of prime farmland would be reduced accordingly.

#### *Mitigation*

No mitigation measures would be required for Alternative B.

#### **Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No land use or agriculture impacts would occur.

#### *Mitigation*

No mitigation measures would be required for Alternative C.

## **3.9 PUBLIC SERVICES**

### **3.9.1 Water Supply**

Callayomi County Water District (CCWD) provides water supply for Middletown community and the Middletown Rancheria. CCWD currently serves the Scott property, but does not serve the Martin Ranch property. Water is provided to the Rancheria and the Scott property from a six-inch water line along Highway 29. On the Rancheria, the six-inch pipeline connects to a booster pump station located at the northeast corner of the Rancheria. Currently, water is delivered from the booster pump to two storage reservoirs, a 230,000-gallon tank that serves the casino and hotel and 44,000-gallon tank that serves the homes and Tribal offices. Distribution mains extend from these reservoirs to supply water to the Rancheria.

CCWD obtains its water supply from groundwater wells and operates a water supply system that includes a water treatment plant, two storage tanks and transmission and distribution mains. CCWD

wells draws on the Collayomi Valley Groundwater Basin. The basin consists of the alluvium deposits along Collayomi Valley and Long Valley, which are connected hydrologically. The maximum thickness of alluvium in the basin is approximately 350 feet deep in Collayomi Valley, and 475 feet deep in Long Valley. Recharge of the basin occurs from percolation of surface water from Putah, Dry and St. Helena Creeks, with some recharge also occurring from infiltration of irrigation water and rainfall. Water levels in the basin range from 3 to 15 feet below the ground surface, and spring groundwater levels have remained generally constant over the last 40 years. Total storage in the basin has been estimated at 36,000 to 37,000 acre-feet, with useable storage capacity estimated at 7,000 acre-feet (CDM, 2006; DWR, 2004).

Currently, CCWD has allocated 45 water service connections to the Rancheria. CCWD has authorized the Tribe to use these connections on Martin Ranch, subject to annexation of the property to CCWD's service area (**Appendix A**).

### **3.9.2 Wastewater Service**

Wastewater service is provided to the Rancheria by Lake County Sanitation District (LACOSAN). LACOSAN provides wastewater service in Lake County through five regional wastewater systems. The Middletown Wastewater System provide wastewater service to Middletown and the Rancheria. The Middletown Wastewater Treatment Plant (WWTP) is located off Highway 175 northwest of Middletown. The plant consists of an aerated facultative pond system and pump station. Effluent from the facility is pumped by pipeline to the Geysers steamfield where it injected into the ground to increase steam production for electrical power generation. A 240-acre-foot backup storage pond is located at the WWTP, which with a spray irrigation system, provides a back-up disposal option.

### **3.9.3 Solid Waste Service**

South Lake Refuse and Recycling provides curbside pickup of solid waste, compost and single-stream recycling to the Rancheria. South Lake Refuse and Recycling provides periodic bulky item and hazardous waste collection. South Lake Refuse and Recycling operates the Quakenbush Mountain Resource Recovery and Compost Facility, located east of Clearlake, which accepts organic material, construction wood, concrete, asphalt and clean dirt. The Quakenbush Mountain Facility is located adjacent to the Eastlake Landfill, which is owned and operated by the County of Lake and is the only landfill in Lake County. The landfill is permitted to accept 200 tons per day and is expected to reach capacity in 2043 (CalRecycle, 2023).

### **3.9.4 Electricity, Natural Gas, and Telecommunications**

Electricity is provided to the Rancheria by Pacific Gas and Electric (PG&E). There is no natural gas service in the project area; instead, propane tanks are used. Cable, telephone and cellular service are provided in the region by numerous carriers.

### 3.9.5 Law Enforcement

Public safety to the Project site is currently provided by Lake County Sherriff's Office. The Sherriff's Office has 54 sworn officers, including 24 patrol deputies, and 16 civilian personnel (Lake County Sheriff's Office, 2022). A County Sherriff's department building is located 31.5 miles north of the site at 1220 Martin St, Lakeport, CA. California is a Public Law 280 State that allows for state criminal law enforcement jurisdiction on the Project Site; however, this jurisdiction does not include regulatory civil law authority. Depending on the crime (pursuant to Public Law 280), the U.S. Marshals may provide support in specified situations. A California Highway Patrol detachment, located in Kelseyville, is also available to provide support.

### 3.9.6 Fire Protection/EMS

The South Lake Fire Protection District and CAL Fire provides fire protection to the project site. The South Lake Fire Protection District Fire Station is located at 21095 Highway 175, approximately 2.4 miles from the Project site. The station is staffed 24 hours a day, 7 days a week and the district covers 286 square miles of land, making it the third largest fire district in California. CAL Fire Middletown station is located at 15522 Lake Street, approximately 1.6 miles from the Project Site.

Emergency medical services are provided by Adventist Health Medical Center in Clear Lake, approximately 18.6 miles from the Project Site. In addition, emergency medical service is also available in Deer Park at the St. Helena Hospital operated by Adventist Health (23 miles). Adventist Health partners with Acute Medical Providers who provide staff and equipment for emergency services.

### 3.9.7 Public Service Impacts

#### **Alternative A**

##### *Water Supply*

Potable water for the proposed RV park would be provided by CCWD, which currently serves the Scott property. Service by CCWD would be subject to all connection fees and requirements. Potable water for the proposed homes and cabins on Martin Ranch would be provided by an extension of the existing Rancheria water system that is supplied by CCWD. Alternatively, some or all of the homes could be served by groundwater wells or water trucking either on a short-term or long-term basis. If the Tribe decides to extend the Rancheria's existing water system, Martin Ranch would need to be annexed to the CCWD service area. This process has been initiated and CCWD has provided a will-serve letter that is conditioned on the approval of the annexation (**Appendix A**).

As described in **Section 2.2**, CCWD has currently allocated 45 connections to the Rancheria. CCWD has authorized the Tribe to use these connections on Martin Ranch, subject to annexation of the property to CCWD's service area. The Tribe is planning to use 40 of the currently allocated 45 connections for homes on the Martin Ranch. Full buildout of the Tribe's proposed 45 homes and 5 cabins would require an additional 10 connections. In the future when the Tribe moves forward with construction of the last 10 homes or cabins, the Tribe would be required to submit service applications for these additional connections prior to development of those additional homes.



Once the annexation to the CCWD service area is approved, the Tribe would improve and expand the existing water distribution system on the Rancheria would be improved and expanded. These improvements would include replacement of the existing booster pump station, a new water main, and the extension of pipelines to the project site. Pipelines would be located along existing and proposed roads. In addition to residential service connections, fire hydrants would be provided consistent with the state and local standards.

If water trucking is used as an interim or supplemental water supply, water would be delivered to a water storage tank incorporated into the distribution system. Water would be obtained from a public water supply source in Middletown or Lower Lake and trucked to the site. Use of the public water supply would be subject to all fees and requirements of the provider. The development of Alternative A would not result in significant water supply impacts.

#### *Wastewater Service*

Wastewater service would be supplied by the Lake County Special Districts, which operates the Middletown Wastewater Collection and Treatment System that provides service to the Rancheria and the Scott property. Wastewater generated from the homes and RV park would be conveyed via pipeline to an existing 8-inch sewer line that extends from Dry Creek Cutoff Road to the Rancheria. All plumbing and connections would comply with the California Plumbing Code (Title 24, Part 5) and would be coordinated with Lake County Special Districts. Lake County Special Districts has provided a conditional will serve letter indicating adequate capacity to serve the proposed development (**Appendix B**). The development of Alternative A would not result in significant wastewater service impacts.

#### *Solid Waste Service*

Solid waste would be generated during construction of the proposed homes, cabins and RV park. Once construction is completed, solid waste would also be generated by residents and RV park patrons. Construction waste may include green waste from vegetation clearing, soil and rock from grading, and general waste of construction materials and packaging. Solid waste, compost and recycling service would be provided to the homes by South Lake Refuse and Recycling. Solid waste would be delivered to the Eastlake Landfill. The landfill has approximately 2,859,962 cubic yards of remaining capacity and is expected to remain open for 20 years (CalRecycle, 2023). Alternative A would result in a less-than-significant impact to solid waste service.

#### *Electricity, Natural Gas, and Telecommunications*

Underground Service Alert (USA) of Northern/Central California and Nevada provides a free “Dig Alert” service to all excavators (e.g. contractors, homeowners, and others) in the region. The excavator’s one call will automatically notify all USA members (utility services providers) that might have underground facilities at the excavator’s work site. In response, the USA member(s) will mark or stake the horizontal path of underground facilities, provide information about the facilities, and/or give clearance to dig. This simple safety service protects the excavator from personal injury and prevents underground facilities from being damaged. Two overhead PG&E electrical feeder lines serve the project site, one to each property. Based on information from PG&E, the feeder line to the Martin Ranch property would need to be improved to supply service. The overhead local feeder line along Highway 94 may also need

to be improved to supply service (PG&E, 2023). The Tribe would utilize USA and would coordinate with PG&E and other utility providers regarding extension of services to the homes and RV park. No adverse utility system effects are expected.

#### *Law Enforcement*

Under Public Law 280, 18 USC § 1162, the State of California and other local law enforcement agencies have criminal enforcement authority on Tribal lands. The Rancheria and project site would continue to receive general public safety and law enforcement services from the Lake County Sherriff's Office. The Lake County Sherriff's Office has indicated that the proposed development's impact on law enforcement would be low (Chwialkowski, pers. comm., 2023). No significant effects to law enforcement services would occur.

#### *Fire Protection/EMS*

Fire risks may occur as the result of the Proposed Action during construction and occupation of the homes. The short-term construction related effects include the potential fire threat associated with equipment and vehicles coming into contact with wildland areas. Construction vehicles and equipment such as welders, torches, and grinders may accidentally spark and ignite vegetation and building materials. This increased risk of fire during the construction of the proposed facilities would be similar to that found at other construction sites. Hazardous Avoidance BMPs, as presented in **Section 2.2.2**, have been incorporated into the project description to prevent fire from construction.

The construction of the homes and RV park would be undertaken consistent with the Integrated Resource Management Plan (IRMP) (see **Section 2.2.2**, Development Plans). The IRMP provides goals and objectives for forest protection and management. The IRMP includes firesafe clearance recommendations consistent with local recommendations. The IRMP also identifies the establishment and maintenance of fire breaks around the Rancheria and Martin Ranch.

In addition to the IRMP, the Tribe is cooperating with the Lake County Community Wildfire Protection Plan. The purpose of the Wildfire Protection Plan is to identify priority projects that reduce risks and hazards from wildfire while protecting conservation values in Lake County. The Tribe would construct and manage the proposed improvements in a manner consistent with the IRMP and Wildfire Protection Plan. This would include establishing and maintaining fuel reduction zones, including fire-free zones around homes and RV sites, structural protection zones, defensible space zones, and wildland fuel reduction zones. Landscaping would use fire-resistant native species such as ponderosa pine, California black oak, and Oregon white oak. The proposed homes and buildings would incorporate fire-safe construction materials and features.

The proposed development would be supplied with hydrants supplied by water storage reservoirs on the Rancheria. As identified in **Section 2.2.2**, development of Alternative A would meet Lake County Fire Protection Standards, which address hydrant spacing, distribution system, water pressure, and flow requirements.

Based on the precautions incorporated into the proposed development, the addition of the proposed homes and RV park is not expected to significantly increase the demand for fire protection and emergency medical services. Therefore, Alternative A would have a less than significant effect on fire protection and emergency medical services.

*Mitigation*

No mitigation measures would be required for Alternative A.

**Alternative B**

Under Alternative B, impacts to public services would be similar to those under Alternative A. However, with the development of fewer Tribal homes, the potential public service-related impacts would be reduced accordingly.

*Mitigation*

No mitigation measures would be required for Alternative B.

**Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No land use or agriculture impacts would occur.

*Mitigation*

No mitigation measures would be required for Alternative C.

## 3.10 NOISE

### 3.10.1 Background

**Noise Setting**

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. A common statistical tool is the average, or equivalent, sound level ( $L_{eq}$ ), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptor,  $L_{dn}$ , and shows very good correlation with community response to noise. The day/night average level (DNL or  $L_{dn}$ ) is based upon the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and

A 10 dBA change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

Sound from a small localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. Natural factors such as ground surface, topography, vegetation, and temperature can further reduce noise over distance. Where the ground surface is a generally flat, hard surface such as water, concrete, or hard-packed soil, sound levels decrease or attenuate at a rate of 6 dBA for each doubling of the distance. When ground cover or normal unpacked earth (i.e., a soft site) exists between the source and receptor, the ground becomes absorptive of noise energy. Absorptive ground results in an additional 1.5 dB reduction per doubling of distance as it spreads from the source. Added to the standard reduction rate for soft site conditions, point source noise attenuates at a rate of 7.5 dB per doubling of distance.

#### *Lake County General Plan Noise Element*

The County’s Noise Element of the General Plan establishes noise standards for various land uses in the County’s jurisdiction. The policies contained in this element serve as guides for identifying noise levels, and reducing or avoiding adverse noise effects on residents. The General Plan identifies a maximum desirable noise level of 55 CNEL for residential low-density homes, and allows for noise levels up to 60 CNEL for developments only after a detailed analysis of noise reduction requirements is made and needed insulation features have been included in the design. Residential development in areas with noise levels up to 70 CNEL is acceptable only with a noise analysis, incorporation of needed insulation features and shielding of outdoor areas (Lake County, 2008).

#### *Lake County Zoning Ordinance*

The Lake County Zoning Ordinance provides performance standards to control noises that are likely to create a public nuisance (Lake County Municipal Code, Chapter 21, Section 41.11). The Zoning Ordinance identifies a maximum  $L_{eq}$  of 55 dBA during the day (7 a.m. – 10 p.m.) and 45 dBA during the night (10 p.m. – 7 a.m.) where the receiving property is in a residential, agricultural or resource zoning district. Construction site sounds that occur between 7 a.m. and 7 p.m. are exempt from this standard. In addition, emergency equipment operated on an irregular or unscheduled basis and lawn and plant care machinery fitted with correctly functioning sound suppression equipment and operated between 7 a.m. and 8 p.m. are also exempt.

Noise within the project area is primarily defined by traffic from Highway 29 and by activities on surrounding residential and agricultural properties. In general, the noise environment is quiet with periodic noise from equipment operation.

### **3.10.2 Sensitive Receptors**

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Noise sensitive uses within the project area are rural residential uses. The several residences are located within 400 feet to the north of the Scott property, including one residence that is within approximately 30 feet. Two homes are located within 100 feet of the southern property boundary of the Martin Ranch property. Two homes are located approximately 200 feet east of the Martin Ranch property across Highway 29.



### 3.10.4 Noise Impacts

#### **Alternative A**

##### *Construction Noise*

Noise from construction activities would add to the existing noise environment of the project site and immediate vicinity. Sensitive receptors located near the project site could be exposed to construction-related noise.

Construction noise levels are rarely steady in nature, but instead fluctuate depending on the number and type of equipment in use at any given time. Individual construction activities would generate maximum noise level ranges of 76 to 90 dBA at a distance of 50 feet. Where more than one noise source is operating, the combined noise level could reach a maximum of 93 dBA at a distance of 50 feet.

As noted in **Section 3.10.1**, the County's noise standards do not apply to construction activities that occur between the hours of 7 a.m. and 7 p.m. As identified in **Section 2.2.2**, exterior construction activity would be restricted to these hours. Because construction would be limited in duration and would be restricted to hours identified by the Lake County Zoning Ordinance, construction noise impacts would be less than significant.

##### *Operational Noise*

Operational noise generated by the proposed residential development on the Martin Ranch property would be consistent with typical residential neighborhood noise. The primary noise sources would be from vehicles, lawn mowers, and children playing. These noise sources already exist in the project area and development of the proposed residential developments would not significantly add to the existing noise environment.

The proposed RV park would be located on the Scott property, west of the existing overflow parking lot. The RV park would be located approximately 280 feet from the nearest home north of the project site. RV park noise sources consist primarily of RVs entering and leaving the site and operation of RV air-conditioning units. All the RV sites would have electrical hook-ups, so generators would only be used in the event of a power outage.

To determine potential noise levels generated by RVs entering and leaving the site, a reference noise level of 73 dBA at a distance of 50 feet for medium trucks operating at 30 miles per hour (Cowan, 1993) is used. To determine potential noise levels generated by RV air-conditioning units, a reference noise level of 68 dBA at a distance of 4 feet (Bollard Acoustical Consultants, 2019) is used. Assuming 5 RV air-conditioning units are operating simultaneously, the reference noise level would be 78 dBA at 4 feet.

Based on the reference noise levels and assuming a typical attenuation rate of minus 6 dB per doubling of distance, the noise from an RV driving on the site would be approximately 59 dBA at a distance of 280 feet. These noise levels represent noise levels only when an RV is driving. The traffic study estimates a maximum of eight vehicles arriving and leaving the RV site, and some of these vehicles would be smaller passenger cars or trucks, which would make less noise. The peak hour noise level is estimated to be approximately 46 dBA  $L_{eq}$  at a distance of 280 feet. The noise from the air conditioning units would be approximately 42 dBA at a distance of 280 feet. The combination of RV driving and RV air-conditioning noise would be approximately 47 dBA  $L_{eq}$  at a distance of 280 feet. This represents a peak-hour

maximum that is expected occur in the afternoon. During evenings and at nighttime, the predominate noise source would be from RV air-conditioning units and as stated above are expected to be 42 dBA at the nearest residence to the located approximately 280 feet from the project site. These noise levels are below the County's noise standards that identify a maximum  $L_{eq}$  of 55 dBA during the day (7 a.m. – 10 p.m.) and 45 dBA during the night (10 p.m. – 7 a.m.)

Traffic generated by the proposed residential developments would increase traffic on surrounding roads. Alternative A would generate approximately 575 trips per day from the proposed homes, and approximately 80 trips per day from the proposed RV Park. Highway 29 currently has a daily traffic volume of approximately 9,000 vehicles per day. This would represent an approximately 7 percent increase in traffic on Highway 29. Given that it typically takes a doubling of traffic to increase roadway noise 3 dBA, the increase in traffic noise on local roadways attributable to Alternative A would not be noticeable.

Operation of the Proposed Action does not have the potential to significantly increase noise levels in the vicinity of the project site, or expose residents to adverse noise levels. Noise impacts from operation of the residential development and RV park would be less than significant.

#### *Mitigation*

No mitigation measures would be required for Alternative A.

#### **Alternative B**

Under Alternative B, noise impacts would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the potential noise impacts would be reduced accordingly.

#### *Mitigation*

No mitigation measures would be required for Alternative B.

#### **Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No noise impacts would occur.

#### *Mitigation*

No mitigation measures would be required for Alternative C.

## 3.11 HAZARDOUS MATERIALS

### 3.11.1 Background

A Phase I Environmental Site Assessment (ESA) was performed for each of the properties in conformance with American Society for Testing and Materials (ASTM). Standard Practice E1527-13 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312). The Phase I for the Martin Ranch property was completed on June 11, 2021. The Phase I for the Scott property was completed on August 7, 2021. The Phase 1 ESAs are attached as **Appendix G**.

The purpose of the Phase I ESAs was to identify potential Recognized Environmental Conditions (RECs), associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property. Property assessment activities consisted of: 1) a review of federal, state, tribal and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

Consultation with regulatory agencies, and a review of databases revealed no evidence of the use or storage of hazardous materials on the project site or surrounding area. The site reconnaissance found no environmental conditions on the project site, or on the surrounding project area. The Phase I ESA did not identify any existing hazardous material releases on the project site.

### 3.11.2 Hazardous Material Impacts

#### **Alternative A**

Impacts associated with hazardous materials include impacts resulting from a release of hazardous materials and impacts from improper hazardous materials management. A project would be considered to have significant hazardous materials impacts if the project site has existing hazardous materials on-site that would require remediation prior to development of a project alternative. Additionally, if a project would result in the use, handling, or generation of a regulated hazardous material, of which the regulated amounts would increase the potential risk of exposure resulting in reduction of quality of life or loss of life, then the project would have a significant adverse impact.

The Phase I ESAs identified no hazardous materials on the project site or within a distance that would expose people or the environment to hazardous materials at adverse levels.

During construction, it is possible that hazardous materials, such as fuel, solvents, paint, and adhesives would be used on site and the potential for an accidental release exists. However, implementation of construction BMPs identified in **Section 2.2.2** would reduce the potential of such accidental releases. With the implementation of these BMPs, additional stormwater BMPs that would be required under the SWPPP, and compliance with federal laws relating to the handling of hazardous materials, adverse

effects associated with the accidental release of hazardous materials during construction would be less than significant.

The majority of waste produced by residents on the project site would be nonhazardous. The small quantities of hazardous materials that would be generated or used may include pesticides, fertilizers, motor oil, hydraulic fluid, solvents, disinfectants, cleaners, lubricants, paint, and paint thinner. The amount and type of hazardous materials that would be generated are common to residential developments and do not pose unusual storage, handling or disposal issues. Adverse effects associated with the accidental release of hazardous materials by residents are expected to be less than significant.

#### *Mitigation*

No mitigation measures would be required for Alternative A.

#### **Alternative B**

Under Alternative B, hazardous material impacts would be similar to those under Alternative A; however, with the development of fewer Tribal homes, the potential hazardous material impacts would be reduced accordingly.

#### *Mitigation*

No mitigation measures would be required for Alternative B.

#### **Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, roads or other improvements would be developed. No hazardous material impacts would occur.

#### *Mitigation*

No mitigation measures would be required for Alternative C.

## **3.12 VISUAL RESOURCES**

### **3.12.1 Background**

#### ***Visual Setting***

The visual character of the project area is defined by a mixture of agricultural and rural residential land uses within the Collayomi Valley with views of forested hills in the distance. Open fields and residential yards are interspersed with wooded fence rows and forested areas. Agriculture in the area is primarily vineyard, orchard and pasture. Caltrans has not designated Highway 29 as a scenic highway but does identify the highway as eligible for the designation (Caltrans, 2023). The Middletown Area Plan identifies Highway 29 as a Scenic Route (Lake County, 2010).

#### *Martin Ranch*

The eastern portion of the Martin Ranch property is visible from Highway 29. Seen from the highway, the project site slopes upward gradually, providing a clear view of the eastern most portion of vineyard,

the farmhouse and adjacent buildings and pasture. The upper portion of vineyard is seen at the top of the slope, but is less visible due to distance and the more level slope of the upper vineyard beyond the brow of the hill. The forest is visible in the far distance beyond the vineyards. Views of the property from most surrounding residences are limited due to intervening topography and trees. One residence east of the Highway 29 on East Road has an open view of the eastern portion of the property.

#### *Scott Property*

The eastern and central portions of the Scott property are visible from Highway 29. Seen from the highway, the existing overflow parking lot is visible through gaps in the trees at the edge of the property. The central portion of the property is less visible due to distance and the generally flat nature of the topography. The western portion of the property is obscured by trees and distance. Views of the property from most surrounding residences are limited due to intervening topography and trees. Two residences west of Highway 29 have views of the central portion of the property. These views are partially obstructed by buildings and trees.

### **3.12.2 Visual Resource Impacts**

#### ***Alternative A***

##### *Martin Ranch*

The proposed housing development on the Martin Ranch property would be visible from Highway 29. The homes on the eastern portion of property would be the most visible due to the proximity to the highway. The homes would be set back from the highway approximately 150 feet. Existing and proposed trees and vegetation would partially obscure the views of homes. In addition, the steeper slope facing the highway would remain in vineyard, thereby preserving some of the agricultural open space on the site. The homes west of the vineyard would be obscured by distance, vegetation, and the receding slope. While the density of homes would be greater than in the surrounding area, the proposed housing development would be similar in nature to existing rural residential development on the adjacent Rancheria and surrounding area. The proposed housing development would not significantly impact the scenic views from Highway 29. The development would not disrupt or block views of the surroundings mountains or other scenic vistas. Due to the topography and the woodland vegetation, views of the new homes and roadways would be limited from the surrounding areas. Because the type of housing would be consistent with the housing in the surrounding area (i.e., single family), visual impacts would be less than significant.

##### *Scott Property*

The proposed RV park on the Scott property would be partially visible from Highway 29. The RV park would be over 400 feet from the highway and existing and planned trees would mostly obscure views of the RV park. In particular, an existing row of trees located along the eastern project boundary blocks views except for where there are gaps between the trees. Due to the topography, distance, and vegetation, views of the RV park would be limited from the surrounding areas. A row of trees proposed along the north boundary of the project site, would further screen views of the project site. Because the RV park would be set back from public viewpoints and screened by vegetation, visual impacts would be less than significant.



**Alternative B**

Under Alternative B, visual impacts would be reduced as compared to those under Alternative A. No homes would be developed in the eastern portion of the Martin Ranch property. The existing fields and vineyards would be preserved and the homes developed in the central portion of property would not be readily visible from the highway. Visual impacts of the RV park on the Scott property would be the same as those described under Alternative A. Visual impacts would be less than significant.

*Mitigation*

No mitigation measures would be required for Alternative B.

**Alternative C**

Under the No Action Alternative, the land would not be taken into trust and no homes, RV park, roads or other improvements would be developed. No visual resource impacts would occur.

*Mitigation*

No mitigation measures would be required for Alternative C.

**3.13 GROWTH-INDUCING AND CUMULATIVE IMPACTS****3.13.1. Growth Inducing Impacts**

A growth-inducing effect may occur when a project fosters economic or population growth, removes obstacles to growth (through the extension of infrastructure to a previously unserved area), or facilitates other activities that could significantly affect the environment. This analysis considers whether the Project would directly or indirectly induce growth in the surrounding area.

***Economic and Population Growth***

The objective of the Proposed Action is to alleviate the shortage of on-reservation housing for the Tribe and to diversify and expand accommodation options for its casino. The Proposed Action would directly increase population on the project site by developing housing. However, this development is not expected to significantly induce population growth in the surrounding area. The surrounding area is currently zoned for agriculture and rural residential development, and homes already exist in the area. Because the proposed RV park is limited to 21 spaces and is intended to support the existing casino operation, this development is not expected to lead to additional population growth. The Proposed Action would result in a less-than-significant growth-inducing impact.

***Removal of an Obstacle to Growth***

The Proposed Action does not include roadway, utility, or other infrastructure improvements that would facilitate development in the surrounding area. All improvements would be limited to trust lands. If CCWD water is supplied to the proposed homes, it would be done through extension of the Tribe's existing water supply system as described in **Section 3.9.7**. This system would not be used to supply any additional homes off the Tribe's trust lands. As such, the Proposed Action would not remove an obstacle to growth in the surrounding area. The Proposed Action would result in a less-than-significant growth-inducing impact.

### ***Other Potential Growth***

The Proposed Action does not represent a precedent-setting action such as an amendment of land use plans. The Proposed Action would not induce growth in the surrounding area of Lake County. The Proposed Action would result in a less-than-significant growth-inducing impact.

### **3.13.2. Cumulative Impacts**

Cumulative impacts refer to the effects of a project that are individually limited but cumulatively considerable off-Reservation. “Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past, current, or probable future projects.

#### ***Cumulative Setting***

The assessment of impacts takes into account the “cumulative environment” which is defined by other projects that may contribute to the Proposed Action’s environmental impacts within the same geographic area. The geographic boundaries of the cumulative effects zone have been determined by the nature of the resources affected and the distance that effects may travel. As an example, increased sedimentation of waterways that result from a project are limited to the watershed in which they occur. As a result, it is only necessary to examine incremental effects within that watershed. Air quality emissions from a project, however, travel over far greater distances and therefore necessitate analysis on the air basin. For this analysis, the geographic boundaries of the cumulative effects zone are generally that of Lake County, although for some resources (water, biological etc.) smaller natural or cultural boundaries are used.

The means of establishing projects that may contribute to environmental conditions in the region is the growth assumptions of the Lake County General Plan.

The General Plan anticipates that the annual population growth rate in the County is 2 percent for cities and communities, and 0.75 percent for the remaining unincorporated portion of the County. Taken together, the County assumes an annual growth rate of approximately 1.7 percent, with population expected to increase from 71,901 residents in 2010 to 101,557 residents by 2030; extrapolating this growth rate would result in a population of approximately 120,204 in 2040. The County General Plan anticipates that the annual population growth rate in Middletown is 2 percent, with population expected to increase from 1,407 residents in 2010 to 2,091 residents by 2030; extrapolating this growth rate would result in a population of approximately 2,549 in 2040 (Lake County, 2008).

The Middletown Area Plan is a guide for long-term growth and development as a complement to the Lake County General Plan focused on the Middletown Planning Area. The County estimates that the Middletown population and household totals would increase with an annual 2% growth rate, adding 2,553 residents and 956 housing units from 2010 to 2030 (Lake County, 2010).

#### ***Cumulative Impacts***

##### *Land Resources*

Cumulative development in the region will include land and roadway development necessary to accommodate the County’s planned growth for this area. Such development will increase the potential

for seismic hazards, erosion, and topsoil loss. The Proposed Action would not result in significant contributions to these potential impacts. The project site is not near an Alquist-Priolo Earthquake Fault Zone or other mapped seismic hazard. As identified in **Section 2.2**, construction of the Proposed Action would comply with the CBC. Compliance with the CBC would ensure that the proposed structures would be constructed to withstand seismic ground shaking. As addressed in **Section 3.1.7**, avoidance of steep slopes, incorporation of slope design and revegetation standards, and implementation of erosion control measures, potential soil erosion effects are expected to be less than significant. Cumulative impacts to land resources are therefore considered to be less than significant.

#### *Water Resources*

Cumulative growth in the region will result in increased potential for sedimentation, pollution, and stormwater flows in the Upper Putah Creek Watershed. Likewise, development may increase flooding risks or adversely impact groundwater conditions. As addressed in **Section 3.2.5**, to offset the proposed impervious surfaces, bioswales would be constructed to treat 100% of the equivalent net increase in impervious area of the roadways. The bioswales would reduce site runoff into the adjacent drainage and ensure a reduction in mobile pollutants and sediments. All development would be outside of FEMA designated flood hazard zones. The homes and RV park would not be developed in a manner that exposes residents to flooding hazard, interferes with a floodway or increases downstream flooding hazards. Wastewater treatment and disposal would be provided by the Lake County Sanitation District. No on-site wastewater treatment and disposal would occur. In addition, the Tribe would be required to implement a SWPPP and erosion control plan during construction of the homes. The Proposed Action's contribution to cumulative water resource impacts would be less than significant.

#### *Air Quality*

Cumulative development in Lake County will include land and roadway development that has the potential to impact air resources. Cumulative air quality impacts will occur if projects in the region cause exceedances of the State or National Ambient Air Quality Standards. **Section 3.3** addresses the potential air quality and GHG emission impacts of the Proposed Action.

By its very nature, air pollution is largely a cumulative impact, and the analysis of criteria pollutants and GHG emissions in **Section 3.3** addresses potential cumulative impacts. Emissions of all criteria pollutants would be less than significant. With regard to GHG emissions, the proposed housing would be of new construction and would meet the current CBC standards, including the use of energy efficient construction materials and appliances. As such, the proposed housing would be consistent with current efforts to improve energy efficiency and reduce GHG emissions. In addition, as identified in **Section 2.2**, BMPs have been provided to reduce project-related GHG emissions. With implementation of these measures, the Proposed Action would not result in a significant contribution to cumulative air quality or GHG impacts.

#### *Biological Resources*

As development occurs in the region, natural habitat will be impacted. Cumulative impacts to biological resources include the fragmentation and loss of forest, wetlands, riparian vegetation, and other important wildlife habitat. Such habitat loss could impact special-status species and nesting birds that depend on such habitat and could limit the ability of animals to move through the region. Compliance with federal, state, and local regulations will reduce habitat loss by restricting the areas where

development may occur and requiring mitigation of habitat impacts; however, some cumulative loss of habitat will nevertheless occur. Development of the proposed homes has the potential to impact northern spotted owl, and migratory birds. Mitigation measures have been identified to avoid or reduce potential impacts on biological resources to a less-than-significant level. Mitigation measures include pre-construction surveys, avoidance of habitat and listed species, providing buffer areas around sensitive resources, and avoiding construction during the bird nesting season. These measures will ensure that potential impacts to biological resources would be reduced to a less-than-significant level. The Proposed Action's contribution to cumulative biological resource impacts is considered to be less than significant.

#### *Cultural Resources*

Cumulative development in the region will include land and roadway development that has the potential to impact cultural resources. Potential cultural resource impacts include the loss of archaeological sites during excavation and the disturbance or destruction of historic buildings.

As identified in **Section 3.5**, no significant cultural resources are known to be present on project site that meet NHPA criteria. Because no cultural resources are known to exist on the project site, no impacts to cultural resources are expected to occur as the result of the Proposed Action. Mitigation measures have been identified to prevent the loss of buried archaeological resources if encountered during grading or excavation on the Project site. The Proposed Action's contribution to cumulative cultural resource impacts is considered to be less than significant.

#### *Socioeconomic Conditions/Environmental Justice*

Cumulative development in the region is expected to occur as Lake County approves additional residential and commercial development. As development continues to occur, potential socioeconomic impacts may occur. Types of socioeconomic impacts include adverse changes in the housing market, population, taxes, employment and income levels, and community cohesion. The proposed residential development would provide needed housing for tribal members, and would be benefit the socioeconomic conditions of the Tribe. The proposed RV park would support the Tribe's casino, which is one of the County's largest employers. While the removal of the parcels from the County's jurisdiction would reduce property tax revenue, the Tribe provides services to the Rancheria and contracts with other service providers for services. No other adverse socioeconomic impacts would occur as the result of the proposed fee-to-trust acquisition and residential and RV park development. The proposed residential and RV park project would not result in adverse environmental effects, and no minority or low-income populations would be adversely impacted by the project. Cumulative socioeconomic and environmental justice effects are therefore considered to be less than significant.

#### *Transportation and Circulation*

To estimate future year peak hour intersection turning movement traffic volumes, the directional traffic was calculated using the Caltrans District 1 growth factor of 1.45. The extent of potential improvements to Highway 29 in the study area was determined from review of the State Route 29 Transportation Concept Report (TCR) and the SR 29 South Corridor Engineered Feasibility Study. The TCR notes that capacity increasing improvements in the project vicinity are not necessary to maintain the concept LOS through 2035.

The analysis of cumulative impacts addresses intersection level of service, pedestrian and bicycle facilities, and transit service. Three access alternatives are addressed under the Proposed Project:

**Option 1** would provide access through the Rancheria and to Western Mine Road Extension. No access would be provided directly to Highway 29 by the farmhouse driveway,

**Option 2** would use Western Mine Road Extension and provide a project driveway at the existing farmhouse driveway for direct access to Highway 29, and

**Option 3** includes full access via the Rancheria and a project driveway at the existing farmhouse driveway with gated access to Western Mine Road Extension. The gated access would only be used for emergency access.

**Figure 2-2**, in **Section 2**, shows the configuration of the access options.

### **Intersection Levels of Service**

#### Access Option 1

The cumulative impacts of operating the Proposed Project with access to the site via the Western Mine Road and Rancheria Road intersections with Highway 29 were estimated by adding project trips onto the estimated cumulative conditions. **Table 3-13** compares cumulative and cumulative with project peak hour LOS and average delay per vehicle at the access intersections under Access Option 1. All intersections meet Caltrans' standard of LOS E for Highway 29 in the Middletown area, except for the eastbound approach at the intersection of Rancheria Road and Highway 29. Motorists entering Highway 29 from the Rancheria will experience delays that are characteristic of LOS F conditions in the p.m. peak hour with or without the project. The Western Mine Road intersection will operate at LOS D or better in both a.m. and p.m. peak hours.



**TABLE 3-13**  
 CUMULATIVE INTERSECTION LEVELS OF SERVICE – PROPOSED PROJECT, ACCESS OPTION 1

Location	AM Peak Hour				PM Peak Hour			
	Cumulative Condition		Cumulative with Project		Cumulative Condition		Cumulative with Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Rancheria Road / Highway 29								
Northbound Left	B	10.4	F	10.4	A	8.7	A	8.7
Southbound Left	A	7.5	A	7.5	A	9.4	A	9.4
Eastbound	<b>F</b>	<b>193.0</b>	<b>F</b>	<b>257.2</b>	<b>F</b>	<b>574.3</b>	<b>F</b>	<b>666.7</b>
Westbound	B	12.7	B	12.9	D	34.7	D	36.5
Western Mine Road / Highway 29								
Northbound Left	A	9.5	A	9.5	A	7.9	A	7.9
Southbound Left	A	7.6	A	7.6	B	10.3	B	10.3
Eastbound	C	20.6	C	19.3	D	34.1	D	29.6
Westbound	B	14.6	D	15.0	C	21.2	C	21.9
Notes:  Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. No direct access to Highway 29 would be provided under this access option.  Average delay is expressed in seconds per vehicle.  <b>Bold</b> indicates LOS threshold exceeded.  Source: KD Anderson & Associates, 2021.								

Access Option 2

**Table 3-14** compares cumulative and cumulative with project peak hour LOS and average delay per vehicle at the access intersections under Access Option 2. All intersections meet Caltrans’ standard of LOS E for Highway 29 in the Middletown area, except for the eastbound approach at the intersection of Rancheria Road and Highway 29. Motorists entering Highway 29 from the Rancheria will experience LOS F conditions in the p.m. peak hour with or without the project. The remaining intersections will operate at LOS D or better in both a.m. and p.m. peak hours.

**TABLE 3-14**  
CUMULATIVE INTERSECTION LEVELS OF SERVICE – PROPOSED PROJECT, ACCESS OPTION 2

Location	AM Peak Hour				PM Peak Hour			
	Cumulative Condition		Cumulative with Project		Cumulative Condition		Cumulative with Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Project Driveway / Highway 29								
Northbound Left	–	–	A	9.6	–	–	A	8.1
Eastbound	–	–	C	21.4	–	–	D	25.1
Rancheria Road / Highway 29								
Northbound Left	B	10.4	A	10.4	A	8.7	A	8.9
Southbound Left	A	7.5	A	7.6	A	9.4	A	9.4
Eastbound	<b>F</b>	<b>193.0</b>	<b>F</b>	<b>225.5</b>	<b>F</b>	<b>574.3</b>	<b>F</b>	<b>665.5</b>
Westbound	B	12.7	B	13.1	D	34.7	E	37.1
Western Mine Road / Highway 29								
Northbound Left	A	9.5	A	9.6	A	7.9	A	7.9
Southbound Left	A	7.6	A	7.6	B	10.3	B	10.3
Eastbound	C	20.6	C	19.8	D	34.1	D	32.2
Westbound	B	14.6	C	15.0	C	21.2	C	21.8
Notes:								
Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. Under this access option, direct access to Highway 29 would be provided at the project driveway with an eastbound stop sign.								
Average delay is expressed in seconds per vehicle.								
<b>Bold</b> indicates LOS threshold exceeded.								
Source: KD Anderson & Associates, 2021.								

### Access Option 3

**Table 3-15** compares cumulative and cumulative with project peak hour LOS and average delay per vehicle at the access intersections under Access Option 3. All intersections meet Caltrans' standard of LOS E for Highway 29 in the Middletown area, except for the eastbound approach at the intersection of Rancheria Road and Highway 29. Motorists entering Highway 29 from the Rancheria will experience LOS

F conditions in the p.m. peak hour with or without the project. The remaining intersections will operate at LOS E or better in both a.m. and p.m. peak hours.

**TABLE 3-15**  
CUMULATIVE INTERSECTION LEVELS OF SERVICE – PROPOSED PROJECT, ACCESS OPTION 3

Location	AM Peak Hour				PM Peak Hour			
	Cumulative Condition		Cumulative with Project		Cumulative Condition		Cumulative with Project	
	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay	LOS	Average Delay
Project Driveway / Highway 29								
Northbound Left	–	–	A	9.6	–	–	A	8.1
Eastbound	–	–	C	20.5	–	–	C	21.9
Rancheria Road / Highway 29								
Northbound Left	A	10.4	B	10.4	A	8.7	A	8.9
Southbound Left	A	7.5	A	7.6	A	9.4	A	9.4
Eastbound	<b>F</b>	<b>193.0</b>	<b>F</b>	<b>232.0</b>	<b>F</b>	<b>574.3</b>	<b>F</b>	<b>660.5</b>
Westbound	B	12.7	B	13.1	D	34.7	D	37.1
Western Mine Road / Highway 29								
Northbound Left	A	9.5	A	9.6	A	7.9	A	7.9
Southbound Left	A	7.6	A	7.6	B	10.3	B	10.3
Eastbound	C	20.6	C	21.1	D	34.1	D	35.3
Westbound	B	14.6	B	14.8	C	21.2	C	21.7
<p>Notes:</p> <p>Both Rancheria Road/Highway 29 and Western Mine Road/Highway 29 would operate with an eastbound/westbound stop sign control. Under this access option, direct access to Highway 29 would be provided at the project driveway with an eastbound stop sign.</p> <p>Average delay is expressed in seconds per vehicle.</p> <p><b>Bold</b> indicates LOS threshold exceeded.</p> <p>Source: KD Anderson &amp; Associates, 2021.</p>								

**Intersection Level of Service Summary**

Under all Proposed Project access options, all intersections would operate with acceptable levels of service except for the intersection of Rancheria Road and Highway 29. Motorists entering Highway 29

from the Rancheria will experience LOS F conditions in the a.m. and p.m. peak hours with or without the project. Caltrans' SR 29 South Corridor Engineered Feasibility Study identified that the intersection would operate at LOS F in the future. The study suggested mitigation through the installation of a traffic signal or a roundabout. With a signal or roundabout, the intersection would operate at LOS B. With implementation of this measure, described below, impacts would be less than significant.

#### Mitigation

The Tribe shall provide a proportionate share of the cost of installing a traffic signal or roundabout at the intersection of Highway 29 and Rancheria Road. The Tribe shall coordinate with Caltrans to monitor the intersection to determine when the installation of improvements are warranted.

#### **Pedestrian & Bicycle Facilities**

There are currently no sidewalks or bike lanes along Highway 29 in the vicinity of the project site. However, the SR 29 South Corridor Engineered Feasibility Study identified the installation of a Class 1 bike path and equestrian/pedestrian trail north from Rancheria Road to Middletown. While no funding is currently approved, this trail may be constructed in the future.

The Proposed Project would generate pedestrian and bicycle traffic typical of residential areas. Most pedestrian and bicycle traffic is expected to remain on the project site and Rancheria. Little to no pedestrian traffic, and minimal amounts of bicycle traffic, would use Highway 29. Pedestrians may use existing paths near the highway, and bicyclists may use the existing road and paved shoulders. If a bike/equestrian/pedestrian path is created between the Rancheria and Middletown, pedestrian and bicycle use could be accommodated through such a facility. Due to the minor amount of pedestrian and bicycle traffic expected to be generated and the adequacy of existing facilities, this is considered a less-than-significant impact.

#### **Transit Service**

The Rancheria and Twin Pine Casino is currently served by Lake Transit Bus Route 2, which provides service along Highway 175 between Kit's Corner to the Twin Pine Casino, and Bus Route 3, which provides service between Clearlake in Lake County and Calistoga and Deer Park in Napa County. These buses provide connections to other regional bus routes. No future expansion of facilities or services are known at this time. The Proposed Project would add a minor amount of additional demand for transit service. No significant impacts to transit service are expected.

#### *Land Use and Agriculture*

Cumulative land use and agriculture impacts that may occur as the region grows include the development of conflicting land uses, the loss of community character or integrity, and the displacement of agriculture.

The proposed residential development is of higher density than that permitted by the current zoning. However, the Tribe would voluntarily comply with the County's development standards, including minimum setback requirements. The proposed design of the residential development avoids steeper hillsides thereby reducing the visibility of the proposed development thereby helping to retain the rural character of the area. Likewise, the proposed RV park would provide a transition between the more

intense commercial uses on the Rancheria to less intense residential development. As a result, no conflicts with adjacent land uses are expected.

While the proposed residential and RV park developments would convert approximately 9.4 acres of farmland, the conversion of the land would not interfere with agricultural uses (primarily grazing and home gardening) in the surrounding area. The Proposed Action's contribution to cumulative land use and agriculture impacts is considered less than significant.

#### *Public Services*

As development occurs in the region, demands for public services will increase. Typically, public services are paid by development fees, rates, and property taxes. As such, the provision of public services typically expands to serve the additional demand. The provision of adequate water supply is the most crucial concern in drought-prone California. As described in **Section 2.2**, CCWD has currently allocated 45 connections to the Rancheria. CCWD has authorized the Tribe to use these connections on Martin Ranch, subject to annexation of the property to CCWD's service area. Alternatively, the Tribe could develop one or more wells to supply water to some of the homes. The use of groundwater would be conditioned on developing one or more wells with sustained yields that provide adequate capacity. According to DWR, no groundwater level declines have been identified in the Collayomi Valley Groundwater Basin. Wastewater service would be supplied by the Lake County Special Districts, which operates the Middletown Wastewater Collection and Treatment System that provides service to the Rancheria and the Scott property. No significant impacts to water or wastewater services are expected. The proposed housing and RV park development would be served by the same law enforcement, fire protection, solid waste and utility services that are currently provided to the Rancheria. The Proposed Action's contribution to cumulative public service impacts is considered to be less than significant.

#### *Noise*

Cumulative development in Lake County would result in localized noise level increases. These may occur along roadways where traffic levels increase or in neighborhoods where urban uses are expanding or intensifying. As addressed in **Section 3.10**, construction of the proposed facilities would result in short-term increases in noise in the vicinity of the project site. Because construction would be limited in duration and would be restricted to hours identified by the County's noise standards, construction noise impacts would be less than significant. Operation of the Proposed Action does not have the potential to significantly increase noise levels in the vicinity of the project sites, or expose residents to adverse noise levels. The Project would not result a cumulatively considerable contribution to noise impacts.

#### *Hazardous Materials*

As cumulative development occurs in the region, the potential exists for land and roadway development projects to increase hazardous material impacts on public health and the environment. Impacts can occur as the result of the improper use and disposal of hazardous materials, or through contact with existing hazardous materials encountered during construction. No hazardous material impacts are expected to occur as the result of the Proposed Action, as the Phase I ESAs identified no hazardous materials on the project site or within a distance that would expose people or the environment to hazardous materials at adverse levels. All applicable federal, state and local regulations pertaining to the use and disposal of hazardous materials would be followed during construction. The Proposed Action's contribution to cumulative hazardous material impacts is considered to be less than significant.



*Visual Resources*

Cumulative visual impacts that may occur as the region grows include the loss of scenic vistas or the aesthetic quality of views in the region as residential and commercial development alters the natural landscape. While the density of the proposed homes would be greater than in the surrounding area, the proposed housing development would be similar in nature to existing rural residential development on the adjacent Rancheria and surrounding area. Due to the topography, surrounding woodland vegetation, and retention of vineyards on the steeper portion of the Martin Ranch property, views of the new homes and roadways would be limited from the surrounding areas. The RV park would be over 400 feet from the highway and existing and planned trees would mostly obscure views of the RV park. Due to the limited visibility of the sites and consistency of the proposed residential development with surrounding land uses, the Proposed Action's contribution to cumulative visual resource impacts is considered less than significant.

## **Section 4.0**

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## Section 5

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