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## 2.0 SUMMARY

### 2.1 SUMMARY OF THE PROPOSED PROJECT

#### 2.1.1 LOCATION OF THE PROJECT

The project site is located in the northeast portion of the Cottonwood Planning Area, approximately one mile south of the City of Anderson, Shasta County, California. The project area is bounded by Locust Road to the west, with Trefoil Lane and Balls Ferry Road to the south. (See Figure 3.1: Regional Location Map and Figure 3.2: Local Vicinity Map). In addition to the proposed residential development site, the project would include construction of various off-site facilities including a water storage tank to be located on County property (APN 090-390-002) off of Vantage Drive, a water line to be installed in the Vantage Drive right-of-way from the tank to the northwest corner of the project site, expansion of the existing County Service Area No. 17 wastewater treatment facilities off of Live Oak Road, a wastewater line located generally within the Balls Ferry Road right-of-way, and possibly a wastewater line located within the PG&E property to the southwest of the residential development area.

#### 2.1.2 ELEMENTS OF THE PROJECT

The proposed project consists of a planned residential development in the Cottonwood Planning Area, consisting of approximately 430 single-family homes on a 307-acre site. Approximately 79 acres would be preserved as open space. Lot sizes would vary from 4,000-square-feet to over one acre. The project would necessitate a General Plan Amendment and a Zone Amendment. The General Plan Amendment (07-001) would change the land use designation of the property from Rural Residential “A” (RA) and Rural Residential “B” (RB) to Suburban Residential (SR). The Zone Amendment (07-004) would change the zoning from Rural Residential (RR) District and One Family Residential, combined with a Mobile Home (R-1-T) zone district to a Planned Development (PD) zone district. The project area would also be annexed into County Service Area No. 17, which provides wastewater disposal services.

To support the increase in residential density that would result from the proposed General Plan amendment and rezoning, Shasta County required that the applicant incorporate amenities into the project design that conform to the density bonus section of the Planned Development zone. Accordingly, the applicant is proposing the following design features: (1) inclusion of a passive solar design in all new homes within the development, as well as other features to ensure that project buildings provide 15 percent greater energy efficiency than required under the Title 24 regulations (California Energy Commission) in effect at the time of construction; (2) provision of lot sizes between 4,000 and 5,000 square feet for construction of detached single-family housing involving 43 percent of all proposed dwelling units; (3) an 8-foot-wide Class 1 public bikeway that would connect Locust Road to Balls Ferry Road through the project site;

and (4) sidewalks with a minimum 4-foot-wide landscaped area with trees located between the roadway and sidewalk.

The project proposal also includes installation of a private RV storage facility; construction of an internal street network; utility and storm-drain improvements necessary to serve all lots; expansion of current domestic water service, including the construction of an additional well on site and a water storage tank off site; and improvements and expansion of the County Service Area No. 17 facilities (consisting of a 1.5-million-gallon Emergency Retention Basin, pump stations, and force main).

Additional detail with regard to the project description is included in Section 3: Project Description.

## **2.2 SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVEL OF SIGNIFICANCE**

Table 2.1 contains a detailed summary of environmental impacts identified in the EIR, mitigation measures proposed, and levels of significance after mitigation. With regard to the Panorama Planned Development Project, all project impacts can be reduced to less-than-significant levels with incorporation of the mitigation measures included in Section 4 of this analysis, with the exception of impacts with regard to the conversion of farmland; project-generated traffic impacts at the Riverside Avenue/NB I-5 ramps intersection; cumulative traffic impacts at the Main Street/Fourth Street intersection, on mainline Interstate 5, and at the I-5 ramp intersections with Riverside Avenue and Balls Ferry Road; and increased greenhouse gas emissions attributable to the proposed project and cumulative development.

**Table 2.1  
Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>4.1 Aesthetics</b>			
AES-4.1-1 Impact Scenic Resources within a State Scenic Highway	NI	No mitigation is necessary.	NI
AES-4.1-2 Impact Scenic Vistas	PSI	<b>MM AES-4.1-2.</b> A landscaping plan (including specific details with regard to fencing design and location, vegetative screening type and location, a maintenance plan, designation of ownership for open space lands, and identification of the funding source for maintenance) for each phase of development shall be prepared by the applicant, for review and approval by the Shasta County Resource Management Department director. The applicant shall be responsible for implementing the plan, including establishing financing mechanisms for on-going maintenance.	LTSI
AES-4.1-3 Impact Existing Visual Character of the Site	PSI	See Mitigation Measure AES-4.1-2.	LTSI
AES-4.1-4 Increased Nighttime Lighting Impacts	PSI	<b>MM AES-4.1-4.</b> Outdoor lighting shall be designed to minimize the generation of light pollution through implementation of the following: <ul style="list-style-type: none"> <li>• All exterior lighting shall be directed downwards and away from adjacent properties and rights-of-way;</li> <li>• Lighting shall be shielded such that the element is not directly visible, and lighting shall not spill across property lines;</li> <li>• Building materials, landscaping materials (i.e., wood chips), and paint shall be non-reflective;</li> <li>• Street light intensity shall not exceed that which is included in the applicant's proposal.</li> </ul> Specific details with regard to outdoor lighting shall be determined during the County's design review process, and shall be included in the landscaping plan developed as part of MM AES-4.1-2.	LTSI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>4.2 Agricultural Resources</b>			
AGR-4.2-1 Conversion of Farmland	SI	<b>MM AGR-4.2-1.</b> The loss of agricultural (grazing) lands on the subject site shall be offset through establishment of a conservation easement providing for agricultural use of off-site lands in perpetuity. The off-site agricultural lands shall provide a grazing capacity of at least 600 Animal Unit Months (AUM). The conservation easement shall be held by a conservation-oriented third party acceptable to Shasta County. 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.	SI
AGR-4.2-2 Conflict with Existing Agricultural Zoning	NI	No mitigation is necessary.	NI
AGR-4.2-3 Other Changes in Existing Environment Potentially Leading to Conversion of Farmland	PSI	<b>MM AGR-4.2-3.</b> A notice shall be placed on the deeds of all residential parcels. The notice shall state:  <i>Shasta County supports and permits properly conducted industrial and agricultural operations. <b>You are hereby notified that the property you are purchasing is located in the vicinity of lands that may be used for industrial or agricultural uses, including open range lands.</b> You may be subject to inconvenience or discomfort from lawful industrial and agricultural operations. Discomfort and inconvenience may include, but are not limited to, noise, odors, fumes, dust, smoke, burning, vibrations, insects, rodents, and/or the operation of machinery during any 24 hour period. If you live near an industrial or agricultural area, you should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in an area near the rural/urban fringe.</i>	LTSI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>4.3 Air Quality</b>			
AQ-4.3-1 Conflict With or Obstruct Implementation of Applicable Air Quality Plan	PSI	<p><b>MM AQ-4.3-1a.</b> The following airborne dust control measures shall be required during all construction operations, the grading of roads, and the clearing of land.</p> <ul style="list-style-type: none"> <li>• Use either water application or chemical dust suppressant application to control dust emissions from active construction areas (including on-site roads);</li> <li>• Use vacuum sweeping and/or water flushing of paved road surfaces to remove buildup of loose material to control dust emissions from travel on the paved access road (including adjacent public streets impacted by construction activities) and paved parking areas;</li> <li>• Limit traffic speeds on all unpaved or active site construction areas to 5 mph;</li> <li>• Implement all adequate dust control measures in a timely and effective manner during all phases of project development and construction;</li> <li>• Water all excavated, stockpiled, or graded material 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 complete site coverage, preferably in the mid-morning and after work is completed each day;</li> <li>• During initial grading, earth moving, or site preparation, construct a paved (or dust palliative treated) apron, at least 100 feet in length, onto the project site from the adjacent paved road(s);</li> <li>• Sweep adjacent paved streets (recommend water sweeper with reclaimed water) at the end of each day if substantial volumes of soil materials have been carried onto adjacent public paved roads from the project site;</li> </ul>	LTSI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> <li>• Install sandbags or other erosion control measures to prevent silt runoff to roadways;</li> <li>• Apply Department of Public Works approved non-toxic soil stabilizers (according to manufacturer’s specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours), in accordance with the Shasta County Grading Ordinance;</li> <li>• Replant vegetation in disturbed areas as quickly as possible;</li> <li>• Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard;</li> <li>• Use wheel washers or wash off tires of all trucks exiting the construction site; and</li> <li>• Mitigate fugitive dust emissions from wind erosion of areas disturbed from construction activities (including storage piles) by application of either water or chemical dust suppressant.</li> </ul> <p><b>MM AQ-4.3-1b.</b> The following mitigation measures shall be implemented to control exhaust emissions from the diesel heavy equipment used during construction of the project phases.</p> <ul style="list-style-type: none"> <li>• Provide regular preventive equipment maintenance to prevent emission increases due to engine problems;</li> <li>• Use low sulfur and low aromatic fuels meeting California standards for motor vehicle diesel fuel;</li> <li>• Use low-emitting gas and diesel engines meeting state and federal emissions standards (Tier I, II, III) for construction equipment; and</li> <li>• Shut down equipment when not in use to limit engine idling time. Idling time shall be limited to no more than 3 minutes. This idling limit does not apply to circumstances</li> </ul>	

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>as stated in the California Environmental Protection Agency Air Resources Board Advisory Number 377 (2008), such as:</p> <ul style="list-style-type: none"> <li>• Idling when queuing;</li> <li>• Idling to verify that the vehicle is in safe operation condition;</li> <li>• Idling for testing, servicing, repairing, or diagnostic purposes;</li> <li>• Idling necessary to accomplish work for which the vehicle is designed (such as operating a crane);</li> <li>• Idling required to bring the machine system to operating temperature; and</li> <li>• Idling necessary to ensure safe operation of the vehicle.</li> </ul> <p><b>MM AQ-4.3-1c.</b> The following mitigation measures shall be implemented to control other miscellaneous emissions during construction of the project phases.</p> <ul style="list-style-type: none"> <li>• Use low VOC coatings for the architectural coating phase of construction. All coatings must meet the VOC limits per AQMD Rule 3-31;</li> <li>• Use asphalt mixtures appropriate for the time of year of application, while maintaining compliance with County road design and construction standards;</li> <li>• Use alternatives to open burning of vegetative material on the project site, unless otherwise deemed infeasible by the AQMD. Among suitable alternatives are chipping, mulching, or conversion to biomass fuel;</li> <li>• Provide for temporary traffic control as appropriate during all phases of construction to improve traffic flow as deemed appropriate by the Department of Public Works and/or Caltrans; and</li> </ul>	

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		<ul style="list-style-type: none"> <li>Schedule construction activities that direct traffic flow to off-peak hours as much as practicable.</li> </ul> <p><b>MM AQ-4.3-1d.</b> To control VOC and PM<sub>10</sub> emissions during project operation, the use of fireplaces, wood stoves, or other similar wood- or biomass-combustion devices for home heating purposes shall not be authorized.</p>	
AQ-4.3-2 Violate Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation	PSI	See Mitigation Measure AQ-4.3-1.	LTSI
AQ-4.3-3 Result in Cumulatively Considerable Net Increase of any Criteria Pollutant for which the Project Region is in Non-Attainment	PSI	<b>MM AQ-4.3-3.</b> Design of project buildings shall include features to ensure that project buildings provide 15 percent greater energy efficiency than required under the Title 24 regulations (California Energy Commission) in effect at the time of construction.	LTSI
AQ-4.3-4 Expose Sensitive Receptors to Substantial Pollutant Concentrations	LTSI	No mitigation is necessary.	LTSI
AQ-4.3-5 Create Objectionable Odors Affecting a Substantial Number of People	LTSI	Although odor-related impacts from the Wheelabrator Shasta facility and Shasta Livestock Auction Yard are not considered to be significant, implementation of Mitigation Measure 4.2-3, which calls for a notice on the deeds of all residential lots advising potential purchasers of the proximity of industrial and agricultural uses, would further reduce the potential for conflict.	LTSI
<b>4.4 Biological Resources</b>			
BIO-4.4-1 Impact to Special-Status Species	PSI	<p><b>MM BIO-4.4-1.</b> Impacts to special-status species shall be avoided, minimized, and/or offset through implementation of the following:</p> <p>a. A survey for fox sedge at the proposed ACID canal bridge</p>	LTSI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>site shall be conducted by a qualified botanist during the blooming season immediately prior to bridge construction. If fox sedges are present, direct impacts shall be mitigated by transplanting the affected plants to a suitable location elsewhere in the project vicinity, in accordance with a planting plan acceptable to the Shasta County Resource Management Department Director. The plan shall identify the proposed planting area(s), planting methodologies, success criteria for fox sedge re-establishment, an implementation schedule, monitoring requirements, long-term maintenance criteria, remedial measures, and annual reporting requirements.</p> <p>The potential for inadvertent disturbance of plants during construction of the ACID canal bridge and the Balls Ferry Road wastewater line shall be minimized by establishing temporary fencing between the work areas and nearby fox sedge populations. The fencing shall be in place prior to the start of bridge/wastewater line construction and shall be maintained throughout the duration of construction<sup>1</sup>.</p> <p>b. Prior to initiating work within Phase 5, including construction of Road A through Phase 5, the project applicant shall provide the Shasta County Resource Management Department Director with proof of purchase of vernal pool fairy shrimp/tadpole shrimp mitigation credits from an approved mitigation bank. Vernal pool credits shall be purchased at a minimum 3:1 ratio (2:1 preservation credits plus 1:1 creation credits) for each wetland filled in whole or in part. Indirect impacts (i.e., development within 250 feet of occupied habitat or habitat presumed to be occupied) shall be mitigated through purchase of vernal pool preservation credits at a minimum</p>	

<sup>1</sup> As discussed in the body of the EIR, recent work is showing that fox sedge is much more common in northern California than previously believed. Therefore, the need for fox sedge mitigation may be reconsidered at the time work affecting the plant is proposed. If written confirmation is provided by DFG, then Shasta County may eliminate the above mitigation measure for fox sedge.

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		<p>2:1 ratio. Alternatively, if authorized by the U.S. Fish and Wildlife Service, the applicant may conduct protocol-level surveys to determine the presence/absence of vernal pool tadpole shrimp and vernal pool fairy shrimp. If the listed species are present, mitigation for direct and indirect impacts on habitats deemed occupied by the Service shall be achieved through purchase of credits at the minimum ratios noted above. If the Service concurs that the species are absent, no mitigation is needed with respect to these species, although mitigation for impacts on wetlands shall still be required.</p> <p>c. To ensure that northwestern pond turtles are not adversely affected by work in the ACID canal or roadside drainages, an aquatic survey shall be conducted by a qualified biologist prior to working in these features. The biologist shall capture any pond turtles that may be present and move them to a safe location upstream or downstream of the work area. Results of the survey and relocation effort shall be submitted to the Shasta County Resource Management Department Director prior to beginning work.</p>	
BIO-4.4-2 Impact to Sensitive Natural Communities	SI	<p><b>MM BIO-4.4-2.</b> Impacts to sensitive natural communities shall be avoided, minimized, and/or offset through implementation of the following:</p> <ul style="list-style-type: none"> <li>• A certified arborist or other qualified professional shall conduct field evaluations of the proposed project development footprint to locate all old trees (e.g., ≥24" dbh) with irreplaceable characteristics. The health of these trees shall be evaluated, and all such trees suitable for retention shall be identified. Final site design plans shall be modified to allow retention of these trees in the long term, as determined feasible by the Shasta County Resource Management Department Director. The evaluations shall be undertaken on a phase-by-phase basis.</li> </ul>	LTSI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> <li>• Subject to review and approval by the Shasta County Resource Management Department Director, the applicant shall establish a conservation easement covering a minimum of 307 acres of blue oak woodland in Shasta County, prepare a detailed management plan guiding long-term preservation of the oak woodland while also allowing a regulated intensity of grazing on the site, and retain a conservation-oriented third party manager to hold the easement, be responsible for ongoing monitoring and management of the site in accordance with the plan, and report to Shasta County annually. Management activities would be funded through an endowment account established by the project applicant.</li> <li>• Oak woodlands within designated open space on the development site shall be maintained in perpetuity. The open space shall be protected through establishment of a conservation easement and deed restrictions. A conservation-oriented third party entity shall hold the conservation easement. An endowment shall be established to provide for monitoring and maintenance of the mitigation site(s) in perpetuity. A management plan acceptable to the Shasta County Resource Management Department Director shall be implemented. The plan shall identify monitoring and maintenance activities, conservation easement and deed restriction terms, and the easement holder, and shall be consistent with the requirements of the wildland fuels management plan.</li> </ul>	
BIO-4.4-3 Impact to Streams and Wetlands	PSI	<b>MM BIO-4.4-3.</b> Prior to the fill of any streams, wetlands or other waters, a detailed mitigation plan acceptable to the Shasta County Resource Management Department Director shall be prepared. Acceptable mitigation may consist of purchase of stream, open water, or wetland creation credits from a mitigation bank, payment of in-lieu fees to the U.S. Army Corps of Engineers or its designee, or creation or	LTSI

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Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>restoration of habitats similar to those affected by development, with creation/restoration occurring on the development site or off-site. If mitigation credits are purchased, proof of purchase shall be provided to the Resource Management Department Director prior to initiation of each phase of development. Credits shall be purchased at a minimum 1:1 ratio for direct effects and a minimum 0.5:1 ratio for indirect effects.</p> <p>If on-site or off-site mitigation is proposed, the mitigation plan shall identify the specific mitigation site(s), types, and acreages of habitats to be created, methods to be employed to create the habitats, an implementation schedule, success criteria, monitoring requirements, long-term maintenance criteria, remedial measures, reporting requirements, and/or other pertinent data to ensure successful replacement of the habitats. The mitigation site(s) and surrounding upland buffers shall be protected in perpetuity through establishment of a conservation easement and deed restrictions. A conservation-oriented third party entity shall hold the conservation easement. An endowment shall be established to provide for monitoring and maintenance of the mitigation site(s) in perpetuity. Habitat creation shall be undertaken concurrently with or in advance of the start of project construction.</p> <p>Temporarily disturbed features shall be restored to their pre-construction contours and replanted with the pre-disturbance vegetation types. The mitigation plan shall specify the methods to be employed to restore the habitats, an implementation schedule, success criteria, monitoring requirements, long-term maintenance criteria, remedial measures, and/or other pertinent data to ensure successful restoration of temporarily disturbed features.</p>	
<p>BIO-4.4-4 Impact to Migratory Wildlife Species, Corridors, and Nesting Sites</p>	<p>PSI</p>	<p><b>MM BIO-4.4-4.</b> To ensure that active nests of special-status birds (e.g., Lewis' woodpecker, white-tailed kite, prairie falcon, and loggerhead shrike) and migratory birds are not</p>	<p>LTSI</p>

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		disturbed, vegetation removal shall be avoided during the nesting season (generally March 1 to July 31), to the extent possible. If vegetation removal must occur during the nesting season, a focused survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the project site. The survey shall be conducted no more than 30 days prior to the beginning of construction or tree removal. If nesting birds are found during the focused survey, the nest tree shall not be removed until after the young have fledged. Further, to prevent nest abandonment and mortality of chicks and eggs, no construction shall occur within 500 feet of an active nest until the young have fledged, unless a smaller buffer zone is authorized by the Department of Fish and Game (the size of the construction buffer zone may vary depending on the species of nesting birds present).	
BIO-4.4-5 Conflict with Local Policies or Ordinances Protecting Biological Resources	LTSI	No mitigation is necessary.	LTSI
BIO-4.4-6 Conflict with Local, Regional, or State Habitat Conservation Plans	NI	No mitigation is necessary.	NI
<b>4.5 Cultural Resources</b>			
CUL-4.5-1 Adverse Change in the Significance of a Historical Resource	PSI	<b>MM CUL-4.5-1.</b> If any historic or prehistoric cultural resources (i.e., human bone or burnt animal bone, midden soils, projectile points, humanly-modified lithics, historic artifacts, etc.) other than those documented in <i>A Cultural Resources Survey of the Proposed Panorama Planned Development, Shasta County, California</i> are encountered during any phase of construction, all earth-disturbing work shall stop within 50 feet of the find until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. If human remains are encountered, the County Coroner shall be contacted; treatment of any human remains shall be in accordance with California Health and Safety Code	LTSI

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		7050.5(a) and Public Resources Code 5097.98.	
CUL-4.5-2 Adverse Change in the Significance of an Archaeological Resource	PSI	See Mitigation Measure CUL-4.5-1.	LTSI
CUL-4.5-3 Destruction of a Unique Paleontological Resource or Site or Unique Geologic Feature	LTSI	No mitigation is necessary.	LTSI
CUL-4.5-4 Disturbance of Human Remains	PSI	See Mitigation Measure CUL-4.5-1.	LTSI
<b>4.6 Geology and Soils</b>			
GEO-4.6-1 Seismic-Related Impacts	LTSI	No mitigation is necessary.	LTSI
GEO-4.6-2 Substantial Soil Erosion or Loss of Topsoil	LTSI	No mitigation is necessary.	LTSI
GEO-4.6-3 Unstable Geologic Unit or Soil	LTSI	No mitigation is necessary.	LTSI
GEO-4.6-4 Located on Expansive Soil	LTSI	No mitigation is necessary.	LTSI
GEO-4.6-5 Septic System Impacts	NI	No mitigation is necessary.	NI
<b>4.7 Hazards and Hazardous Materials</b>			
HAZ-4.7-1 Routine Transport, Use, or Disposal of Hazardous Materials	LTSI	No mitigation is necessary.	LTSI
HAZ-4.7-2 Release of Hazardous Materials into the Environment	LTSI	No mitigation is necessary.	LTSI
HAZ-4.7-3 Hazardous Emissions, Materials, Substances, or Waste within ¼ Mile of a School	NI	No mitigation is necessary.	NI
HAZ-4.7-4 Located on a Hazardous Materials Site	LTSI	No mitigation is necessary.	LTSI
HAZ-4.7-5 Project Area within an Airport Land Use Plan, Resulting in a Safety Hazard for People in the Project Area	NI	No mitigation is necessary.	NI

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HAZ-4.7-6 Project within the Vicinity of a Private Airstrip, Resulting in a Safety Hazard for People in the Project Area	NI	No mitigation is necessary.	NI
HAZ-4.7-7 Interferes with an Adopted Emergency Response Plan or Emergency Evacuation Plan	NI	No mitigation is necessary.	NI
HAZ-4.7-8 Exposes People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires	PSI	<b>MM HAZ-4.7-8.</b> The project applicant shall provide funding for increased staffing of the Cottonwood Fire Protection District. Funding levels shall be determined through an appropriate study in compliance with the Mitigation Fee Act (Gov Code Sec. 66000 et seq.). Funding shall be provided through a Community Facilities District or other funding mechanism acceptable to Shasta County and the Cottonwood Fire Protection District.	LTSI
<b>4.8 Hydrology and Water Quality</b>			
HYD-4.8-1 Violate Water Quality Standards or Waste Discharge Requirements	LTSI	No mitigation is necessary.	LTSI
HYD-4.8-2 Substantially Deplete Groundwater Supplies	LTSI	No mitigation is necessary.	LTSI
HYD-4.8-3 Substantially Alter Existing Drainage Patterns Resulting in Substantial Erosion or Siltation	LTSI	No mitigation is necessary.	LTSI
HYD-4.8-4 Substantially Alter Existing Drainage Patterns Resulting in Flooding	LTSI	No mitigation is necessary.	LTSI
HYD-4.8-5 Exceed Stormwater Drainage Systems Capacity or Provide Additional Sources of Polluted Run-off	LTSI	No mitigation is necessary.	LTSI
HYD-4.8-6 Place Housing or Structures within a 100-year Flood Hazard Area	NI	No mitigation is necessary.	NI

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HYD-4.8-7 Expose People or Structures to Flooding, Seiche, Tsunami, or Mudflow	NI	No mitigation is necessary.	NI
<b>4.9 Land Use and Planning</b>			
LAN-4.9-1 Divide an Established Community	NI	No mitigation is necessary.	NI
LAN-4.9-2 Conflict with Relevant Plans and Policies	LTSI	No mitigation is necessary.	LTSI
LAN-4.9-3 Conflict with Conservation Plans	NI	No mitigation is necessary.	NI
<b>4.10 Mineral Resources</b>			
MIN-4.10-1 Loss of Mineral Resource of State Value	NI	No mitigation is necessary.	NI
MIN-4.10-2 Loss of Mineral Resource of Local Value	NI	No mitigation is necessary.	NI
<b>4.11 Noise</b>			
NOI-4.11-1 Expose Persons to Excessive Noise Levels	PSI	<p><b>MM NOI-4.11-1a.</b> Noise-level increases during project construction shall be minimized by confining construction activities to weekdays between the hours of 7 a.m. and 7 p.m., and requiring all vehicles and equipment to be equipped with mufflers in good condition.</p> <p><b>MM NOI-4.11-1b.</b> The outdoor activity areas of the residential lots within 750 feet of the railroad tracks shall be shielded by a property line noise barrier designed to achieve an exterior noise level of 60 dB L<sub>dn</sub> or less. It is anticipated that the required barrier height would be in the range of 8 feet above building pad elevation, though the final barrier configuration would be dependent upon the final lot configurations and grading plans. To minimize aesthetic concerns, all noise barriers over 6 feet tall shall be combined with an earthen berm, with the wall height not to exceed 6 feet. In addition, residences in Phase 1 within 750 feet of the railroad tracks shall be designed and constructed to ensure that the interior noise standard of 45 dB L<sub>dn</sub> is</p>	LTSI

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Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>satisfied. Both the building design and noise barrier design shall be reviewed by a qualified acoustical consultant to ensure that the 45 dB L<sub>dn</sub> and 60 dB L<sub>dn</sub> standards are met.</p> <p><b>MM NOI-4.11-1c.</b> The outdoor activity areas of the on-site residential lots within 70 feet of the Locust Road centerline shall be shielded by a property line noise barrier designed to achieve an exterior noise level of 60 dB L<sub>dn</sub> or less. To minimize aesthetic concerns, all noise barriers over 6 feet tall shall be combined with an earthen berm, with the wall height not to exceed 6 feet. In addition, residences adjacent to Locust Road shall be designed and constructed to ensure that the interior noise standard of 45 dB L<sub>dn</sub> is satisfied. Both the building design and noise barrier design shall be reviewed by a qualified acoustical consultant to ensure that the 45 dB L<sub>dn</sub> and 60 dB L<sub>dn</sub> standards are met.</p>	
NOI-4.11-2 Generate Excessive Groundborne Vibration or Noise Levels	LTSI	No mitigation is necessary.	LTSI
NOI-4.11-3 Substantial Permanent Increase in Ambient Noise Levels	PSI	See Mitigation Measure NOI-4.11-1.	LTSI
NOI-4.11-4 Substantial Temporary or Periodic Increase in Ambient Noise Levels	PSI	See Mitigation Measure NOI-4.11-1.	LTSI
NOI-4.11-5 Expose People to Excessive Noise Levels in the Vicinity of a Public Airport	NI	No mitigation is necessary.	NI
NOI-4.11-6 Expose People to Excessive Noise Levels in the Vicinity of a Private Airport	NI	No mitigation is necessary.	NI
<b>4.12 Population and Housing</b>			
POP-4.12-1 Induce Substantial Population Growth	LTSI	No mitigation is necessary.	LTSI
POP-4.12-2 Displace Substantial Numbers of Existing Housing or People	LTSI	No mitigation is necessary.	LTSI

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SUMMARY

**Table 2.1  
Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>4.13 Public Services and Fiscal Impacts</b>			
PUB-4.13-1 Impact Public Services	PSI	See Mitigation Measure HAZ-4.7-8.	LTSI
<b>4.14 Recreation</b>			
REC-4.14-1 Increase Use of Existing Parks and Recreational Facilities	LTSI	No mitigation is necessary.	LTSI
REC-4.14-2 Require Construction or Expansion of Recreational Facilities	LTSI	No mitigation is necessary.	LTSI
<b>4.15 Transportation and Traffic</b>			
TRA-4.15-1 Substantial Increase in Traffic  Gas Point Road/NB I-5 Ramps Intersection   Riverside Avenue/NB I-5 Ramps Intersection	PSI	<b>MM TRA-4.15-1.</b> The project proponent shall signalize the Gas Point Road/NB I-5 ramps intersection. The signal shall be installed when Shasta County, in consultation with Caltrans, determines that signal warrants are satisfied.	LTSI
	SI	No plans or fee mechanisms have been adopted to provide for the improvements needed at this intersection. Because Shasta County has no jurisdiction over the intersection and no plans or fees programs are currently in place, mitigation is not feasible and the impact would be significant and unavoidable.	SI

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**Table 2.1  
Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
TRA-4.15-2 Exceed a Level of Service Standard for Designated Roads or Highways  Riverside Avenue/NB I-5 Ramps Intersection	S	No plans or fee mechanisms have been adopted to provide for the improvements needed at this intersection. Because Shasta County has no jurisdiction over the intersection and no plans or fees programs are currently in place, mitigation is not feasible and the impact would be significant and unavoidable.	SI
Gas Point Road/NB I-5 Ramps Intersection	PSI	See Mitigation Measure TRA-4.15-1.	LTSI
TRA-4.15-3 Result in a Change in Air Traffic Patterns	NI	No mitigation is necessary.	NI
TRA-4.15-4 Substantially Increase Hazards Due to a Design Feature or Incompatible Uses	PSI	<b><u>MM TRA-4.15-4</u></b> 1) The project proponent shall widen Balls Ferry Road to provide a northbound left-turn lane at the new access. 2) The project proponent shall widen Locust Road to provide a southbound left-turn lane at the Road A intersection. Road A shall be moved to align with Vantage Drive or a two-way left-turn lane shall be constructed between the two intersections. 3) The project proponent shall widen Locust Road to provide a southbound left-turn lane at the Road E intersection.	LTSI
TRA-4.15-5 Result in Inadequate Emergency Access	PSI	See Mitigation Measures TRA-4.15-1 and TRA-4.15-4.	LTSI
TRA-4.15-6 Result in Inadequate Parking Capacity	NI	No mitigation is necessary.	NI
TRA-4.15-7 Conflict with Alternative Transportation	PSI	<b><u>MM TRA-4.15-7</u></b> The project applicant or its successors in interest shall provide Class II/III Bikeways on both sides of Locust Road, within the existing right-of-way, from the northern site boundary to Fourth Street. Class II Bikeways shall be established in areas where Shasta County currently has sufficient right-of-way; Class III Bikeways shall be established in areas where Shasta County	LTSI

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SUMMARY

**Table 2.1  
Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		does not currently have sufficient right-of-way for a Class II facility.	
<b>4.16 Utilities and Service Systems</b>			
UTI-4.16-1 Exceed Wastewater Treatment Requirements	LTSI	No mitigation is necessary.	LTSI
UTI-4.16-2 Construction of New Water or Wastewater Treatment Facilities	LTSI	No mitigation is necessary.	LTSI
UTI-4.16-3 Construction of New Storm Water Drainage Facilities	LTSI	No mitigation is necessary.	LTSI
UTI-4.16-4 Sufficient Water Supplies Available to Serve the Project	LTSI	No mitigation is necessary.	LTSI
UTI-4.16-5 Wastewater Treatment Provider Has Adequate Capacity	LTSI	No mitigation is necessary.	LTSI
UTI-4.16-6 Served By a Landfill with Sufficient Permitted Capacity	LTSI	No mitigation is necessary.	LTSI
UTI-4.16-7 Compliance with Federal, State, and Local Statutes and Regulations Related to Solid Waste	LTSI	No mitigation is necessary.	LTSI
<b>4.17 Energy</b>			
ENE-4.17-1 Use Fuel or Energy in a Wasteful Manner	LTSI	No mitigation is necessary.	LTSI
ENE-4.17-2 Result in a Substantial Increase in Demand Upon Energy Resources in Relation to Project Supplies	LTSI	No mitigation is necessary.	LTSI

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**Table 2.1  
Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<b>5.0 Additional CEQA-Mandated Impact Analyses</b>			
AQ-CUMULATIVE Greenhouse Gas Emissions Generated during Project Construction	SI	<u><b>MM AQ-CUMULATIVE-5.1.</b></u> Greenhouse gas emissions generated during project construction shall be minimized by using local building materials to the maximum extent feasible. A list of local building materials to be used in each phase of project construction shall be submitted to the Shasta County Resource Management Department Director for review and acceptance prior to the start of each phase of construction.	SI
Greenhouse Gas Emissions Generated During Project Operation	SI	<u><b>MM AQ-CUMULATIVE-5.2.</b></u> The project proponents shall provide an additional 15 percent reduction in greenhouse gas emissions (a minimum of 1,223 metric tons per year upon project build-out) through incorporation of solar water heaters, cool-roof technology, photovoltaic cells, or other measures. Specific measures proposed for each phase of development must provide a demonstrable, quantifiable reduction of emissions and be acceptable to the Shasta County Department of Resource Management Director.	SI

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SUMMARY

**Table 2.1  
Summary of Impacts and Mitigation Measures**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>TRA-CUMULATIVE</p> <p>I-5/Gas Point Road and I-5/Main Street Interchanges</p>	PSI	<p><b>MM TRA-CUMULATIVE-5.1.</b> The project proponents shall contribute their fair share to the cost of the future I-5/Gas Point Road and I-5/Main Street improvement projects by paying adopted fees in accordance with the Shasta County RTPA's South Region Traffic Impact Fee Program.</p>	LTSI
<p>Deschutes Road/Interstate 5 Interchange</p>	PSI	<p><b>MM TRA-CUMULATIVE-5.2.</b> The project proponents shall contribute their fair share to the cost of the Deschutes Road/Interstate 5 improvement project by paying fees on a fair-share basis to the Deschutes Interchange Traffic Impact Fee Program. The Shasta County Public Works Director shall be responsible for determining the fair-share fee amount.</p>	LTSI
<p>Main Street/Fourth Street intersection, Mainline Interstate 5, and I-5 ramp intersections with Riverside Avenue and Balls Ferry Road</p>	SI	<p>No plans or fee mechanisms have been adopted to provide for needed improvements at these locations. Accordingly, mitigation is not feasible and the impacts would be significant and unavoidable.</p>	SI

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## SUMMARY

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## 2.3 SUMMARY OF ALTERNATIVES TO THE PROJECT

State CEQA Guidelines §15126.6(a) requires that an EIR "...describe a range of reasonable alternatives to the project, or the location of 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." The objectives of the proposed project are stated in Section 3.2 (Project Purpose and Objectives) of this EIR.

State CEQA Guidelines §15126.6(e) requires that, among other alternatives, a "no-project" alternative be evaluated in comparison to the proposed project. Accordingly, one no-project alternative is analyzed in this EIR, and addresses development of the site under current *Shasta County General Plan* land use classifications and *Shasta County Zoning Plan* designations.

In addition, two other "development" alternatives have been evaluated. One of these alternatives assumes clustered development of the site, while capping the development at 153 dwelling units (du), which assumes that the project site would be developed under the current General Plan designation, would be rezoned to Planned Development, and would qualify for the associated 25 percent density bonus. The other alternative assumes construction of 430 du, which is the same as currently proposed, but the units would be more tightly clustered on smaller parcels to reduce the development footprint and maximize open space.

Additional detail with regard to proposed project alternatives is included in Section 6: Alternatives Analysis.

### 2.3.1 ALTERNATIVE 1: DEVELOPMENT UNDER EXISTING GENERAL PLAN AND ZONING DESIGNATIONS (NO PROJECT ALTERNATIVE)

Alternative 1 assumes that the project site would be developed in accordance with the existing *Shasta County General Plan* and *Shasta County Zoning Plan* designations. The project site includes ±240 acres of Rural Residential "A" with RR zoning, and ±67 acres of Rural Residential "B" with R-L-T zoning. The two existing General Plan/zoning designations would allow up to one dwelling unit per two acres, and up to one dwelling unit per five acres, respectively. However, Shasta County restricts development with these General Plan/zoning designations in areas with greater than 30 percent slope. Approximately 19 acres of the land zoned RR has a slope greater than 30 percent. Given the slope constraints, and current General Plan and zoning designations, up to approximately 123 dwelling units could be constructed on the project site. Dwelling units would be distributed across the whole of the project site; units may be developed in groups or individually.

Alternative 1 would result in similar environmental impacts to the proposed project in the areas of aesthetics, agricultural resources, fire hazards/public services, and noise. Alternative 1 would most likely result in more environmental impacts than the proposed project with regard to biological resources, and less environmental impacts than the proposed project with regard to air quality, greenhouse gas emissions, and transportation/traffic impacts. However, numerous mitigations are included in the proposed project to reduce most environmental impacts of the proposed project to a less-than-significant level. Alternative 1 would achieve many, but not all, of the project proponent's objectives. Overall, Alternative 1 is somewhat superior to the proposed project.

### **2.3.2 ALTERNATIVE 2: CLUSTERED DEVELOPMENT OF 153 DWELLING UNITS**

Alternative 2 assumes that the project site would be developed in accordance with the existing *Shasta County General Plan* land use designations; however, the project site would be rezoned to a Planned Development and include the allowable 25 percent density bonus. This would allow for construction of a total of 153 dwelling units. The homes would be clustered in order to preserve open space, biological resources, and agricultural resources. It is assumed that all lots would be less than  $\frac{1}{4}$  acre, and would be clustered in the northwestern portion of the proposed project site (in the areas planned for Phases 2 and 3 of the proposed project). The area of developed land would be approximately 60 acres. Open space and grazing land would be retained elsewhere on the project site. Municipal water and wastewater services would be needed to support the density of development.

Alternative 2 would result in less environmental impacts than the proposed project in all alternative impact analysis areas, with the exceptions of fire hazards/public services and noise. Alternative 2 would most likely result in similar environmental impacts to the proposed project with regard to fire hazards/public services and noise impacts. Alternative 2 would achieve most of the project proponent's objectives. However, numerous mitigations are included in the proposed project to reduce most environmental impacts of the proposed project to a less-than-significant level. Nonetheless, Alternative 2 is substantially superior to the proposed project.

### **2.3.3 ALTERNATIVE 3: CLUSTERED DEVELOPMENT OF 430 DWELLING UNITS ON SMALLER PARCELS**

Alternative 3 assumes that the project site would be developed with the same number of residences as the current project proposal (i.e., 430 dwelling units). However, the homes would be clustered on smaller parcels in order to preserve open space, biological resources, and agricultural resources. It is assumed that all lots would be less than  $\frac{1}{4}$  acre, and would be clustered in the northern  $\pm 190$ -acre portion of the proposed project site (in the areas planned for Phases 2, 3, 5 (north of RV storage area), 6, 7, and 8 of the proposed project). The area of developed land would be approximately 150 acres; approximately 40 acres would be retained as transmission

line corridor and open space. Additional open space and/or grazing land would be retained elsewhere on the project site. Municipal water and wastewater services would be needed to support the density of development.

Alternative 3 would result in less environmental impacts than the proposed project in the areas of aesthetics, agricultural resources, and biological resources. Alternative 3 would most likely result in similar environmental impacts to the proposed project with regard to air quality, greenhouse gas emissions, fire hazards/public services, noise, and transportation/traffic impacts. Alternative 3 would achieve nearly all of the project proponent's objectives. However, numerous mitigations are included in the proposed project to reduce most environmental impacts of the proposed project to a less-than-significant level. Nonetheless, Alternative 3 is substantially superior to the proposed project.

## **2.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

Of the three alternatives evaluated, Alternative 2 (Clustered Development of 153 Dwelling Units) is the environmentally superior alternative, based on the potential for fewer impacts with respect to aesthetics, agricultural resources, air quality, biological resources, and transportation/traffic.

**End of Section.**