

6.1 INTRODUCTION

The CEQA Guidelines state that an Environmental Impact Report for a proposed project should describe and analyze a reasonable range of alternatives (Section 15126(a)). An EIR should consider alternatives that would feasibly attain most of the basic objectives of the project but avoid or substantially lessen any of the significant environmental effects of the project. However, an EIR need not consider every conceivable alternative to a project, nor is it required to consider alternatives that are infeasible. CEQA also requires that one of the alternatives considered must be the "No Project Alternative". The purpose of this process is to provide decision makers and the public with a discussion of environmentally sensitive options, and to document that other options were considered within the review process (CEQA Guidelines, Section 15126 (d)).

The following project objectives are from Section 3.0 Project Description:

- Create a dynamic group of neighborhoods to complement the existing City of Anderson;
- Integrate with the City of Anderson;
- Increase and maintain diverse housing opportunities;
- Preserve and enhance site character; and
- Utilize "Smart Growth" development principles.
- Provide a Tier I Energy Efficient Mixed Use Community

To that end, this section identifies and examines the three primary alternatives for the proposed project: 1) a "No Project Alternative", 2) a "Bruce Drive/South Street One-way Couplet Alternative", and 3) "New North/South Roadway Connection to Rhonda Road Alternative".

In this section of the EIR, the environmental impacts associated with these alternatives are qualitatively compared with those that would result from implementation of the Vineyards at Anderson Specific Plan. This summary also includes identification of an "environmentally superior" alternative.

6.2 PROJECT ALTERNATIVES

In accordance with the provisions of CEQA Guidelines Section 15126.6, the following alternatives to the proposed project are evaluated. These alternatives are compared to the proposed project at buildout and its significant environmental impacts identified in Sections 4.1 through 4.13.

- 1) No Project / Existing Zoning / No Annexation
- 2) Bruce Drive/South Street One-Way Couplet
- 3) New North/South Roadway Connection to Rhonda Road

The environmental effects of each of these alternatives are identified and compared with those environmental impacts resulting from the proposed project (at buildout) that are identified in environmental issue areas in Section 4.0. **Table 6.0-1** at the end of this section provides a comparison of the environmental benefits and detriments of each alternative. As required by 15126.6 of the State CEQA Guidelines an "environmentally superior" alternative is also identified.

6.0 PROJECT ALTERNATIVES

6.3 ALTERNATIVES CONSIDERED BUT REJECTED

ALTERNATIVE LOCATION

Numerous on-site alternatives were reviewed in preparation of the Specific Plan, and a number of land use changes within the Specific Plan area were considered prior to preparation of the EIR. Because of the size and nature of the project, the City did not consider an alternative location. There are no areas within the City's General Plan large enough to accommodate the project. Areas outside of the General Plan that could be annexed and developed are either already developed with ranchettes and associated uses, or so distant from the City limits that annexation would be infeasible. Area to the north and west of the City is already under consideration by Shasta County for similar residential development. Other possible sites lack the basic transportation infrastructure to make development of this scale possible. Impacts associated with a similar development at an alternative site would be nearly identical in scale to those of the proposed project. Air Quality, agricultural land conversion and traffic would all be similar to those of the project, and depending on the area, could be more significant. As such, the City did not consider an alternative site for the proposed project.

REDUCED DENSITY/SMALLER PROJECT

The City's General Plan encourages a compact urban form with an efficient land use pattern with mixed residential commercial uses and a range of housing types and open space that lends itself to pedestrian traffic, trails and results in fewer vehicle trips. While reducing density would reduce the overall scale of the project, larger lots would be counter to the City's policy of a compact urban form and result in more, not less, vehicle trips. Further, a reduced density would result in a greater conversion of agricultural land over time as more land would be needed to accommodate the same number of homes. Finally, the no project alternative identifies that approximately 525 acres of the Specific Plan property are already within the city limits and could be constructed consistent with the policies of the General Plan, although without many of the more desirable mixed use and pedestrian oriented features. As a smaller project is analyzed under the no project alternative, the City concluded that there was no need to analyze another reduced density alternative.

6.4 ALTERNATIVE 1 - NO PROJECT ALTERNATIVE

CHARACTERISTICS

Under the "No Project Alternative," the proposed project would not be built and most of the site would remain in its current undeveloped condition. The approximately 525 acres of the project area already within the city limits would retain its existing General Plan designation of Special Planning Area, and its current zoning of Low Density Residential/Hillside (331 acres) and Planned Development (194 acres). The remaining 1,917 acres of land within unincorporated Shasta County would retain its existing General Plan designations and applicable zone districts. With the exception of the land already in the City, the bulk of the proposed project area would remain undeveloped as grazing land or ranchettes.

COMPARATIVE IMPACTS

4.1 Land Use

A comparison of the proposed project and the No Project Alternative is provided below for each significant land use impact identified in Section 4.1 Land Use.

Impact 4.1.2 The proposed project at buildout may conflict with surrounding land uses. This impact is considered **potentially significant**; and

Impact 4.1.8 Cumulatively, the project in combination with other reasonably foreseeable development in the City of Anderson and Shasta County could result in land use conflicts. This impact is considered **significant**.

Under this alternative residential development could still occur on the remaining 331 acres only at a much lower density and in a smaller geographic area when compared to the proposed project. This would reduce the potential for land use conflict between adjacent grazing and agricultural impacts when compared to the proposed project. Mitigation measures included in Section 4.13 Agricultural Resources reduces the proposed project's impacts to a less than significant level. It is reasonable to assume that similar mitigation would be applied to development under this alternative resulting in a less than significant impact. By virtue of the smaller area that would be affected by development, this alternative's impact on land use compatibility is considered less than the proposed project.

Impact 4.1.7 Cumulatively, the proposed project (in combination with other development projects) could contribute to the conversion of rural, agricultural and open space lands to urban uses. This impact is considered **significant**.

This alternative would provide for less developed area and would therefore reduce the amount of land converted from agricultural and open space uses to urban development. Although the proposed project includes approximately 1,230 acres of open space in the form of designated common area, the nature of the existing agricultural and open spaces uses within the 2,248-acre site would be changed as a result of the proposed project. This alternative would provide for development of up to 331 units on approximately 331 acres.¹ Based on previous subdivisions (Sanderson Subdivision and the Pleasant Hills Subdivision) in the vicinity of the project site it is reasonable to assume that there would also be open space in the form of slope and drainage areas that would not lend themselves to development. Development of this alternative would still result in the conversion of agriculture land to urban uses, and would have similar significant unavoidable impacts to the proposed project but at a much smaller scale. Because the area of impact would be smaller than that of the proposed project the impact of this alternative on the conversion of agricultural land is considered less than that of the proposed project, but would remain significant and unavoidable.

¹ Approximately 194 acres of the 525 acres of land in the city limits is approved for the development of 242 single family homes for a density of 2.34 units per acre. If the remaining 331 acres are developed at a similar density, approximately 775 units could result. Because of topographic constraints it is unlikely that the remaining area could develop at this density. For purposes of this analysis the EIR assumes that the density will be 1.0 units per acre for the remaining land. This is consistent with the City's R1/HS zone district.

6.0 PROJECT ALTERNATIVES

4.2 Population and Housing

A comparison of the proposed project and the No Project Alternative is provided below for each significant land use impact identified in Section 4.2 Population/Housing/Employment.

Impact 4.2.1 The proposed project at buildout would result in significant population growth and the generation of employment. This impact is considered **significant**; and,

Impact 4.2.3 Development of the Vineyards at Anderson project would result in increased population in the region. This impact is considered **significant**.

The proposed project will result in significant population and employment growth. The no project alternative would result in an increase of residential units and population, but would not result in employment growth. Further, the addition of 331 homes and a potential for 879 new residents, is substantially less than the projected 5,288 new homes and 14,040 added population associated with the proposed project. As noted in Section 4.12 Population and Housing, both the City's General Plan and this EIR have determined that population growth is considered a significant and unavoidable impact. Because all of the land that could be developed as a part of this alternative is residentially zoned, only construction employment would be generated. This would potentially result in less of a beneficial impact traditionally associated with the creation of new jobs than that of the proposed project. As the number of homes would also be less, the resulting impact to population growth would be less than that of the proposed project.

4.3 Hazards and Hazardous Materials

Impact 4.3.2 The proposed project could result in the accidental release of hazardous materials, which may result in adverse environmental impacts. This impact is considered **potentially significant**.

The proposed project has the potential to disturb a former burn dump as shown in **Figure 4. 3-1** as part of road widening of West Anderson Drive east of the aqueduct. Mitigation Measure 4.3.2 requires preparation of a Phase I and Phase II Environmental Site Assessment prior to any grading of this approximately nine (9) acre area. This alternative would likely not require the widening of West Anderson Drive as the traffic generated by the relatively small number of units would not affect the existing roadway. Therefore, this alternative would not have the potential to release hazardous materials. As a result, this alternative results in less of an impact than that of the proposed project.

Impact 4.3.3 Agricultural-related activity, including the use of pesticides, in the vicinity of homes, schools and other sensitive receptors may expose people to unhealthy levels of hazardous materials. This impact is considered **potentially significant**.

The agricultural use included as part of the project is intended for both decorative landscaping and active production. Regardless, due to the potential to impact off-site agriculture and to result in effective production, fertilizers and pesticides may be used. This has the potential to impact adjacent residential uses. This alternative would not necessarily include the provision for new agriculture adjacent to the residential uses, and would therefore not have the potential to impact the residential development through use of fertilizers and pesticides. It is possible that maintaining fire-safe areas could result in the use of pesticides; however this use would be expected at a far smaller scale than anticipated with the proposed project. Because this

alternative would not result in the use of fertilizers and pesticides associated with agricultural uses, the potential for adverse health impacts would be less than that of the proposed project.

4.4 Transportation and Circulation

Impact 4.4-1 The project causes an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system or the project exceeds, a level of service standard established by the City of Anderson, City of Redding, County of Shasta, or Caltrans (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, congestion at intersections or the level of service). This impact is considered **potentially significant**; and,

Impact 4.4-9 Implementation of the project and other reasonably foreseeable development would cause an increase in a.m. peak traffic hour, p.m. peak traffic hour, and/or daily traffic volumes on area roadways, resulting in unacceptable LOS and warranting the need for improvements such as traffic signals and additional lanes under cumulative (2030) conditions. This impact is considered **potentially significant**.

The proposed project will generate substantial amounts of traffic that, in some instances, will exceed the current carrying capacity of roadways and intersections. Numerous mitigation measures are discussed in Section 4.4 Transportation and Circulation to address the projected impact on local and regional circulation systems. Even with the proposed mitigation included in the EIR, there are several impacts that are considered significant an unavoidable because the City can not guarantee that the mitigation measures can be implemented. This alternative would result in far fewer units, and therefore significantly less traffic than the proposed project. This alternative would likely require a secondary access to Rhonda Road to accommodate the estimated 331 units that could be developed with the existing land use designation and zoning for the property in the City limits. The approximately 331 units that could be expected under this alternative were evaluated in the Anderson Marketplace EIR (SCH#2002072103). Based on the need to address circulation improvements in the southern area of the City, a benefit assessment district was formed by the City to collect fees to construct the improvements. The benefit assessment district assumed development of the land within the city limits that could be developed under the no project alternative. As such, fees would be collected at the time of building permit issuance to address off-site transportation impacts. Because of the substantial reduction in potential units and related reduction in traffic, impacts to transportation and circulation associated with this alternative is less than that of the proposed project.

4.5 Noise

Impact 4.5.1 Temporary construction-generated noise levels could result in a substantial increase in ambient noise levels at nearby noise-sensitive land uses, including proposed residential uses that are constructed and inhabited before other portions of the project are complete. This impact is considered **potentially significant**; and,

Impact 4.5.6 Temporary construction-generated noise levels could result in a substantial increase in ambient noise levels at nearby noise-sensitive land uses, including proposed residential uses that are constructed and inhabited before other portions of Phase 2 are complete. This impact is considered **potentially significant**.

6.0 PROJECT ALTERNATIVES

Activities associated with project construction would result in elevated noise levels within the project area, and could expose future residents within the project area to substantial short-term increases in ambient noise levels. The No Project Alternative would result in less development and therefore less potential for construction noise. As much of the proposed project area is distant from existing homes, the majority of construction related noise impacts will occur as portions of the proposed project are occupied. Similarly, the no project alternative construction area is separated from intensive residential areas. However, it is reasonable to expect that similar construction noise impacts similar to those of the proposed project will occur as areas within the no project area are occupied. As the no project alternative will result in significantly less development, construction noise will occur over a shorter period of time and will therefore be less than that of the proposed project.

Impact 4.5.4 Exposure to noise levels generated by future on-site stationary sources associated with the proposed project could result in a substantial increase in ambient noise levels that could exceed the City's noise standards at noise-sensitive land uses. This impact is considered **potentially significant**; and,

Impact 4.5.5 Projected on-site transportation noise levels at nearby proposed on-site development would exceed the City's noise-sensitivity standards for land use compatibility. As a result, this impact is considered **potentially significant**.

Impact 4.5.10 Projected on-site transportation noise levels at nearby proposed on-site development would exceed the City's noise-sensitivity standards for land use compatibility. As a result, this impact is considered **potentially significant**.

The proposed project includes a number of uses that have the potential to generate non-traffic noise. Noise sources can include lawn mowers, drive through window order speakers, generators, turbines, compactors, compressors, etc. Implementation of mitigation measures included in Section 4.5 Noise of the DEIR will mitigate these impacts to a less than significant level. This alternative would not result in any non-residential development which would further reduce noise impacts. Overall, the residential-only nature of this alternative, smaller number of potential housing units and associated reduction in traffic means that the noise impact is less than that of the proposed project.

Impact 4.5.11 Implementation of the proposed project would result in increases to cumulative traffic noise impacts. This impact is considered **potentially significant**.

The proposed project will generate traffic on area roadways. The traffic will increase noise levels and in some instances noise mitigation may not be feasible due to physical constraints on adjacent properties. Constraints might include slope, trees, buildings, etc., that would make installation of noise walls or other attenuation methods impractical. This alternative would result in fewer housing units and associated traffic, but may still result in noise impacts to adjacent roadways, particularly Rhonda Road. It is reasonable to assume however, that the reduced traffic associated with this alternative would result in less cumulative traffic noise impact than that of the proposed project.

4.6 Air Quality

Impact 4.6.1 Construction activities, such as clearing, excavation and grading operations, as well as construction vehicle traffic and wind blowing over exposed earth, would generate increased particulate matter and ozone precursor emissions

that would temporarily affect local air quality. This impact is considered **potentially significant**; and,

Construction activities such as clearing, excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate increased particulate matter, ozone precursor emissions, exhaust emissions, and fugitive particulate matter emissions that would temporarily affect local air quality for adjacent land uses. The No Project Alternative would result in less development overall and would therefore have less construction air quality impacts.

Impact 4.6.2 On-site sources and vehicle trips to and from the project (at buildout) would result in increased emissions of ozone-precursor pollutants and particulate matter that would exceed Shasta County AQMD significance thresholds. This impact is considered **significant**.

The proposed project will generate traffic that will impact air quality standards throughout the region. The no project alternative will result in similar air quality impacts to those of the proposed project, but at a reduced scale due to the smaller number of units and smaller development area. Regardless of the reduction in scale and magnitude of impact, development of this alternative would still cause air quality impacts, and would likely result in a similar significant and unavoidable determination. However, because this alternative would result in substantially less development than the proposed project, the associated impacts to air quality would be less than those of the proposed project.

Impact 4.6.4 Receptors located in the vicinity of commercial land uses may be exposed to odorous emissions. This impact is considered **potentially significant**.

The proposed project includes a mix of uses, some of which may generate odors considered undesirable by adjacent receptors. While the homes associated with the no project alternative could also generate odors, the lack of non-residential development substantially reduces the potential for undesirable odors. This alternative will have less of an ability to generate undesirable odors than the proposed project.

Impact 4.6.11 Residential wood burning and open burning from the proposed project and other regional development could result in and contribute to odor or nuisance complaints as well as result in potential violation of state and federal particulate matter ambient air quality standards in the future. This impact is considered **significant**.

This alternative will result in fewer potential homes and therefore less potential for wood burning stoves and fireplaces than the proposed project. It is logical to assume that similar EPA Phase II approved wood burning appliances would be installed as part of this alternative resulting in similar impacts. While on an individual home basis, this alternative would result in similar impacts, but since there are fewer homes the overall impact would be less than that of the proposed project.

4.7 Hydrology and Water Quality

Impact 4.7.1 Development of the proposed project may impact water quality and may violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality. This impact is considered **potentially significant**.

6.0 PROJECT ALTERNATIVES

Vegetation removal and earth-moving activities associated with project construction may potentially impact water quality of surface waters, including Anderson Creek, Olinda Creek and Cottonwood Creek as well as Other Waters of the U.S., including wetlands, which are located within and adjacent to the Specific Plan area. Removal of vegetation may expose soils to wind and water erosion. Exposed surfaces and soil stockpiles created during grading and construction activities could increase the potential for sedimentation in downstream waters. During the rainy season, generally November to April for the City of Anderson, grading could impact stormwater quality by increasing the load of organic debris, silt and clay sized particles in runoff. This alternative will have similar impacts only over a much smaller area (approximately 331 acres) than the proposed project. It is reasonable to assume that the mitigation measures discussed in Section 4.7 Hydrology and Water Quality would be applied to any development under this alternative. Because this alternative results in development of a much smaller area than the proposed project the potential for impact to hydrology and water quality is less than that of the proposed project.

Impact 4.7.2 Development of the proposed project may 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 resulting in substantial erosion or siltation on- or off-site. This impact is considered **potentially significant**.

Development of the proposed project will add impervious surface to the property and will increase the amount of runoff. This has the potential to increase erosion and siltation on and off site. The proposed project has a number of design features and mitigation measures designed to address erosion and siltation. This alternative would result in less land disturbance and would therefore have less of an impact than the proposed project.

4.8 Geology and Soils

Impact 4.8.2 Development of the proposed project may result in soil erosion or the loss of topsoil. This impact is considered **potentially significant**; and,

Impact 4.8.3 Buildout of the project may result in structures and/or infrastructure being located on unstable geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. This impact is considered **potentially significant**; and,

Impact 4.8.4 Development of the proposed project may result in structures or infrastructure being located on an expansive soil as defined in Table 18-1-B of the Uniform Building Code. This impact is considered **potentially significant**.

The proposed project will result in excavation to support construction. Numerous mitigation measures are discussed in Section 4.8 Geology and Soils designed to reduce the potential of erosion and address the potential for slope failure and/or expansive soils. This alternative will result in less excavation and slope constraints due to the smaller development potential. It is reasonable to assume that mitigation measures similar to those of the proposed project will be required of any development under this alternative. While the impacts of development under this alternative would be similar in nature to those of the proposed project, the smaller area of disturbance associated with this project results in less of an erosion potential than that of the proposed project.

4.9 Biological Resources

- Impact 4.9.1** Implementation of the proposed project would result in direct and indirect loss of habitat and individuals of endangered, threatened, rare, proposed, and candidate status as well as California Fully Protected species. This impact is considered **potentially significant**.
- Impact 4.9.2** Implementation of the proposed project would result in direct mortality or the loss of habitat for special-status plant species including plant species identified by the California Native Plant Society with a rating of List 1A or 1B (i.e. rare, threatened or endangered plants). This impact is considered **potentially significant**.
- Impact 4.9.3** Implementation of the proposed project would result in direct mortality or the loss of habitat for migratory birds and raptors. This impact is considered **potentially significant**.
- Impact 4.9.4** Implementation of the proposed project would result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special-status species. This impact is considered **potentially significant**.
- Impact 4.9.5** Implementation of the proposed Specific Plan would result in substantial adverse impacts to, and the potential loss of, jurisdictional waters of the U.S. This impact is considered **potentially significant**.
- Impact 4.9.6** Implementation of the proposed project would result in disturbance, degradation, and removal of riparian habitat. This impact is considered **potentially significant**.
- Impact 4.9.7** Implementation of the proposed project would result in disturbance, degradation, and removal of vernal pool habitat, including vernal swales. This impact is considered **potentially significant**.
- Impact 4.9.8** Implementation of the proposed project would result in disturbance, degradation, and removal of blue oak woodland. This impact is considered **potentially significant**.
- Impact 4.9.9** Implementation of the proposed project through build-out would result in the loss of foraging and breeding habitat for raptors, migratory birds, and other wildlife. This impact is considered **potentially significant**.
- Impact 4.9.11** Implementation of Phase 2 would result in direct and indirect loss of habitat and individuals of endangered, threatened, rare, proposed, and candidate status as well as California Fully Protected species. This impact is considered **potentially significant**.
- Impact 4.9.12** Implementation of Phase 2 would result in direct mortality or the loss of habitat for special-status plant species including plant species identified by the California Native Plant Society with a rating of List 1A or 1B (i.e. rare, threatened or endangered plants). This impact is considered **potentially significant**.

6.0 PROJECT ALTERNATIVES

- Impact 4.9.13** Implementation of Phase 2 would result in direct mortality or the loss of habitat for migratory birds and raptors. This impact is considered **potentially significant**.
- Impact 4.9.14** Implementation of the Phase 2 would result in direct and indirect loss of habitat and individuals of animal and plant species of concern and other non-listed special-status species. This impact is considered **potentially significant**.
- Impact 4.9.15** Implementation of Phase 2 would result in substantial adverse impacts to, and the potential loss of, jurisdictional waters of the U.S. This impact is considered **potentially significant**.
- Impact 4.9.17** Implementation of Phase 2 would result in disturbance, degradation, and removal of vernal pool habitat. This impact is considered **potentially significant**.
- Impact 4.9.18** Implementation of Phase 2 would result in disturbance, degradation, and removal of blue oak woodland. This impact is considered **potentially significant**.
- Impact 4.9.19** Implementation and buildout of Phase 2 would result in the loss of foraging and breeding habitat for raptors, migratory birds, and other wildlife. This impact is considered **potentially significant**.
- Impact 4.9.20** Implementation of Phase 2 could interfere substantially with the movement of native resident or migratory fish or wildlife species. This impact is considered **potentially significant**.
- Impact 4.9.21** Cumulatively, development of the proposed project will result in direct mortality and loss of habitat for special-status species, wetlands, and waters of the U.S. This cumulative impact is considered **potentially significant**.

The proposed project will affect the existing habitat within the project study area by introducing urban development and by removing vegetation that may serve as habitat to rare and endangered species. While the development plan of the project is to remain largely on the ridge tops and leave large areas along the ravines and drainages substantially free of construction activity, large portions of the property will be graded and filled to accommodate the development. The proposed project has a number of policies in the Specific Plan and a series of mitigation measures designed to reduce the level of impact. Regardless, there will be a reduction of habitat and the loss of blue oak woodland. This alternative would result in less of an impact than the proposed project because it is much smaller in area. The topography is similar and the individual impacts would be similar to the proposed project, but smaller in scale. Development under this alternative would have mitigation similar to the proposed project but would result in less of an impact than the proposed project due to the reduced size.

4.10 Cultural and Paleontological Resources

- Impact 4.10.1** Implementation of the project could impact the following archaeological sites: Vineyards #2, #3, #9, #10, #11, #13, and CA-SHA-1188/H. This impact is considered **potentially significant**; and,

- Impact 4.10.2** Implementation of the proposed project could potentially destroy or damage undiscovered prehistoric and historical cultural resources and human remains on the project site. This impact is considered **potentially significant**; and,
- Impact 4.10.3** Implementation of the proposed project could result in the potential damage or destruction of undiscovered paleontological resources. This impact is considered **potentially significant**; and,
- Impact 4.10.5** Implementation of Phase 2 of the proposed project could potentially destroy or damage undiscovered prehistoric and historical cultural resources and human remains on the project site. This impact is considered **potentially significant**; and,
- Impact 4.10.6** Implementation of Phase 2 of the proposed project could result in the potential damage or destruction of undiscovered paleontological resources. This impact is considered **potentially significant**; and,
- Impact 4.10.8** Implementation of the proposed project, in addition to existing, approved, proposed and reasonably foreseeable development in the City of Anderson and Shasta County, could result in cumulative impacts to paleontological resources in the region. This impact is considered **potentially significant**.

Archaeological and historical investigations for the proposed project identified archaeological sites Vineyards #9, #10, #11, #13, and CA-SHA-1188/H, and two isolated artifacts, Vineyards #2 and #3, within project boundaries. Vineyards #2, #3, #9, #10, #11, and #13 do not meet the eligibility criteria for inclusion in the NRHP and the CRHR or for consideration as unique archaeological resources. There are no known sites within the area affected by this alternative. It is possible that there are unknown sites that might be discovered during excavation and construction; however mitigation similar to that proposed for the project would ensure a less than significant impact. This alternative would result in less of an impact to cultural and paleontological resources than the proposed project.

- Impact 4.10.7** Implementation of the proposed project, in addition to existing, approved, proposed and foreseeable development in the City of Anderson and Shasta County could result in cumulative impacts to prehistoric and historic resources and human remains in the region. This impact is considered **potentially significant**.

The proposed project will require off-site roadway improvements on West Anderson Drive that could result in impacts to the Anderson/Cottonwood water flume and a building on the corner of North Street and SR 273. These structures are considered historic resources. The proposed project impacts could occur because West Anderson Drive must be widened to accommodate traffic at buildout of the proposed project. (See Mitigation Measure 4.4-1a) Impact 4.4 of the Transportation and Circulation section of this EIR also discusses the possibility of creating a one-way road couplet allowing two (2) lanes of traffic on West Anderson Drive, and two (2) lanes of traffic on Bruce Drive. (See MM 4.4-1b) This alternative is fully discussed under Alternative 2 below. The one-way couplets could allow all traffic within the existing roadway prism and would avoid needing to modify the Anderson/Cottonwood flume and would preserve the hotel. Regardless, the development possible with the "no project" alternative would not require substantial improvements to West Anderson Drive. As this alternative would not result in the need to widen West Anderson Drive, the potential for impact to off-site historic structures from the no project alternative would be less than the proposed project.

6.0 PROJECT ALTERNATIVES

4.11 Public Services and Utilities

Impact 4.11.1.2 Implementation of the proposed project would locate homes and structures near wooded areas and expose residents to wildland fire hazards. This impact is considered **potentially significant**; and,

Impact 4.11.1.6 Implementation of Phase 2 of the proposed project could potentially locate homes and structures near wooded areas and would expose residents to wildland fire hazards. This impact is considered **potentially significant**.

Implementation of the proposed project would place numerous homes and other structures on oak covered ridgetops, potentially exposing residents to wildland fire hazards. The area within the City is located in a "Very High Fire Hazard Severity Zone". Development within this area would require mitigation similar to that of the proposed project. Overall, impacts would be similar to those of the proposed project, but as the physical area would be reduced, the potential to locate homes and structures in wildfire hazard areas would be less than that of the proposed project.

Implementation of the proposed project would also leave the existing fire district boundaries intact and would not require the annexation or detachment of land from the Cottonwood Fire Protection District into the Anderson Fire Protection District.

4.12 Utilities and Service Systems

Impact 4.12.1.1 Implementation of the proposed project would require construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. This impact is considered **potentially significant**; and,

Impact 4.12.1.3 Development of the proposed project may 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 (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). This impact is considered **potentially significant**.

Impact 4.12.2.1 At buildout, the project would require new conveyance facilities to adequately serve the proposed development. Construction of these new conveyance facilities could potentially result in significant environmental effects. As a result, this impact is considered **potentially significant**.

Impact 4.12.2.2 During development of the proposed project, increased wastewater flows would require additional treatment capacity at the City's WWTP. In order to increase the design capacity, it would eventually require physical expansion of the WWTP. Expansion of the WWTP could potentially result in significant environmental effects. As a result, this impact is considered **potentially significant**.

Impact 4.12.2.3 At Phase 2, the project would require new conveyance facilities to adequately serve the proposed development. This impact is considered **potentially significant**.

Impact 4.12.2.4 Implementation of Phase 2 of the proposed project would result in increased wastewater flows, which would require additional treatment capacity at the City's WWTP. This impact is considered **potentially significant**.

The proposed project will require the expansion of city utilities into an area without services. The expansion of services will require construction of wells and storage to ensure adequate fire flow, the extension of sewer lines and eventually an expansion of the wastewater treatment plant. This alternative would require a smaller scale expansion of the water system to provide service to the area, which would result in less of an impact on city services than the proposed project.

4.13 Aesthetics/Visual Resources/Light and Glare

Impact 4.13.5 The proposed project would introduce new sources of nighttime lighting to a previously undeveloped area, resulting in an increase in ambient light levels. This impact is considered **potentially significant**; and,

Impact 4.13.10 Implementation of Phase 2 would create new sources of lighting in undeveloped areas. Increased nighttime lighting could have an adverse affect on adjacent areas and land uses. This impact is considered **potentially significant**; and,

Impact 4.13.11 Implementation of the proposed project, in combination with anticipated development in the region, would alter the visual character of the area resulting in a change to public views as well as increased daytime and nighttime glare and lighting levels. This impact is considered **potentially significant**.

The proposed project includes a detailed specific plan and planned development zone that establishes design character for the project area. Elements of the design will address visual impacts through the creation of urban centers and neighborhoods. As with the Sanderson Subdivision, development under this alternative may also have specific design standards tailored to the topography of the area, and would therefore have similar aesthetic impacts to the proposed project.

One of the impacts of development will include an increase in night lighting that cannot be fully mitigated and is identified as a significant and unavoidable impact. The no project alternative will have less development and will result in the potential for less lighting; however any urban-scale development will have similar lighting impacts. By virtue of impacting a smaller area, this alternative will have less of an impact on lighting than the proposed project.

4.14 Agricultural Resources

Impact 4.14.2 At buildout, the project would place urban land uses adjacent to agricultural uses, which may impair adjacent cattle grazing activities and result in land use compatibility conflicts. This impact is considered **potentially significant**; and,

Impact 4.14.5 The project would convert approximately 2,248 acres of grazing land to urban uses. This loss would contribute to the cumulative loss of farmland in the region and could contribute to cumulative conflicts with agricultural uses. In the context of cumulative impacts, this impact is considered **potentially significant**.

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The proposed project is situated on land that is not prime farmland or farmland of statewide importance. The land is classified as grazing. This alternative would reduce the potential for urban development to interfere with adjacent farms. Mitigation measures included with the proposed project reduce this impact to a less than significant level. Mitigation measures similar to those of the proposed project would be applied to any development under this alternative. The smaller geographic area encompassed by this alternative would result in less of an impact to adjacent farm lands.

6.5 ALTERNATIVE 2 – BRUCE DRIVE/SOUTH STREET ONE-WAY COUPLET

CHARACTERISTICS

This alternative is designed to address off-site impacts associated with the widening of South Street from West Anderson Drive to SR 273. The roadway is constricted at the ACID aqueduct, and widening to four lanes would require modification to the aqueduct. The aqueduct is a historic structure and modifications to the structure could affect its integrity. This alternative would instead construct a connection from the current terminus of Bruce Drive to West Anderson Drive. The new roadway would negotiate a bluff, and cross jurisdictional wetlands before intersecting with the existing West Anderson Drive. Once complete, the new roadway would form the east-bound leg of a one-way couplet roadway system, with the west-bound leg formed by the section of South Street from West Anderson Drive to SR 273. (See **Figure 4.4-1**.) This alternative would require the creation of wetlands to replace fill required by the new roadway, but would eliminate the need to modify the ACID aqueduct. This alternative might also require an upgrade to Volante Road/Emily Road that connects South Street to Bruce Drive in order to accommodate the additional traffic.

While this alternative would impact more wetlands than the proposed project, the wetlands can be fully mitigated either on site, adjacent to the new roadway, or in a wetland mitigation bank. It is infeasible to mitigate modification of the aqueduct that would enable a wider roadway to be constructed.

Impacts associated with this alternative would be identical to the proposed project in the following impact areas:

- 4.1 Land Use
- 4.2 Population and Housing
- 4.6 Air Quality
- 4.7 Hydrology and Water Quality
- 4.8 Geology and Soils
- 4.11 Public Services
- 4.12 Utilities and Service Systems
- 4.13 Aesthetics and Visual Resources
- 4.14 Agricultural Resources

Hazards

This alternative will increase traffic on Bruce Drive which could result in the potential for additional traffic accidents. Further, the use of a one-way couplet would direct truck traffic through a residential neighborhood increasing the potential for hazardous spills. While the City could address some of this potential impact by requiring that truck traffic use Volante Road/Emily road, and establishing the one-way couplet from that intersection, some existing

homes would remain affected by the change in traffic pattern. The impact on hazards would be greater than that of the proposed project.

Transportation and Circulation

Implementation of this alternative would eliminate the need to increase the width of South Street from West Anderson Drive to SR 273, but would require the construction of a bridge and roadway connecting Bruce Drive to West Anderson Drive. The alternative may also require that Volante Road/Emily Road be widened or improved to accept new traffic. This alternative would also increase traffic on Bruce Drive and may result in a need to change the signal phasing at the Bruce Drive/SR 273 intersection.

Both Bruce Drive and Volante/Emily Road are designated as collectors in the City's general plan. Currently traffic on these roadways is residential in nature, and this would change under this alternative. West Anderson Drive provides access to the County landfill and empty trucks would travel the route. Other trucks associated with the proposed project such as moving vans, delivery trucks, etc., would increase traffic along Bruce Drive beyond its current level. This would result in a greater impact for this section of roadway than that of the proposed project. Overall, traffic impacts associated with this alternative would be similar to those of the proposed project.

Noise

Implementation of this alternative would increase traffic on Bruce Drive beyond its current level, which would also increase noise. Further, the addition of truck traffic on this route would also affect noise levels. Typical mitigation such as noise walls, increase setback, etc, would be difficult to implement for many of the existing structures along the route due to driveways and proximity to the roadway. This impact is considered greater than that of the proposed project for this area of the City.

Biological Resources

This alternative would increase the amount of wetland fill to construct the extension of Bruce Drive from its current terminus to West Anderson Drive. There would be less of an impact to Anderson Creek as South Street would not need to be widened. This alternative would need an Army Corps permit and would need to create wetlands associated with the new fill. There is adequate city-owned property in the vicinity of the new roadway, as well as within the project area as whole. This impact is considered greater than that of the proposed project.

Cultural and Paleontological Resources

As proposed the widening of South Street under the aqueduct would require alteration of the aqueduct. The arched construction of the aqueduct would be inexorably changed as a result of the proposed project, resulting in a significant and unavoidable impact to a historic structure. This alternative avoids the need to widen the roadway and therefore results in no substantive change to the aqueduct. This impact is less significant than that of the proposed project.

6.6 ALTERNATIVE 3 – NEW NORTH/SOUTH ROADWAY CONNECTION TO RHONDA ROAD

The proposed project will utilize a roadway to be developed as part of the Sanderson Subdivision (i.e., Phase 1) that will extend from Rhonda Road to the eastern boundary of the Specific Plan area. This roadway would also include a signalized intersection with Rhonda Road

6.0 PROJECT ALTERNATIVES

to accommodate left turn movements. As proposed, the roadway and intersection would operate at an acceptable level of service.

This alternative would provide a roundabout or intersection adjacent to the eastern boundary of the proposed project and connection to the proposed north/south roadway identified by the Shasta County Southern Region Transportation Planning Study and Traffic Impact Fee Program Project (see **Figure 3.0-5**). Under this alternative, instead of constructing an extension of Anderson Hills Parkway to Rhonda Road, the resources would be spent constructing a portion of the new north/south roadway identified in the Transportation Planning Study. This would further the regional traffic plan and eliminate the need to construct a roadway and traffic signal that would later be unnecessary.

Impacts associated with this alternative would be identical to the proposed project in the following impact areas:

- 4.1 Land Use
- 4.2 Population and Housing
- 4.3 Hazards
- 4.5 Noise
- 4.6 Air Quality
- 4.7 Hydrology and Water Quality
- 4.8 Geology and Soils
- 4.10 Cultural and Paleontological Resources
- 4.11 Public Services
- 4.12 Utilities and Service Systems
- 4.13 Aesthetics and Visual Resources
- 4.14 Agricultural Resources

Transportation and Circulation

This alternative would construct a portion of the new north/south roadway intended for part of a parallel route to Interstate 5 leading eventually into Tehama County. The route for the roadway is identified in the Shasta County Southern Region Transportation Planning Study and Traffic Impact Fee Program Project. Although the Study identified the route, it did not complete the environmental analysis or specific route survey so it is unknown at this time what the design implications of the alternative may be. Review of aerial photographs of the proposed route suggest that although there are cut and fill areas, and the crossing of some draws or features that may contain wetlands, the proposed route is feasible. The currently proposed roadway improvements operate at acceptable level of service, as would this alternative. However, as the route has not been fully defined, this impact is considered greater than that of the proposed project.

Biological Resources

The proposed route has not been reviewed for biological impacts associated with roadway construction. As the topography is similar to features within the Specific Plan area, it is reasonable to assume that there may be wetlands or other features that would require avoidance or permitting prior to construction. The proposed project roadway route has been reviewed and biological impacts included in the analysis and mitigation in this EIR. As such, impacts to biology are considered greater than those of the proposed project.

6.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6.0-1 provides a summary of the potential impacts of the alternatives evaluated in this section, as compared with the potential impacts of the proposed project.

CEQA Guidelines Section 15126.6(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the "No Project Alternative," the EIR shall also identify an environmentally superior alternative among other alternatives. The No Project Alternative was determined to have the fewest negative impacts on the physical environment. On all issues, the No Project Alternative would have less adverse environmental impacts than the proposed project because it would affect a smaller area than the proposed project and result in less potential development.

TABLE 6.0-1
COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

Issue	Alternatives		
	1	2	3
4.1 Land Use	+	0	0
4.2 Population and Housing	+	0	0
4.3 Hazards	+	-	0
4.4 Transportation and Circulation	+	0	-
4.5 Noise	+	-	0
4.6 Air Quality	+	0	0
4.7 Hydrology and Water Quality	+	0	0
4.8 Geology and Soils	+	0	0
4.9 Biological Resources	+	-	-
4.10 Cultural and Paleontological Resources	+	+	0
4.11 Public Services	+	0	0
4.12 Utilities and Service Systems	+	0	0
4.13 Aesthetics and Visual Resources	+	0	0
4.14 Agricultural Resources	+	0	0

- + Impacts better than those of proposed project.
- 0 Impacts same as those of proposed project, or no better or worse.
- Impacts worse than those of proposed project.

However, the No Project Alternative would not meet any of the objectives of the proposed project. The proposed project as amended by Alternative 2 would result in fewer impacts. Implementation of the proposed project as modified by Alternative 2 would avoid identified significant impacts to historic resources and is therefore the environmentally superior alternative. If the route for the new north/south roadway was further defined, inclusion of Alternative 3 would also reduce long-term impacts associated with the proposed project.