2.0 EXECUTIVE SUMMARY

2.1 INTRODUCTION

Shasta Red, LLC is proposing a residential subdivision, referred to as the Tierra Robles Planned Development Project on the 715.4-acre Chatham Ranch property, herein referenced as the "proposed project". Project approval would allow the applicant to subdivide the property into 166 residential lots, along with separate parcels for open space uses.

This Draft Environmental Impact Report (EIR) has been prepared by the Shasta County Department of Resource Management (County) as the Lead Agency under the California Environmental Quality Act (CEQA). The EIR provides information about the environmental setting and impacts of the proposed project and alternatives. It informs the public about the project and its impacts and provides information to meet the needs of local, State, and federal permitting agencies that are required to consider the project. The EIR will be used by the County to determine whether to approve the zone amendment for the proposed project.

The Executive Summary chapter of the EIR summarizes the requirements of the CEQA Statute and Guidelines, provides an overview of the proposed project, which is described in detail in Chapter 3.0, PROJECT DESCRIPTION, and the conclusions of the environmental analysis, provided in detail in Sections 5.1 through 5.18. This chapter also summarizes the alternatives to the proposed project that are described in Chapter 7.0, ALTERNATIVES TO THE PROPOSED PROJECT, and identifies the environmentally superior alternative. Table 2-3, PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES, at the end of this chapter, provides a summary of the environmental effects of the proposed project identified in each technical issue chapter.

2.2 PROJECT SUMMARY

The proposed project is located approximately five miles east of the City of Redding, between the unincorporated communities of Bella Vista and Palo Cedro, in Shasta County, California. The proposed project site consists of five parcels identified as Shasta County Assessor Parcel Numbers (APNs) 061-210-001, 061-240-001, 078-060-036, 078-060-039, and 078-250-002. The Shasta County *General Plan* designates the proposed project site as Rural Residential A (RA) (1 dwelling unit / 2 acres). Currently the Shasta County *Zoning Plan* identifies APNs 061-240-001 and 061-210-001 as Rural Residential (R-R), with a minimum lot area of three to five acres (R-R-BA-3 and R-R-BA-5). Existing zoning on APNs 078-250-002, 078-060-036 and 078-060-039 is Unclassified (U), which is intended to be applied as a holding district until a principal zone district has been determined.

The project applicant is proposing a 166-unit residential subdivision on the 715.4-acre proposed project site. The following actions are being requested as part of the proposed project (refer to Section 3.0, PROJECT DESCRIPTION, for graphical representations of the proposed project):

ZONE AMENDMENT

A Zone Amendment (Z10-002) is requested to change the current zoning from Rural Residential 5-acre minimum (RR-BA-5), Rural Residential 3-acre minimum (RR-BA-3), and Unclassified (U), to a Planned Development (PD) zone district establishing a conceptual development plan covering the entire site.

TRACT MAP

A Tract Map (TR 1996) is requested to divide the approximate 715.4-acre property into 166 residential parcels ranging from 1.38 acres to 6.81 acres in size, and six open space parcels totaling 192.7 acres. Lots are generally grouped in size clusters. Although the actual size of the homes would vary, an average residence would be approximately 3,550 square feet with an average of 3.5 bedrooms. Although every approved residential lot would be entitled to an accessory dwelling unit pursuant to Government Code Section 65852.2, it is assumed that approximately 9 percent, or 15 lots would have secondary units based on historical County trends. Accessory dwelling units could be constructed within a residential development envelope up to a maximum 1,200 square feet.

COMMUNITY SERVICES DISTRICT (CSD)

Community Services Districts are formed and operated in accordance with California Government Code §61000 et seq. A CSD is a government agency which may be endowed with a wide range of powers, which are specifically designed to provide urban or suburban services within unincorporated areas. The project proposes the formation of the Tierra Robles Community Services District (TRCSD) as a means to oversee and implement the plans and facilities which are a critical aspect of the Tierra Robles Community and include the following: Tierra Robles Oak Woodland Management Plan; Tierra Robles Wildland Fuel/Vegetation Management Plan; Open Space Management; Resource Management Area management and oversight; Tierra Robles Design Guidelines; road maintenance; Storm Drain Maintenance; and Waste Water Collection, Treatment and Dispersal Facilities. The ultimate approval of the TRCSD would be subject to separate application and approval from the Shasta County Local Agency Formation Commission (LAFCO).

DESIGN GUIDELINES

The project proposes a set of *Design Guidelines* to direct future architecture and site layout of individual lots. The proposed *Design Guidelines* are intended to provide property owners, architects, homebuilders and contractors with a set of parameters for the preparation of construction drawings and specifications. The ultimate oversight and enforcement of the *Design Guidelines* would be the responsibility of the TRCSD in coordination with Shasta County.

WILDLAND FUEL/VEGETATION MANAGEMENT PLAN

The Tierra Robles Wildland Fuel/Vegetation Management Plan (TRWF/VMP) is intended to provide the management direction for the reduction of flammable vegetation from around buildings, roadways and driveways in accordance with the California Department of Forestry and Fire Protection/Shasta County Fire Department (CAL FIRE/SCFD) requirements. In order to address the need to reduce fuel loading and associated fire hazards while enhancing the onsite wildlife habitats, the TRWF/VMP divides the proposed project into distinct Resource Management Areas (RMA's) based on common vegetative and topographic features. The RMAs include general management prescriptions applicable to all RMAs as well as specific prescriptions tailored to individual conditions of each RMA.

OAK WOODLAND MANAGEMENT PLAN

The Tierra Robles Oak Woodland Management Plan is intended to provide direction for preserving the Oak Woodland. The Oak Woodland Management Plan would be the responsibility of the TRCSD to implement in conjunction with other approved plans including the TRWF/VMP and the Open Space Management Plan. Any changes to the approved Oak Woodland Management Plan would require approval by the TRCSD.

2.3 PURPOSE AND USE OF THE DRAFT EIR

An EIR is a public informational document used for planning and decision-making purposes. The Shasta County Planning Commission and Shasta County Board of Supervisors will consider the information in the EIR, including the public comments and staff response to those comments, during the public hearing process. As a legislative action, the final decision is made by the Board of Supervisors, who may approve, conditionally approve, or deny the proposed project. The purpose of an EIR is to identify:

- *The significant potential impacts of the project on the environment and indicate the manner in which those significant impacts can be avoided or mitigated;*
- *Any unavoidable adverse impacts that cannot be mitigated; and*
- *Reasonable and feasible alternatives to the project that would eliminate any significant adverse environmental impacts or reduce the impacts to a less than significant level.*

An EIR also discloses growth-inducing impacts; impacts found not to be significant; and significant cumulative impacts of past, present, and reasonably anticipated future projects. CEQA requires an EIR be prepared that reflects the independent judgment of the lead agency regarding the impacts, the level of significance of the impacts both before and after mitigation, and mitigation measures proposed to reduce the impacts. A draft EIR is circulated to responsible agencies, trustee agencies with resources affected by the project, and interested agencies and individuals. The purposes of public and agency review of a draft EIR include sharing expertise, disclosing agency analyses, checking for accuracy, detecting omissions, discovering public concerns, and soliciting counterproposals. Reviewers of a draft EIR are requested to focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate significant environmental effects.

This Draft EIR is being distributed directly to agencies, organizations, and interested groups and persons for comment during a 45-day formal review period in accordance with §15087 of the State *CEQA Guidelines*. The EIR process, including means by which members of the public can comment on the EIR, is discussed further in Section 1.0, INTRODUCTION AND PURPOSE.

2.4 ENVIRONMENTAL SETTING

LOCAL SETTING

The proposed project encompasses approximately 715.4 acres and is currently undeveloped vacant land. A single wood and wire corral, some interior fences, and a network of dirt ranch roads crisscross the proposed project site. Onsite topography is characterized as level to rolling terrain in the western portion of the proposed project site, and steeper slopes and ridges are located in the eastern portion of the property, with elevations ranging from approximately 600 feet above msl to 650 feet above msl.

The proposed project site is dissected by three major drainage systems including Clough Creek, which flows southwest across the northwest corner of the property, an unnamed stream that flows south across the east central portion of the project site, and a major unnamed drainage that flows from north to southeast across the eastern side of the project site. Currently, the project site is vacant, but has been used for ranching and grazing cattle activities in the past.

SURROUNDING LAND USES

The proposed project site is located within a primarily rural residential area, with parcels varying in size from 1 to 20 acres, and limited agricultural uses. Areas to the north of the project site consist of single-family residential units and undeveloped land used for cattle grazing activities. This land is designated as Rural Residential A (RA) by the County. Existing zoning districts consist of the following: Exclusive Agriculture (EA) and Unclassified (U). Deschutes Road is located east of the proposed project. Land to the east consists of single-family residential units and undeveloped land that range in parcel size from 5 to 10 acres. Land to the south of the proposed project site consists of single-family residential units and undeveloped land. Adjacent properties to the south consist primarily of 5 to 10 acre parcels used for residential and part-time agricultural activities. Land to the west of the proposed project site consists of single-family residential units and undeveloped land. Adjacent properties to the west consist primarily of 5 to 10 acre parcels used for residential and part-time agricultural activities. The Shasta County *General Plan* designates properties west of the site as Rural Residential A (RA).

2.5 PROJECT OVERVIEW

This section describes the proposed project objectives and characteristics. The proposed project is described in further detail in Section 3.0, PROJECT DESCRIPTION.

PROJECT OBJECTIVES

The State *CEQA Guidelines* (§15124[b]) require that the project description contain a statement of objectives that includes the underlying purpose of the project. The project applicant has defined the following objectives for the proposed project:

O1. Promote planned, orderly, and efficient patterns of rural residential development within central Shasta County on large lots, consistent with the existing neighborhood.

O2. Maximize positive fiscal contributions to County General Fund revenue.

O3. Identify, inventory, and conserve onsite natural resources through project design, avoidance, clustered development, designated building envelopes, and significant open space creation and protection.

O4. Create a planned community of appropriate density and scale that respects the existing topography and natural backdrop of the project site.

O5. Implement Shasta County *General Plan* provisions by developing a clustered rural residential development at densities allowed by the *General Plan*, on a site that is close to existing development.

O6. Develop rural residential uses at densities sufficient to support the construction of infrastructure, utilities, and services need to serve the site, including the formation of a Community Services District to oversee and manage the site's natural resources.

O7. Complement the residential character of this portion of unincorporated Shasta County by devoting it to single-family residential uses.

O8. Ensure the vision for site development is economically feasible and does not impart undue strain on the current public facilities or services.

O9. Reduce fire hazards, and increase and improve fire safety for the project site and adjoining area.

O10. Provide complete avoidance of all jurisdictional waters of the United States and implement a management plan to manage these resources throughout the life of the project.

O11. Maximize open space for protection of sensitive natural resources, while providing a portion of the housing needs in Shasta County.

O12. Create a balance between development and the natural environment by minimizing disturbance of sensitive land forms and habitats.

O13. Provide pedestrian paths along the paved roadway as required by the County and allow for bridle paths for horses to travel in the subdivision.

O14. Provide significant onsite oak woodland preservation and implement an oak management strategy designed to maintain and enhance the onsite oak resource.

PROJECT CHARACTERISTICS

Major components of the proposed project are summarized below (refer to Section 3.0, PROJECT DESCRIPTION, for additional detail):

Rural Residential Parcels

The proposed project would include 166 single-family residential parcels ranging from 1.38 acres to 6.81 acres in size on approximately 471.92 acres. Depending on overall market conditions at the time of project implementation, the new residential parcels would be developed in six phases.

Open Space Parcels

Six separate open space parcels, ranging in size from 2.6 acres to 154.9 acres, would be preserved to maintain sensitive habitat features and/or species. The largest open space parcel is generally located on the eastern portion of the project site adjacent to unnamed waterways with the steep slopes (greater than 30 percent slope) dropping into the area from the proposed building sites. This open space area would serve as both a conservation and recreation area for the proposed subdivision. In the western portion of the proposed project site (in the vicinity of Clough Creek), a combination of both open space parcels and easements would provide access to the creek. A total of 192.7 acres are included within the six open space areas.

The open space areas of the project site would be subject to an Open Space Management Plan to ensure that undeveloped areas of the site continue as a means of fire protection and open space preservation and to manage the open spaces throughout the life of the project. The Shasta County Board of Supervisors shall review and approve the Open Space Management Plan prior to final subdivision map approval.

Site Access and Roadways

Approximately 15 roadway segments would be constructed onsite, along with an emergency access easement across lots 81-98 and a 5.23-acre offsite extension of the proposed new access road to Old Alturas Road. A total of 46.48 acres would be dedicated for public roadway right-of-way. Approximately ½-mile of Chatham Ranch Drive, from its intersection at Old Alturas Road south to the subdivision, would be constructed offsite within a previously dedicated roadway easement. The southerly terminus of Tierra Robles Lane is at the northerly terminus of Northgate Drive, a road used for over 40 years as access to the southeast corner of the proposed project site. The proposed connection with Northgate Road would be gated per County fire standards and used for reciprocal emergency access only.

Project Area Designations

The proposed project includes five Area Designation categories that would guide future site development. These categories include both disturbed and non-disturbed areas within the proposed project site designated as: 1) Resource Management Areas (RMA); 2) Open Space; 3) Building Envelopes; 4) Right-of-Way; and 5) Secondary Disposal Area. The 166 designated building envelopes encompass a total area of 138.2 acres or 19.3% of the total area with public roadway right-of-way totaling 46.48 acres (6.5% of the total area). This translates to a total disturbance area of 184.68 acres (25.8% of the total project area) or the preservation of 74.2% of the total project site.

Infrastructure Requirements

The proposed project would include all necessary onsite and offsite infrastructure improvements to support the development. Proposed public services and utilities for the subdivision would be established prior to sale of individual lots.

- *Wastewater.* The wastewater generated from individual lots would be initially collected via individual residential septic tanks, transferred to a community collection system, treated, and then recycled for landscape irrigation.

- *Water.* Domestic and fire suppression water for the proposed project would be provided by the Bella Vista Water District (BVWD) through a series of distribution pipelines. Water mains and laterals will be installed by the project applicant to connect to the BVWD lines which currently exist at the perimeter of the proposed project.

  The proposed internal water system would connect to the existing lines in the following locations: Boyle Road (existing 16-inch line); Northgate vicinity (existing six-inch line); Old Alturas Road (existing 16-inch line). The new interior water lines would generally follow the layout as shown in the Bella Vista Master Water Plan, and would be 10 inches in diameter or greater, as may be required.

- *Landscaping Requirements.* The proposed project has been designed to be consistent with the State of California's Model Water Efficient Landscape Ordinance (MWELO), adopted January 1, 2010 and updated on July 15, 2015.

- *Solid Waste.* Solid waste collection and disposal services would be provided by Waste Management, Inc. under contract with Shasta County Public Works Department. The Burney Transfer Station and the West Central Landfill would be used to process and dispose of waste generated by the new residents.

- *Storm Drainage.* The mandatory onsite Low Impact Development Facilities (Bioretention Basin or approved other) will be designed to retain and infiltrate or slowly release the additional stormwater runoff produced by impervious roof structures. These LID facilities significantly reduce the overall stormwater runoff that would have been produced as a result of development and contribute to maintaining the existing hydrological characteristics of the basins (i.e., peak flow rate quantity and timing of stormwater runoff).

- *Power.* Electricity would be provided by Pacific Gas & Electric (PG&E) Company. Existing power lines are adjacent to the proposed project site along Boyle Road, Northgate Drive, Seven Lakes Road, and Old Alturas Road. Natural gas would be provided by "trucked" propane services. No public street lighting would be provided.

Project Design features

The project applicant proposes the following design features/amenities into the subdivision design: (1) Grey water diverter system; (2) Inclusion of solar design in new homes which reduces annual energy usage by 15 percent or more; (3) Variation of housing design and setbacks with not more than 5 percent of the same building footprint or building design; (4) Class 1 public bikeways within the project site; and (5) pedestrian trails located along project roadways.

- *Grey Water Diverter System.* Individual homes would be constructed with a partial dual-plumbing wastewater drain system (grey water) that complies with Chapter 16 of the California Plumbing Code. This would allow diversion of flow from washing machines, showers, and bath tubs to a manual diverter valve. Design criteria for landscaping selection, dispersal system criteria, as well

as for operation and maintenance of the system would be included in the Covenants, Conditions, and Restrictions (CC&Rs) for the proposed project.

- *Passive Solar Design.* As a Condition of Approval for the proposed project each single-family home built onsite would include green building design components and may use a combination of photovoltaic cells, solar water heating, and other construction design techniques to reach the above-mentioned objective.

- *Class I Bikeways.* The proposed project includes a total of 6 miles of shared bike/pedestrian trails with minimal road crossings. This includes a paved 4-foot bike path and a 4-foot paved shoulder adjacent to the travel way. The proposed project would connect the Boyle Road neighborhood with the Old Alturas Road/Seven Lakes Lane neighborhood, a distance of approximately 2 miles.

- *Variation of Housing Design.* As a Condition of Approval the proposed project would be required to maintain variations consistent with the proposed *Design Guidelines*. The condition could require each homebuilder to provide three elevations for any particular home plan, and that no two same elevations be placed side by side. In addition, an overall placement plan for each floor plan and elevation could be approved by staff prior to issuance of a building permit that shows a variation in front yard setbacks.

2.6 ENVIRONMENTAL IMPACTS

IMPACTS NOT FURTHER CONSIDERED IN THIS EIR

As discussed in Appendix 15.1, NOTICE OF PREPARATION, INITIAL STUDY, AND NOP COMMENT LETTERS, of this EIR, the proposed project was determined to have no impact with regard to the following impact thresholds which are therefore not analyzed in this EIR.

Mineral Resources

Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.

The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. There are no known mineral resources of regional value located on or near the project site.

Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan.

The project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The project site is not identified in the General Plan Minerals Element as containing a locally-important mineral resource. There is no other land use plan which addresses minerals.

IMPACTS OF THE PROPOSED PROJECT

Impacts related to all of the thresholds associated with the following resource categories are evaluated in this Draft EIR for their potential significance:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy Consumption
- Geology and Soils
- Greenhouse Gases and Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic and Circulation
- Tribal Cultural Resources
- Utilities and Service Systems

Less Than Significant Impacts

The analysis of the impacts of the proposed project documents that project-level impacts would *be less than significant* or *less than significant after mitigation* is implemented on the following resources:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy Consumption
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Traffic and Circulation
- Utilities and Service Systems

Unavoidable Significant Adverse Impacts

Section 15126(b) of the California Environmental Quality Act (CEQA) Guidelines requires an EIR to discuss the significant impacts of a proposed project that cannot be reduced to a *less than significant* level. These impacts are referred to as *significant and unavoidable* impacts of the project. In Sections 5.1 through 5.18 of this Draft EIR, the issue areas were analyzed to determine whether project implementation would result in a significant adverse environmental impact. Based on the analyses giving in these sections, it was determined that all of the potentially significant impacts identified can be reduced to a level of *less than significant* with exception of the following project-specific impacts (refer to Table 2-2, PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES):

Greenhouse Gases and Climate Change (Section 5.7)

IMPACT 5.7-1	***Greenhouse gas emissions, either directly or indirectly, generated by the proposed project may have a significant impact on the environment.***

The proposed project's GHG emissions would be 3,755.92 $MTCO_2eq$/yr without the implementation of any reduction measures. Implementation of proposed energy efficiency measures, water conservation measures, and **MM 5.7-1** would reduce project GHG emissions to 3,453.10 $MTCO_2eq$, resulting in an 8.1 percent reduction; refer to Table 5.7-3. It should be noted that the Project Design Features and **MM 5.7-1** represent all feasible mitigation measures available to reduce project related GHG emissions. Despite the implementation of the Project Design Features and **MM 5.7-1**, project related GHG emissions would not meet the reduction targets established by AB 32 or SB 32, and impacts would remain *significant and unavoidable*.

IMPACT 5.7-2	***Implementation of the proposed project could potentially conflict with an applicable greenhouse gas reduction plan, policy, or regulation.***

Shasta County is also subject to compliance with AB 32, which is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the legislature determined the necessary GHG reductions for the state to make in order to sufficiently offset its contribution to the cumulative climate change problem to reach 1990 levels. As discussed in Section 5.7, GREENHOUSE GASES AND CLIMATE CHANGE, the proposed project would not achieve the County's Regional Climate Action Plan (RCAP) 2035 reduction target of 49 percent. Compliance with this reduction threshold is part of the solution to the cumulative GHG emissions problem, rather than a hindrance of the State's ability to meet its goals of reduced statewide GHG emissions under AB 32. Therefore, the proposed project would potentially conflict with the County's RCAP and AB 32 despite the implementation of the Project Design Features and **MM 5.7-1**. Impacts would be *significant and unavoidable.*

Significant Cumulative Impacts

According to §15355 of the State *CEQA Guidelines*, the term cumulative impacts "...refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Individual effects that may contribute to a cumulative impact may be from a single project or a number of separate projects. Individually, the impacts of a project may be relatively minor, but when considered along with impacts of other closely related or nearby projects, including newly proposed projects, the effects could be cumulatively considerable. This EIR has considered the potential cumulative effects of the proposed project along with other current and reasonably foreseeable projects.

Agricultural Resources (Section 5.2)

IMPACT 5.2-3	***Development of the proposed project, as well as buildout in accordance with the County's General Plan, may result in the cumulative loss of farmland.***

The proposed project would result in the loss of approximately 533.27 acres of Grazing Land as mapped by the FMMP, which represents approximately ±0.13 percent of designated Grazing Land in Shasta County. The County's *General Plan* acknowledges that agricultural land uses are a major component of the County's resource land base and are also a major element in defining the quality of life available to the residents of Shasta County. Were agriculture to lose its land-based prominence in the County, the

rural character and country living so valued by its residents and so important to its economy would likely decline.

The County's *General Plan* recognizes that agricultural land is a non-renewable resource. Although **MM 5.2-1** requires a permanent conservation easement be established to provide for agricultural use of offsite lands; and **MM 5.2-2** helps maintain the viability of agricultural lands near the development site, the conversion of Grazing Land is an irreversible loss and remains cumulatively considerable and, therefore, a *significant and unavoidable* impact.

Air Quality (Section 5.3)

IMPACT 5.3-8	***Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).***

Because of the region's nonattainment status for ozone and PM_{10}, if a project generates ozone-precursor pollutants (i.e., ROG and NO_X) or PM_{10} in quantities that would be considered to result in significant air quality impacts under individual project conditions, the project's cumulative impacts would be considered significant as well. Construction-generated emissions associated with the development of the proposed project would not exceed the SCAQMD Level B significance threshold, and while the Level A significance threshold would be surpassed for NO_X emissions, feasible SMM and appropriate BAMM would be implemented per SCAQMD guidance as required by **MM 5.3-1**. As a result, impacts from construction-generated air pollutants would be considered *less than significant*. Implementation of **MM 5.3-2** would reduce ROG levels to below the Level B significance threshold, and in order to address NO_X emissions, feasible SMM would be implemented per SCAQMD guidance as required by **MM 5.3-3**. However, as long-term mitigated NOx emissions would exceed the SCAQMD's Level A significance threshold, and NO_x is a precursor pollutant for ozone (Shasta County is a nonattainment area for State ozone standards; refer to Table 5.3-4), the project's long-term operational NOx emissions are cumulatively considerable. Therefore, this impact would be cumulatively *significant*.

As discussed in Section 5.3, AIR QUALITY, Tables 5.3-8 and 5.3-9, the project's construction and operational emissions would be below Level B significance thresholds with implementation of **MM 5.3-1**, **MM 5.3-2,** and **MM 5.3-3**. Despite implementation of these mitigation measures identified for this proposed project, the project's long-term NO_x emissions would be cumulatively considerable, and would result in *significant and unavoidable* cumulative air quality impacts.

Biological Resources (Section 5.4)

IMPACT 5.4-5	***Cumulative development within the project area may affect sensitive biological resources, including special-status species, wetland habitat, and oak woodlands.***

Development of the proposed project would result in the conversion of approximately 46.2 acres of annual grassland to urban uses; fragmentation of approximately 42 acres of annual grassland; conversion

of approximately 146.24 acre of oak woodland to urban uses; and fragmentation of approximately 300.4 acres of oak woodland, thereby contributing to the cumulative regional loss of grasslands and oak woodlands that may support special-status plant and animal species, nesting bird habitat, migration corridors, and general wildlife habitat.

Whereas **MM 5.4-1a** requires a permanent conservation easement to be established to partially offset the loss of oak woodlands, and **MM 5.4-1b** and **MM 5.4-1c** require permanent conservation easements and deed restrictions for the open space areas and RMAs for the protection of oak woodlands and habitat values, the conversion and fragmentation of annual grasslands and oak woodlands are irreversible losses of wildlife habitat and remain cumulatively considerable, and therefore, *significant and unavoidable* impacts.

Greenhouse Gases and Climate Change (Section 5.7)

IMPACT 5.7-3	***Greenhouse gas emissions generated by the project could potentially have a significant impact on global climate change.***

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. However as stated above, the proposed project would not achieve the County's 2035 reduction target of 49 percent despite the implementation of Project Design Features and **MM 5.7-1**. Therefore, the project's cumulative GHG impacts would be *significant and unavoidable*.

Traffic and Circulation (Section 5.16)

IMPACT 5.16-5	***Implementation of the proposed project could result in increased traffic volumes at study area intersections under Year 2035 cumulative plus project conditions.***

The Old Alturas Road and Old Oregon Trail intersection is projected to operate at an unacceptable LOS F in the weekday AM and PM peak hours. Although this intersection operates at an unacceptable LOS F in the *No Project* condition, the proposed project creates a *potentially significant* impact by causing the delay to increase by more than 5 seconds per vehicle. Implementation of **MM 5.16-3** would mitigate AM and PM peak hour intersection operations to a *less than significant* level (LOS B).

The Boyle Road and Deschutes Road intersection is projected to operate at an unacceptable LOS F during the AM peak hour. Although this intersection operates at an unacceptable LOS F in the *No Project* condition, the proposed project creates a *potentially significant* impact by causing the delay to increase by more than 5 seconds per vehicle. Implementation of **MM 5.16-4** would mitigate AM peak hour intersection operations to an acceptable LOS (LOS C).

The improvements identified for the intersections of *Old Alturas Road & Old Oregon Trail (Intersection #8)* and *Boyle Road & Deschutes Road (Intersection #13)* are not currently part of any current Shasta County improvement plan or fee program. As a result, full implementation as described in **MM 5.16-3** and **MM 5.16-4** cannot be assured by the project applicant. This is considered to be a cumulatively considerable and *significant and unavoidable* impact.

The Shasta County Department of Public Works operates a county-wide traffic impact fee program based on residential units or non-residential building square footage. The proposed project may contribute to this program as described in **MM 5.16-3** and **MM 5.16-4**, should Shasta County update the fee program to include the *Old Alturas Road & Old Oregon Trail (Intersection #8)* and *Boyle Road & Deschutes Road (Intersection #13)* intersections. The payment of applicable fair-share costs towards a programmed improvement would result in a cumulatively *less than significant* impact at each intersection.

Growth Inducement

Section 15126 of the State *CEQA Guidelines* requires that an EIR discuss the project's potential to foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The State *CEQA Guidelines* also indicate that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The impacts associated with increased growth are typically "population-based" impacts, such as increased traffic, noise, aesthetic concerns, and the provision of additional public facilities. Project infrastructure would not be sized to accommodate growth beyond that assumed for the proposed project, in addition to the land use assumptions in the Shasta County *General Plan*. Implementation of the proposed project would not directly or indirectly stimulate additional or new growth in the project area or in the County that has not been planned for by the County. In addition, the proposed project site is consistent with the County's *General Plan* and zoning designations for the site, and would not exceed growth projections or assumptions contained within County long-range planning documents. The location of future growth throughout unincorporated Shasta County would continue to be controlled guided by its *General Plan*. Therefore, the proposed project would not have a significant growth-inducing effect. Refer to Section 6.0, GROWTH-INDUCING IMPACTS, for detailed analysis and discussion.

Irreversible Impacts

Section 15126.2(c) of the State *CEQA Guidelines* defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the project. Irreversible impacts can also result from damage caused by environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified. Buildout of the proposed project would commit nonrenewable resources during project construction and ongoing utility services during project operations. During project operations, oil, gas, and other nonrenewable resources would be consumed. Therefore, an irreversible commitment of nonrenewable resources would occur as a result of long-term project operations. However, assuming that those commitments occur in accordance with the adopted goals, policies, and implementation measures of the Shasta County *General Plan*, as a matter of public policy, those commitments have been determined to be acceptable. The Shasta County *General Plan* ensures that any irreversible environmental changes associated with those commitments will be minimized.

2.7 ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6 of the State *CEQA Guidelines* states that an EIR must address "a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Several alternatives were considered as summarized below and discussed in detail in Chapter 7.0, ALTERNATIVES.

ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Alternative Project Locations

The key question and first step in the decision whether to include in the EIR an analysis of alternative sites is whether any of the significant impacts of the project would be avoided or substantially lessened by relocating the project. Only locations that would avoid or substantially lessen any of the significant impacts of the project need be considered for inclusion in the EIR (State *CEQA Guidelines*, §15126.6[f][2][A]). If it is determined that no feasible alternative locations exist, the EIR must disclose the reasons for this conclusion (State *CEQA Guidelines*, §15126.6[f][2][B]).

Alternative site evaluations are most relevant for projects carried out by public agencies and other entities that hold large tracts of land in multiple locations, where there is a choice in project placement. For example, a power plant or highway alignment may be located in different areas on public land, and achieve the same objectives. It should be noted that the planned residential use of the proposed project site would remain even if this project were to occur elsewhere.

The following alternative site considers that the land uses planned for the proposed project would be achieved elsewhere within the South-Central Region of unincorporated Shasta County, without development of the proposed project site. Table 2-1, ALTERNATIVE SITE, describes one site zoned Planned Development (PD) that could accommodate a single-family development, but at a much smaller scale than the proposed project.

Table 2-1
ALTERNATIVE SITE

Property Description	Acres	General Plan Designation	Zoning	Comments
Located in the Bella Vista area, generally located adjacent to and on the north side of State Route 299E, due north of the junction of State Route 299E and Deschutes Road	404	Rural Residential A (RA)	Planned Development (PD) Planned Development combined with the Restrictive Flood District (PD-F-2)	Planned development proposed in 1995 (Chaparral Lakes Estates Subdivision). 78 single-family lots ranging in size from 2 to 20 acres with a 24-acre remainder parcel and 20-acre parcel for a sewage treatment plant. Application expired.

Source: Shasta County, 2017.

If the above site were developed with a project similar to that of the proposed project, similar significant impacts on air quality, agricultural resources, biological resources and greenhouse gases would occur. Therefore, moving the proposed project to this site could potentially exacerbate these significant impacts

or result in similar impacts and would not contribute to minimizing, reducing, or avoiding potentially significant impacts of the proposed project. In addition, alternative locations for this project are considered infeasible due to the absence of other similar land holdings in central Shasta County owned by the project applicant (State *CEQA Guidelines* §15126.6[f][1]). Lastly, this alternative site is not of sufficient size to meet most of the basic objectives of the proposed project. For these reasons, an offsite alternative was eliminated from further review.

"Annexation to Community Service Area No. 8" Alternative

The project applicant previously proposed the annexation of the entire 715.4-acre site into CSA No. 8 for sewage treatment and disposal. This required the construction of approximately 3.4-miles of new force main sewer line offsite within the Boyle Road and Deschutes Road rights-of-ways from the southern portion of the proposed project to an existing CSA No. 8 manhole located near the intersection of Old 44 Drive and Deschutes Road in Palo Cedro. The new sewer lines would be sized to meet the requirements of CSA No. 8 and LAFCO, and upon completion, would be dedicated to CSA No. 8, which would be responsible for on-going operation and maintenance.

While this alternative would result in the same number of residential lots constructed onsite, this alternative would slightly increase the amount of permanent open space to 174.66 acres (approximately 19.7 acres more than the proposed project). However, this alternative did not include the formation of a CSD as proposed by the project. The proposed project's CSD has been specifically developed to oversee and implement the plans and facilities which are a critical aspect of the proposed project and include the following: Tierra Robles Oak Woodland Management Plan; Tierra Robles Wildland Fuel/Vegetation Management Plan; Open Space Management; Resource Management Area management and oversight; Tierra Robles Design Guidelines; road maintenance; Storm Drain Maintenance; and Waste Water Collection, Treatment and Dispersal Facilities. Absent formation of a CSD similar to the proposed project, the same level of resource management and environmental stewardship would not be achieved under the "Annexation to Community Service Area No. 8" alternative.

Impacts related to aesthetics, agricultural resources, biological resources, cultural resources, greenhouse gases, noise, public services, and traffic would be generally the same as the proposed project, but greater for the topics of air quality (construction), offsite biological impacts (two creek crossings) as a result of the 3.4-miles of pipeline construction to CSA No. 8, and increased wastewater delivery and treatment at CSA No. 8's treatment facility. In addition, this alternative fails to meet several Project Objectives O6, O8, and O10, described above. Therefore, the "Annexation to Community Service Area No. 8" alternative is environmentally inferior to the proposed project and is not discussed further in this EIR.

"Development in Accordance with Existing General Plan Land Use and Zoning Classifications" Alternative

Currently the Shasta County *Zoning Plan* identifies APNs 061-240-001 and 061-210-001 as Rural Residential (R-R), with a minimum lot area of three to five acres (R-R-BA-3 and R-R-BA-5). Existing zoning on APNs 078-250-002, 078-060-036 and 078-060-039 is Unclassified (U), which is intended to be applied as a holding district until a principal zone district has been determined. As such, for the purpose of this alternative, a certain degree of speculation is required to reasonably apply a zone district to the Unclassified (U) acreage to create consistency between the Shasta County *General Plan* land use designation and zoning. Similar to the proposed project, any future development within this Unclassified (U) zone district could request similar zoning and densities, more aggressive higher densities, or less

densities. For the purpose of analyzing this alternative, the following land use and zoning would apply based on a review of surrounding land uses.

This alternative would not include the Planned Development (PD) as it would result in the development of the site in accordance with current land use designations and existing base zoning districts. In addition, a more traditional grid-like development pattern and circulation system, similar to the surrounding area, is assumed under this alternative. As such, this alternative avoids the flexibility in design established by the Planned Development (PD) resulting in a less efficient use of land and subdivision design, eliminates 192.7 acres of open space preserve, and would likely not maximize the avoidance objectives of sensitive habitats including wetlands and waters of the U.S. Implementation of this alternative would increase the development intensity of the 715.4-acre project site from 166 units to 188 units; an additional 22 dwelling units compared to the proposed project; therefore, the development intensity and subsequent environmental impacts in all environmental categories would be greater than those identified for the proposed project. It should also be noted that although every approved residential lot would be entitled to a secondary dwelling unit (e.g., accessory dwelling unit) pursuant to Government Code Section 65852.2, it is assumed that approximately 9 percent of residential lots would have secondary units resulting in approximately 17 secondary units being developed under this alternative. Specifically, this alternative would exacerbate the *significant and unavoidable* impacts of the proposed project in the categories of air quality (cumulative), agricultural resources (cumulative), biological resources (cumulative), greenhouse gases (project-level and cumulative), and traffic and circulation (cumulative).

Although implementation of the "Development in Accordance with Existing General Plan Land Use and Zoning Classifications" alternative would be consistent with the existing *General Plan* land use designations for the project site, this alternative would only achieve Project Objective O6., above. All other project objectives would not be satisfied under this alternative. Therefore, given the speculative nature of this alternative, the increased environmental impacts that would result, and the inability of the alternative to meet most of the Project Objectives noted in Section 7.1, above, the "Development in Accordance with Existing General Plan Land Use and Zoning Classifications" alternative is considered environmentally inferior to the proposed project and is not discussed further in this EIR.

"Clustered 3-Acre Parcels" Alternative

As described in Section 3.0, PROJECT DESCRIPTION, and highlighted in several project objectives noted above, the project applicant has focused the design of the proposed project to preserve approximately 75 percent of the 715.4-acre site. This has been accomplished through careful site design, respecting the natural environment, sensitive environmental resources, and topographic conditions. To this end, building sites have been sensitively placed in consideration of existing topography and site features, with vegetation emphasized over the built environment to screen homes and provide a sense of community through a coordinated landscape program.

As currently proposed, the proposed project and backbone infrastructure avoids impacts to wetlands and waters of the U.S. Under the "Clustered 3-Acre Parcels" alternative, the 166 single-family units proposed by the project would be developed consistent with the *General Plan* land use designations for the site. This alternative would require a zone change from Unclassified (U), Rural Residential 3-Acre Minimum (RR-BA-3), and Rural Residential 5-Acre Minimum (RR-BA-5) to Planned Development (PD) on the 715.4-acre project site to allow development of the 166 single-family units. Similar to the proposed project it is assumed that approximately 9 percent of lots would have secondary units resulting in approximately 15 accessory dwelling units being developed under this alternative.

Under this scenario, 166 three-acre parcels would be created and clustered similar to the proposed project. As a result, the subdivision footprint would increase from 471.92 acres under the proposed project to 498 acres, an increase to the subdivision footprint of 26.08 acres. Backbone infrastructure, including the internal roadway network which has been designed to avoid onsite jurisdictional drainages and wetlands, would be potentially be redesigned to accommodate the larger subdivision footprint, potentially encroaching into sensitive environmental habitats. Although larger Resource Management Areas would be created, this alternative would likely encroach within 30 percent slope areas, necessitating additional grading, fire fuel modifications, habitat loss, and potential impacts to federally protected species (i.e., elderberry bushes). In addition, the larger open space areas proposed for onsite conservation would likely be reduced to accommodate the additional 26.08 development acres. This alternative would result in greater construction-related impacts related to air quality (increased grading) and overall greater impacts to onsite oak woodlands and Grazing Land as the amount of preservation achieved through permanent open space dedication would be less when compared to that of the proposed project. In addition, this alternative does not fully meet several key Project Objectives, including O3, O4, O10, O11, and O12. Subsequent environmental impacts in all environmental categories would greater than those identified for the proposed project. As a result, the "Clustered 3-Acre Parcels" alternative is considered environmentally inferior to the proposed project and is not discussed further in this EIR.

Wastewater Dispersal Alternative

As currently proposed and described in Section 3.0, PROJECT DESCRIPTION, wastewater generated from individual lots would be initially collected via individual residential septic tanks, transferred to a community collection system, treated, and then recycled for landscape irrigation. The drip zones would be located in wide street medians and the effluent would provide nominal irrigation to appropriate native plants. The treatment system would be designed to meet the reuse requirements for discharge of the Title 22 Disinfected Secondary Effluent as well as the Central Valley RWQCB's Waste Discharge Requirements.

An alternative wastewater storage and dispersal approach to the proposed decentralized system was evaluated. This alternative included three, 2.37-acre storage ponds that are 23 feet deep, and significant spray fields for treated effluent surface application. Based on the Regional Water Quality Control Board's (RWQCB) surface application requirements, approximately 32.5 acres of spray field would be required. Preliminary designs primarily placed the spray irrigation infrastructure along 30 percent slope areas within the 154.9-acre eastern open space parcel. Although the layout of the spray fields were designed to avoid waters of the U.S., it was determined by the project applicant that alternative, more environmentally friendly, dispersal options were available which would allow this significant parcel to be retained as dedicated permanent open space. As a result, this alternative is not discussed further in this EIR.

ALTERNATIVES TO THE PROPOSED PROJECT ANALYZED IN THE DRAFT EIR

"No Project" Alternative

The "No Project" alternative assumes the proposed project would not be implemented and land uses and other improvements would not be constructed. The existing project site would remain unaltered and in its current condition. All infrastructure improvements including water, wastewater, drainage, and circulation facilities identified in the proposed project would not be constructed. Because the project site

would remain unchanged, few or no environmental impacts would occur. This alternative serves as the baseline against which to evaluate the effects of the proposed project and other project alternatives.

It should be noted that the "No Project" alternative does not preclude development of the site in the future for single-family residential development. It is assumed that the population of Shasta County will continue to grow at its current rate of less than three percent annually over the next 20 years, with increments generated both by a continuing influx of new residents from outside the County and by the natural increase of the population in the area. As a result, the entire 715.4-acre site would remain available for other types of unspecified future use that is consistent with the Shasta County *General Plan*, and such future development may also result in impacts.

Avoid or Substantially Lessen Project Impacts

The "No Project" alternative would eliminate or reduce all impacts associated with the environmental categories discussed.

Attainment of Project Objectives

The "No Project" alternative fails to meet all of the stated objectives for the proposed project as described in *Project Objectives*, above.

Comparative Merits

Under the "No Project" alternative, no physical changes would occur on the project site, and there would not be a potential for new environmental impacts to occur. The "No Project" alternative would mean that the property owner would not develop the proposed project at this time; however, it would not preclude development at a future date. The "No Project" alternative, is considered overall environmentally superior to the proposed project, as it would significantly reduce or eliminate the majority of short-term, long-term, and cumulative impacts in all categories when compared to the proposed project. This alternative would not be consistent with the long-range goals of the County's *General Plan* relative to land use and the orderly transition of land through the development review process.

"No Project / Development in Accordance with Existing Zoning" Alternative

Under the "Development in Accordance with Existing Zoning" alternative, the 715.4-acre site would be developed as allowed under the zoning for the property. As previously described above, the Shasta County *Zoning Plan* identifies APNs 061-240-001 and 061-210-001 as Rural Residential (R-R), with a minimum lot area of three to five acres (R-R-BA-3 and R-R-BA-5). Existing zoning on APNs 078-250-002, 078-060-036 and 078-060-039 is Unclassified (U), which is intended to be applied as a holding district until a principal zone district has been determined. For the purpose of this alternative, it is assumed that APN 061-210-001 (74.4 acres) would be developed consistent with R-R-BA-3 and APN 061-240-001 (315.4 acres) would be developed consistent with R-R-BA-5, for a total single-family unit yield of 80 residential lots. The 80 residential lots would generally be located on the eastern project site within the 154.9-acre open space preservation areas proposed by the project. The remaining 325.6 acres designated as Unclassified (U) would remain; however, this alternative would not preclude rezoning and ultimate development within these Unclassified parcels at a later date. As a result, the 325.6 acres of Unclassified (U) would remain available for other types of unspecified future use that is consistent with the Shasta County *General Plan*, and said development may also result in impacts.

This alternative would not include the Planned Development (PD) as it would result in the development of the site in accordance with current land use designations. As such this alternative avoids the flexibility in design established by the Planned Development (PD) resulting in a less efficient use of land and subdivision design. Under this alternative, the total number of single-family dwelling units anticipated is assumed to be reduced from 166 to 80 representing a reduction of 86 units, or approximately 51 percent.

Similar to the proposed project, although every approved residential lot would be entitled to an accessory dwelling unit pursuant to Government Code Section 65852.2, it is assumed that approximately 9 percent of lots would have secondary units. Therefore, for purposes of this environmental analysis, it is assumed that 7 accessory dwelling units would be developed under the "No Project / Development in Accordance with Existing Zoning" alternative.

Single-family residences and secondary units would have the same square footage for development as under the proposed project. It is assumed that typical single-family residences would be up to 3,200 square feet in area and that secondary units would be up to 1,200 square feet. Based on County-wide averages, each primary single-family dwelling would have 2.5 residents, and each accessory dwelling unit would have 2 residents.

Avoid or Substantially Lessen Project Impacts

The "No Project / Development in Accordance with Existing Zoning" alternative would lessen several impacts of the proposed project. The "No Project / Development in Accordance with Existing Zoning" alternative would require similar mitigation as that of the proposed project.

Attainment of Project Objectives

The "No Project / Development in Accordance with Existing Zoning" alternative would fail to meet or partially meet the following key Project Objectives described above in *Project Objectives*:

O2. Maximize positive fiscal contributions to County General Fund revenue.

O3. Identify, inventory, and conserve onsite natural resources through project design, avoidance, clustered development, designated building envelopes, and significant open space creation and protection.

O4. Create a planned community of appropriate density and scale that respects the existing topography and natural backdrop of the project site.

O5. Implement Shasta County *General Plan* provisions by developing a clustered rural residential development at densities allowed by the *General Plan*, on a site that is close to existing development.

O6. Develop rural residential uses at densities sufficient to support the construction of infrastructure, utilities, and services need to serve the site, including the formation of a Community Services District to oversee and manage the site's natural resources.

O9. Reduce fire hazards, and increase and improve fire safety for the project site and adjoining area.

O10. Provide complete avoidance of all jurisdictional waters of the United States and implement a management plan to manage these resources throughout the life of the project.

O11. Maximize open space for protection of sensitive natural resources, while providing a portion of the housing needs in Shasta County.

O13. Provide pedestrian paths along the paved roadway as required by the County and allow for bridle paths for horses to travel in the subdivision.

O14. Provide significant onsite oak woodland preservation and implement an oak management strategy designed to maintain and enhance the onsite oak resource.

Comparative Merits

Similar to the proposed project, the "No Project / Development in Accordance with Existing Zoning" alternative is consistent with the County's existing *General Plan* land use for the site and would continue to allow the property owner's ability to develop the site in the future in accordance with the Shasta County *General Plan* and zoning for the site. Under this alternative, the total number of residential dwelling units anticipated is assumed to be reduced from 166 to 80 representing a reduction of 86 units, or approximately 51 percent. The 325.6 acres of Unclassified (U) zoning would remain available for other types of unspecified future use that is consistent with the Shasta County *General Plan*, and said development may also result in impacts. Under this alternative, the efficient and orderly integration planning of future land uses would not be achieved to the degree of the proposed project.

This alternative would not require the same level of circulation, water, sewer, and other infrastructure improvements based on the reduction of residential units that would be achieved. Similar to the proposed project, this alternative could be served by a CSD, although the magnitude and beneficial approach to resource management of onsite resources would likely be less than that proposed for the TRCSD given all onsite resources would likely be included within privately owned parcels.

The "No Project / Development in Accordance with Existing Zoning" alternative would have similar, but slightly reduced impacts compared to the proposed project in the categories of aesthetics, air quality, greenhouse gas emissions, public services, traffic and circulation, and utilities and services systems. Impacts associated with the remaining categories would be equivalent to, or slightly greater than, that of the proposed project.

"Non-Clustered Large Lot" Alternative

The "Non-Clustered Large Lot" alternative would result in 136 single-family residential lots developed on the 715.4-acre project site. Under this alternative, the total number of residential dwelling units anticipated would be reduced by 30 single-family units, or approximately 18 percent, and 9 percent of these units, or 12 lots, would have accessory dwelling units. This alternative may not require the same level of circulation, water, sewer, and other infrastructure improvement based on the reduction of residential units that would be achieved. Similar to the proposed project, this alternative could be served by a CSD, although the approach to resource management and onsite preservation would likely be less than that proposed for the TRCSD given the large lot concept.

Avoid or Substantially Lessen Project Impacts

The "Non-Clustered Large Lot" alternative would not lessen most of the impacts identified proposed project and would require similar mitigation as that identified for the proposed project.

Attainment of Project Objectives

The "Non-Clustered Large Lot" alternative would fail to meet Project Objectives O3, O4, O5, O11, O12, and O14. The following Project Objectives would be partially met under this alternative:

O9. Reduce fire hazards, and increase and improve fire safety for the project site and adjoining area.

O10. Provide complete avoidance of all jurisdictional waters of the United States and implement a management plan to manage these resources throughout the life of the project.

Comparative Merits

Under the "Non-Clustered Large Lot" alternative, development assumes the 715.4-acre site would be developed at the Rural Residential 5-Acre Minimum (RR-BA-5) zone classification. The intent of this alternative is to avoid or substantially reduce significant impacts associated with the proposed project. The purpose of the "Non-Clustered Large Lot" alternative is to provide an alternative describing a more traditional grid-like development pattern and circulation system and to analyze a project that would be developed at the Rural Residential 5-Acre Minimum (RR-BA-5) zone classification.

Although the "Non-Clustered Large Lot" alternative would result in construction of fewer single-family residential units on the site, this alternative would not result in the large open space preservation areas that would be created with the proposed project. This would lead to impacts associated with aesthetics, agricultural resources, and biological resources being slightly greater than the proposed project. Due to the reduction of 30 single-family residential units and 3 fewer accessory dwelling units, impacts to air quality, geology and soils, greenhouse gases, hazards and hazardous materials, land use, noise, traffic, utilities and service systems, would be reduced when compared to the proposed project. However, mitigation measures similar to the proposed project to reduce some of these impacts would be required. Impacts related to agricultural resources (cumulative), air quality (cumulative), biological resources (cumulative), and greenhouse gases (project-level and cumulative) would remain *significant and unavoidable* under this alternative.

The *Fiscal Impact Analysis* (Willdan, 2016) provides the results of the fiscal impact analysis year-by-year from the beginning of the development period through 2026 for the proposed 166-unit project. The proposed project is estimated to have a positive impact on the County General Fund from 2017 through the end of the estimate buildout of the project. At the estimated buildout date of 2026, the project is estimated to generate General Fund revenues of $234,221. General Fund expenditures associated with the proposed project ($162,225) results in a net General Fund surplus of approximately $72,000.

The "Non-Clustered Large Lot" alternative would develop 136 residential units on 5-acre lots. Although this alternative does have larger lot sizes, as a result of the reduced dwelling units (and associated population) assumed under this alternative, the overall contribution to County revenue sources, including property tax revenue, property transfer tax revenue, and sales tax revenue would be lower than the

proposed project. As a result, the overall positive impact to the County's General Fund would be less when compared to the proposed project. The "Non-Clustered Large Lot" alternative would not meet Project Objective O1 and O2 to the same extent as the proposed project.

"Reduced Density" (25% Reduction) Alternative

The purpose of the "Reduced Density" alternative is to reduce impacts from the proposed project related to the number of units developed. Under this alternative, the total number of residential dwelling units anticipated is assumed to be reduced from 166 to 125 representing a reduction of 41 units, or approximately 25 percent. As required by the Shasta County *General Plan* policies, all single-family homes would be on two-acre minimum lots, and all development on individual lots would avoid slopes greater than 30 percent. It is assumed that all lots would be built in the areas planned for Phases 1 and 5 of the proposed project. The area of developed land would be approximately 250 acres. As a variation of this alternative, the site could be developed with higher density product by further clustering the site, leaving increased natural open space and reducing the extent and cost of infrastructure improvements and site grading.

Similar to the proposed project, although every approved residential lot would be entitled to a secondary unit pursuant to Government Code Section 65852.2, it is assumed that approximately 9 percent of lots would have secondary units. Therefore, for purposes of this environmental analysis, it is assumed that 11 accessory dwelling units would be developed under this alternative.

The "Reduced Density" alternative is assumed to include the formation of the Tierra Robles CSD, in a capacity similar to that proposed by the project. It is assumed, however, that this alternative may not require the same level of circulation, water, wastewater improvement based on a reduction in population.

Avoid or Substantially Lessen Project Impacts

The "Reduced Density" alternative would lessen most of the impacts identified as a result of the proposed project. The "Reduced Density" alternative would, however, require similar mitigation as that of the proposed project.

Attainment of Project Objectives

The "Reduced Density" alternative would meet most of the *Project Objectives* described above. The following Project Objectives would be partially met under this alternative:

O1. Promote planned, orderly, and efficient patterns of rural residential development within central Shasta County on large lots, consistent with the existing neighborhood.

O2. Maximize positive fiscal contributions to County General Fund revenue.

Comparative Merits

The intent of this alternative is to avoid or substantially reduce significant impacts associated with the proposed project. With the construction of fewer residential units on the site, impacts associated with aesthetics, agricultural resources, air quality, greenhouse gases, hazards and hazardous materials, land use, noise, traffic, utilities and service systems, would be reduced when compared to the proposed project;

however, mitigation measures similar to the proposed project would be required. Impacts related to agricultural resources and greenhouse gases would remain *significant and unavoidable* under this alternative.

The *Fiscal Impact Analysis* (Willdan, 2016) provides the results of the fiscal impact analysis year-by-year from the beginning of the development period through 2026 for the proposed 166-unit project. The proposed project is estimated to have a positive impact on the County General Fund from 2017 through the end of the estimate buildout of the project. At the estimated buildout date of 2026, the project is estimated to generate a net General Fund surplus of approximately $72,000.

The fiscal impacts of the project vary over the development period based on the proportion of each lot size that will have been developed at a given time. Larger lots are estimated to have a higher assessed value and generate more property tax and property transfer tax revenue than smaller lots, while all households are estimated to generate the same expenditures regardless of size.

The "Reduced Density" alternative would develop 125 residential units on 2-acre lots. As a result of the smaller lot sizes and reduced dwelling units (and associated population) assumed under this alternative, the overall contribution to County revenue sources, including property tax revenue, property transfer tax revenue, and sales tax revenue would be lower than the proposed project. As a result, the overall positive impact to the County's General Fund would be less when compared to the proposed project. The "Reduced Density" alternative would not meet Project Object O1 and O2 to the same extent as the proposed project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The purpose of the alternatives evaluation is to develop project alternatives that have fewer or no significant impacts compared to the proposed project. As indicated below in Table 2-2, COMPARISON OF ALTERNATIVE ENVIRONMENTAL IMPACTS WITH THE PROPOSED PROJECT, the "No Project" alternative (existing conditions) would not result in environmental impacts associated with development of the proposed project site and as such, the "No Project" alternative is considered environmentally superior. State *CEQA Guidelines* §15126(d)(2) indicates that, if the "No Project" alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. Table 2-2, COMPARISON OF ALTERNATIVE ENVIRONMENTAL IMPACTS WITH THE PROPOSED PROJECT, provides a comparison matrix of the relative impacts of each alternative to the proposed project.

The context of an environmentally superior alternative is based on the consideration of several factors including the reduction of environmental impacts to a *less than significant* level, the project objectives, and an alternative's ability to fulfill the objectives with minimal impacts to the existing site and surrounding environment. According to Table 2-2, the "No Project" alterative would be the environmentally superior alternative because it would eliminate all of the potentially significant impacts of the proposed project. However, while the "No Project" alternative is the environmentally superior alternative, it is not capable of meeting any of the basic objectives of the proposed project. Section 15126.6(e)(2) of the State *CEQA Guidelines* states that if the "No Project" alternative is found to be environmentally superior, "the EIR shall also identify an environmentally superior alternative among the other alternatives.

After the "No Project" alternative, the environmentally superior alternative to the proposed project is the one that would result in the fewest or least significant environmental impacts. Based on the evaluation undertaken, the "Reduced Density" alternative is the environmentally superior alternative.

Under the "Reduced Density" alternative, the total number of residential dwelling units anticipated is assumed to be reduced from 166 to 125 representing a reduction of 41 units, or approximately 25 percent. As required by Shasta County *General Plan* policies, all single-family homes would be on 2-acre minimum lots, and all development on individual lots would avoid slopes greater than 30 percent. It is assumed that all lots would be built in the areas planned for Phases 1 and 5 of the proposed project). The "Reduced Density" alternative would develop approximately 250 acres of the overall 715.4-acre site, approximately 221.92 acres less than the 471.92-acre development footprint of the proposed project. Therefore, the area to be developed footprint would be slightly less that of the proposed project.

The "Reduced Density" alternative would reduce most of the proposed project's identified potentially significant impacts associated with agricultural resources, air quality, biological resources, greenhouse gases, water supply, and traffic. However, this alternative would not avoid the project's *significant and unavoidable* impacts related to cumulative loss of Grazing Land, cumulative loss oak woodlands, cumulative air quality or project-level and cumulative GHG impacts. As noted above, the "Reduced Density" alternative would partially achieve the project's objectives, although at a proportionately reduced level. The overall contribution to County revenue sources, including property tax revenue, property transfer tax revenue, and sales tax revenue would be lower than the proposed project. As a result, the overall positive impact to the County's General Fund would be less when compared to the proposed project. While the proposed project has a density of 1 dwelling unit per 4.4 gross acres, the "Reduced Density" alternative would not achieve efficient patterns of rural residential development within central Shasta County on larger lots to the degree that is achieved under the proposed project (i.e., 2-acre parcels that would be developed under the "Reduced Density" alternative, while acceptable under current Shasta County *General Plan* land use designations, would be less consistent with the surrounding area than the proposed project).

Table 2-2
COMPARISON OF ALTERNATIVE ENVIRONMENTAL IMPACTS WITH THE PROPOSED PROJECT

EIR Chapter	Alternative				
	Proposed Project Level of Impact After Mitigation	No Project	No Project / Development in Accordance with Existing Zoning	Non-Clustered Large Lot	Reduced Density
5.1 – Aesthetics	Less Than Significant	+	=/-	-	=/+
5.2 – Agricultural Resources	Significant & Unavoidable (Cumulative)	+	=/-	-	=/+
5.3 – Air Quality	Significant & Unavoidable (Cumulative)	+	=/+	=/+	=/+
5.4 – Biological Resources	Significant & Unavoidable (Cumulative)	+	=/-	-	=/+
5.5 – Cultural Resources	Less Than Significant	+	=	=	=
5.6 – Geology and Soils	Less Than Significant	+	=	=/+	=
5.7 – Greenhouse Gases and Climate Change	Significant & Unavoidable (Project and Cumulative)	+	=/+	=/+	=/+
5.8 – Hazards and Hazardous Materials	Less Than Significant	+	=	=	=
5.9 – Hydrology and Water Quality	Less Than Significant	+	=	=/-	=/+
5.10 – Land Use and Planning	Less Than Significant	+	=/-	=	=/-
5.11 – Noise	Less Than Significant	+	=/+	=/+	=/+
5.12 – Population and Housing	Less Than Significant	+	=/+	=/+	=/+
5.13 – Public Services and Fiscal	Less Than Significant	+	=/+	=/-	=/-
5.14 – Recreation	Less Than Significant	+	=/-	-	=/+
5.15 – Traffic and Circulation	Significant & Unavoidable (Cumulative)	+	+	=/+	=/+
5.16 – Tribal Cultural Resources	Less Than Significant	+	=	=	=
5.17 – Utilities and Service Systems	Less Than Significant	+	=/+	=/+	=/+
Attainment of Project Objectives	Meets all of the Project Objectives	Meets none of the Project Objectives	Fails to meet most of the Project Objectives	Fails to meet most of the Project Objectives	Meets all but two of the Project Objectives

+: Impacts better/less than those of the proposed project.
=: Impacts same as those of the proposed project.
-: Impacts worse than those of the proposed project.
=/+: Impacts equal to or slightly improved than those of the proposed project.
=/-: Impacts equal to or slightly worse than those of the proposed project.

2.8 AREAS OF CONTROVERSY

This section summarizes the comments raised by the public and agencies during the scoping process for the proposed project and includes both written and oral comments that were received during the County's 2012 scoping process and the most recent 30-day NOP comment period that circulated from February 19, 2016 through March 25, 2016. All written and oral comments received during both public comment periods for the NOP were reviewed, including comments received during the 2012 public scoping meeting, and those received by the County via email. The NOP comment letters, in their original format as submitted by the commenters, are contained in Appendix 15.1 of this EIR.

2012 NOP AND SCOPING

Fifty-four (54) comment letters were submitted by private individuals during the scoping process, and approximately forty-seven (47) individuals presented oral comments during the November 8, 2012 scoping meeting. In addition to private individuals, five (5) government agencies and two (2) private organizations submitted written and/or oral comments.

2016 NOP

Forty-one (41) comment letters were submitted by private individuals during the scoping process. In addition to private individuals, four (4) government agencies and two (2) private organizations submitted written and/or oral comments.

KEY ISSUES RAISED

As discussed above, written and oral comments and suggestions were provided by members of the public, organizations, and government agencies during the 2012 and 2016 NOP scoping periods. The discussion below presents the key issues identified from the written and oral comments received on the proposed project during scoping. Where one or more comments address a similar issue or concern, those comments were combined together and summarized to minimize redundancy. All of these issues are addressed in this Draft EIR, in the relevant noted sections. The specific issues raised during the public scoping process are summarized below according to the following topics:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Hazards
- Hydrology and Water Quality
- Noise
- Land Use and Planning
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Project Alternatives

Aesthetics (refer to Section 5.1, AESTHETICS AND VISUAL RESOURCES)

- Concerns with the introduction of new sources of light (streetlights) with the proposed project and impacts to the night sky.
- Concerns with the aesthetic impact of converting over 500 acres of the site to small lot residential which is inconsistent with the rural character of the area.

- Concerns were expressed with regards to the development including overhead power lines and telephone poles.

Agricultural Resources (refer to Section 5.2, AGRICULTURAL RESOURCES)

- The property has an agricultural history that should be maintained to allow local farmers the ability to contribute to local sustainability.
- How will the project mitigate the loss of soils identified by the Natural Resource Conservation Service as "farmland of statewide importance?"

Air Quality (refer to Section 5.3, AIR QUALITY and Section 5.8, GREENHOUSE GASES AND CLIMATE CHANGE)

- Concerns that more homes may change current open burning restrictions and burn days.
- Concerns of air quality impacts to local residents during project construction, including the sewer line construction.
- Concerns with the project's potential impacts on global warming and its consistency with the State's policies on greenhouse gas emissions and the proposed Shasta County Climate Action Plan.

Biological Resources (refer to Section 5.4, BIOLOGICAL RESOURCES)

- Significant concerns expressed regarding the project impacts to mature blue oak habitat and the related species that live in the area, including albino deer.
- Several special status plant species and fish should be considered in the biological evaluation.
- Concerns that the project will displace deer, wild turkeys, birds, skunks, and possum.
- Recommendations that the cumulative effect of the project in the context of loss of biodiversity needs to be studied.
- Recommendations for breeding bird surveys, surveys for nesting raptors, vernal pool, riparian habitat and streams surveys.

Hazards (refer to Section 5.8, HAZARDS AND HAZARDOUS MATERIALS)

- Additional homes in an extreme wildland fire hazard area will contribute to the fire risk.

Hydrology and Water Quality (refer to Section 5.9, HYDROLOGY AND WATER QUALITY)

- Concerns raised related to water quality and aquatic species impacts along Clough Creek.
- Concerns regarding impacts to storm water runoff due to alteration of existing runoff patterns.
- Short and long-term negative effects on the local environmental due to increased runoff volumes, velocities and sediment transport.

Land Use and Planning (refer to Section 5.10, LAND USE AND PLANNING and Section 6.0, GROWTH-INDUCING IMPACTS)

- Concerns that a higher density development will change the rural character of the area and is not consistent or compatible with the existing zoning surrounding the site. Project would result in a diminution of property values.

- Concerns were raised that the project is inconsistent with the objectives and policies of the Shasta County *General Plan,* particularly concerning density.
- How is the project consistent with the land capability analysis for the property?
- Concerns that the project's growth inducing impacts will set precedence for increasing density in the area. The increase in density will create greater hazards to the community.
- Concerns that potential blight would occur if the subdivision is left undeveloped or with a significant number of unfinished lots.
- The areas currently proposed for open space should be expanded.

Noise (refer to Section 5.11, NOISE)

- Concerns that complaints from the project's residents would force the closure of the nearby Redding Gun Club.
- Increase in traffic-related noise within a normally quiet rural area.

Public Services (refer to Section 5.13, PUBLIC SERVICES AND FISCAL IMPACTS)

- Concerns that crime will increase in the area of the homes are purchased for investments rather than as a primary residence.
- Increased demand on already constrained County sheriff and fire services.
- Current school capacity would not be able to accommodate the increase in student population as a result of the project.

Recreation (refer to Section 5.14, RECREATION)

- Concerns that this development would impact the Palo Cedro Park. Will the development provide funds for the needed improvements to the park?
- Regional park impact to Redding, Anderson and Shasta Lake.

Transportation and Traffic (refer to Section 5.16, TRAFFIC AND CIRCULATION)

- Concerns regarding existing roadway geometries being inadequate to support the development, contributing to an already unsafe condition at many locations due to high rates of speed and blind curves.
- Concerns that the project will contribute to existing traffic impacts along Boyle Road and traffic safety conflicts at Foothill High School.
- Access from Deschutes Road should be provided. Two access locations to the project may not be sufficient to support the development.
- Safety concerns at Old Alturas entrance due to the existing roadway configuration.
- Concerns that efforts to widen roadways may require acquisition of private property outside of the existing right-of-way.
- Responsible parties for onsite and offsite roadway maintenance.
- Concerns raised regarding Northgate Drive being used as the emergency access road for fire. The roadway is a private road which cannot handle the increased traffic. Residents located along Northgate Drive have not given permission for the road to be used for the purpose of emergency access.

Utilities and Service Systems (refer to Section 5.17, UTILITIES AND SERVICE SYSTEMS)

- Significant concerns express with regards to Bella Vista Water District's (BVWD) ability to supply water to the project. Noted concerns of BVWDs inability to provide water during drought conditions, including inadequate water for fire suppression and poor water pressure for existing customers.
- Concerns raised that property owners along the sewer alignment who are currently on septic systems will be forced to connect to the sewer system proposed by the development. Inducing off-site growth due to the extension of the proposed sewer line.
- BVWD cannot meet current water needs. Existing occurrences of water rations, restricted allocations and higher rates compared to other neighboring water districts.
- Concerns over costs to existing property owners to maintain the new infrastructure required of the project, particularly the proposed sewer line extension to CSA No. 8.
- Concerns expressed that special water assessments and costs will be distributed to all Bella Vista Water District customers.

Project Alternatives (refer to Section 7.0, ALTERNATIVES TO THE PROPOSED PROJECT)

- The property should be split into three to ten acre parcels that are consistent with the surrounding rural area.

2.9 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the State *CEQA Guidelines* requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- *Determine whether the EIR adequately describes the environmental impacts of the proposed project;*
- *Choose among alternatives;*
- *Determine whether the recommended mitigation measures should be adopted or modified; and*
- *Determine whether additional mitigation measures need to be applied to the proposed project.*

2.10 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MESURES

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. For these areas, this Draft EIR discusses the impacts and mitigation measures that could be implemented by the County to reduce potential adverse impacts to a level that is considered *less than significant*. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. The mitigation measures presented in the Draft EIR will form the basis of the Mitigation and Monitoring Program (MMP). Table 2-3, PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES, at the end of this chapter, provides a summary of the environmental effects of the proposed project identified in each technical issue chapter. The table consists of the environmental impacts, the significance of the impacts for the project, the proposed mitigation measures, and the significance of the impacts after the mitigation measures are implemented.

Table 2-3
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 5.1 – AESTHETICS			
Impact 5.1-1: Implementation of the proposed project would not have a substantial adverse effect on a scenic vista.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.1-2: Implementation of the proposed project could create a new source of substantial light or glare, which could adversely affect day or nighttime views in the area.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.1-3: Project development, together with cumulative projects, may result in long-term cumulative aesthetic, light and glare impacts.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Section 5.2- Agricultural Resources			
Impact 5.2-1: Covert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.2-2: Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use	Potentially Significant Impact	**MM 5.2-1.** Upon subsequent sale or lease of all or part of the affected property, including the sale of individual lots following subdivision of the property, a real estate transfer disclosure statement shall be provided to the purchaser or lessee and shall include the following language: *It is the policy of the County of Shasta to protect, promote and encourage properly conducted agricultural operations within the County. You are hereby notified that the property you are purchasing is located near agricultural lands or operations, or is included within or adjacent to an area where agricultural operations are or may be permitted. You may be subject to inconveniences or discomfort arising from such operations.* *Such discomfort or inconveniences may include noise, odors, fumes, dust, smoke, insects, operation of machinery (including aircraft), during any 24-hour period. Also, discomfort or inconvenience may result from the storage or disposal of manure; the application, by spraying or otherwise, of fertilizers,*	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		soil amendments, herbicides, and pesticides; and grazing of livestock on open range. One or more of the inconveniences described may occur as a result of any agricultural operation that is in conformance with existing laws and regulations and accepted customs and standards. If you live near an agricultural area, you should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in a county with a strong rural character and an active agricultural sector.	
Impact 5.2-3: Development of the proposed project, as well as buildout in accordance with the County's General Plan, may result in the cumulative loss of farmland.	Potentially Significant Impact	**MM 5.2-2.** The loss of agricultural (grazing) lands on the subject property shall be offset through establishment of a conservation easement providing for agricultural use of offsite lands in perpetuity. Shasta County or a qualified land conservation organization shall facilitate the establishment of the conservation easement. The conservation easement shall be held by a conservation-oriented third party acceptable to Shasta County. The offsite agricultural lands shall be located in Shasta County and shall provide a grazing capacity of at least 1,044 Animal-Unit Months (AUMs). An Operation and Management Plan identifying the land to be protected, acceptable land uses, management practices, and a reporting program shall be provided for Shasta County review and acceptance prior to establishment of the easement. All costs associated with establishing the conservation easement shall be the responsibility of the project applicant.	Significant and Unavoidable
Section 5.3 - AIR QUALITY			
Impact 5.3-1: Implementation of the proposed project would not conflict with or obstruct implementation of the 2012 Air Quality Attainment Plan.	Less Than Significant Impact	No mitigation measures are required**.**	Less Than Significant
Impact 5.3-2: Project implementation could potentially violate an air quality standard or contribute substantially to an existing or projected air quality violation during project construction.	Potentially Significant Impact	**MM 5.3-1.** Prior to issuance of a grading permit, the project applicant shall submit a grading plan for review and approval by the Shasta County Building Department. The following specifications shall be included to reduce short-term air quality impacts attributable to the proposed project: • During all construction activities, all diesel-fueled construction equipment, including but not limited to rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors, shall be California Air Resources Board (CARB) Tier 3 Certified or better as set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 of the Code of Federal Regulations. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. Equipment maintenance records shall be kept onsite and made available upon request by the County of Shasta. • All material excavated, stockpiled, or graded shall be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering shall occur at least twice daily with	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		complete site coverage, preferably in the mid-morning and after work is completed each day. • All areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions. • All onsite vehicles shall be limited to a speed of 15 miles per hour on unpaved roads. • All land clearing, grading, earth-moving, or excavation activities on the project site shall be suspended when sustained winds are expected to exceed 20 miles per hour. • All portions of the development site which have been stripped of vegetation by construction activities and left inactive for more than ten days shall be seeded and/or watered until a suitable grass cover is established. • All trucks hauling dirt, sand, soil, or loose material shall be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of California Vehicle Code Section 23114. This provision will be enforced by local law enforcement agencies. • All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance. • Wheel washers shall be installed where project vehicles and/or equipment enter and/or exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. • Prior to final occupancy, the applicant shall re-establish ground cover on the construction site through seeding and watering. • Off-road construction equipment shall not be left idling for periods longer than 5 minutes when not in use.	
Impact 5.3-3: Project implementation could potentially violate an air quality standard or contribute substantially to an existing or projected air quality violation during project operations.	Potentially Significant Impact	**MM 5.3-2.** Prior to the issuance of individual building permits, the Shasta County Building Department shall confirm that all construction documents and specifications stipulate that the installation of wood-burning fireplaces is prohibited. Natural gas fireplaces are acceptable. **MM 5.3-3.** Prior to the issuance of individual building permits, the Shasta County Building Department shall confirm that all project plans and specifications include all feasible Standard Mitigation Measures and Level A Measures as defined by the SCAQMD including: • The project shall provide for the use of energy-efficient lighting (includes controls) and process systems such as water heaters, furnaces, and boiler units. • The project shall utilize energy-efficient and automated controls for air conditioning. • Residential structures shall include exterior electric outlets in the front and rear. • Streets shall be designed to maximize pedestrian access to transit stops where feasible.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.3-4: Project implementation would not expose sensitive receptors to substantial carbon monoxide pollutant concentrations.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.3-5: Implementation of the proposed project would not expose sensitive receptors to substantial toxic air contaminant concentrations during project construction.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.3-6: Project implementation would not expose sensitive receptors to substantial toxic air contaminant concentrations during project operations.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.3-7: Project implementation would not create objectionable odors affecting a substantial number of people.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.3-8: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	Potentially Significant Impact	Implement **MM 5.3-1**, **MM 5.3-2,** and **MM 5.3-3**.	Significant and Unavoidable
Section 5.4 - BIOLOGICAL RESOURCES			
Impact 5.4-1: The proposed project could have a substantial effect, either directly or through habitat modification, including riparian habitat, on any natural community, or species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California	Potentially Significant Impact	**MM 5.4-1a:** Subject to review and approval by the Shasta County Resource Management Department Director, the applicant shall establish an offsite conservation easement covering a minimum of 137.8 acres of blue oak woodland in Shasta County. A detailed management plan guiding long-term preservation of the oak woodland, which may include a regulated intensity of grazing on the site, shall be provided for Shasta County review and acceptance prior to establishment of the easement. The management plan shall identify monitoring and maintenance activities, conservation easement and deed restriction terms, the easement holder, and remedial actions to be taken if the management plan objectives are not met.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Department of Fish and Wildlife or U.S. Fish and Wildlife Service.		A conservation-oriented third-party entity acceptable to Shasta County shall hold the conservation easement and shall be responsible for ongoing monitoring and management of the site in accordance with the management plan. Monitoring reports shall be submitted to Shasta County at least once every three years; if management problems are identified or other concerns arise, the County may require submittal of more frequent reports (up to two per year) until the concerns are adequately addressed. Management activities shall be funded through an endowment account established by the project applicant or through fees collected by the Tierra Robles Community Services District. **MM 5.4-1b:** Oak woodlands within designated open spaces on the development site shall be maintained in perpetuity. The open spaces shall be protected through establishment of conservation easements and deed restrictions. The five small open spaces shall be managed for their oak woodland values. The large eastern open space shall be managed for both oak woodland and seasonal grazing values. A management plan shall be provided for Shasta County review and acceptance prior to establishment of the easements and deed restrictions. The plan shall be consistent with the Oak Management Plan and shall identify monitoring and maintenance activities, conservation easement and deed restriction terms, the easement holder, and remedial actions to be taken if the management plan objectives are not met. The deed restrictions shall include a provision prohibiting dogs in the designated open space areas. Should the Tierra Robles Community Services District ultimately own and maintain the onsite conservation easements, monitoring reports shall be submitted to Shasta County at least once every three years. If management problems are identified or other concerns arise, the County may require submittal of more frequent reports (up to two per year) until the concerns are adequately addressed. Should the onsite conservation easements be held by a conservation-oriented third-party entity (acceptable to Shasta County), the third-party entity shall be responsible for ongoing monitoring and management of the onsite conservation easements in accordance with the Oak Management Plan. Monitoring and maintenance of the open spaces, in perpetuity, shall be funded through an endowment account established by the project applicant or through fees collected by the Tierra Robles Community Services District. **MM 5.4-1c:** Resource Management Areas (RMAs) shall be maintained in perpetuity for their wildlife habitat values and for fire hazard reduction. The RMAs shall be protected through establishment of conservation easements and deed restrictions. Each RMA shall be managed by the Tierra Robles Community Services District as specified in the Final Tierra Robles Wildland Fuel/Vegetation Management Plan, which shall be provided for Shasta County review and	

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		acceptance prior to establishment of the easements and deed restrictions. The plan shall identify monitoring and maintenance activities, conservation easement and deed restriction terms, the easement holder, and remedial actions to be taken if the management plan objectives are not met. The deed restrictions shall include a provision prohibiting dogs within the RMAs. As required by the Tierra Robles *Design Guidelines*, a licensed land surveyor shall identify limits of the building envelope on each lot for easier identification of RMA boundaries. **MM 5.4-1d:** Grading plans prepared by the project applicant shall note the following construction specifications designed to avoid the introduction and spread of weeds: • Using only certified weed-free erosion control materials, mulch, and seed. • Precluding the use of rice straw in riparian areas. • Limiting any import or export of fill material to material known to be weed free. • Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the County. If the equipment has most recently been used within the County, cleaning is not required. • Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility immediately upon termination of its use at the project site. • The project contractor shall continuously comply with the above stated measures throughout the duration of onsite and offsite construction activities. **MM 5.4-1e:** Potential impacts to Red Bluff dwarf rush shall be avoided and minimized with implementation of the following: • The areal extent and density of the Red Bluff dwarf rush population shall be documented by a qualified botanist through at least two years of baseline monitoring in non-drought years. Monitoring shall be completed prior to final design of Lots 60-69 and 77-79, as well as the roads bordering these lots. • Upon establishment of the baseline Red Bluff dwarf rush population boundary, the adjoining building envelopes, RMAs, and roads shall be redesigned to provide a minimum 100-foot buffer between the plant population and all roads and building envelopes. • Low (±24-inch tall) post-and-cable fencing shall be constructed around the Red Bluff dwarf rush population prior to construction on any of Lots 60-69 or 77-79. The fencing shall be a minimum of 100 feet from the outer edge of the plant population. A conservation-oriented third-party entity acceptable to Shasta County shall be	

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		responsible for annual monitoring of the fence in perpetuity, and for ensuring that the fence is maintained in good condition at all times. • Treated effluent from the onsite wastewater treatment plant shall not be disposed within 200 feet of the Red Bluff dwarf rush population. • The project applicant shall preserve an offsite population of Red Bluff dwarf rush in perpetuity. The offsite preserve shall support an areal extent and density of Red Bluff dwarf rush equal to or greater than that of the onsite population. The mitigation site and a surrounding upland buffer shall be protected through implementation of deed restrictions or a conservation easement, and implementation of a management plan approved by Shasta County and CDFW. A third-party conservation-oriented entity acceptable to Shasta County shall hold the conservation easement and be responsible for monitoring and maintenance of the mitigation site in perpetuity, with the Tierra Robles Community Services District funding implementation of the management plan in perpetuity. **MM 5.4-1f:** As part of the on-going vegetation management activities conducted by the Tierra Robles Community Services District, individual trees in the RMAs and open spaces that provide suitable bat roosting habitat (trees ≥12" dbh; trees with cavities, crevices, or exfoliating bark; and standing snags) shall be identified and retained. Removal of trees providing bat roosting habitat may be authorized by the Shasta County Resource Management Department Director if the Director determines that the tree(s) pose a significant hazard to the public due to their location and condition. **MM 5.4-1g:** For all activities requiring a grading permit, conduct tree removal outside of the bat maternity season (i.e., remove trees between September 1 and February 28) if possible. If trees must be removed during the maternity season (March 1 through August 31), the following measures shall be implemented: • Within two weeks prior to tree removal, daytime habitat assessments and/or nighttime emergence surveys shall be conducted to identify potential roost trees. • Potential roost trees shall be removed using a two-step process to provide humane eviction of the bats. On Day 1, the non-habitat features on the trees shall be removed using chain saws for cutting and, as feasible, using chippers for disposal, with the objective being to create sufficient noise and vibration to cause the bats to choose not to return to the tree after they emerge to forage. On Day 2, the remainder of the tree shall be removed, with no restrictions on removal methods.	

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM 5.4-1h: Install three four-chamber bat houses within the Clough Creek open space and three four-chamber bat houses within the eastern open space parcel. The bat houses shall be located a minimum of 10 feet above ground in open areas oriented south-southeast, where they receive at least seven hours of direct sun daily. The bat houses shall be located in areas with high habitat diversity (e.g., near riparian, woodland, and grassland/open woodland habitats). The bat houses shall be annually inspected and maintained between November 1-February 1 (when bats are unlikely to be present), and shall be replaced as needed, by the Tierra Robles Community Services District. **MM 5.4-1i:** Prior to conducting any vegetation removal in the eastern open space or on lots that are adjacent to the eastern open space, a qualified biologist shall conduct a thorough survey of the brush-removal area to identify all elderberry shrubs within the proposed work area. The survey should occur during the elderberry flowering period (generally late April to late June, depending on weather conditions) to ensure that the elderberries are visible. The location of all elderberries shall be accurately recorded and the elderberries shall be permanently marked in the field (e.g., through placement of T-posts at a distance of 20 feet outside of the elderberry dripline). No elderberries shall be pruned or removed, and no brush removal shall occur within 20 feet of the dripline of any elderberry with a basal diameter of one inch or greater. **MM 5.4-1j:** Prior to each brush-removal operation in the general vicinity of the elderberries, the following actions shall be undertaken: • High-visibility protective fencing or flagging shall be installed at a distance of 20 feet outside the driplines of elderberry shrubs; the fencing/flagging shall be maintained for the duration of each brush-removal operation. • Environmental awareness training for all vegetation management personnel shall be provided by a qualified biologist. The objective of the training shall be to ensure that the vegetation management personnel can recognize habitats capable of supporting elderberries, identify elderberry plants of all sizes and conditions, understand the need for protection of the plants, and can properly implement protective measures. Confirmation of such training shall be maintained by the Tierra Robles Community Services District. **MM 5.4-1k:** The following measure applies to any vegetation removal activities undertaken by the project developer or the Tierra Robles Community Services District for the purposes of fire-hazard reduction or oak woodland management, as well as to any onsite action by any entity that triggers the need for a grading permit (e.g., road construction, multi-lot developments, wastewater collection and treatment system construction, etc.). The measure does not apply to individual lot	

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		owners proposing activities that do not require a grading permit; it is the responsibility of individual lot owners to ensure that their actions comply with the Migratory Bird Treaty Act. • If feasible, vegetation removal and construction shall be conducted between September 1 and January 31. If vegetation removal or construction must occur between February 1 and August 31, a nesting bird survey shall be conducted by a qualified biologist within one week prior to initiation of work; if active nests are present, work within 500 feet of the nest(s) shall be postponed until the young have fledged, unless a smaller nest buffer zone is authorized by the CDFW and USFWS. If a lapse in construction lasting two weeks or more occurs during the nesting season, an additional nesting bird survey shall be undertaken to ensure that no new nests have been constructed during the lapse. All nesting bird survey reports shall be kept on file with the Tierra Robles Community Services District and shall be provided to the California Department of Fish and Wildlife within one week following completion of each survey.	
Impact 5.4-2: The proposed project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.4-3: The proposed project potentially could substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.4-4: The proposed project could potentially conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially Significant Impact	Implement **MM 5.4-1a**, **MM 5.4-1b**, **MM 5.4-1c**, **MM 5.4-1d**, **MM 5.4-1e**, **MM 5.4-1f**, **MM 5.4-1g**, **MM 5.4-1h**, **MM 5.4-1i**, **MM 5.4-1j**, and **MM 5.4-1k**.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.4-5: Cumulative development within the project area may affect sensitive biological resources, including federally-protected species, wetland habitat, and oak woodlands.	Potentially Significant Impact	Implement **MM 5.4-1a**, **MM 5.4-1b**, **MM 5.4-1c**, **MM 5.4-1d**, **MM 5.4-1e**, **MM 5.4-1f**, **MM 5.4-1g**, **MM 5.4-1h**, **MM 5.4-1i**, **MM 5.4-1j**, and **MM 5.4-1k**.	Significant and Unavoidable
Section 5.5 – CULTURAL RESOURCES			
Impact 5.5-1: Implementation of the proposed project may cause a significant impact to historic or prehistoric resources.	Potentially Significant Impact	**MM 5.5-1a.** Should any additional archaeological discoveries (human skeletal remains, culturally modified lithic materials, structural features or historic artifacts) or paleontological resources be encountered during ground disturbing activities, all such activities shall halt within a 100-foot radius of the discovery, and a qualified archaeologist shall be contacted to determine the nature of the find, evaluate its significance, and if necessary, suggest preservation or mitigation measures. **MM 5.5-1b.** If human remains are discovered during development of the project, all activity shall cease immediately, the Contractor shall notify the Shasta County Coroner's Office immediately under State law, and a qualified archaeologist and Native American monitor shall be contacted. Should the Coroner determine the human remains to be Native American, the Native American Heritage Commission shall be contacted pursuant to Public Resources Code Section 5097.98 and the remains interred as provided for by law.	Less Than Significant
Impact 5.5-2: Implementation of the proposed project could result in the potential damage or destruction of undiscovered paleontological resources.	Potentially Significant Impact	Implement **MM 5.5-1a**.	Less Than Significant
Impact 5.5-3: Implementation of the proposed project, along with any foreseeable development in the project vicinity, could result in the potential cumulative impacts to historic or prehistoric resources or the destruction of undiscovered paleontological resources.	Potentially Significant Impact	Implement **MM 5.5-1a**, and **MM 5.5-1b**.	Less Than Significant
Section 5.6 – GEOLOGY AND SOILS			
Impact 5.6-1: Implementation of the proposed project would not expose people or structures to potential substantial adverse effects, including the	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides.			
Impact 5.6-2: Implementation of the proposed project could potentially expose people or structures to flooding as a result of the failure of a dam of levee.	Potentially Significant Impact	Implement **MM 5.9-4**.	Less Than Significant
Impact 5.6-3: The proposed project is not located on soil that has potential to be substantially expansive.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.6-4: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.6-5: Implementation of the proposed project, combined with future development, would not result in increased short-term impacts such as erosion and sedimentation, and long-term seismic-related impacts within the project area.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Section 5.7 – GREENHOUSE GASES			
Impact 5.7-1: Greenhouse gas emissions, either directly or indirectly, generated by the proposed project may have a significant impact on the environment.	Potentially Significant Impact	**MM 5.7-1**. The project shall include, but not be limited to, the following improvements, which shall be incorporated into the project site plans to ensure consistency with adopted statewide plans and programs. The project applicant shall demonstrate compliance with this measure, prior to issuance of Building Permits:	Significant and Unavoidable

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Transportation • Pedestrian connections to the offsite circulation network shall be provided on improvement/grading plans and implemented concurrent with subdivision backbone infrastructure improvements (Building Permit). *Area Sources* • Install natural gas hearths. Wood burning hearths are prohibited (Building Permit). • Use low VOC paint. Requirements for low VOC interior and exterior paints shall be included in the project Covenants, Conditions, and Restrictions (CC&Rs) (Building Permit). *Energy Efficiency* • Exceed Title 24 energy efficiency standards by 15 percent (Building Permit). • Install high efficiency lighting. High efficiency lighting shall achieve at least a 20 percent reduction in power rating by using either high efficiency fixtures and/or bulbs (Building Permit). • Install Energy efficient appliances. Appliances shall comply with EPA Energy Star requirements (Occupancy Permit). • Use Smart Grid Technology. Install PG&E Smart Meters in all lots/dwelling units (Occupancy Permit). • Include onsite renewable energy (photovoltaic cells, solar water heating, or other design techniques) to reduce energy use by 15 percent, in addition to State required reductions (Building Permit). *Water Conservation and Efficiency* • Individual homes shall be constructed with an engineered grey water system that complies with Chapter 16 of the California Plumbing Code (Building Permit). • Install water-efficient irrigation systems (Building Permit). • Install water-efficient fixtures (e.g., low-flow faucets, toilets, showers) (Building Permit).	

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Solid Waste • Divert at least 65 percent of solid waste to be recycled. Requirements for recycling shall be included in the project Covenants, Conditions, and Restrictions (CC&Rs) to ensure the project's solid waste collection contractor provides containers for recyclables (Building Permit).	
Impact 5.7-2: Implementation of the proposed project could potentially conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	Potentially Significant Impact	Implement **MM 5.7-1**.	Significant and Unavoidable
Impact 5.7-3: Greenhouse gas emissions generated by the project could potentially have a significant impact on global climate change.	Potentially Significant Impact	Implement **MM 5.7-1**.	Significant and Unavoidable
Section 5.8 – HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.8-1: Project construction activities could create a significant hazard to the public through foreseeable upset and accidental conditions or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.8-2: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.8-3: Implementation of the proposed project could expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Potentially Significant Impact	**MM 5.8-1.** Prior to the issuance of a building permit, all required fuel-reduction work associated with construction of the onsite roadway network, the wastewater treatment plant and associated infrastructure facilities shall be completed by the project applicant to the satisfaction of the Shasta County Fire Department. Monitoring of fire prescription activities within Resource Management Areas 1 through 4 shall be the sole responsibility of the Tierra Robles Community Services District (TRCSD) and shall occur as each private residential lot is developed and monitored to ensure substantial compliance with fire fuel management prescriptions and site development guidelines as identified in the Tierra Robles Wildland Fuel/Vegetation Management Plan, Shasta County Fire Safety Standards, and California Public Resources Code Section 4291, Defensible Space. Ongoing maintenance activities within Resource Management Area 5 shall be the sole responsibility of the TRCSD. The TRCSD shall provide annual fire fuel monitoring and compliance reports to the Shasta County Fire Department documenting conformity with fire fuel prescription activities and methods, including reporting of any enforcement actions taken to fulfill the requirements of the above referenced guidelines and standards. The specific reporting methods to be used to ensure compliance shall be determined by the TRCSD and approved by the Shasta County Fire Department prior to issuance of a building permit that would allow construction of the first onsite residence.	Less Than Significant
Impact 5.8-4: The proposed project, combined with other cumulative projects, would not increase hazardous material or wildfire exposure to the public.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Section 5.9 – HYDROLOGY AND WATER QUALITY			
Impact 5.9-1: Implementation of the proposed project may violate water quality standards or waste discharge requirements.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.9-2: The proposed project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.	Potentially Significant Impact	Implement **MM 5.17-4a** and **MM 5.17-4b**.	Less Than Significant
Impact 5.9-3: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.9-4: Implementation of the proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.	Potentially Significant Impact	**MM 5.9-4.** A requirement shall be placed on Lot #140 that any structure finish floor elevation will be one foot minimum above the 100-year floodplain elevation at that location of the Clough Creek drainage. At Lot #140, the floodplain is approximately 607.1 feet and therefore any structure finish flood elevation shall be required to be at or above 608.1 feet. Verification is subject to County Building Division at plan check.	Less Than Significant
Impact 5.9-5: Implementation of the proposed project could create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.9-6: Implementation of the proposed project could otherwise substantially degrade water quality.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.9-7: Implementation of the proposed project could expose people or structures to a significant risk of loss. Injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	Potentially Significant Impact	Implement **MM 5.9-4.**	Less Than Significant
Impact 5.9-8: The proposed project, in combination with other cumulative projects, could result in increased degradation of surface water quality and flooding impacts in the area.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Section 5.10 – LAND USE AND PLANNING			
Impact 5.10-1: The proposed project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.10-2: Implementation of the proposed project, combined with other past, present, and reasonably foreseeable future development, would not physically divide an established community, conflict with any applicable land use plan, policy, or regulation, or conflict with any applicable habitat or natural community conservation plan.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 5.11 – NOISE			
Impact 5.11-1: Implementation of the proposed project may result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Potentially Significant Impact	**MM 5.11-1.** In addition to permitted hours of operation, project grading and construction plans shall note the following noise control measures to be implemented by the project contractor throughout the duration of onsite construction activities. The plans shall be subject to the review and concurrence of the Shasta County Department of Resource Management that the project complies with the following: • Fixed construction equipment such as compressors and generators shall be placed the greatest possible distance from sensitive receptors, but no closer than 200 feet from residential structures. • All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power construction equipment shall be muffled or shielded.	Less Than Significant
Impact 5.11-2: Implementation of the proposed project would not expose persons to or generate excessive ground borne vibration or ground borne noise levels.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.11-3: Implementation of the proposed project would not expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.11-4: Implementation of the proposed project could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.11-5: The proposed project, in combination with other cumulative projects, could potentially increase the	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
ambient noise levels in the project vicinity.			
Section 5.12 – POPULATION AND HOUSING			
Impact 5.12-1: Implementation of the proposed project would not induce substantial population growth in an area, either directly or indirectly.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.12-2: Development of the proposed project, along with approved and proposed development, would result in increased population in Shasta County.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Section 5.13-1 – PUBLIC SERVICES			
Impact 5.13-1: The proposed project could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and/or result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, which include fire protection, police protection, schools, and parks.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.13-2: Implementation of the proposed project, combined with cumulative development within the City of Redding and surrounding unincorporated Shasta County would increase the demand for public services. Increased demand for public services may be expected for the Redding Police	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Department, Fire Department and other public services.			
Section 5.14 – RECREATION			
Impact 5.14-1: Implementation of the proposed project would not result in increased use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.14-2: Implementation of the proposed project would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
5.15 Tribal Cultural Resources			
Impact 5.15-1: Ground disturbing activities could result in the unanticipated discovery of prehistoric archaeological sites, which may be considered to be Tribal Cultural Resources.	Potentially Significant Impact	Implement **MM 5.5-1a** and **MM 5.5-1b**.	Less Than Significant
Impact 5.15-2: Implementation of the proposed project, combined with planned and reasonably foreseeable development within Shasta County could result in the unanticipated discovery of prehistoric archaeological sites, which may be considered to be Tribal Cultural Resources.	Potentially Significant Impact	Implement **MM 5.5-1a** and **MM 5.5-1b**.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 5.16 – TRAFFIC AND CIRCULATION			
Impact 5.16-1: Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).	Potentially Significant Impact	**MM 5.16-1.** In accordance with the City of Redding *Traffic Impact Analysis Guidelines* (January 2009), the project applicant shall construct the following improvements in the corporate limits of the City of Redding prior to issuance of a building permit that would allow construction of the first residence: • *Airport Road & SR-44 WB Ramps (Intersection #10).* Construct traffic signal or a modern roundabout. Traffic signal construction at this location shall also be coordinated with existing traffic signals at *Old Oregon Trail & Old 44 Drive (Intersection #9)* and *Airport Road & SR-44 EB Ramps (Intersection #11)*.	Less Than Significant
Impact 5.16-2: Project implementation could increase hazards due to a design feature (e.g., sharp curves or dangerous intersections).	Potentially Significant Impact	**MM 5.16-2.** Prior to issuance of a building permit that would allow construction of the first residence, the project applicant shall install the following intersection warning signs to the satisfaction of the Shasta County Public Works Department: • Install Caltrans standard W2 intersection warning signs with W16-8P advance street name plaques at Lassen View Drive, Beryl Drive, Sunny Oaks Drive, Wesley Drive, Robledo Road, Oak Meadow Road, Oak Tree Lane, and Coloma Drive.	Less Than Significant
Impact 5.16-3: Implementation of the proposed project may result in inadequate emergency access.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.16-4: Implementation of the proposed project would not conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks).	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.16-5: Implementation of the proposed project could result in increased traffic volumes at study area intersections under Year 2035 cumulative plus project conditions.	Potentially Significant Impact	**MM 5.16-3.** *Old Alturas Road & Old Oregon Trail (Intersection #8).* Prior to recordation of a final map or issuance of a building permit (whichever occurs first), the project applicant shall pay the pro-rated cost share representing 13 percent of the cost of constructing a single/multi-lane roundabout. The fee shall be established based on an engineer's cost estimate of the improvements prepared by the project applicant and approved by the Shasta County Public Works Department.	Significant and Unavoidable

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM 5.16-4. *Boyle Road & Deschutes Road (Intersection #13).* Prior to recordation of a final map or issuance of a building permit (whichever occurs first), the project applicant shall pay the pro-rated cost share representing 11 percent of the cost of upgrading the existing two-way-stop-controlled intersection to all-way-stop-controlled intersection. The fee shall be established based on an engineer's cost estimate of the improvements prepared by the project applicant and approved by the Shasta County Public Works Department.	
Section 5.17 – UTILITIES AND SERVICE SYSTEMS			
Impact 5.17-1: Implementation of the proposed project would not exceed wastewater treatment requirements of the Central Valley RWQCB.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.17-2: Implementation of the proposed project would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.17-3: Implementation of the proposed project would not result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.17-4: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed.	Potentially Significant Impact	**MM 5.17-4a** Prior to issuance of a building permit that would result in the construction of the first residence, the project applicant shall provide written verification to the Shasta County Department of Resource Management of facility compliance with applicable water efficiency design standards required by the California Uniform Building Code. **MM 5.17-4b**. Concurrent with the establishment of the Tierra Robles Community Services District, the project applicant shall provide to the Shasta County Department of Resource Management documentation demonstrating that the applicant has secured an Agreement with BVWD to provide BVWD with adequate water supplies on an annual basis during identified shortage conditions in a quantity that represents a minimum of 90 percent of the project's prior year water usage. Shortage conditions shall be defined to exist when BVWD has been notified by the USBR that it will receive	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		less than a 100 percent (full) allocation of its CVP water supplies for the coming delivery season, as that determination has been announced by USBR as of April 15th of each year. The augmenting water supplies shall be made available to BVWD through the Agreement until such time as BVWD has completed three years of full CVP water allocation after commencement of operations at the project site. For any shortage condition that occurs after three years of full CVP allocation, the project applicant shall no longer be required to provide BVWD with augmenting water supplies, but the project applicant shall then be fully subjected to the shortage provisions administered by BVWD to all its customers. The project applicant shall demonstrate that any water supply provided to BVWD under the Agreement satisfies all CEQA and NEPA compliance requirements, as well as any other permitting or regulatory approvals, as may be associated with a water supply identified in the Agreement.	
Impact 5.17-5: Project implementation would not result in inadequate wastewater capacity to serve existing and projected demand within the County.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.17-6: Project implementation would increase the demand for solid waste disposal services.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.17-7: Implementation of the proposed project would comply with Federal, State, and local statutes and regulations related to solid waste.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant
Impact 5.17-8: Implementation of the proposed project would contribute to cumulative demands for wastewater, domestic water, and solid waste disposal.	Potentially Significant Impact	Implement **MM 5.17-4a** and **MM 5.17-4b**.	Less Than Significant
Section 5.18 – ENERGY CONSUMPTION			
Impact 5.18-1: Project implementation would not use fuel or energy in a wasteful manner.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant

Table 2-3 (Continued)
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.18-2: The proposed project, in combination with cumulative development within Shasta County, would not use fuel or energy in a wasteful manner.	Less Than Significant Impact	No mitigation measures are required.	Less Than Significant