



DRAFT

# ENVIRONMENTAL IMPACT REPORT

FOR THE

RED BLUFF GENERAL PLAN UPDATE  
(SCH: 2024030525)

OCTOBER 2024

*Prepared for:*

City of Red Bluff  
Community Development Department  
City of Red Bluff  
555 Washington St.  
Red Bluff, CA 96080

*Prepared by:*

De Novo Planning Group  
1020 Suncast Lane, Suite 106  
El Dorado Hills, CA 95762

D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm







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## DRAFT EIR

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Appendix B—Continuous and Short-Term - Ambient Noise Measurement Results

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Appendix D: Noise Barrier Reductions

## PURPOSE

The City of Red Bluff (City) as lead agency, determined that the Red Bluff General Plan project (General Plan, General Plan Update, or project) is a "project" within the definition of the California Environmental Quality Act (CEQA), and requires the preparation of an Environmental Impact Report (EIR). This Draft EIR has been prepared to evaluate the environmental impacts associated with implementation of the project. This EIR is designed to fully inform decision-makers in the City, other responsible and trustee agencies, and the general public of the potential environmental consequences of adoption and implementation of the General Plan Update. A detailed description of the proposed project, including the components and characteristics of the project, project objectives, and how the EIR will be used, is provided in Chapter 2.0 (Project Description).

## AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Draft EIR addresses environmental impacts associated with the project that are known to the City, raised during the Notice of Preparation (NOP) scoping process, or were raised during preparation of the Draft EIR. This Draft EIR addresses the potentially significant impacts associated with aesthetics, agriculture and forest resources, air quality, biological resources, cultural and tribal cultural resources, geology, greenhouse gas emissions and energy, hazards and hazardous materials, hydrology and water quality, land use planning and population/housing, mineral resources, noise, public services and recreation, transportation, utilities and service systems, wildfire, and cumulative impacts.

The City of Red Bluff circulated a Notice of Preparation (NOP) of an EIR for the proposed project on March 15, 2024 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held on April 3, 2024 at the City of Red Bluff City Hall Council Chambers. No public or agency comments on the NOP related to the EIR analysis were presented or submitted during the scoping meeting. However, during the 30-day public review period for the NOP, which ended on April 15, 2024, five written comment letters were received. The comments are summarized in Chapter 1.0 (Introduction), and are also provided in Appendix A.

## ALTERNATIVES TO THE PROPOSED PROJECT

The CEQA Guidelines require an EIR to describe a reasonable range of alternatives to the project or to the location of the project which would reduce or avoid significant impacts, and which could feasibly accomplish the basic objectives of the proposed project. The alternatives analyzed in this EIR include the following:

### *ALTERNATIVE 1: NO PROJECT ALTERNATIVE.*

Under Alternative 1, the City would not adopt the General Plan Update. The existing Red Bluff General Plan would continue to be implemented and no changes to the General Plan, including the Land Use Map, Circulation Diagram, goals, policies, or actions would occur. Subsequent projects, such as amending the Municipal Code (including the zoning map) would not occur. The Existing General Plan Land Use Map is shown on Figure 5.0-1.

*ALTERNATIVE 2: MODIFIED PROJECT ALTERNATIVE.*

Under Alternative 2, the City would adopt the updated General Plan policy document, but would retain the existing land use map. This alternative would result in the same growth as the existing General Plan (Alternative 1), but would implement the updated goals, policies, and actions found in the General Plan Update. This alternative would carry forward the county designations within the SOI and for the purposes of analysis it is assumed that this alternative would result in a reduction in development would result due to project implementation, and that existing growth rates would continue. The Existing General Plan Land Use Map is shown on Figure 5.0-1. This Alternative would result in less residential and non-residential growth when compared to the proposed Project. This alternative was developed to potentially reduce the severity of significant impacts associated with overall VMT, as well as the potential further reduction in less than significant impacts related to aesthetics.

*ALTERNATIVE 3: AGRICULTURE PROTECTION ALTERNATIVE.*

Alternative 3 provides for development focused within areas of the city and SOI that are not identified as important agricultural lands. Under this alternative, the proposed Project would be developed in such a way as to protect lands currently identified as prime farmland, farmland of statewide importance, and unique farmland generally located in the eastern and southern portions of the SOI. For the purposes of this analysis it is assumed that future development buildout would exclude development on lands identified by the Department of Conservation as important farmlands (these lands are identified in Chapter 3.2 (Agricultural) of this report. This alternative was developed to reduce the severity of significant impacts associated with agricultural resources identified in Chapter 3.2. This alternative was developed to reduce impacts to agricultural resources and also to promote open spaces and conserve foraging habitat for local species.

A comparative analysis of the proposed General Plan and each of the project alternatives is provided in Table 5.0-3 and ES-1 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics addressed in this EIR. A score of “3” indicates that the alternative would have the same level of impact when compared to the proposed project. A score of “1” indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A Score of “2” indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the proposed project. A score of “4” indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of “5” indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative.

As shown in Table ES-1, Alternative 2 is the environmentally superior alternative, as it reduced the most environmental effects. It should be noted that all of the alternatives would fail to reduce any significant and unavoidable impacts to a less than significant level. However Alternative 3 would

reduce impacts to important agricultural lands and resources the greatest extent. Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and community all expressed a desire and commitment to ensuring that the General Plan not only reflect the community's values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To that end, the proposed General Plan includes the full range of feasible policies and actions available to reduce potential impacts to the greatest extent possible.

**TABLE ES-1: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT**

<i>ENVIRONMENTAL ISSUE</i>	<i>PROPOSED PROJECT</i>	<i>ALTERNATIVE 1 (NO PROJECT)</i>	<i>ALTERNATIVE 2 (MODIFIED)</i>	<i>ALTERNATIVE 3 (AG PROTECTION)</i>
Aesthetics	3 – Same	2 – Slightly Better	1 – Better	2 – Slightly Better
Agricultural Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	1 – Better
Air Quality	3 – Same	4 – Slightly Worse	2 – Slightly Better	3 – Same
Biological Resources	3 – Same	3 – Same	1 – Better	2 – Slightly Better
Cultural Resources	3 – Same	4 – Slightly Worse	2 – Slightly Better	2 – Slightly Better
Greenhouse Gases, Climate Change, and Energy	3 – Same	4 – Slightly Worse	2 – Slightly Better	2 – Slightly Better
Geology and Soils	3 – Same	4 – Slightly Worse	2 – Slightly Better	3 – Same
Hazards and Hazardous Materials	3 – Same	4 – Slightly Worse	3 – Same	4 – Slightly Worse
Hydrology and Water Quality	3 – Same	4 – Slightly Worse	2 – Slightly Better	3 – Same
Land Use and Population	3 – Same	5 – Worse	4 – Slightly Worse	3 – Same
Mineral Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	3 – Same
Noise	3 – Same	3 – Same	1 – Better	2 – Slightly Better
Public Services and Recreation	3 – Same	4 – Slightly Worse	1 – Better	2 – Slightly Better
Transportation and Circulation	3 – Same	3 – Same	2 – Slightly Better	3 – Same
Utilities	3 – Same	4 – Slightly Worse	1 – Better	2 – Slightly Better
Wildfire	3 – Same	3 – Same	3 – Same	5 – Worse
Irreversible Effects	3 – Same	4 – Slightly Worse	2 – Slightly Better	2 – Slightly Better
<b>SUMMARY</b>	<b>51</b>	<b>59</b>	<b>33</b>	<b>44</b>

Overall, Alternative 2 is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives. This is due to Alternative 2 including all development policies and actions consistent with the updated General Plan. These included many additional policies and actions related to environmental protections, and project review requirements, while including the lowest levels of actual development due to retaining the Existing Land Use Map. As such, Alternative 2 is the environmentally superior alternative for the purposes of this EIR analysis.

## SUMMARY OF IMPACTS AND MITIGATION MEASURES

In accordance with the CEQA Guidelines, this EIR focuses on the project's significant effects on the environment. The CEQA Guidelines defines a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. A less than significant effect is one in which there is no long or short-term significant adverse change in environmental conditions. Some impacts are reduced to a less than significant level with the implementation of mitigation/minimization measures and/or compliance with regulations and policies. "Beneficial" effect is not defined in the CEQA Guidelines, but for purposes of this EIR a beneficial effect is one in which an environmental condition is enhanced or improved.

The environmental impacts of the proposed project, the impact level of significance prior to any mitigation, the proposed mitigation measures to mitigate an impact, and the impact level of significance after mitigation are summarized in Table ES-2.

**TABLE ES-2: PROJECT IMPACTS AND MITIGATION MEASURES**

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
<b>AESTHETICS AND VISUAL RESOURCES</b>			
Impact 3.1-1: General Plan implementation would not have a substantial adverse effect on a scenic vista	LS	<i>None Required.</i>	LS
Impact 3.1-2: General Plan implementation would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway	LS	<i>None Required</i>	LS
Impact 3.1-3: General Plan implementation would not, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality	LS	<i>None Required</i>	LS
Impact 3.1-4: General Plan implementation could result in the creation of new sources of nighttime lighting and daytime glare	LS	<i>None Required</i>	LS
<b>AGRICULTURAL AND FOREST RESOURCES</b>			
Impact 3.2-1: General Plan Implementation would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No Additional feasible mitigation is available.</i>	SU
Impact 3.2-2: General Plan Implementation would not conflict with existing zoning for agricultural use, or a Williamson Act Contract	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No Additional feasible mitigation is available.</i>	SU
Impact 3.2-3: General Plan implementation	LS	<i>None Required</i>	LS

*CC – cumulatively considerable**LCC – less than cumulatively considerable**LS – less than significant**PS – potentially significant**SU – significant and unavoidable**NI – No Impact*

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
would not result in the loss of forest land or conversion of forest land to non-forest use			
Impact 3.2-4: General Plan implementation would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use	LS	<i>None Required</i>	LS
AIR QUALITY			
Impact 3.3-1: General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No Additional feasible mitigation is available.</i>	SU
Impact 3.3-2: General Plan implementation would expose sensitive receptors to substantial pollutant concentrations	LS	<i>None Required</i>	LS
Impact 3.3-3: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people)	LS	<i>None Required</i>	LS
BIOLOGICAL RESOURCES			
Impact 3.4-1: General Plan implementation could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	LS	<i>None Required</i>	LS
Impact 3.4-2: General Plan implementation could have a substantial adverse effect on any riparian habitat or other sensitive natural	LS	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

SU – significant and unavoidable

NI – No Impact



<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service			
Impact 3.4-3: General Plan implementation could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	LS	<i>None Required</i>	LS
Impact 3.4-4: General Plan implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	LS	<i>None Required</i>	LS
Impact 3.4-5: The General Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	LS	<i>None Required</i>	LS
Impact 3.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan	LS	<i>None Required</i>	LS
CULTURAL AND TRIBAL RESOURCES			
Impact 3.5-1: General Plan implementation could cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5	LS	<i>None Required</i>	LS
Impact 3.5-2: Implementation of the General Plan could lead to the disturbance of any human	LS	<i>None Required</i>	LS

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

SU – significant and unavoidable

NI – No Impact

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
remains			
Impact 3.5-3: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency	LS	<i>None Required</i>	LS
GEOLOGY AND SOILS			
Impact 3.6-1: General Plan implementation has the potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides	LS	<i>None Required</i>	LS
Impact 3.6-2: General Plan implementation has the potential to result in substantial soil erosion or the loss of topsoil	LS	<i>None Required</i>	LS
Impact 3.6-3: General Plan implementation has the potential to result in development located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse	LS	<i>None Required</i>	LS
Impact 3.6-4: General Plan implementation has the potential to result in development on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or	LS	<i>None Required</i>	LS

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<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
property			
Impact 3.6-5: General Plan implementation does not have the potential to have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water	LS	<i>None Required</i>	LS
Impact 3.6-6: General Plan implementation has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	LS	<i>None Required</i>	LS
GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY			
Impact 3.7-1: General Plan implementation has the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No Additional feasible mitigation is available.</i>	SU
Impact 3.7-2: General Plan implementation has the potential to result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency	LS	<i>None Required</i>	LS
HAZARDS AND HAZARDOUS MATERIALS			
Impact 3.8-1: General Plan implementation has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the	LS	<i>None Required</i>	LS

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<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
release of hazardous materials into the environment			
Impact 3.8-2: General Plan implementation has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	LS	<i>None Required</i>	LS
Impact 3.8-3: General Plan implementation has the potential to have projects located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5	LS	<i>None Required</i>	LS
Impact 3.8-4: General Plan implementation is not located within an airport land use plan, two miles of a public airport or public use airport, and would not result in a safety hazard for people residing or working in the project area	LS	<i>None Required</i>	LS
Impact 3.8-5: General Plan implementation has the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	LS	<i>None Required</i>	LS
Impact 3.8-6: General Plan implementation has the potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires	LS	<i>None Required</i>	LS
HYDROLOGY AND WATER QUALITY			
Impact 3.9-1: The proposed Project has the potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality	LS	<i>None Required</i>	LS
Impact 3.9-2: The proposed Project has the potential to substantially deplete groundwater	LS	<i>None Required</i>	LS

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supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin			
Impact 3.9-3: The proposed Project would not alter the existing drainage pattern of the site or area, including the alteration of the course of a river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff	LS	<i>None Required</i>	LS
Impact 3.9-4: The proposed Project has the potential to, in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation	LS	<i>None Required</i>	LS
Impact 3.9-5: The proposed Project has the potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan	LS	<i>None Required</i>	LS
LAND USE, POPULATION AND HOUSING			
Impact 3.10-1: General Plan implementation would not physically divide an established community	LS	<i>None Required</i>	LS
Impact 3.10-2: General Plan implementation would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect	LS	<i>None Required</i>	LS
Impact 3.10-3: General Plan implementation would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through	LS	<i>None Required</i>	LS

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<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
extension of roads or other infrastructure)			
Impact 3.10-4: General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere	LS	<i>None Required</i>	LS
MINERAL RESOURCES			
Impact 3.11-1: General Plan implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state	LS	<i>None Required</i>	LS
Impact 3.11-2: General Plan implementation would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan	LS	<i>None Required</i>	LS
NOISE			
Impact 3.12-1: General Plan implementation may result in exposure to significant traffic noise sources	LS	<i>None Required</i>	LS
Impact 3.12-2: General Plan implementation may result in exposure to excessive railroad noise sources	LS	<i>None Required</i>	LS
Impact 3.12-3: Implementation of the General Plan could result in the generation of excessive stationary noise sources	LS	<i>None Required</i>	LS
Impact 3.12-4: General Plan implementation may result in an increase in construction noise sources	LS	<i>None Required</i>	LS
Impact 3.12-5: General Plan implementation may result in exposure to excessive aircraft noise sources	LS	<i>None Required</i>	LS
Impact 3.12-6: General Plan implementation	LS	<i>None Required</i>	LS

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may result in construction vibration			
PUBLIC SERVICES AND RECREATION			
Impact 3.13-1: General Plan implementation could result in adverse physical impacts on the environment associated with the need for new governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts	LS	<i>None Required</i>	LS
Impact 3.13-2: General Plan implementation may result in adverse physical impacts associated with the deterioration of existing parks and recreation facilities or the construction of new parks and recreation facilities	LS	<i>None Required</i>	LS

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TRANSPORTATION AND CIRCULATION			
Impact 3.14-1: General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.</i>	SU
Impact 3.14-2: General Plan implementation may conflict with a program, plan, policy, or ordinance addressing the circulation system, including transit, bicycle, and pedestrian facilities	LS	<i>None Required</i>	LS
Impact 3.14-3: General Plan implementation may increase hazards due to a design feature or incompatible uses	LS	<i>None Required</i>	LS
Impact 3.14-4: General Plan implementation may cause inadequate emergency access	LS	<i>None Required</i>	LS
UTILITIES AND SERVICE SYSTEMS			
Impact 3.15-1: General Plan implementation would result in sufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry and multiple dry years	LS	<i>None Required</i>	LS
Impact 3.15-2: General Plan implementation would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	LS	<i>None Required</i>	LS
Impact 3.15-3: General Plan implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments	LS	<i>None Required</i>	LS

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Impact 3.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects	LS	<i>None Required</i>	LS
Impact 3.15-5: General Plan implementation would not require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects	LS	<i>None Required</i>	LS
Impact 3.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure	LS	<i>None Required</i>	LS
WILDFIRES			
Impact 3.16-1: General Plan implementation could substantially impair an adopted emergency response plan or emergency evacuation plan	LS	<i>None Required</i>	LS
Impact 3.16-2: General Plan implementation would due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby exacerbate wildfire risks, or thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire	LS	<i>None Required</i>	LS
Impact 3.16-3: Require the installation or maintenance of associated infrastructure (such	LS	<i>None Required</i>	LS

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as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment			
Impact 3.16-4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes	LS	None Required	LS
OTHER CEQA-REQUIRED TOPICS			
Impact 4.1: Cumulative degradation of the existing visual character of the region	LS	None Required	LCC
Impact 4.2: Cumulative impact to agricultural lands and resources	PS	Minimized to the greatest extent feasible through General Plan Policies and Actions. No additional feasible mitigation is available.	CC and SU
Impact 4.3: Cumulative impact on the region's air quality	PS	Minimized to the greatest extent feasible through General Plan Policies and Actions. No additional feasible mitigation is available.	CC and SU
Impact 4.4: Cumulative loss of biological resources, including habitats and special status species	LS	None Required	LCC
Impact 4.5: Cumulative impacts on known and undiscovered cultural resources	LS	None Required	LCC
Impact 4.6: Cumulative impacts related to geology and soils	LS	None Required	LCC
Impact 4.7: Cumulative impacts related to greenhouse gases, climate change, and energy	PS	Minimized to the greatest extent feasible through General Plan Policies and Actions. No additional feasible mitigation is available.	CC and SU
Impact 4.8: Cumulative impacts related to hazardous materials and human health risks	LS	None Required	LCC
Impact 4.9: Cumulative impacts related to hydrology and water quality	LS	None Required	LCC
Impact 4.10: Cumulative impacts related to local land use, population, and housing	LS	None Required	LCC

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Impact 4.11: Cumulative impacts related to mineral resources	LS	<i>None Required</i>	LCC
Impact 4.12: Cumulative impacts related to noise	LS	<i>None Required</i>	LCC
Impact 4.13: Cumulative impacts to public services and recreation	LS	<i>None Required</i>	LCC
Impact 4.14: Cumulative impacts on the transportation network	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No additional feasible mitigation is available.</i>	CC and SU
Impact 4.15: Cumulative impacts related to utilities	LS	<i>None Required</i>	LCC
Impact 4.16: Cumulative impact related to wildfire	LS	<i>None Required</i>	LCC
Impact 4.17: Irreversible and adverse effects	PS	<i>Minimized to the greatest extent feasible through General Plan Policies and Actions. No additional feasible mitigation is available.</i>	SU

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## 1.1 INTRODUCTION

In 2021 the City of Red Bluff began a multi-year process to comprehensively update its existing General Plan. The City of Red Bluff's current General Plan was adopted in 1992 and has been periodically amended, including a recent update to the Housing Element in 2020 which covers the 2019-2024 housing cycle. State law requires every city and county in California to prepare and maintain a planning document called a general plan. A general plan is a "constitution" or "blueprint" for the future physical development of a county or city. As part of the Red Bluff General Plan Update process, a General Plan Existing Conditions Report was prepared to establish a baseline of existing conditions in the City.

The updated General Plan includes a framework of goals, policies, and actions that will guide the community toward its common vision. The General Plan is supported with a variety of maps, including a Land Use Map and Circulation Diagram.

## GENERAL PLAN UPDATE

### General Plan

The Red Bluff General Plan (General Plan, General Plan Update, or proposed project) is the overarching policy document that guides land use, housing, transportation, open space, public safety, community services, and other policy decisions throughout Red Bluff. The General Plan includes the elements and topics mandated by State law, to the extent that they are relevant locally. A copy of the Public Draft General Plan is located on the General Plan Update website, at [redbluff.generalplan.org](http://redbluff.generalplan.org).

The updated General Plan will guide the City's development and conservation through land use objectives and policy guidance. The City will implement the Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan, including subsequent project-level environmental review, as required under CEQA.

State law requires the City to adopt a comprehensive, long-term general plan for the physical development of its planning area. The Plan must include State required elements such as: land use, circulation, housing, conservation, open space, noise, and safety elements, as specified in Government Code Section 65302, to the extent that the issues identified by State law exist in the City's planning area.

The Red Bluff General Plan includes a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map (Figure 2.0-2).

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.

- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and don't necessarily require specific action on behalf of the City.
- An **action** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq. The General Plan is intended to reflect the desires and vision of residents, businesses, and City Council.

The following objectives are identified for the proposed update to the General Plan:

- Foster a sense of community unique to Red Bluff that celebrates the area's history, neighborhood connections, and family-friendly atmosphere;
- Support local businesses and provide opportunities for economic advancement;
- Attract and retain businesses and industries that provide high-quality jobs;
- Provide a range of high-quality housing options;
- Protect the City's natural and cultural resources;
- Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
- Address new requirements of State law; and
- Address emerging transportation, housing, and employment trends.

### **Existing Conditions Report**

The Existing Conditions Report takes a "snapshot" of current trends and conditions. It provides a detailed description of a wide range of topics within the city, such as demographic and economic conditions, land use, public facilities, and environmental resources. The Existing Conditions Report provides decision-makers, the public, and local agencies with context for making policy decisions. The Existing Conditions Report also provides the environmental setting and description contained within this Draft Environmental Impact Report (EIR).

### **Environmental Impact Report**

An EIR responds to the requirements of the California Environmental Quality Act (CEQA) as set forth in Sections 15126, 15175, and 15176 of the CEQA Guidelines. The Planning Commission and City Council will use the EIR during the General Plan Update process in order to understand the

potential environmental implications associated with implementing the General Plan. This EIR was prepared concurrently with the General Plan policy document in order to facilitate the development of a General Plan that is largely self-mitigating. In other words, as environmental impacts associated with the new General Plan were identified; policies and actions were incorporated into the General Plan policy document in order to reduce or avoid potential environmental impacts.

## 1.2 PURPOSE OF THE EIR

The City of Red Bluff, as lead agency, determined that the General Plan Update is a "project" within the meaning of CEQA. CEQA requires the preparation of an EIR prior to approving any project that may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

This Draft EIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of the Red Bluff General Plan. The Draft EIR also discusses alternatives to the General Plan, and proposes mitigation and other measures that will offset, minimize, or otherwise avoid potentially significant environmental impacts. This Draft EIR has been prepared in accordance with CEQA, California Resources Code Section 21000 et seq.; the Guidelines for the California Environmental Quality Act (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City of Red Bluff.

An EIR must disclose the expected direct and indirect environmental impacts associated with a project, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize significant environmental impacts of proposed development.

## 1.3 TYPE OF EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. Section 15168 states:

"A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

- 1) Geographically;
- 2) As logical parts in the chain of contemplated actions;
- 3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or

- 4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.”

The program-level analysis considers the broad environmental effects of the proposed project. This EIR will be used to evaluate subsequent projects and activities under the proposed project. This EIR is intended to provide the information and environmental analysis necessary to assist public agency decision-makers in considering approval of the proposed project, but not to the level of detail to consider approval of subsequent development projects that may occur after adoption of the General Plan.

Additional environmental review under CEQA may be required for subsequent projects and would be generally based on the subsequent project’s consistency with the General Plan and the analysis in this EIR, as required under CEQA. It may be determined that some future projects or infrastructure improvements may be exempt from environmental review. When individual subsequent projects or activities under the General Plan are proposed, the lead agency that would approve and/or implement the individual project will examine the projects or activities to determine whether their effects were adequately analyzed in this program EIR (CEQA Guidelines Section 15168). If the projects or activities would have no effects beyond those disclosed in this EIR, no further CEQA compliance would be required.

### 1.4 INTENDED USES OF THE EIR

The City of Red Bluff, as the lead agency, has prepared this EIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from adoption of the Red Bluff General Plan and subsequent implementation of projects consistent with the General Plan. The environmental review process enables interested parties to evaluate the proposed project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potential adverse impacts, and to consider a reasonable range of alternatives to the project. While CEQA requires that consideration be given to avoiding adverse environmental effects, the lead agency must balance adverse environmental effects against other public objectives, including the economic and social benefits of a project, in determining whether a project should be approved.

This EIR will be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the General Plan. Subsequent actions that may be associated with the General Plan are identified in Chapter 2.0, Project Description. This EIR may also be used by other agencies within County such as the Local Agency Formation Commission (LAFCo).

### 1.5 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

The term “Responsible Agency” includes all public agencies other than the Lead Agency that have discretionary approval power over the project or an aspect of the project (CEQA Guidelines Section 15381). For the purpose of CEQA, a “Trustee” agency has jurisdiction by law over natural resources



that are held in trust for the people of the State of California (CEQA Guidelines Section 15386). While no Responsible Agencies or Trustee Agencies are responsible for approvals associated with adoption of the Red Bluff General Plan, implementation of future projects within Red Bluff may require permits and approvals from such agencies, which may include the following:

- California Department of Fish and Wildlife (CDFW);
- California Department of Transportation (Caltrans);
- Regional Water Quality Control Board (RWQCB);
- U.S. Army Corps of Engineers (ACOE);
- U.S. Fish and Wildlife Service (USFWS);
- Tehama County Local Agency Formation Commission (LAFCO);
- Tehama County Air Pollution Control District (APCD); and
- Tehama County Airport Land Use Commission (ALUC).

## 1.6 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

### NOTICE OF PREPARATION

The City of Red Bluff circulated a Notice of Preparation (NOP) of an EIR for the proposed project on March 15, 2024 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held on April 3, 2024 at the City of Red Bluff City Hall Council Chambers. No public or agency comments on the NOP related to the EIR analysis were presented or submitted during the scoping meeting. However, during the 30-day public review period for the NOP, which ended on April 15, 2024, five written comment letters were received. A summary of the NOP comments is provided later in this chapter. The NOP and all comments received on the NOP are presented in Appendix A.

### DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project, description of the environmental setting, identification of the project's direct and indirect impacts on the environment and mitigation and minimizations measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City of Red Bluff will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the public review period.

## PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City of Red Bluff will provide a public notice of availability for the Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA requirements, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted in written form. All comments or questions regarding the Draft EIR should be addressed to:

Beth Lindauer-Community Development Director  
City of Red Bluff  
555 Washington St.  
Red Bluff, CA 96080  
Email [blindauer@cityofredbluff.org](mailto:blindauer@cityofredbluff.org).

## RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to both oral and written comments received during the public review period. The Final EIR may also include any additional information deemed relevant following review of the Draft EIR, and may include minor changes or corrections to the Draft EIR, if warranted.

## CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City of Red Bluff City Council will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete," the City Council may certify the Final EIR in accordance with CEQA. As set forth by CEQA Guidelines Section 15151, the standards of adequacy require an EIR to provide a sufficient degree of analysis to allow decisions to be made regarding the proposed project that intelligently take account of environmental consequences.

Upon review and consideration of the Final EIR, the City Council may take action to approve, revise, or deny the project. If the EIR determines that the project would result in significant adverse impacts to the environment that cannot be mitigated to less than significant levels, the City Council would be required to adopt a statement of overriding considerations as well as written findings in accordance with State CEQA Guidelines Sections 15091 and 15093. If additional mitigation measures are required (beyond the General Plan policies and actions that reduce potentially significant impacts, as identified throughout this EIR), a Mitigation Monitoring and Reporting Program (MMRP) would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment. The MMRP would be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

## 1.7 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, and any mitigation measures for any significant impacts, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The EIR prepared reviews environmental and planning documentation developed for the project, environmental and planning documentation prepared for recent projects located within the City of Red Bluff, and responses to the Notice of Preparation (NOP).

This Draft EIR is organized in the following manner:

### EXECUTIVE SUMMARY

The Executive Summary summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the project's environmental impacts and possible mitigation measures. This chapter identifies alternatives that reduce or avoid at least one significant environmental effect of the proposed project.

### CHAPTER 1.0 - INTRODUCTION

Chapter 1.0 briefly describes the proposed project, the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, identifies the scope and organization of the Draft EIR, and summarizes comments received on the NOP.

### CHAPTER 2.0 - PROJECT DESCRIPTION

Chapter 2.0 provides a detailed description of the proposed project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, subsequent projects and activities, and a list of related agency action requirements.

### CHAPTER 3.0 - ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addressing a topical area is organized as follows:

**Environmental Setting.** A description of the existing environment as it pertains to the topical area.

**Regulatory Setting.** A description of the regulatory environment that may be applicable to the project.

**Impacts and Mitigation Measures.** Identification of the thresholds of significance by which impacts are determined, a description of project-related impacts associated with the

environmental topic, identification of appropriate mitigation measures, and a conclusion as to the significance of each impact.

The following environmental topics are addressed in this section:

- Aesthetic Resources
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Geology, Soils, and Mineral Resources
- Greenhouse Gases, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities/Service Systems
- Wildfire

### CHAPTER 4.0 - OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative impacts, and significant and unavoidable environmental effects.

### CHAPTER 5.0 - ALTERNATIVES

Chapter 5.0 provides a comparative analysis between the merits of the proposed project and the selected alternatives. State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen any significant environmental effects of the project.

### CHAPTER 6.0 - REPORT PREPARERS

Chapter 6.0 lists all authors and agencies that assisted in the preparation of the Draft EIR, by name, title, and company or agency affiliation.

### APPENDICES

This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as technical material prepared to support the analysis.

## 1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received five comment letters on the NOP. Copies of these letters are provided in Appendix A of this Draft EIR, and are listed below:

- Native American Heritage Commission (March 18, 2024)
- Paskenta Band of Nomlaki Indians (April 2, 2024)
- Department of Fish and Wildlife (April 15, 2024)
- Department of Toxic Substances Control (April 5, 2024)
- Jessica Chew (March 13, 2024)

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## 2.1 BACKGROUND AND OVERVIEW

### STATE GENERAL PLAN LAW

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California Government Code Section 65300 et seq. requires all counties and cities to prepare and maintain a general plan for the long-term growth, development, and management of the land within the jurisdiction's planning boundaries. The general plan acts as a "constitution" for development and is the jurisdiction's lead legal document in relation to growth, development, and resource management issues. Development regulations (e.g., zoning and subdivision standards) are required by law to be consistent with the general plan.

General plans must address a broad range of topics, including, at a minimum, the following mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. General plans must also address the topics of environmental justice and climate change and resiliency planning, either as separate elements or as part of other required elements. At the discretion of each jurisdiction, the general plan may combine these elements and may add optional elements relevant to the physical features of the jurisdiction.

The California Government Code also requires that a general plan be comprehensive, internally consistent, and plan for the long term. The general plan should be clearly written, easy to administer, and available to all those concerned with the community's development.

State planning and zoning law (California Government Code Section 65000 et seq.) establishes that zoning ordinances are required to be consistent with the general plan and any applicable specific plans, area plans, master plans, and other related planning documents. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure consistency between the revised land use designations in the general plan (if any) and the permitted uses or development standards of the zoning ordinance (Gov. Code Section 65860, subd. [c]).

### USING THE GENERAL PLAN

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The General Plan is used by the City Council, Planning Commission, and City staff on a regular basis to make decisions with direct and indirect land use implications. It also provides a framework for inter-jurisdictional coordination of planning efforts among officials and staff of the City and other government agencies such as the County and State and Federal agencies.

The General Plan is the basis for a variety of regulatory mechanisms and administrative procedures. California planning law requires consistency between the General Plan and its implementation programs. Implementation programs and regulatory systems of the General Plan include zoning and subdivision ordinances, capital improvement programs, specific plans, environmental impact procedures, and building and housing codes.

Over time, the City's population will change, its goals will be redefined, and the physical environment in which its residents live and work will be altered. In order for the General Plan to

be a useful document, it must be monitored and periodically revised to respond to and reflect changing conditions and needs. As such, a general plan should be comprehensively updated approximately every 10-15 years to reflect current conditions and emerging trends.

The City's General Plan should also be user-friendly. To this end, the Red Bluff General Plan Update will be divided into two primary documents: the Existing Conditions Report and the General Plan Goals and Policy document (or "General Plan").

The Existing Conditions Report provides a summary of a range of conditions in Red Bluff and provides the baseline framework for the development of the General Plan's goals, policies, and implementation programs.

The General Plan Goals and Policies document is the essence of the General Plan. It contains the goals and policies that will guide future decisions within the City. It also identifies a full set of implementation programs that will ensure the goals and policies in the General Plan are carried out.

## GENERAL PLAN UPDATE PROCESS

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The City of Red Bluff's current General Plan was adopted in 1992 and has been periodically amended, including a recent update to the Housing Element in 2020 which covers the 2019-2024 housing cycle.

The process to update the General Plan began in 2021 and is scheduled to be completed with the adoption of the updated General Plan by the City Council in late 2024. The General Plan Update (General Plan Update or proposed General Plan) was developed with community input and reflects the community's vision for Red Bluff. A summary of the community outreach and public participation process is provided below.

### **Community Vision Workshop**

The City hosted a Community Visioning Workshop in November 2021. The Workshop included a brief overview of California Planning Law, the steps and process to update the Red Bluff General Plan, including its context and applicability to local decision making, and background information on the evening's topics. A series of facilitated activities were conducted to solicit input on key topics or ideas related to community challenges, priorities, land use considerations, and other relevant issues. The topics explored in each Workshop, along with summaries of what we heard from the community, are summarized the Outreach Summary Report available of the project website: [redbluff.generalplan.org](http://redbluff.generalplan.org).

### **Stakeholders Survey**

The City identified a variety of community stakeholders and asked them to provide specific feedback to the City as part of the City's efforts to comprehensively update its General Plan. Stakeholders were provided with questionnaires focusing on either economic development or community services, and asked to provide written feedback. Responses received by the stakeholders, were used by the City to help craft goals and policies that will guide and shape the



future of the community. A summary of the stakeholder input is provided in the Outreach Summary Report available of the project website: [redbluff.generalplan.org](http://redbluff.generalplan.org).

### **City Council and Planning Commission Workshops**

In October of 2021, the General Plan Update project team met with the Planning Commission and City Council of Red Bluff to kickoff the General Plan Update and receive feedback and direction on key issues to address. Members of the General Plan project team introduced the Commission and Council to the General Plan, and asked participants to share their ideas for the future of Red Bluff. This included opportunities to provide insight to help shape the City's land use patterns, economic development strategies, and key priorities for the next 20 years. A second workshop was conducted in September 2023 to receive additional direction and feedback on the Land Use Map and key policy direction. Common themes expressed during the Planning Commission/City Council kickoff Workshop are summarized and presented in the Outreach Summary Report available of the project website: [redbluff.generalplan.org](http://redbluff.generalplan.org). Direction from the Planning Commission and City Council has been incorporated throughout the General Plan and Land Use Map.

### **Online Survey**

The City of Red Bluff facilitated an online survey during the initial stages of the update process. Survey responses were administered online via the City's website, the General Plan website, and the SurveyMonkey web platform. During the time period that the survey was active, there were 109 responses to the eighteen primary questions related to the General Plan update. The questions involved a wide range of response formats that are synthesized in the Outreach Summary Report available of the project website: [redbluff.generalplan.org](http://redbluff.generalplan.org). The survey responses provide insight into the demographics and opinions of the City of Red Bluff community members concerning goals and topics related to the update of the City's General Plan.

### **Scoping Meeting**

The City of Red Bluff circulated a Notice of Preparation (NOP) of an EIR for the proposed General Plan Update on March 15, 2024 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held at the Red Bluff City Hall Council Chambers on April 3, 2024 to provide an opportunity for agency representatives and the public to assist the City in determining the scope and content of the EIR.

### 2.2 PROJECT LOCATION

#### REGIONAL SETTING

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The City of Red Bluff was incorporated in 1876 and is within the central portion of Tehama County. The City is located within the northern Central Valley along the Sacramento River and I-5 corridors. Figure-2.0-1 depicts the regional location of Red Bluff.

#### ENVIRONMENTAL IMPACT REPORT STUDY AREA

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There are two key boundary lines addressed by the General Plan, which make up the study area for the General Plan EIR. These include the City Limits, and the Sphere of Influence (SOI), as shown on Figure 2.0-2 and described below.

**City Limits:** The city limits include the area within a City's corporate boundary, over which the City exercises land use authority and provides public services.

**Sphere of Influence:** A Sphere of Influence (SOI) is the probable physical boundary and service area of a local agency, as adopted by a Local Agency Formation Commission (LAFCO). An SOI includes both incorporated and unincorporated areas within which a city or special district will have primary responsibility for the provision of public facilities and services.

**Planning Area:** For the purposes of the Red Bluff General Plan Update, the Planning Area is defined as all lands within the Red Bluff City Limits and SOI.

### 2.3 PROJECT OBJECTIVES

The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq. The General Plan is intended to reflect the desires and vision of residents, businesses, and City Council.

The following objectives are identified for the proposed update to the General Plan:

- Foster a sense of community unique to Red Bluff that celebrates the area's history, neighborhood connections, and family-friendly atmosphere;
- Support local businesses and provide opportunities for economic advancement;
- Attract and retain businesses and industries that provide high-quality jobs;
- Provide a range of high-quality housing options;
- Protect the City's natural and cultural resources;
- Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
- Address new requirements of State law; and
- Address emerging transportation, housing, and employment trends.

## 2.4 DESCRIPTION OF PROPOSED GENERAL PLAN PROJECT

The City of Red Bluff is preparing a comprehensive update to its General Plan. The City of Red Bluff's current General Plan was adopted in 1992 and has been periodically amended, including a recent update to the Housing Element in 2020 which covers the 2019-2024 housing cycle.

The City's General Plan includes a broad goal policy framework that guides land use and planning decisions within the city. The overall purpose of the General Plan is to create a policy framework that articulates a vision for the City's long-term physical form and development, while preserving and enhancing the quality of life for residents and increasing opportunities for high-quality local job growth and housing options. The key components of the General Plan will include broad goals for the future of Red Bluff, and specific policies and actions that will help implement the stated goals.

The updated General Plan will guide the City's development and conservation through land use objectives and policy guidance. The City will implement the Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan, including subsequent project-level environmental review, as required under CEQA.

State law requires the City to adopt a comprehensive, long-term general plan for the physical development of its planning area. The Plan must include land use, circulation, housing, conservation, open space, noise, and safety elements, as specified in Government Code Section 65302, to the extent that the issues identified by State law exist in the City's planning area. The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq.

The Red Bluff General Plan includes a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map (Figure 2.0-2). The General Plan Update is expected to be complete in late 2024.

This EIR analyzes potential impacts to the environment associated with implementation and buildout of the proposed General Plan, which includes future development projects, infrastructure improvements, and the implementation of policies and actions included in the proposed General Plan. These proposed General Plan components are described in greater detail below.

### GENERAL PLAN ELEMENTS

The Red Bluff General Plan includes a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map (Figure 2.0-2).

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and

the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and don't necessarily require specific action on behalf of the City.

- An **action** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

The State requires that the General Plan contain mandatory elements: Land Use, Circulation, Housing, Open Space, Noise, Safety, and Conservation, as well as address issues related to climate adaptation and resiliency planning and environmental justice, either as separate Elements or as components of the required Element framework. The Plan includes all of the State-mandated elements, as well as an optional economic development element, and an Implementation chapter. Below includes a brief description of each element:

- The **Land Use Element** designates the general distribution and intensity of residential, commercial, industrial, open space, public/semi-public, and other categories of public and private land uses, and addressed issues such as environmental justice. The Land Use Element includes the Land Use Map, which identifies land use designations for each parcel in the city limits and Planning Area (Figure 2.0-2).
- The **Circulation Element** correlates closely with the Land Use Element and identifies the general locations and extent of existing and proposed major thoroughfares, transportation routes, and alternative transportation facilities necessary to support a multi-modal transportation system. This element is intended to facilitate mobility of people and goods throughout Red Bluff by a variety of transportation modes, including bicycle, pedestrian, and transit.
- The **Conservation and Open Space Element** addresses conservation topics including: development and use of natural resources, and protections for riparian environments, native plant and animal species, soils, cultural/historical resources, air quality, and opportunities for energy conservation.
- The **Safety Element** provides the framework to reduce risks associated with a range of environmental and human-caused hazards that may pose a risk to life and property in Red Bluff. This element addresses hazards such as fires, geologic hazards, as well as hazardous materials, climate resiliency and adaptation.
- The **Noise Element** addresses noise-generating and noise-sensitive uses such as residences and schools. This element also addresses the required topics related to noise, including standards and policies to protect the community from the harmful and annoying effects of exposure to excessive noise levels. This element includes strategies to reduce land use conflicts that may result in exposure to unacceptable noise levels.

- The **Economic Development Element** is an optional General Plan Element designed to support and enhance the City's economy, through programs to create jobs and business opportunities, to help maintain the existing workforce, and to improve the business climate. The Economic Development Element seeks to sustain and diversify the economy, recognizing the importance of supporting local businesses while broadening and expanding the employment base and economic opportunities within the city.
- The **Implementation Element** identifies all of the action items and associated timing for implementation by various City departments or agencies during the life of the General Plan.
- The **Housing Element** has not been updated as part of the larger General Plan Update process.

## GOALS, POLICIES, AND ACTIONS

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Each element of the General Plan contains an introduction, several goals and related policies, and action items. The goals and policies provide guidance to the City on how to direct change, manage growth, and manage resources over the approximate 20-year life of the General Plan. The following provides a description of each and explains the relationship of each:

- A **goal** is the broadest statement of community values. It is a generalized ideal which provides a sense of direction for action and statement of the desired future conditions.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and require no specific action on behalf of the City.
- An **action** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

## GENERAL PLAN LAND USE MAP

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The proposed General Plan Land Use Map identifies land use designations for each parcel within the City Limits, and SOI. The proposed General Plan Land Use Map is included on Figure 2.0-2.

## GENERAL PLAN LAND USE DESIGNATIONS

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The Land Use Element of the proposed General Plan defines various land use designations by their allowable uses, minimum parcel sizes, and maximum development densities. The following describes the proposed land use designations for the General Plan. Table 2.0-1 shows the total acreage for each land use designation shown on the proposed Land Use Map.

## **Residential Land Use Designations**

### ***Residential – Low Density (R-L)***

The Residential – Low Density (R-L) designation is intended for lower density residential uses. Development in these areas is characterized by single- and two-family residential dwellings and may include other incidental uses such as agriculture and home occupations. This designation allows up to 10 dwelling units per gross acre.

### ***Residential – Medium Density (R-M)***

The Residential – Medium Density (R-M) designation is intended to allow for a mix of housing types at medium densities. Development in these areas is characterized by multiple-family residential dwellings such as townhouses, apartments, and similar buildings, and may include other compatible uses such as neighborhood-serving public and commercial uses. This designation allows for a density range of between 10 and 20 dwelling units per gross acre.

### ***Residential – High Density (R-H)***

The Residential – High Density (R-H) designation is intended to allow for higher density residential uses. This designation is most suitable in urbanized areas along principal transportation corridors that are served by infrastructure and community services. Development in these areas is characterized by multiple-family residential dwellings such as townhouses, apartments, and similar buildings, and may include other compatible uses such as neighborhood serving public and commercial uses. This designation allows for a density range of between 20 and 30 dwelling units per gross acre.

## **Commercial, and Industrial Land Use Designations**

### ***Commercial (C)***

The Commercial (C) land use designation allows for a variety of commercial and professional business uses, including general retail, service, and office uses. Other uses that are determined to be employment generators and compatible with commercial uses may also be allowed. Residential development, including live/work units, may be conditionally allowed within this designation, as long as the projects fall within the density ranges established under the Residential – Medium Density designation. Development on parcels located immediately adjacent to residential land uses shall be designed and conditioned to be compatible with residential uses and avoid nuisance impacts. Maximum FAR within the Commercial designation is up to 1.0. Parcel specific FAR's shall be consistent with Chapter 25 (Zoning) of the Red Bluff Municipal Code.

### ***Industrial (I)***

The Industrial (I) land use designation allows for a variety of manufacturing and light industrial activities. Development should encourage appropriate industrial/manufacturing uses that will be compatible with adjacent land uses and will not create adverse environmental impacts. Examples of uses which are considered appropriate under this designation include, but are not limited to: processing and manufacturing uses; warehousing and distribution; office and business parks; service and repair; equipment storage yards; and incidental retail uses. Other uses that are determined to be compatible with primary uses may also be allowed. Maximum FAR within the

Industrial designation is up to 0.7. Parcel specific FAR's shall be consistent with Chapter 25 (Zoning) of the Red Bluff Municipal Code.

## **Other Land Uses**

Along with residential, commercial, and industrial land uses, other land uses provide important amenities to City residents, and the surrounding community.

### **SPECIAL PURPOSE DESIGNATIONS**

#### ***Public Facility (PF)***

The Public Facility (PF) designation is intended for the development of public-serving facilities to meet public needs. Examples of uses which are considered appropriate under this designation include, but are not limited to, institutional, utility, educational, airport, cemetery, and other community services. Within Public Facility designated land in the vicinity of the Red Bluff Municipal Airport, other appropriate uses such as light industrial uses may be allowed, provided these uses do not interfere with airport operations and safety.

#### ***Open Space (OS)***

The Open Space (OS) designation is intended to provide for open space and protection of community resources. Development is discouraged within this designation; however, uses that are compatible with and oriented toward preserving open space may be allowed.

#### ***Open Space/Recreation (OS-R)***

The Open Space/Recreation (OS-R) designation is intended for parks and recreation facilities. In addition to publicly-owned parks and recreational facilities, uses within this designation may include privately-owned land providing commercial recreation services to the public.

## **Overlay Land Uses**

The overlay designations provide additional development requirements to properties located within the overlays beyond the requirements of the base or combined land use designation.

#### ***Downtown Overlay (DTO)***

The Downtown Overlay (DTO) is intended to provide opportunities for a mix of uses within the City's historic downtown core. The Downtown Overlay is designed to encourage economic investment and revitalization of the downtown core by promoting community-serving retail, office, and residential opportunities in a compact form that supports bicycle, pedestrian, and mass transit modes. The Downtown Overlay allows for a mixture of compatible land uses on a single site or within a single development project in a vertical or horizontal configuration, thereby providing an additional level of flexibility that builds upon and enhances the regulations of the underlying land use designation. All standards related to the underlying land use designation shall continue to apply.

**TABLE 2.0-1: ACREAGE BY LAND USE DESIGNATION IN THE PROPOSED LAND USE MAP – CITY LIMITS AND SOI**

Land Use	City Limits	SOI	Total
Commercial (C)	698	781	1,479
Industrial (I)	364	1,417	1,781
Open Space (OS)	--	57	57
Open Space/Recreation OS-R	86	141	226
Public Facility (PF)	1,056	37	1,093
Residential – Low Density (R-L)	1,504	4,336	5,839
Residential – Medium Density (R-M)	451	918	1,370
Residential – High Density (R-H)	--	--	--
Valley Floor Agriculture (VFA) <sup>1</sup>			
(County Designation)	--	699	699
Undesignated /Right-of-Way (ROW) <sup>1</sup>	--	44	44
<b>Grand Total</b>	<b>4,159</b>	<b>8,429</b>	<b>12,588</b>

1: PORTIONS OF THE CITY'S SOI HAVE NOT BEEN ASSIGNED A LAND USE DESIGNATION ON THE EXISTING GENERAL PLAN LAND USE MAP.

SOURCES: CALIFORNIA STATE UNIVERSITY, CHICO GIC; TEHAMA COUNTY. GIS LAND USE DATA FILE; DE NOVO PLANNING GROUP, 2024.



## 2.5 GENERAL PLAN BUILDOUT AND GROWTH PROJECTIONS

The EIR evaluates the anticipated development that could occur within the Planning Area if the City developed at the rates expected under the proposed General Plan. State General Plan law requires that the General Plan indicate the maximum densities and intensities permitted within the Land Use Plan. The Minimum and maximum allowable development on individual parcels of land is governed by these measures of density or intensity as described in the land use descriptions for each land use type.

While no specific development projects are proposed or would be approved as part of the General Plan Update, the General Plan will accommodate future growth in Red Bluff, including new businesses, expansion of existing businesses, and new residential uses. The Growth analysis assumes an approximately 20-year horizon, and 2045 is assumed to be the horizon year of the General Plan.

Table 2.0-2 below summarizes the range of growth, including residential units, and non-residential square footage that may be anticipated to occur under cumulative 2045 conditions. As shown in Table 2.0-2, by 2045 the General Plan would be anticipated to result in up to 1,267 new dwelling units accommodating an additional 3,092 residents, and an additional 1,396 jobs.

**TABLE 2.0-2: GROWTH PROJECTIONS - PROPOSED GENERAL PLAN LAND USE MAP**

	POPULATION	DWELLING UNITS	NONRESIDENTIAL SQUARE FOOTAGE	JOBS	JOBS PER HOUSING UNIT
<b>EXISTING CONDITIONS</b>					
	14,439	6,126	3,585,356	6,542	1.068
<b>NEW GROWTH POTENTIAL</b>					
General Plan – city limits and SOI	3,092	1,267	767,853	1,396	1.102
<b>TOTAL GROWTH: EXISTING PLUS NEW GROWTH POTENTIAL</b>					
General Plan – Cumulative (2045 )	17,531	7,393	4,353,209	7,938.10	1.074

SOURCES: COUNTY ASSESSOR 2023; CALIFORNIA DEPARTMENT OF FINANCE 2023; U.S CENSUS ONTheMAP; ESRI 2023, DE NOVO PLANNING GROUP 2024.

Growth projections should not be considered a precise prediction for growth, as the actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City's control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors. Additionally, it should be noted that historic growth rates have been much lower than the total growth allowed under the General Plan. Furthermore, it should be noted that the California Department of Finance (DoF), and Caltrans projections see long term reduced population through 2050 countywide. As such the growth assumed in Table 2.0-2 is considered a conservative estimate.

## 2.6 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

This EIR may be used for the following direct and indirect approvals and permits associated with adoption and implementation of the proposed project.

### CITY OF RED BLUFF

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The City of Red Bluff is the lead agency for the proposed Project. The proposed General Plan Update will be presented to the Planning Commission for review and recommendation and to the City Council for comment, review, and consideration for adoption. The City Council has the sole discretionary authority to approve and adopt the General Plan. In order to approve the proposed Project, the City Council would consider the following actions:

- Certification of the General Plan EIR;
- Adoption of required CEQA findings and Statement of Overriding Considerations for the above action;
- Adoption of a Mitigation Monitoring and Reporting Program; and
- Approval of the General Plan Update.

### SUBSEQUENT USE OF THE EIR

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This EIR provides a review of environmental effects associated with implementation of the proposed General Plan. When considering approval of subsequent activities under the proposed General Plan, the City of Red Bluff would utilize this EIR as the basis in determining potential environmental effects and the appropriate level of environmental review, if any, of a subsequent activity. Projects or activities successive to this EIR may include, but are not limited to, the following:

- Approval and funding of major projects and capital improvements;
- Future Specific Plan, Planned Unit Development, or Master Plan approvals;
- Annexations;
- Revisions to the Red Bluff Municipal Code and Zoning Ordinance;
- Development plan approvals, such as tentative subdivision maps, variances, conditional use permits, and other land use permits;
- Development Agreements;
- Property rezoning consistent with the General Plan;
- Future water and sewer rate programs, as well as nexus studies for Impact Fee programs;
- Permit issuances and other approvals necessary for public and private development projects; and
- Issuance of permits and other approvals necessary for implementation of the General Plan.

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## OTHER GOVERNMENTAL AGENCY APPROVALS

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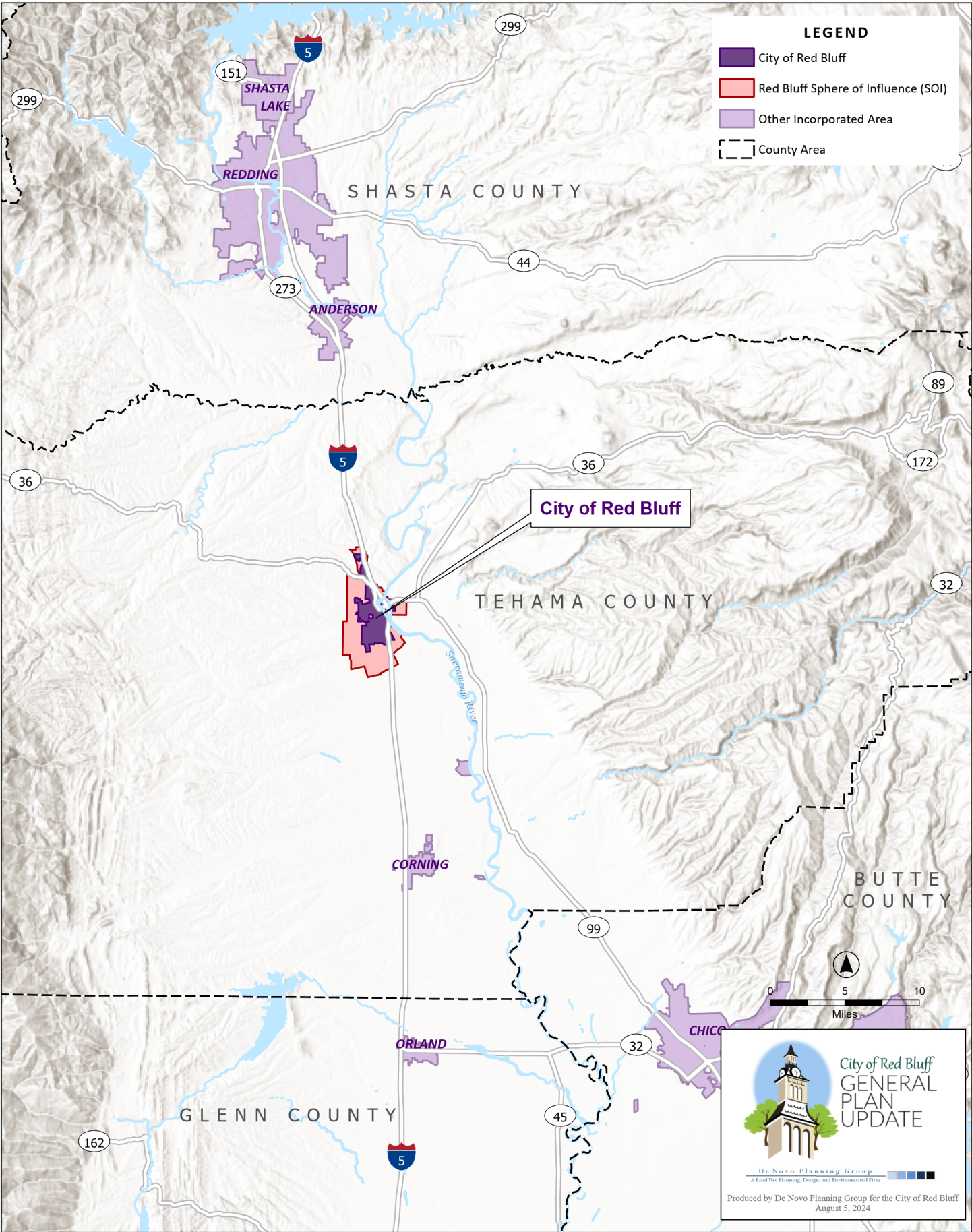
City approval of the proposed project would not require any actions or approvals by other public agencies. Several individual elements do have State review requirements. Examples of State review requirements include but are not limited to: Safety Element review by CALFIRE in certain areas of the State within State Responsibility Areas and areas within Very High Fire Hazard Severity Zones (VHFHSZs), and Housing Element Reviews by the State Department of Housing and Community Development (HCD).

However, subsequent projects and other actions to support implementation of the proposed project would require actions, including permits and approvals, by other public agencies that may include, but are not necessarily limited to:

- California Department of Fish and Wildlife (CDFW) approval of potential future streambed alteration agreements, pursuant to Fish and Game Code. Approval of any future potential take of State-listed wildlife and plant species covered under the California Endangered Species Act.
- California Department of Transportation (Caltrans) approval of projects and encroachment permits for projects affecting State highway facilities.
- Regional Water Quality Control Board (RWQCB) approval for National Pollution Discharge Elimination System compliance, including permits and Storm Water Pollution Prevention Plan approval and monitoring.
- Tehama County Air Pollution Control District (APCD) approval of construction-related air quality permits, Authority to Construct Permits, permits for stationary sources of air pollution and other district-related permitting.
- U.S. Fish and Wildlife Service (USFWS) approvals involving any future potential take of Federally listed wildlife and plant species and their habitats, pursuant to the Federal Endangered Species Act.
- Tehama Local Agency Formation Commission (LAFCO) approval of Sphere of Influence modifications and annexations.

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Figure 2.0-1. Regional Location

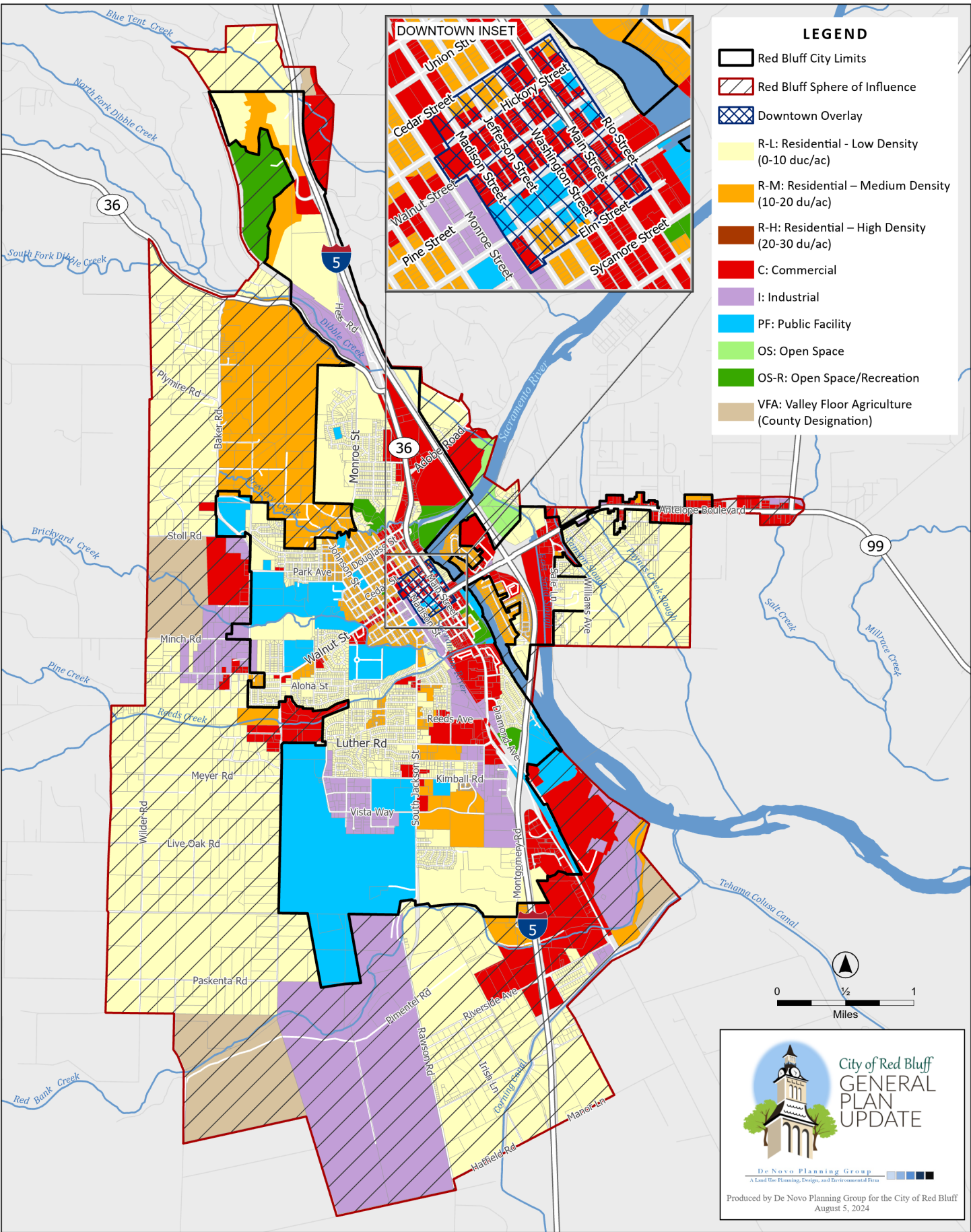


Sources: California State Geoportal

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Figure 2.0-2. General Plan Land Use



Sources: California State University, Chico Geographical Information Center; USGS National Hydrography Dataset; City of Red Bluff

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The City of Red Bluff possesses multiple scenic resources, and there are also scenic resources within the unincorporated areas of Tehama County. These resources enhance the quality of life for Red Bluff residents and provide for outdoor recreational uses. Landscapes can be defined as a combination of four visual elements: landforms, water, vegetation, and man-made structures. Scenic resource quality is an assessment of the uniqueness or desirability of a visual element.

This section was prepared based on existing reports and literature for Red Bluff and the surrounding areas in Tehama County. Additional sources of information included the California Department of Transportation's (Caltrans) Designated Scenic Route map for Tehama County.

This section provides a background discussion of the scenic highways and corridors, and natural scenic resources such as creeks, wildlife areas, and prominent visual features found in the Red Bluff Planning Area. This section is organized with an existing setting, regulatory setting, and impact analysis.

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

## CONCEPTS AND TERMINOLOGY

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The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area. Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area. Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Viewer sensitivity relates to the extent of the public's concern for a particular viewshed. These terms and criteria are described in detail below.

**Visual Character.** Natural and artificial landscape features contribute to the visual character of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with landscape settlements and development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary significantly seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features. The appearance of the landscape is described in terms of the dominance of each of these components.

**Visual Quality.** Visual quality is evaluated using the well-established approach to visual analysis adopted by the Federal Highway Administration, employing the concepts of vividness, intactness, and unity, which are described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.

- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, and in natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by visual sensitivity. High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

**Viewer Exposure and Sensitivity.** The measure of the quality of a view must be tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

The importance of a view is related, in part, to the position of the viewer to the resource; therefore, visibility and visual dominance of landscape elements depend on their placement within the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail). To identify the importance of views of a resource, a viewshed must be broken into distance zones of foreground, middle ground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in a viewshed may vary between different geographic region or types of terrain, the standard foreground zone is 0.25 to 0.5 mile from the viewer, the middle ground zone is from the foreground zone to 3 to 5 miles from the viewer, and the background zone is from the middle ground to infinity.

Visual sensitivity depends on the number and type of viewers and the frequency and duration of views. Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. For example, visual sensitivity is generally higher for views seen by people who are driving for pleasure, people engaging in recreational activities such as hiking, biking, or camping, and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work. Commuters and non-recreational travelers have generally fleeting views and tend to focus on commute traffic, not on surrounding scenery; therefore, they are generally considered to have low visual sensitivity. Residential viewers typically have extended viewing periods and are concerned about changes in the views from their homes; therefore, they are generally considered to have high visual sensitivity. Viewers using recreation trails and areas, scenic highways, and scenic overlooks are usually assessed as having high visual sensitivity.

Judgments of visual quality and viewer response must be made based on a regional frame of reference. The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each setting. For example, a small hill

may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

**Scenic Highway Corridor.** The area outside of a highway right-of-way that is generally visible to persons traveling on the highway.

**Scenic Highway/Scenic Route.** A highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of natural and human-made scenic resources and access or direct views to areas or scenes of exceptional beauty (including those of historic or cultural interest). The aesthetic values of scenic routes often are protected and enhanced by regulations governing the development of property or the placement of outdoor advertising. Until the mid-1980's, general plans in California were required to include a Scenic Highways Element.

**View Corridor.** A view corridor is a highway, road, trail, or other linear feature that offers travelers a vista of scenic areas within a city or county.

### 3.1.1 ENVIRONMENTAL SETTING

#### REGIONAL SCENIC RESOURCES

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Visual resources are generally classified into two categories: scenic views and scenic resources. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually mid-ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. Scenic resources are specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements.

Aesthetically significant features occur in a diverse array of environments within the region, ranging in character from urban centers to rural agricultural lands to natural water bodies. Features of the built environment that may also have visual significance include individual or groups of structures that are distinctive due to their aesthetic, historical, social, or cultural significance or characteristics. Examples of the visually significant built environment may include bridges or overpasses, architecturally appealing buildings or groups of buildings, landscaped freeways, and a location where a historic event occurred.

#### SCENIC HIGHWAYS AND CORRIDORS

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Scenic highways and corridors make major contributions to the quality of life enjoyed by the residents of a region. The development of community pride, the enhancement of property values, and the protection of aesthetically-pleasing open spaces reflecting a preference for the local lifestyle are all ways in which scenic corridors are valuable to residents. Scenic highways and corridors can also strengthen the tourist industry. For many visitors, highway corridors will provide their only experience of the region. Enhancement and protection of these corridors ensures that

the tourist experience continues to be a positive one and, consequently, provides support for the tourist-related activities of the region's economy.

### **Scenic Highways**

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

No highway sections in Tehama County are listed as an officially Designated Scenic Highway by the Caltrans Scenic Highway Mapping System. The segment of State Route 89 in the eastern portion of the county is listed "eligible" but is not currently officially designated. This route traverses the Sierra Nevada Mountains to the east. The City of Red Bluff is not visible from this roadway segment.

### **Scenic Corridors**

A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic. It is the visual quality of the man-made or natural environments within a scenic corridor that are responsible for its scenic value. Commonly, the physical limits of a scenic corridor are broken down into foreground views (zero to one quarter mile) and distant views (over one quarter mile). In addition to distinct foreground and distant views, the visual quality of a scenic corridor is defined by special features, which include:

- Focal points - prominent natural or man-made features which immediately catch the eye.
- Transition areas - locations where the visual environment changes dramatically.
- Gateways - locations which mark the entrance to a community or geographic area.

The City of Red Bluff General Plan does not specifically designate any scenic corridors within the city. However, it does mention a variety of aesthetics and cultural resources to the community. The principal natural aesthetic resources of the city lie in its river and creek corridors, oak woodland and chaparral covered hills. These provide an open space resource for visual enjoyment and recreational pursuits and are essential to maintain the rural, open and small town character of the community. Urban trees and tree landscaping programs in residential, commercial, urban stream and industrial areas are important to restoring the historic wooded and small town scale aesthetics in the city. Additionally, surrounding agriculture uses also provide for visual relief from more developed areas.

### **Other Scenic Resources Areas**

The City of Red Bluff General Plan does not specifically designate any scenic viewsheds within the city. The existing Red Bluff General Plan does however note the surrounding county's scenic environmental resources including the Sacramento River environment.

**Water Resources:** Water resources are important visual resources that draw tourists to the area for recreational opportunities, provide critical habitat, and provide for scenic areas within and surrounding urban areas. The most visually significant water body in the region is the Sacramento River. The Sacramento River runs north-south through the Central Tehama County, forming its eastern boundary on its way to the Delta and San Francisco Bay. The Sacramento River is the primary source of surface irrigation water in the County. The City is situated in the northern Sacramento Valley along the Sacramento River and is primarily comprised of riparian, oak woodland and grassland habitats. The Sacramento River fosters a rich biological mosaic, comprising of numerous diverse ecosystems. The Sacramento River area includes many visual resources and features including riparian forest, wetlands, and woodlands providing very diverse nature viewing experiences.

**Agricultural Resources:** Much of the undeveloped land within the City Limits, SOI, and areas surrounding the urbanized portion of Red Bluff is predominantly farmland, including alfalfa, orchard, row crops, and pasture. Agricultural lands have become important visual resources that contribute to the community identity of Red Bluff, surrounding areas, and the Valley Region. Agricultural lands provide for visual relief from urbanized areas and act as community separators to nearby developed uses and areas.

**Downtown Red Bluff:** Historic buildings and features located throughout the planning area provide for the visual quality of the city and surrounding areas. These include historic buildings, and the downtown core, as well as features such as the Cone & Kimball Plaza clock tower. As described in Chapter 3.5 (cultural Resources) eighteen buildings and structures within the City of Red Bluff Study Area are identified on the Tehama County Built Environment Resources Directory as historic.

## LIGHT AND GLARE

During the day, sunlight reflecting from structures is a primary source of glare, while nighttime light and glare can be divided into both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, interior lighting, decorative landscape lighting, and streetlights. The principal mobile source of nighttime light and glare is vehicle headlight illumination. This ambient light environment can be accentuated during periods of low clouds or fog.

The variety of urban land uses in the Planning Area are the main source of daytime and nighttime light and glare. They are typified by single and multi-family residences, commercial structures, industrial areas, and streetlights. These areas and their associated human activities (inclusive of vehicular traffic) characterize the existing light and glare environment present during daytime and nighttime hours in the urbanized portions of the Planning Area. Current lighting conditions in the City of Red Bluff are related to the development conditions within the City. The city is developed both east and west of Interstate 5, which runs through the city from north to south.

At nighttime, the City of Red Bluff has areas with distinct lighting. The central business district has a generally high ambient light level, with the outlying areas of the city consisting of lower ambient

levels of nighttime lighting. Sky glow is the effect created by light reflecting into the night sky. Sky glow is of particular concern in areas surrounding observatories, where darker night sky conditions are necessary, but is also of concern in more rural or natural areas where a darker night sky is either the norm or is important to wildlife. Due to the more urban nature of the city limits, a number of existing light sources affect residential areas and illuminate the night sky. Isolating impacts of particular sources of light or glare is therefore not appropriate or feasible for the project.

### 3.1.2 REGULATORY SETTING

#### STATE

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##### **Caltrans California Scenic Highway Program**

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. A list of California's scenic highways and map showing their locations may be obtained from the Caltrans Scenic Highway Coordinators. If a route is not included on a list of highways eligible for scenic highway designation in the Streets and Highways Code Section 263 et seq., it must be added before it can be considered for official designation. A highway may be designated scenic depending on the extent of the natural landscape that can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

#### LOCAL

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##### **City of Red Bluff Design Review Ordinance**

Chapter 7, Design Review, of the City Municipal Code contains the Design Review Ordinance with the purpose of recognizing the interdependence of land values and aesthetics, provide a method by which the city may implement this interdependence to its benefit and to the benefit of its individual citizens, preserve and enhance the beauty and environmental amenities of the city, and to promote and protect the safety, convenience, comfort, prosperity and general welfare of the citizens of the city.

##### **City of Red Bluff Trees and Shrubs Ordinance**

Chapter 23A, Trees and Shrubs, of the City Municipal Code contains several sections that provide a comprehensive plan for planting and maintenance of trees, plants and shrubs within the city. The purpose of this program is to establish rules and regulations relating to the planting, care, removal and maintenance of trees, plants and shrubs within or adjacent to public streets and rights-of-way, and heritage trees and mature native trees located within the city.

##### **City of Red Bluff Landscape Regulations**

Chapter 27, Landscape Regulations, of the City Municipal Code contains several sections that regulate aesthetic or visual standards for landscape development in the City. The purpose of this chapter is to promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible and to establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects.

**City of Red Bluff Non-Historic Design Review Guidelines**

All projects within the city which require a permit from the Community Development Department must conform to the Non-Historic Design Review Guidelines. The design review process is separate from other procedures that might be necessary for a project such as use permit, rezoning, variance, or building permit. It is a process to review project design elements including architecture, aesthetics, landscaping, site planning, and harmony with the surrounding neighborhood.

The city does not dictate styles of architecture; however, the project must fit its location and function. In the design review process, attention is given to the aesthetics of a project as it might be judged by the passer-by, the neighbor, or the visitor to the project.

**City of Red Bluff Historic Design Review Guidelines**

Recognizing the need for action to improve and strengthen the economy of the downtown area, the City initiated the preparation of a Downtown Revitalization Plan (DRP). The plan was accepted by the City Council on November 16, 1999. Included among the many recommendations within the DRP was the preparation of specific "Design Guidelines" for the "Historic Commercial Core" and "Residentially Influenced areas" and adoption of "Unified Design Theme & Streetscape Improvements". The DRP also acknowledged the benefits afforded by the creation of historic zoning districts.

In June of 2000, the City Council adopted Ordinance 915. The ordinance was a re-write of the City Zoning Ordinance. It included two new zoning districts intended to preserve and enhance those unique historic neighborhoods; the "Historic Commercial" and "Historic Residential" zoning districts.

On September 5, 2000, the City Council adopted Resolution No. 37-2000. The resolution amended several "Objective" statements of the "Central Business Development" to address development and redevelopment in the downtown area. These amendments mirror recommendations in the DRP and legislatively confirm the City's interest in improving the appearance and economic conditions in the downtown area.

The intent of these guidelines is to influence design in order to protect, preserve, enhance and improve the unique architectural character of the historic commercial and residential neighborhoods of the Historic Commercial (H-C) and Historic Residential (H-R) zoning districts. Additionally, these guidelines are intended to enrich the pedestrian experience by creating an attractive "sense of place" downtown through streetscape enhancement and improvements such as landscaping, decorative pavement treatment, street trees, uniform street furniture and decorative streetlights.

The design review process is separate from other procedures that might be necessary for a project such as use permit, rezoning, variance, or building permit. It is a process to review project design



elements including architecture, aesthetics, landscaping, site planning, and harmony with the surrounding neighborhood.

In the design review process, attention is given to the aesthetics of a project as it might be judged by the passer-by, the neighbor, or the visitor to the project.

### 3.1.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### IMPACTS AND MITIGATION MEASURES

##### **Impact 3.1-1: General Plan implementation would not have a substantial adverse effect on a scenic vista (Less than Significant)**

While the Red Bluff Planning Area contains numerous areas and viewsheds with scenic value, there are no officially designated scenic vista points or viewsheds in the Planning Area. Significant visual resources in the Planning Area generally consist of its river and creek corridors, oak woodland, and chaparral-covered hills. These provide an open space resource for visual enjoyment and recreational pursuits.

Land uses allowed by the proposed Land Use Map could result in the conversion of agricultural lands to more development of commercial and residential uses. Additionally, in some undeveloped areas that are designated for urban uses, the general plan would also allow the development of these areas, thus changing the visual appearance of these areas.

As described in greater detail in the Project Description (Chapter 2.0), implementation of the proposed General Plan could lead to new and expanded development throughout the city. This new development may result in limited visual changes throughout the Planning Area, which may obstruct or interfere with views of visual features surrounding the Planning Area.

The implementation of the policies and actions contained in the General Plan listed below would ensure that new residential and non-residential development in the Planning Area is located in and

around existing developed areas and developed to be visually compatible with surrounding areas and nearby open space resources. As described previously there are no designated scenic vistas located within the Planning Area, or in areas that are highly visible from the Planning Area. Through the implementation of the policies and actions included in the General Plan, and listed below, implementation of the proposed General Plan would result in a **less than significant** impact.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.6: Maintain safe, attractive, pedestrian-friendly residential neighborhoods and districts with identifiable centers, consistent development patterns, and a range of public and private services.

LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

LU 3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

LU-3.6: In considering land use change requests, consider factors such as compatibility with surrounding uses in terms of privacy, noise, and changes in traffic levels.

LU 4.3: Promote high-quality design and site planning that is compatible with surrounding development, public spaces, and natural and historical resources.

LU 4.4: Require that development is located and designed to ensure compatibility among land uses, addressing such elements as building orientation and setbacks; buffering; visibility and privacy; automobile and truck access; impacts of noise, lighting, and glare; landscape quality; and aesthetics.

LU 4.5: Identify and preserve, as feasible, the significant features of a site, such as viewsheds, mature native and heritage trees, and rock outcroppings, during the design and development of new projects.

LU 5-1: Ensure all downtown projects are designed to be harmonious with other architectural styles contiguous or in proximity to the development.

#### LAND USE ELEMENT ACTIONS

*LU-1a: Update the City's Zoning Map as appropriate to ensure consistency with the land use designations shown on Figure LU-1.*

*LU-1b: Review the standards and zoning districts provided in the Zoning Ordinance (Chapter 25 of the Red Bluff Municipal Code) and update as appropriate to reflect Land Use designations and Land Use goals, policies, and actions included in this Plan.*

*LU-3a: Ensure all applicable projects are reviewed and processed per the California Environmental Quality Act (CEQA) Guidelines.*

*LU-3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU-3f: Establish performance and development standards within the commercial and industrial land use designations to allow for a wide range of uses, provided those uses will not adversely impact adjacent uses.*

*LU-3g: Consider establishing an incentive program to encourage non-conforming properties and uses to redevelop as conforming uses.*

*LU-4a: Conduct design review of all applicable projects and ensure consistency with the City's design guidelines; balance design considerations with surrounding development, public spaces, and natural and historical resources.*

#### **Impact 3.1-2: General Plan implementation would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway (Less than Significant)**

As discussed in the Existing Setting section, no adopted State scenic highway is located in Red Bluff. No highway sections in Tehama County are listed as an officially Designated Scenic Highway by the Caltrans Scenic Highway Mapping System. The segment of State Route 89 in the eastern portion of the county is listed as "eligible" but is not currently officially designated. However, this officially designated scenic highway does not provide views of Red Bluff or the immediate surrounding areas.

Given that no adopted State scenic highways are located within the Planning Area or provide views of the Planning Area, State scenic highway impacts associated with General Plan implementation would be **less than significant**.

**Impact 3.1-3: General Plan implementation would not, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality (Less than Significant)**

CEQA Guidelines Section 15387 defines an urbanized area as a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile

Section 21071 of the Public Resources Code states: “Urbanized area” means either of the following:

(a) An incorporated city that meets either of the following criteria:

(1) Has a population of at least 100,000 persons.

(2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.

In addition, to be considered an urbanized area according to CEQA, projects must also be within the boundary of a map prepared by the U.S. Bureau of the Census which designates the area as an urbanized area. For the 2020 Census, an urban area comprises a densely settled core of census blocks that meet minimum housing unit density and/or population density requirements. This includes adjacent territory containing non-residential urban land uses. To qualify as an urban area, the territory identified according to criteria must encompass at least 2,000 housing units or have a population of at least 5,000.

The project does not meet the CEQA Guidelines Section 15387, or Section 21071 of the Public Resources Code for urbanized areas.

Chapter 7, Design Review, of the City Municipal Code Ordinance, contains an ordinance with the purpose of recognizing the interdependence of land values and aesthetics, providing a method by which the city may implement this interdependence to its benefit and to the benefit of its individual citizens, preserve and enhance the beauty and environmental amenities of the city, and to promote and protect the safety, convenience, comfort, prosperity and general welfare of the citizens of the city.

Furthermore, policies in the proposed General Plan are intended to complement and further the regulating of scenic quality and resources, and any development occurring under the proposed General Plan would be subject to compliance with these guidelines, as well as the applicable regulations set forth in the Red Bluff Development Code. The proposed General Plan does not propose any development projects that would substantially degrade the existing visual character or quality of public views of the Sphere of Influence and its surroundings. Scenic quality-related impacts associated with General Plan implementation would thus be **less than significant**. In order to further ensure that future development allowed under the General Plan would not degrade the

existing visual character of the environment, the City has included policies and actions in the General Plan (as described under Impact 3.1-1) and included below.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### **LAND USE ELEMENT POLICIES**

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.2: Ensure consistency between the Land Use Map and implementing plans, ordinances, and regulations.

LU 1.6: Maintain safe, attractive, pedestrian-friendly residential neighborhoods and districts with identifiable centers, consistent development patterns, and a range of public and private services.

LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

LU 2.8: Participate in the review of adjoining County projects to the greatest extent possible in order to protect and enhance the City's neighborhoods.

LU 3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

LU-3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.

LU 4.3: Promote high-quality design and site planning that is compatible with surrounding development, public spaces, and natural and historical resources.

LU 4.4: Require that development is located and designed to ensure compatibility among land uses, addressing such elements as building orientation and setbacks; buffering; visibility and privacy; automobile and truck access; impacts of noise, lighting, and glare; landscape quality; and aesthetics.

LU 4.5: Identify and preserve, as feasible, the significant features of a site, such as viewsheds, mature native and heritage trees, and rock outcroppings, during the design and development of new projects.

LU 5-1: Ensure all downtown projects are designed to be harmonious with other architectural styles contiguous or in proximity to the development.

## LAND USE ELEMENT ACTIONS

*LU-1a: Update the City's Zoning Map as appropriate to ensure consistency with the land use designations shown on Figure LU-1.*

*LU-1b: Review the standards and zoning districts provided in the Zoning Ordinance (Chapter 25 of the Red Bluff Municipal Code) and update as appropriate to reflect Land Use designations and Land Use goals, policies, and actions included in this Plan.*

*LU-3a: Ensure all applicable projects are reviewed and processed per the California Environmental Quality Act (CEQA) Guidelines.*

*LU-3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU-3f: Establish performance and development standards within the commercial and industrial land use designations to allow for a wide range of uses, provided those uses will not adversely impact adjacent uses.*

*LU-3g: Consider establishing an incentive program to encourage non-conforming properties and uses to redevelop as conforming uses.*

*LU-4a: Conduct design review of all applicable projects and ensure consistency with the City's design guidelines; balance design considerations with surrounding development, public spaces, and natural and historical resources.*

**Impact 3.1-4: General Plan implementation could result in the creation of new sources of nighttime lighting and daytime glare (Less than Significant)**

The primary sources of daytime glare are generally sunlight reflecting from structures and other reflective surfaces and windows. Implementation of the proposed General Plan would introduce new sources of daytime glare into previously developed areas of the Planning Area and increase the amount of daytime glare in existing urbanized areas. The General Plan Land Use Map identifies areas for the future development of residential, commercial, industrial, recreational, and public uses. Such uses may utilize materials that produce glare. Daytime glare impacts would be most severe in the limited areas of the city that have not been previously disturbed, including the limited number of vacant parcels designated for urbanized land uses, and in areas that receive a high level of daily viewership.

The primary sources of nighttime lighting are generally exterior building lights, street lights, and vehicle headlights. Exterior lighting around commercial and industrial areas may be present throughout the night to facilitate extended employee work hours, ensure worker safety, and provide security lighting around structures and facilities. Nighttime lighting impacts would be most severe in areas that do not currently experience high levels of nighttime lighting. Increased

nighttime lighting can reduce the visibility of the night sky, resulting in fewer stars being visible and generally detracting from the quality of life in Red Bluff. This is considered a potential impact, which would be minimized through the implementation of the policies and actions listed below.

Future development would be required to be consistent with the General Plan. The proposed General Plan contains policies and actions, listed below, related to the regulation and reduction of daytime glare and nighttime lighting, including requirements that residential, commercial, and employment-generating projects are designed to address lighting and glare impacts. Through the implementation of these actions during the development review process, the City can ensure that adverse impacts associated with daytime glare and nighttime lighting are minimized and, thus would result in a **less than significant** impact.

#### LAND USE ELEMENT POLICIES

LU 3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

LU-3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU 4.4: Require that development is located and designed to ensure compatibility among land uses, addressing such elements as building orientation and setbacks; buffering; visibility and privacy; automobile and truck access; impacts of noise, lighting, and glare; landscape quality; and aesthetics.

#### LAND USE ELEMENT ACTIONS

*LU-3a: Ensure all applicable projects are reviewed and processed per the California Environmental Quality Act (CEQA) Guidelines.*

*LU-3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

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This section provides a background discussion of agricultural lands, agricultural resources, and forest/timber resources found in the Red Bluff Planning Area. This section is organized with an environmental setting, regulatory setting, and impact analysis.

No comments on this environmental topic were received during the NOP comment period.

## 3.2.1 ENVIRONMENTAL SETTING

### AGRICULTURAL RESOURCES

The Tehama County Crop & Livestock Report 2022 contains the following information relating to agriculture in the county.

The total gross value of Tehama County agricultural production in 2022 was \$226,818,200. This represents a decrease of 32% (\$106,245,600) from the value in 2021. Walnuts were Tehama County's top crop with an overall value of \$45,276,900. Fruit and nut crops continued to be the top-producing category, with a total value of \$121,070,900, which represents an overall decrease of 47% from 2021. Table 3.2-1 lists commodities in Tehama County in 2021 and 2022.

**TABLE 3.2-1: SUMMARY COMPARISON OF CROP VALUES**

PRODUCT TYPE	2021 Value in Dollars	2022 Value in Dollars	2021-2022 % Change
Fruit and Nut Crops	\$228,340,500	\$121,070,900	-47%
Field Crops	\$6,995,600	\$8,429,600	20%
Seed Crops	\$819,200	\$1,692,700	107%
Vegetable Crops	\$281,800	\$363,000	29%
Nursery Products	\$17,600,400	\$14,748,400	-16%
Livestock and Poultry	\$32,474,500	\$28,389,500	-13%
Livestock and Poultry Products	\$12,542,900	\$17,156,800	37%
Pasture and Range	\$14,032,000	\$14,010,300	0%
Apiary Products and Services	\$19,976,900	\$20,957,000	5%
Total	\$333,063,800	\$226,818,200	-32%

SOURCE: TEHAMA COUNTY CROP & LIVESTOCK REPORT 2022.

### Agricultural Capability

The California Department of Conservation Farmland Mapping and Monitoring Program identifies lands that have agricultural value and maintains a statewide map of these lands called the Important Farmlands Inventory (IFI). IFI classifies land based on the productive capabilities of the land, rather than the mere presence of ideal soil conditions.

The suitability of soils for agricultural use is just one factor in determining the productive capabilities of land. Suitability is determined based on many characteristics, including fertility, slope, texture, drainage, depth, and salt content. A variety of classification systems have been devised by the state to categorize soil capabilities. The two most widely used systems are the Capability Classification System and the Storie Index. The Capability Classification System classifies soils from Class I to Class VIII based on their ability to support agriculture with Class I being the highest quality soil. The Storie Index considers other factors such as slope and texture to arrive at a rating. The IFI is in part based upon both of these two classification systems.

### Important Farmlands

The Farmland Mapping and Monitoring Program (FMMP) is a farmland classification system administered by the California Department of Conservation. Important farmland maps are based on the Land Inventory and Monitoring criteria, which classify a land's suitability for agricultural production based on the physical and chemical characteristics of soils and the actual land use. The system maps five categories of agricultural land, which include important farmlands (prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance) and grazing land, as well as three categories of non-agricultural land, which include urban and built-up land, other land, and water area. Table 3.2-2 identifies the important farmland types in the Planning Area. Farmlands within the City of Red Bluff and vicinity are shown in Figure 3.2-1.

**TABLE 3.2-2 IMPORTANT FARMLAND TYPES**

IMPORTANT FARMLAND CATEGORIES	CITY	SOI	GRAND TOTAL
Urban and Built-up Land (D)	3,080.69	1,058.64	4,139.33
Grazing Land (G)	1,154.33	2,727.33	3,881.66
Farmland of Local Importance (L)	378.13	3,355.39	3,733.52
Prime Farmland (P)	--	380.98	380.98
Farmland of Statewide Importance (S)	--	101.13	101.13
Unique Farmland (U)	--	19.93	19.93
Water (W)	28.49	93.41	121.90
Other Land (X)	391.19	1,173.38	1,564.57
<b>Grand Total</b>	<b>5,033.27</b>	<b>8,910.20</b>	<b>13,943.01</b>

SOURCE: FARMLAND MAPPING & MONITORING PROGRAM, 2020.

The State of California Department of Conservation Farmland Mapping and Monitoring Program and Tehama County GIS data were used to identify the farmland characteristics for the Planning Area. The farmland classifications within the plan area are described below.

**Urban and Built-up Land (D)** includes Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

**Grazing Land (G)** is land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

**Farmland of Local Importance (L)** is land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.

**Prime Farmland (P)** includes irrigated land with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality,

growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years.

**Farmland of Statewide Importance (S)** includes irrigated land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Land must have been used for production of irrigated crops at some time during the four years.

**Unique Farmland (U)** includes lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California.

**Water (W):** This category consists of bodies of water.

**Other Land (X)** consists Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

## Farmland Conservation

Data from the Department of Conservation indicates that approximately 834 acres of Prime Farmland in the County were added between 2016 and 2018, resulting in an existing total of 64,278 acres of Prime Farmland (3.6 percent of agricultural land). The remaining agricultural land is comprised of Farmland of Statewide Importance (1.1 percent), Unique Farmland (1.3 percent), Farmland of Local Importance (7.1 percent), and Grazing Land (86.9 percent). The types and acreages of farmland in 2016 and 2018 are shown below in Table 3.2-3.

**TABLE 3.2-3: TEHAMA COUNTY FARMLANDS SUMMARY AND CHANGE BY LAND USE CATEGORY**

LAND USE CATEGORY	2018-20 ACREAGE CHANGES					
	Total Acreage Inventoried		Acres Lost	Acres Gained	Total Acreage	Net Acreage
	2018	2020	(-)	(+)	Changed	Changed
Prime Farmland (P)	64,277	64,888	606	1,217	1,823	611
Farmland of Statewide Importance (S)	20,337	20,845	295	803	1,098	508
Unique Farmland (U)	22,931	24,045	120	1,234	1,354	1,114
Farmland of Local Importance (L)	125,717	124,209	2,519	1,011	3,530	-1,508
<b>Important Farmland Subtotal</b>	<b>233,262</b>	<b>233,987</b>	<b>3,540</b>	<b>4,265</b>	<b>7,805</b>	<b>725</b>
Grazing Land (G)	1,543,356	1,542,401	1,309	354	1,663	-955
<b>Agricultural Land Subtotal</b>	<b>1,776,618</b>	<b>1,776,388</b>	<b>4,849</b>	<b>4,619</b>	<b>9,468</b>	<b>-230</b>
Urban and Built-up Land (D)	14,056	13,934	263	141	404	-122
Other Land (X)	43,334	43,783	379	828	1,207	449
Water Area (W)	5,509	5,412	130	33	163	-97
<b>Total Area Inventoried</b>	<b>1,839,517</b>	<b>1,839,517</b>	<b>5,621</b>	<b>5,621</b>	<b>11,242</b>	<b>0</b>

SOURCE: CA DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCE PROTECTION TABLE A-44, 2018-2020.

## 3.2 AGRICULTURAL AND FOREST RESOURCES

### Soil Types

A Custom Soil Survey was completed for the Planning Area using the NRCS Web Soil Survey program. Table 3.2-4 identifies the soils found in the Planning Area. The NRCS Soils Map is provided in Figure 3.6-2.

**TABLE 3.2-4: SOIL TYPES - RED BLUFF**

<i>SOIL TYPES</i>	<i>CITY</i>	<i>SOI</i>	<i>GRAND TOTAL</i>
Arbuckle gravelly fine sandy loam, 0 to 2 percent slopes, MLRA 17	575.08	342.82	917.90
Arbuckle gravelly loam, 0 to 2 percent slopes, MLRA 17	109.88	423.56	533.45
Arbuckle gravelly loam, clayey substratum, 0 to 3 percent slopes	146.25	199.60	345.85
Arbuckle gravelly loam, clayey substratum, channeled	169.95	63.01	232.96
Arbuckle-Tehama complex, 0 to 8 percent slopes, MLRA 17	177.70	77.48	255.19
Clear Lake clay, 0 to 4 percent slopes, MLRA 17	21.67	8.19	29.86
Columbia complex, channeled	130.24	117.42	247.66
Columbia fine sandy loam, 0 to 3 percent slopes	426.34	233.57	659.91
Columbia fine sandy loam, 3 to 8 percent slopes	24.69	0.68	25.37
Columbia silt loam, 0 to 3 percent slopes	30.61	53.05	83.65
Corning gravelly loam, 0 to 6 percent slopes, MLRA 17	101.05	-	101.05
Corning-Newville gravelly loams, 3 to 10 percent slopes , eroded	365.26	346.46	711.72
Corning-Redding gravelly loams, 0 to 5 percent slopes	1346.52	469.44	1815.95
Cortina coarse sandy loam, MLRA 17	114.02	66.50	180.52
Cortina complex	131.41	68.76	200.17
Cortina gravelly fine sandy loam, moderately deep	-	8.66	8.66
Cortina very gravelly fine sandy loam	4.03	15.91	19.94
Dibble-Newville complex, 10 to 30 percent slopes	0.29	-	0.29
Gravel pits	6.35	-	6.35
Hillgate loam, 0 to 3 percent slopes	96.51	34.73	131.24
Hillgate loam, 3 to 8 percent slopes	8.12	-	8.12
Hillgate silt loam, 0 to 3 percent slopes	548.10	27.28	575.37
Kimball loam, 0 to 3 percent slopes	3.58	-	3.58
Maywood fine sandy loam, 0 to 3 percent slopes	25.03	149.26	174.29
Maywood fine sandy loam, moderately deep, 0 to 3 percent slopes	234.07	1.75	235.82
Maywood loam, 0 to 3 percent slopes	29.20		29.20
Maywood loam, high terrace, 0 to 3 percent slopes	86.05	38.76	124.81
Maywood silt loam, 0 to 3 percent slopes	150.49	-	150.49
Miscellaneous water	8.72	-	8.72
Molinos complex, channeled	1.76	-	1.76
Nacimiento-Newville complex, 3 to 10 percent slopes	144.60	0.37	144.98
Newville gravelly loam, 10 to 30 percent slopes	55.95	184.43	240.38
Newville gravelly loam, 10 to 30 percent slopes, eroded	666.60	200.17	866.77
Newville gravelly loam, 10 to 40 percent slopes, MLRA 17	60.76	55.82	116.58

<i>SOIL TYPES</i>	<i>CITY</i>	<i>SOI</i>	<i>GRAND TOTAL</i>
Newville gravelly loam, 3 to 10 percent slopes	361.60		361.60
Newville-Dibble complex, 10 to 30 percent slopes	12.10	71.71	83.81
Newville-Dibble complex, 30 to 50 percent slopes	110.81	61.38	172.19
Perkins gravelly loam, 0 to 3 percent slopes, MLRA 17	436.83	315.11	751.94
Perkins gravelly loam, 3 to 8 percent slopes	38.93	17.68	56.61
Red Bluff gravelly loam, 0 to 3 percent slopes	441.30	267.84	709.14
Red Bluff gravelly loam, hardpan substratum, 0 to 3 percent slopes	36.95	15.18	52.13
Red Bluff loam, 0 to 3 percent slopes, MLRA 17	88.74	264.41	353.15
Redding gravelly loam, 0 to 3 percent slopes, MLRA 17	14.75	153.20	167.95
Redding gravelly loam, 0 to 8 percent slopes, MLRA 17	41.93	240.79	282.72
Riverwash	263.68	45.09	308.78
Tehama gravelly loam, 0 to 3 percent slopes, MLRA 17	13.16		13.16
Tehama loam, 0 to 3 percent slopes, MLRA 17	112.54	38.51	151.05
Tehama loam, 3 to 8 percent slopes, MLRA 17	-	9.70	9.70
Tehama silt loam, 0 to 3 percent slopes, gravelly substratum, MLRA 17	605.51	141.49	747.00
Water	26.23	1.15	27.38
Water-Fluventic Haploxerepts-Oxyaquic Xerofluvents-Oxyaquic Xerorthents complex, 0 to 8 percent slopes, MLRA 17	147.82	137.00	284.82
Yolo silt loam, very gravelly substratum, 0 to 10 percent slopes, MLRA 17	12.08	-	12.08
Zamora clay loam, 0 to 3 percent slopes	4.90	-	4.90
Zamora loam, 0 to 3 percent slopes	138.98	65.37	204.35
<b>Grand Total</b>	<b>8909.74</b>	<b>5033.27</b>	<b>13943.01</b>

SOURCE: NRCS CUSTOM WEB SOIL SURVEY, 2024.

## Williamson Act Contracts

The Williamson Act authorizes each County to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and County that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 10-year term that is automatically renewed each year unless the property owner requests a non-renewal or the contract is cancelled. If the contract is cancelled the property owner is assessed a fee of up to 12.5 percent of the property value.

Table 3.2-5 shows lands within the Planning Area that are under a Williamson Act contract and the status of the contract. Figure 3.2-2 shows Williamson Act Contracts within the Planning Areas. As presented in Table 3.2-5, there are no Williamson Act Contracts within the City of Red Bluff. Within the Red Bluff SOI, Williamson Act Contracts exist on approximately 1,207.72 acres of Non-Prime Agriculture Land and approximately 88.05 are Prime Agriculture Land.

## 3.2 AGRICULTURAL AND FOREST RESOURCES

**TABLE 3.2-5: SUMMARY OF WILLIAMS ACT CONTRACTS**

CONTRACT TYPE	SOI ACRES	APN COUNT
Nonprime	1,095.13	26
Nonrenewal	24.54	2
Prime	88.05	2
<b>Grand Total</b>	<b>1,207.72</b>	<b>30</b>

SOURCE: SOURCE: WILLIAMSON ACT STATEWIDE 2023 DATABASE

### FOREST RESOURCES

Forest land is defined by Public Resources Code Section 12220(g), and includes *"land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."*

The northernmost portions of the Planning area surrounding Wilcox Oaks Golf Club include areas of Blue Oak Woodland.

Timber land is defined by Public Resources Code Section 4526, and means *"land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."*

There are no Timber lands or areas zoned for, or under current timber production located within the Red Bluff Planning Area.

### 3.2.2 REGULATORY SETTING

#### FEDERAL

##### Farmland Protection Policy Act

The Natural Resources Conservation Service (NRCS), an agency within the U.S. Department of Agriculture, is responsible for implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize Federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that Federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. The NRCS provides technical assistance to Federal agencies, state and local governments, tribes, and nonprofit organizations that desire to develop farmland protection programs and policies. The NRCS summarizes FPPA implementation in an annual report to Congress.

##### Farm and Ranch Lands Protection Program

The NRCS administers the Farm and Ranch Lands Protection Program (FRPP), a voluntary program aimed at keeping productive farmland in agricultural uses. Under the FRPP, the NRCS provides matching funds to state, local, or tribal government entities and nonprofit organizations with

existing farmland protection programs to purchase conservation easements. According to the 1996 Farm Bill, the goal of the program is to protect between 170,000 and 340,000 acres of farmland per year. Participating landowners agree not to convert the land to non-agricultural use and retain all rights to use the property for agriculture. A conservation plan must be developed for all lands enrolled based upon the standards contained in the NRCS Field Office Technical Guide. A minimum of 30 years is required for conservation easements and priority is given to applications with perpetual easements. The NRCS provides up to 50 percent of the fair market value of the easement being conserved (NRCS, 2004). To qualify for a conservation easement, farm or ranch land must meet several criteria. The land must be:

- Prime, Unique, or other productive soil, as defined by NRCS based on factors such as water moisture regimes, available water capacity, developed irrigation water supply, soil temperature range, acid-alkali balance, water table, soil sodium content, potential for flooding, erodibility, permeability rate, rock fragment content, and soil rooting depth;
- Included in a pending offer to be managed by a nonprofit organization, state, tribal, or local farmland protection program;
- Privately owned;
- Placed under a conservation plan;
- Large enough to sustain agricultural production;
- Accessible to markets for the crop that the land produces; and
- Surrounded by parcels of land that can support long-term agricultural production.

## STATE

### California Department of Conservation

The DOC administers and supports a number of programs, including the Williamson Act, the California Farmland Conservancy Program (CFCP), the Williamson Act Easement Exchange Program (WAEPP), and the FMMP. These programs are designed to preserve agricultural land and provide data on conversion of agricultural land to urban use. The DOC has authority for the approval of agreements entered into under the WAEPP. Key DOC tools available for land conservation planning are conservation grants, tax incentives to keep land in agriculture or open space, and farmland mapping and monitoring.

### Williamson Act

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 to encourage the preservation of the state's agricultural lands and to prevent their premature conversion to urban uses. In order to preserve these uses, the Act established an agricultural preserve contract procedure by which any county or city taxes landowners at a lower rate, using a scale based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. In return, the owners guarantee that these properties remain under agricultural production for a 10-year period. The contract is self-renewing; however, the landowner may notify the county or city at any time of the intent to withdraw the land from its preserve status. There are two means by which the landowner may withdraw the land from its contract preserve status.

First, the landowner may seek to cancel the contract. This takes the land out of the contract quickly with a minimal waiting period but the landowner pays a statutory penalty to the State. Second, the landowner may notice a non-renewal or seek a partial non-renewal of the contract. Land withdrawal through the non-renewal process involves a 9- or 10-year period (depending on the timing of the notice) of tax adjustment to full market value before protected open space can be converted to urban uses.

Williamson Act subvention payments to local governments have been suspended since the fiscal year 2009-10 due to the State's fiscal constraints. The Williamson Act contracts between landowners and local governments remain in force, regardless of the availability of subvention payments.

### **Farmland Security Zones**

A Farmland Security Zone is an area created within an agricultural preserve by a board of supervisors (board) or city council (council) upon request by a landowner or group of landowners. An agricultural preserve defines the boundary of an area within which a city or county will enter into contracts with landowners. The boundary is designated by resolution of the board or council having jurisdiction. Agricultural preserves must generally be at least 100 acres in size. Farmland Security Zone contracts offer landowners greater property tax reduction. Land restricted by a Farmland Security Zone contract is valued for property assessment purposes at 65% of its Williamson Act valuation or 65% of its Proposition 13 valuation, whichever is lower.

### **Forest Practices Rules**

The California Department of Forestry and Fire Protection (CalFire) implements the laws that regulate timber harvesting on privately-owned lands. These laws are contained in the Z'berg-Nejedly Forest Practice Act of 1973 which established a set of rules known as the Forest Practice Rules (FPRs) to be applied to forest management related activities (i.e., timber harvests, timberland conversions, fire hazard removal, etc.). They are intended to ensure that timber harvesting is conducted in a manner that will preserve and protect fish, wildlife, forests, and streams. Under the Forest Practice Act, a Timber Harvesting Plan (THP) is submitted to CalFire by the landowner outlining what timber is proposed to be harvested, harvesting method, and the steps that will be taken to prevent damage to the environment. If the landowner intends to convert timberland to non-timberland uses, such as a winery or vineyard, a Timberland Conversion Permit (TCP) is required in addition to the THP. It is CalFire's intent that a THP will not be approved which fails to adopt feasible mitigation measures or alternatives from the range of measures set out or provided for in the Forest Practice Rules, which would substantially lessen or avoid significant adverse environmental impacts resulting from timber harvest activities. THPs are required to be prepared by Registered Professional Foresters (RPFs) who are licensed to prepare these plans (CalFire, 2007). For projects involving TCPs, CalFire acts as lead agency under CEQA, and the county or city acts as a responsible agency.



## LOCAL

### **Local Agency Formation Commission Boundary Controls**

The Tehama Local Agency Formation Commission (LAFCO) is responsible for coordinating orderly amendments to local jurisdictional boundaries, including annexations. Annexation to the City of Red Bluff would be subject to LAFCO approval, and LAFCO's decision is governed by state law (Gov't Code § 56001 et seq.) and the local LAFCO Policies and Procedures. State law requires LAFCOs to consider agricultural land and open space preservation in all decisions related to expansion of urban development. LAFCO's definition of Prime agricultural land refers to California Government Code Section 56064.3, which is described above under the State Regulatory Setting.

### 3.2.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on agricultural and forest resources if it will:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland zoned Timberland Production (as defined in Public Resources Code section 51104 (g));
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

### IMPACTS AND MITIGATION MEASURES

#### **Impact 3.2-1: General Plan Implementation would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use (Significant and Unavoidable)**

As shown on Figure 3.2-1, the Planning Area is designated as having urban and built-up, grazing land, farmland of local importance, prime farmland, farmland of statewide importance, unique farmland, water, and other land types.

As shown previously in Table 3.2-2 (Important Farmland Types) there are no prime farmlands, farmland of statewide importance, or unique farmland located within the Red Bluff City Limits. Within the city limits there are areas designated as grazing lands (1,154.33 acres), and farmland of local importance (378.13 acres).

Lands within the Planning Area's SOI include: Grazing Land (2,727.33 acres), Farmland of Local Importance (3,355.39 acres), Prime Farmland (380.98 acres), Farmland of Statewide Importance (101.13 acres), and Unique Farmland (19.93 acres).

The General Plan includes areas within the SOI that are designated for agricultural uses under the Valley Floor Agricultural (VFA) land use designation totaling approximately 700 acres. As shown in Table 3.2-6 this includes areas that contain prime farmland (33.46 acres), farmland of statewide importance (3.37 acres), and unique farmland (3.43 acres).

The existing Tehama County General Plan land use designations within the SOI designates 1,590.44 acres of VFA within the Red Bluff SOI. In the Proposed General Plan, there are 698.79 acres of VFA, as 891.65 acres of the original VFA are proposed for Industrial uses in the southern portion of the Planning Area's SOI.

**TABLE 3.2-6: POTENTIAL PRIME FARMLAND, UNIQUE FARMLAND, OR FARMLAND OF STATEWIDE IMPORTANCE FARMLAND, LAND CONVERSION.**

LAND TYPE	ACRES DESIGNATED FOR AG USES (PROPOSED GP)	TOTAL PLANNING AREA ACRES	ACRES POTENTIALLY CONVERTED
Prime Farmland	33.46	380.98	347.52
Farmland of Statewide Importance	3.37	101.13	97.76
Unique Farmland	3.43	19.93	16.50
<b>Total</b>	<b>40.26</b>	<b>502.04</b>	<b>461.78</b>

SOURCE: FARMLAND MAPPING & MONITORING PROGRAM, 2020.

Additionally, as shown in Table 3.2-7, other agricultural lands within the City's SOI also are proposed to include the Valley Floor Agricultural designation under the proposed General Plan including: grazing land (164.67 acres), and farmland of local importance (486.90 acres).

**TABLE 3.2-7: GRAZING AND FARMLAND OF LOCAL IMPORTANCE WITHIN THE SOI DESIGNATED FOR AG USES**

LAND TYPE	ACRES DESIGNATED FOR AG USES BY THE PROPOSED GP
Grazing Land	164.67
Farmland of Local Importance	486.90
<b>Total</b>	<b>651.67</b>

*SOURCE: FARMLAND MAPPING & MONITORING PROGRAM, 2020.*

The proposed General Plan Land Use Map designates a range of planned development, residential, commercial, industrial, public/quasi-public, and other uses that could convert farmland to urban and built-up land. Therefore, the proposed Red Bluff General Plan has the potential to convert farmland to non-agricultural uses. However, the proposed General Plan emphasizes logical growth extending outward from existing development. The proposed General Plan includes policies, identified below, that are intended to reduce the impacts to farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. These include policies that encourage the development of vacant lands within City boundaries prior to the conversion of agricultural lands and ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations. Overall, the policies included in the proposed General Plan are intended to support the agricultural heritage of Red Bluff as development continues to occur within the Planning Area. Additionally, lands within the City's SOI will continue to be governed by Tehama County's rules and regulations for land uses until such time as land is annexed into the city.

The Red Bluff General Plan has taken a proactive policy approach towards policy solutions that limit impacts to agricultural land and operations throughout the Planning Area while continuing to allow for development under the land use map. The applicable policies that provide protection of agricultural lands and operation, and promote logical development patterns and aim to limit agricultural conflicts and are identified below. The policies listed below would minimize this impact, however, lands within the Planning Area including prime farmlands, unique farmlands, and farmlands of statewide importance may eventually be converted from agriculture uses to developed uses (as shown in Table 3.2-6) this impact would remain a **significant and unavoidable** impact.

## **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

### **LAND USE ELEMENT POLICIES**

LU 2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.

LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

LU 2.4: Limit development on prime agricultural soils, in areas not served by or adjacent to existing infrastructure, and within environmentally sensitive areas.

## 3.2 AGRICULTURAL AND FOREST RESOURCES

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### CONSERVATION ELEMENT POLICIES

COS 8.2: Discourage development on prime agricultural soils and support the continuation of agricultural operations on lands that are designated for development uses, until such time as new development is proposed for the land.

COS 9.1: Support the preservation of agricultural lands throughout Planning Area, consistent with the Land Use Map.

COS 9.2: Support the continuation of agricultural uses on lands designated for urban use, until urban development transitions are approved.

COS 9.5: Minimize conflicts between agricultural and urban land uses.

COS 9.6: Limit incompatible uses (i.e., schools, hospitals, and high density residential) near agricultural operations.

COS 9.7: As feasible, utilize buffers such as greenbelts, drainage features, parks, or other improved and maintained features in order to separate residential and other sensitive land uses, such as schools and hospitals, from agricultural lands and agricultural operations.

### CONSERVATION ELEMENT ACTIONS

*COS-9a Explore opportunities to update the Municipal Code to adopt a Right to Farm ordinance in order to protect farming uses from encroaching urban uses and to notify potential homebuyers of nearby agricultural operations.*

*COS-9b Consider impacts to agricultural lands and agricultural productivity when reviewing new development projects, amendments to the General Plan, and rezoning applications.*

*COS-9d Work with Tehama County to implement consistent policies for agricultural lands in Planning Area.*

*COS-9e Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including the conservation of agricultural land through consistent use of LAFCO policies, particularly those related to conversion of agricultural lands and establishment of adequate buffers between agricultural and non-agricultural uses, and the designation of a reasonable and logical Sphere of Influence (SOI) boundary for the City.*

### **Impact 3.2-2: General Plan Implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract (Significant and Unavoidable)**

No lands within the City are zoned for agricultural use. Areas outside the City's limit within the SOI include lands zoned for agricultural use by Tehama County. These include lands that are zoned as AG-2-Agricultural/Valley District by the Tehama County zoning map. The proposed General Plan does designate additional lands within the SOI for urban type uses including industrial uses in the southern portion of the SOI that have existing agricultural parcels zoned by the county for agricultural use. These areas include lands designated for grazing land, and lands that include farmland of local importance as designated by the Department of Conservation. The proposed

General Plan includes policies that are intended to reduce conflict between agricultural lands and future development as a result of the proposed General Plan. General Plan Policy COS 9.2 supports the continuation of agricultural uses on lands designated for urban use, until urban development transitions are approved. Policy COS 9.5 aims to minimize conflicts between agricultural and urban land uses, and Policy COS 9.6 calls on the City to Limit incompatible uses near agricultural operations, while Action COS-9b considers impacts to agricultural lands and agricultural productivity when reviewing new development projects, amendments to the General Plan, and rezoning applications.

Additionally, the Planning Area also includes lands that are under Williamson Act Contract's within the SOI. As presented in Table 3.2-5, there are 30 total parcels that include approximately 1,095.13 acres of Non-Prime Agriculture Land, 88.05 acres of Prime Agriculture Land, and 24.54 acres of Nonrenewal contract land outside the city limits and within the City's SOI.

As shown in Table 3.2-8, under the proposed General Plan Land Use Map, approximately 437.17 acres Williamson Act Contract land will remain designated by the General Plan for agricultural use and are not proposed to be designated an urban or non-agricultural use. However as described above, the implementation of the proposed General Plan would conflict with existing Williamson Act Contracts because it would result in non-agricultural uses being designated on the existing Williamson Act Contract lands. As a result, the proposed project would result in impacts on existing Williamson Act Contract land.

**TABLE 3.2-8: PROPOSED GENERAL PLAN AGRICULTURAL DESIGNATED WILLIAMSON ACT LANDS**

<b>Williamson Act Designation</b>	<b>WA Acres with VFA Land use Designation</b>
Nonprime	385.41
Prime	51.76
<b>Total</b>	<b>437.17</b>

Source: Williamson Act Statewide 2023 Database

The proposed General Plan includes policies and actions (as described above,) that are intended to reduce conflict between agricultural and Williamson Act lands with new development as a result of the proposed General Plan. These include policies that help explicitly minimize conflicts between agricultural and urban land uses. Additionally, it should be noted that many areas within the SOI that include Williamson Act lands are currently designated by the Tehama County for urban and developed uses and the impacts would remain substantially similar through implementation of the proposed General Plan. However, as existing Williamson act lands would include an urban designation under the proposed General Plan this impact would remain a **significant and unavoidable** impact.

## **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

### **CONSERVATION ELEMENT POLICIES**

COS 9.1: Support the preservation of agricultural lands throughout Planning Area, consistent with the Land Use Map.

COS 9.2: Support the continuation of agricultural uses on lands designated for urban use, until urban development transitions are approved.

## 3.2 AGRICULTURAL AND FOREST RESOURCES

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COS 9.5: Minimize conflicts between agricultural and urban land uses.

COS 9.6: Limit incompatible uses (i.e., schools, hospitals, and high density residential) near agricultural operations.

COS 9.7: As feasible, utilize buffers such as greenbelts, drainage features, parks, or other improved and maintained features in order to separate residential and other sensitive land uses, such as schools and hospitals, from agricultural lands and agricultural operations.

### CONSERVATION ELEMENT ACTIONS

*COS-9a Explore opportunities to update the Municipal Code to adopt a Right to Farm ordinance in order to protect farming uses from encroaching urban uses and to notify potential homebuyers of nearby agricultural operations.*

*COS-9b Consider impacts to agricultural lands and agricultural productivity when reviewing new development projects, amendments to the General Plan, and rezoning applications.*

*COS-9d Work with Tehama County to implement consistent policies for agricultural lands in Planning Area.*

*COS-9e Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including the conservation of agricultural land through consistent use of LAFCO policies, particularly those related to conversion of agricultural lands and establishment of adequate buffers between agricultural and non-agricultural uses, and the designation of a reasonable and logical Sphere of Influence (SOI) boundary for the City.*

### **Impact 3.2-3: General Plan implementation would not result in the loss of forest land or conversion of forest land to non-forest use (Less Than Significant)**

Timberland is defined in Public Resources Code Section 4526 as “Land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees.” Timberland production zones are areas that have been devoted to and used for growing and harvesting timber and compatible uses (Government Code Section 51104[g]).

Lands within Red Bluff are not considered timber-production lands, nor are they designated as timberlands. The Planning Area is not currently designated or zoned for timberland production or other forestry related uses and is not in a designated Timberland Production Zone.

Forestland is defined in Public Resources Code Section 12220(g) as “Land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

As shown on Figure 3.4-2 (Land Cover Types) the northernmost portions of the Planning area surrounding Wilcox Oaks Golf Club include areas of Blue Oak Woodlands. Within the Planning

Area, there are 1,081.3 acres of Blue Oak Woodland habitat (545.5 acres within the city limits and 535.8 acres within the SOI).

No specific development activities are proposed or would be approved through adoption of the General Plan update, however future development activities may include uses such as low and medium density residential and commercial type uses that could impact these areas if and when development occurs. It should be noted that these areas are currently designated for developed uses and these impacts would remain similar when compared to the Existing General Plan Land Use Map. Additionally, the proposed General Plan includes policies related to the conservation of trees. Specifically, Policy COS 3.3 call of the City to preserve existing mature trees and native vegetation where possible, and integrate regionally native trees and plant species into development and infrastructure projects where appropriate. Additionally, Action COS-3c requires all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.

The General Plan Update would not conflict with existing zoning for, or cause rezoning of timberland or impacts any lands zoned timber production, and would not directly convert forest lands. No development is proposed or would be approved through adoption of the proposed General Plan that would directly lead to the loss of forest resources. Additionally, policies and actions included in the proposed General Plan such as Action COS-3c would help to minimize impacts to forest land. Therefore, impacts to forest land under the General Plan update would be **less than significant**.

#### **GENERAL PLAN ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **CONSERVATION ELEMENT POLICIES**

COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.

COS 1.5: Protect Red Bluff's scenic resources, including river and creek corridors, riparian areas, oak woodland, hillside views, and other significant natural features, to the extent practical.

COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.

##### **CONSERVATION ELEMENT ACTIONS**

COS-3a: Continue to maintain and apply the City's Trees and Shrubs Regulations (Municipal Code Chapter 23A) to conserve trees and other foliage wherever practical.

COS-3b: Make available a list of plants and trees native to the region that are suitable for use in landscaping, consistent with the requirements of California's Model Water Efficient Landscape Ordinance. The plant and tree species should be drought-tolerant, and consideration should be

given to the suitability of the plant and tree species for use as habitat to native animals, birds, and insects.

COS-3c: Require all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.



**Impact 3.2-4: General Plan implementation would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use (Less than Significant)**

As discussed in Impact 3.2-1, future development in accordance with the proposed General Plan could result in the conversion of existing farmland to non-agricultural use. Future development in areas within the Planning Area may involve other changes in the existing environment that could result in impacts to farmland. However, as mentioned previously the proposed General Plan includes policies and actions that would reduce the impact of development resulting in the conversion of existing farmland. This includes policies which encourage agricultural operations land uses in areas and supporting the continuation of agricultural operations and activities on lands within the City and SOI. Adherence to the policies and actions stated above under Impact 3.2-1 would ensure that projects include measures to buffer project uses from adjacent agricultural uses and would reduce adverse effects on neighboring agricultural uses, while supporting ongoing agricultural operations in areas within and surrounding the city. No other impacts beyond those included under impacts 3.2-1 and 3.2-2 would result from project implementation. Additionally, no development is proposed or would be approved through adoption of the proposed General Plan. Therefore, the proposed General Plan would result in a **less than significant** impact involving other changes in the existing environment that could result in the conversion of farmland.

**GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS****LAND USE ELEMENT POLICIES**

LU 2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.

LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

LU 2.4: Limit development on prime agricultural soils, in areas not served by or adjacent to existing infrastructure, and within environmentally sensitive areas.

**CONSERVATION ELEMENT POLICIES**

COS 8.2: Discourage development on prime agricultural soils and support the continuation of agricultural operations on lands that are designated for development uses, until such time as new development is proposed for the land.

COS 9.1: Support the preservation of agricultural lands throughout Planning Area, consistent with the Land Use Map.

COS 9.2: Support the continuation of agricultural uses on lands designated for urban use, until urban development transitions are approved.

## 3.2 AGRICULTURAL AND FOREST RESOURCES

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COS 9.5: Minimize conflicts between agricultural and urban land uses.

COS 9.6: Limit incompatible uses (i.e., schools, hospitals, and high density residential) near agricultural operations.

COS 9.7: As feasible, utilize buffers such as greenbelts, drainage features, parks, or other improved and maintained features in order to separate residential and other sensitive land uses, such as schools and hospitals, from agricultural lands and agricultural operations.

### CONSERVATION ELEMENT ACTIONS

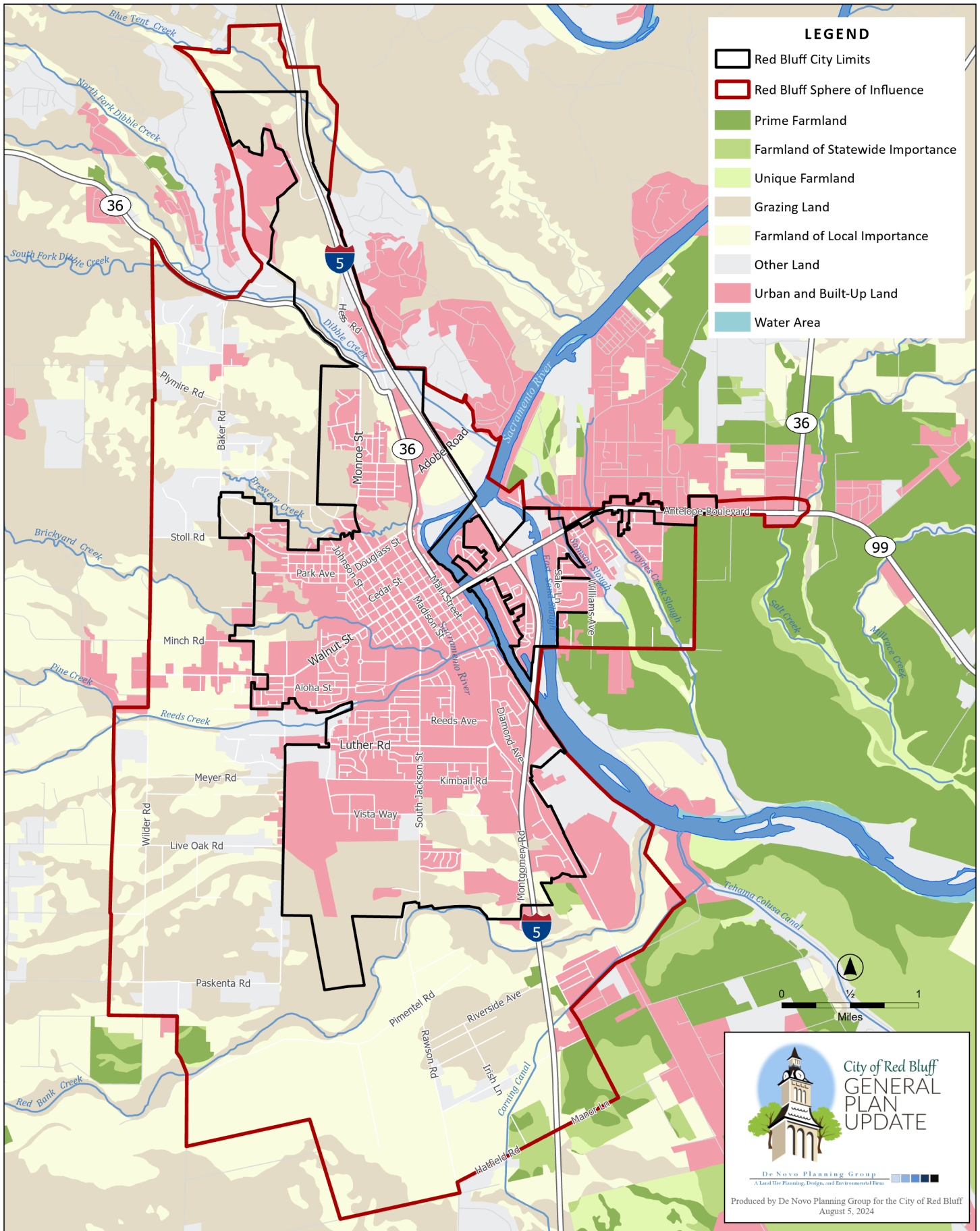
*COS-9a Explore opportunities to update the Municipal Code to adopt a Right to Farm ordinance in order to protect farming uses from encroaching urban uses and to notify potential homebuyers of nearby agricultural operations.*

*COS-9b Consider impacts to agricultural lands and agricultural productivity when reviewing new development projects, amendments to the General Plan, and rezoning applications.*

*COS-9d Work with Tehama County to implement consistent policies for agricultural lands in Planning Area.*

*COS-9e Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including the conservation of agricultural land through consistent use of LAFCO policies, particularly those related to conversion of agricultural lands and establishment of adequate buffers between agricultural and non-agricultural uses, and the designation of a reasonable and logical Sphere of Influence (SOI) boundary for the City.*

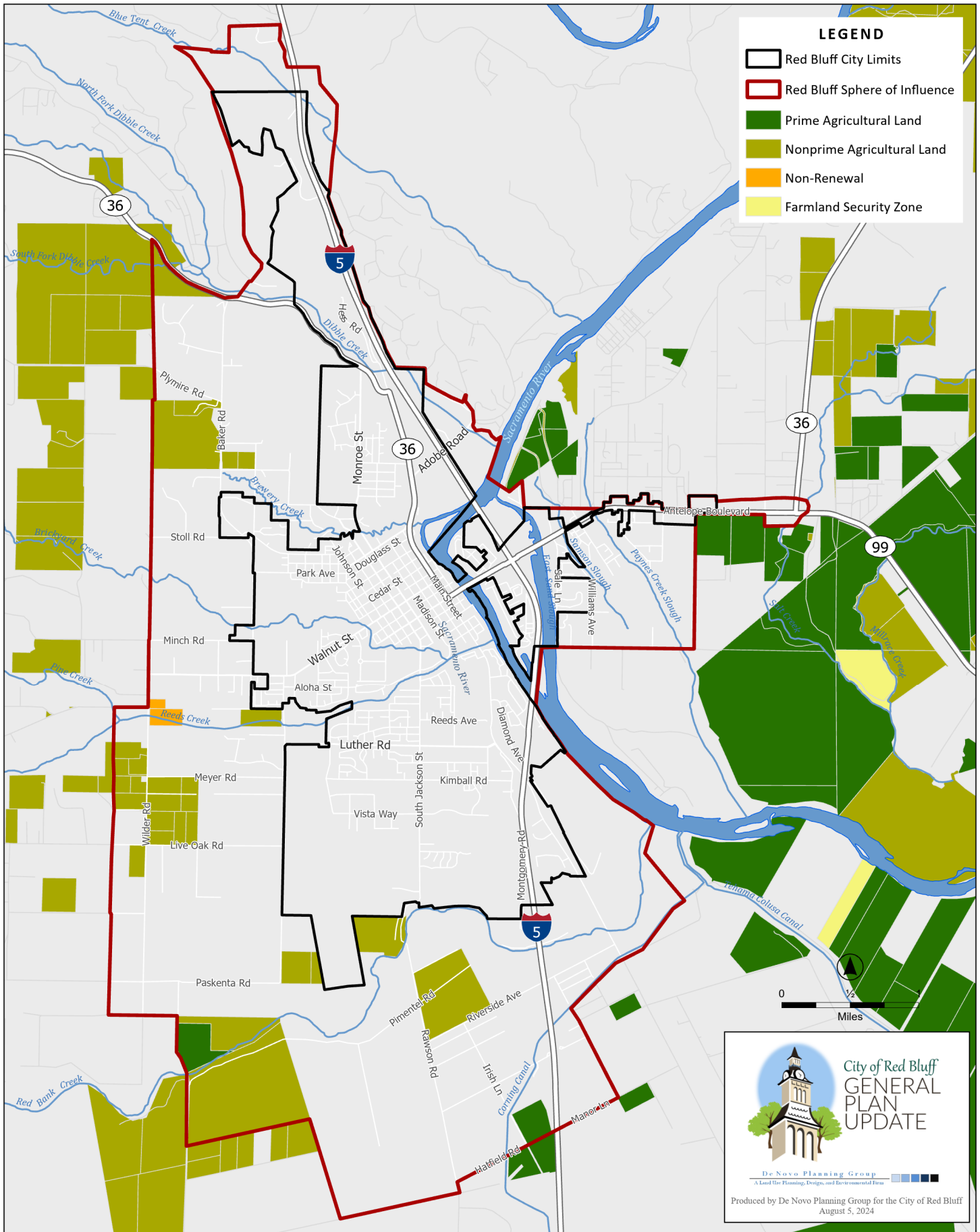
Figure 3.2-1. Farmlands



Sources: California State University, Chico Geographical Information Center; USGS National Hydrography Dataset; California Department of Conservation, Farmland Mapping and Monitoring Program, Tehama County 2020.

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Figure 3.2-2. Williamson Act Lands



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This section describes the regional air quality, current attainment status of the applicable air basin, local sensitive receptors, emission sources, and impacts that are likely to result from proposed project implementation.

No comments were received during the NOP comment period regarding this environmental topic.

### 3.3.1 ENVIRONMENTAL SETTING

#### **Sacramento Valley Air Basin (SVAB)**

The California air basins are shown as Figure 3.3-1. Tehama County is located within the Sacramento Valley Air Basin (SVAB). The SVAB is the northern half of California's Great Valley and is bordered on three sides (west, north, and east) by mountain ranges, with peaks in the eastern range above 9,000 feet. Figure 3.3-1 delineates the boundary of the SVAB. The SVAB is approximately 13,700 square miles and essentially a smooth valley floor with elevations ranging from 40 to 500 feet. The rolling valley is interrupted by the Sutter Buttes, an area of 80 square miles in northern Sutter County, which rise abruptly to more than 2,100 feet above the valley floor.

The SVAB consists of 11 counties and is split into two planning sections based on the degree of pollutant transport from one area to the other and the level of emissions within each area. The Tehama County area belongs to the Northern Sacramento Valley Air Basin (NSVAB), which is composed of the seven northern-most counties of the SVAB. These counties include Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba.

The SVAB has been categorized as "moderately" non-attainment for ozone and particulate matter under the state standards. The air basin of the Sacramento Valley is about 200 miles long in a north-south direction, and has a maximum width of about 150 miles, although the width of the valley floor only averages about 50 miles.

The pollution potential of the Sacramento Valley is very high. The surrounding topographic features restrict air movement through and out of the basin and, as a result, impede the dispersion of pollutants from the basin. Inversion layers are formed in the SVAB throughout the year. (An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below). Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the Valley is a frequent scene of photochemical pollution.

#### **Climate**

The SVAB has an inland Mediterranean climate, with mild, rainy winter weather from November through March and warm to hot, dry weather from May through September. Sacramento Valley temperatures range from 20 to 115 degrees Fahrenheit and the average annual rainfall is 20 inches.

Red Bluff has warm, dry days and relatively cool nights, with clear skies and limited rainfall. Winters are mild with light rains. In summer, high temperatures often exceed 100 degrees, with averages in the mid and high 90's. Summer low temperatures average in the high 50's.

#### **Air Movement**

The Sacramento Valley portion of the air basin forms a bowl, bounded on the west by the Coast Ranges, on the north by the Cascade Range, and on the east by the Sierra Nevada. These mountain ranges reach heights exceeding 7,000 feet above sea level. During summer, the wide, flat expanse of the Sacramento Valley provides an ideal environment for the formation of photochemical smog. Moreover, the prevailing winds in the Sacramento Valley blow from south to north, driven by the marine air traveling through the Carquinez Strait. These winds can transport pollutants from the broader Sacramento area and from the San Francisco Bay Area to the Northern Sacramento Valley Air Basin. The mountain ranges that surround the Northern Sacramento Valley Air Basin provide a physical barrier to continued movement of the air mass, significantly hindering the dispersal of pollutants.

Generally, the basin experiences moderate to very poor capability to disperse pollutants nearly 80 percent of the time. This is, in large measure, due to the relatively stable atmosphere which acts to suppress vertical air movement. Extremely stable atmospheric conditions referred to as "inversions" act as barriers to pollutants. In valley locations under 1,000 ft, they create a "lid" under which pollutants are trapped. Dust and other pollutants can become trapped within these inversion layers and will not disperse until atmospheric conditions become more unstable. This situation creates concentrations of pollutants at or near the ground surface which pose significant health risks for plants, animals, and people.

Inversions occur in the SVAB with great frequency in all seasons. The most stable inversions occur in late summer and fall. The summertime inversions are often the result of marine air pushing under an overlying warm air mass. These are termed "marine inversions" and are generally accompanied by brisk afternoon winds, which provide good air circulation.

In contrast, many autumn inversions are the result of warm air subsiding in a high-pressure cell where accompanying light winds do not provide adequate dispersion. Autumn inversions limit vertical mixing, creating a very stable layer of air with very light or calm winds. These inversions are usually present on clear cold nights during late fall and winter. In the morning, these ground based inversions are weakened and eventually eliminated by solar heating. As a result, they are strongest in the late night and early morning, when ground-level temperatures are coldest and solar radiation is low.

#### **Seasonal Pollution Variations**

Carbon monoxide, oxides of nitrogen, particulate matters, and lead particulate concentrations in the late fall and winter are highest when there is little interchange of air between the valley and the coast and when humidity is high following winter rains. This type of weather is associated with radiation fog, known as tule fog, when temperature inversions at ground level persist over the entire valley for several weeks and air movement is virtually absent.



Pollution potential in the Red Bluff area is relatively high due to the combination of air pollutant emissions sources, transport of pollutants into the area and meteorological conditions that are conducive to high levels of air pollution. Elevated levels of particulate matter (primarily very small particulates or PM<sub>10</sub>) and ground-level ozone are of most concern to regional air quality officials.

Local carbon monoxide “hot spots” are important to a lesser extent. Ground-level ozone, the principal component of smog, is not directly emitted into the atmosphere but is formed by the reaction of reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>) (known as ozone precursor pollutants) in the presence of strong sunlight. Ozone levels are generally highest during late spring through early fall, when weather conditions are conducive and emissions of the precursor pollutants are highest.

Surface-based inversions that form during late fall and winter nights cause localized air pollution problems (PM<sub>10</sub> and carbon monoxide) near the emission sources because of poor dispersion conditions. Emission sources are primarily from automobiles. Conditions are exacerbated during drought-year winters.

### **Sunlight**

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original or “primary” pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form “secondary” pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of the Sacramento Valley.

### **Temperature Inversions**

A temperature inversion is a reversal in the normal decrease of temperature as altitude increases. In most parts of the country, air near ground level is warmer than the air above it. Semi-permanent systems of high barometric pressure fronts establish themselves over the basin, deflecting low-pressure systems that might otherwise bring cleansing rain and winds. The height of the base of the inversion is known as the “mixing height” and controls the volume of air available for the mixing and dispersion of air pollutants.

The interrelationship of air pollutants and climatic factors are most critical on days of greatly reduced atmospheric ventilation. On days such as these, air pollutants accumulate because of the simultaneous occurrence of three favorable factors: low inversions, low maximum mixing heights and low wind speeds. Although these conditions may occur throughout the year, the months of July, August and September generally account for more than 40 percent of these occurrences.

The potential for high contaminant levels varies seasonally for many contaminants. During late spring, summer, and early fall, light winds, low mixing heights, and sunshine combine to produce conditions favorable for the maximum production of oxidants, mainly ozone. When strong surface inversions are formed on winter nights, especially during the hours before sunrise, coupled with

near-calm winds, carbon monoxide from automobile exhausts becomes highly concentrated. The highest yearly concentrations of carbon monoxide and oxides of nitrogen are measured during November, December and January.

#### CRITERIA POLLUTANTS

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All criteria pollutants can have human health and environmental effects at certain concentrations. The United States Environmental Protection Agency (U.S. EPA) uses six "criteria pollutants" as indicators of air quality and has established, for each of them, a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). In addition, California establishes ambient air quality standards, called California Ambient Air Quality Standards (CAAQS). California law does not require that the CAAQS be met by a specified date as is the case with NAAQS.

The ambient air quality standards for the six criteria pollutants (as shown in Table 3.3-1) are set to protect public health and the environment within an adequate margin of safety (as provided under Section 109 of the Federal Clean Air Act). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the six primary criteria pollutants generated by the Project are discussed below.

**Ozone (O<sub>3</sub>)** is a photochemical oxidant and the major component of smog. While O<sub>3</sub> in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O<sub>3</sub> at ground level are a major health and environmental concern. O<sub>3</sub> is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (ROG) and oxides of nitrogen (NO<sub>x</sub>) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O<sub>3</sub> levels occur typically during the warmer times of the year. Both ROG and NO<sub>x</sub> are emitted by transportation and industrial sources. ROG are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents. Relatedly, reactive organic compounds (ROG) are defined as the subset of ROG that are reactive enough to contribute substantially to atmospheric photochemistry.

The reactivity of O<sub>3</sub> causes health problems because it damages lung tissue, reduces lung function, and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O<sub>3</sub> not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O<sub>3</sub> for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. EPA, 2019a). The concentration of ozone at

which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. EPA, 2019b). The average background level of ozone in California and Nevada is approximately 48.3 parts per billion, which represents approximately 77 percent of the total ozone in the western region of the U.S. (NASA, 2015).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O<sub>3</sub> can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

**Carbon monoxide (CO)** is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels. Carbon monoxide is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects to ambient CO (CARB, 2019a).

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (U.S. EPA, 2016). Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels increases the risk of such incidences.

**Nitrogen oxides (NO<sub>x</sub>)** is a brownish, highly reactive gas that is present in all urban atmospheres. The main effect of increased NO<sub>2</sub> is the increased likelihood of respiratory problems. Under ambient conditions, NO<sub>2</sub> can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O<sub>3</sub>) and acid rain and may affect both terrestrial and aquatic ecosystems. Longer exposures to elevated concentrations of NO<sub>2</sub> may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO<sub>2</sub>.

The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO<sub>x</sub>). NO<sub>x</sub> plays a major role, together with ROG<sub>s</sub>, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> forms when fuel is burned at high temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

**Sulfur dioxide (SO<sub>2</sub>)** is one of the multiple gaseous oxidized sulfur species and is formed during the combustion of fuels containing sulfur, primarily coal and oil. The largest anthropogenic source of SO<sub>2</sub> emissions in the U.S. is fossil fuel combustion at electric utilities and other industrial facilities. SO<sub>2</sub> is also emitted from certain manufacturing processes and mobile sources, including locomotives, large ships, and construction equipment.

SO<sub>2</sub> affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children, and the elderly. SO<sub>2</sub> is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings, and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in national parks. Ambient SO<sub>2</sub> results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Short-term exposure to ambient SO<sub>2</sub> has been associated with various adverse health effects. Multiple human clinical studies, epidemiological studies, and toxicological studies support a causal relationship between short-term exposure to ambient SO<sub>2</sub> and respiratory morbidity. The observed health effects include decreased lung function, respiratory symptoms, and increased emergency department visits and hospitalizations for all respiratory causes. These studies further suggest that people with asthma are potentially susceptible or vulnerable to these health effects. In addition, SO<sub>2</sub> reacts with other air pollutants to form sulfate particles, which are constituents of fine particulate matter (PM<sub>2.5</sub>). Inhalation exposure to PM<sub>2.5</sub> has been associated with various cardiovascular and respiratory health effects (U.S. EPA, 2017). Increased ambient SO<sub>2</sub> levels would lead to increased risk of such effects.

SO<sub>2</sub> emissions that lead to high concentrations of SO<sub>2</sub> in the air generally also lead to the formation of other sulfur oxides (SO<sub>x</sub>). SO<sub>x</sub> can react with other compounds in the atmosphere to form small particles. These particles contribute to particulate matter (PM) pollution. Small particles may penetrate deeply into the lungs and in sufficient quantity can contribute to health problems.

**Particulate matter (PM)** includes dust, dirt, soot, smoke, and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires, and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO<sub>2</sub> and ROG<sub>s</sub> are also considered particulate matter. PM is generally categorized based on the diameter of the particulate matter: PM<sub>10</sub> is particulate matter 10 micrometers or less in diameter (known as respirable particulate matter), and PM<sub>2.5</sub> is particulate matter 2.5 micrometers or less in diameter (known as fine particulate matter).

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO<sub>2</sub>) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis, and premature death. Small particulate pollution causes health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.

Respirable particulate matter (PM<sub>10</sub>) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. Particulate matter is caused primarily by dust from grading and excavation activities, from agricultural activities (as created by soil preparation activities, fertilizer and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM<sub>10</sub> causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

PM<sub>2.5</sub> consists of fine particles, which are less than 2.5 microns in size. Like PM<sub>10</sub>, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM<sub>10</sub>, these particulates can increase the chance of respiratory disease, and cause lung damage and cancer. In 1997, the U.S. EPA created new Federal air quality standards for PM<sub>2.5</sub>.

Although neither the U.S. EPA nor the California air districts have provided any thresholds for ultrafine particles (UFPs) (defined as fine particles of less than 0.1 microns in size, or PM<sub>0.1</sub>), it should be noted that such particles may have the potential for even greater health effects than PM<sub>10</sub> or PM<sub>2.5</sub>, due to their even smaller sizes. UFPs are primarily generated by motor vehicle emissions (especially from diesel engines), braking, and tire wear. Specifically, UFPs are comprised mostly of metals that are known constituents of brake pads and drums, as well as additives in motor oil. Generally, all engines can create UFPs, but especially diesel engines, and any vehicle's braking system; traffic, particularly start-and-stop, generates UFPs.<sup>1</sup> Recent research suggests that UFPs pose considerable health risks, similar to but tending to be more severe than PM<sub>10</sub> and PM<sub>2.5</sub>, such as increased risk of cardiovascular disease and ischemic heart disease death rates, and loss of lung function.<sup>2</sup> Furthermore, unlike diesel exhaust or other larger TAC emissions, UFPs are more

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<sup>1</sup> Aerosol Science and Technology. 2011. Thomas A. Cahill, David E. Barnes, Nicholas J. Spada, Jonathan A. Lawton, and Thomas M. Cahill. Very Fine and Ultrafine Metals and Ischemic Heart Disease in the California Central Valley 1: 2003-2007. July 13, 2011.

<sup>2</sup> Atmospheric Environment. 2016. Thomas A. Cahill, David E. Barnes, Leann Wuest, David Gribble, David Buscho, Roger S. Miller, Camille De la Croix. Artificial Ultra-fine Aerosol Tracers for Highway Transect Studies. April 7, 2016; Aerosol Science and Technology. 2011. Thomas A. Cahil, David E. Barnes, Earl Withycombe, & Mitchell Watnik, and DELTA Group. Very Fine and Ultrafine Metals and Ischemic Heart Disease in the California Central Valley 1: 1974-1991. July 13, 2011.

persistent and do not dissipate easily over distances.<sup>3</sup>

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly, and children. Particulate matter also impacts soils and damages materials and is a major cause of visibility impairment.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in PM<sub>2.5</sub> results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM<sub>10</sub> and PM<sub>2.5</sub> can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA, 2019c).

**Lead (Pb)** exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil, or dust. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Recent studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease.

Lead is persistent in the environment and can be added to soils and sediments through deposition from sources of lead air pollution. Other sources of lead to ecosystems include direct discharge of waste streams to water bodies and mining. Elevated lead in the environment can result in decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Lead exposure is typically associated with industrial sources; major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of the U.S. EPA's regulatory efforts, including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014 (U.S. EPA, 2019d). Based on this reduction of lead in the air over this period, and since most new developments do not generate an increase in lead exposure, the health impacts of ambient lead levels are not typically monitored by the

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<sup>3</sup> Atmospheric Environment. 2016. Transition Metals in Coarse, Fine, Very Fine and Ultra-fine Particles from an Interstate Highway Transect Near Detroit. September 12, 2016.

California Air Resources Board (CARB).

## AMBIENT AIR QUALITY STANDARDS

Both the U.S. EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and State ambient air quality standards are summarized in Table 3.3-1 for important pollutants. The federal and State ambient standards were developed independently, although both processes attempted to avoid health-related effects. As a result, the federal and State standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 ppm on October 1, 2015, and was effective as of December 28, 2015 (equivalent to the California state ambient air quality eight-hour standard for ozone).

**TABLE 3.3-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS**

POLLUTANT	AVERAGING TIME	FEDERAL PRIMARY STANDARD	STATE STANDARD
Ozone	1-Hour	--	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM <sub>10</sub>	Annual	--	20 ug/m <sup>3</sup>
	24-Hour	150 ug/m <sup>3</sup>	50 ug/m <sup>3</sup>
PM <sub>2.5</sub>	Annual	12 ug/m <sup>3</sup>	12 ug/m <sup>3</sup>
	24-Hour	35 ug/m <sup>3</sup>	--
Lead	30-Day Avg.	--	1.5 ug/m <sup>3</sup>
	3-Month Avg.	0.15 ug/m <sup>3</sup>	--

NOTES: PPM = PARTS PER MILLION, UG/M<sup>3</sup> = MICROGRAMS PER CUBIC METER

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2024.

In 1997, new national standards for fine particulate matter diameter 2.5 microns or less (PM<sub>2.5</sub>) were adopted for 24-hour and annual averaging periods. The existing PM<sub>10</sub> standards were retained, but the method and form for determining compliance with the standards were revised.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated based on risk rather than specification of safe levels of contamination.

Existing air quality concerns within Tehama County and the entire air basin are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air

contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles which account for 70 percent of the ozone in the region. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke which is emitted from fireplaces, wood-burning stoves, and agricultural burning.

#### **Attainment Status**

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data does not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, carbon monoxide, and nitrogen dioxide as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For sulfur dioxide, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

Tehama County has a State designation of nonattainment for O<sub>3</sub> and PM<sub>10</sub> and is either Unclassified or Attainment for all other criteria pollutants. The County is designated either attainment or unclassified for the remaining national standards. Table 3.3-2 presents the State and national attainment status for Tehama County.



**TABLE 3.3-2: STATE AND NATIONAL ATTAINMENT STATUS FOR TEHAMA COUNTY**

CRITERIA POLLUTANTS	STATE DESIGNATIONS	NATIONAL DESIGNATIONS
Ozone	Nonattainment	Unclassified/Attainment
PM <sub>10</sub>	Nonattainment	Unclassified
PM <sub>2.5</sub>	Unclassified	Unclassified
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCE: CALIFORNIA AIR RESOURCES BOARD (2024). [WWW.ARB.CA.GOV/DESIG/ADM/ADM.HTM](http://WWW.ARB.CA.GOV/DESIG/ADM/ADM.HTM)

### Sacramento Valley Air Basin Monitoring

The CARB maintains numerous air quality monitoring sites throughout Tehama County and the SVAB to measure ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>. The Red Bluff-1834 Walnut Street monitoring site is within the City of Red Bluff. It is important to note that the Federal ozone 1-hour standard was revoked by the U.S. EPA and is no longer applicable for Federal standards. Data obtained from the SVAB monitoring site over the last 3-year period is shown in Tables 3.3-3 through 3.3-5.

**TABLE 3.3-3: RED BLUFF-1834 WALNUT STREET - AIR QUALITY MONITORING DATA SUMMARY - OZONE**

Year	Days > Standard				1-Hour Observations			8-Hour Averages				Year Coverage	
	State		National			State	Nat'l	State		National			
	1-Hr	8-Hr	1-Hr	8-Hr	Max.	D.V. <sup>1</sup>	D.V. <sup>2</sup>	Max.	D.V. <sup>1</sup>	Max.	D.V. <sup>2</sup>	Min	Max
2022	0	0	0	0	0.083	0.085	0.086	0.070	0.077	0.070	0.070	99	100
2021	1	17	0	15	0.095	0.084	0.086	0.081	0.081	0.081	0.081	99	99
2020	0	0	0	0	0.072	0.083	0.085	0.064	0.075	0.063	0.067	82	83

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. THE NATIONAL 1-HOUR OZONE STANDARD WAS REVOKED IN JUNE 2005 AND IS NO LONGER IN EFFECT. STATISTICS RELATED TO THE REVOKED STANDARD ARE SHOWN IN ITALICS. D.V.<sup>1</sup> = STATE DESIGNATION VALUE. D.V.<sup>2</sup> = NATIONAL DESIGN VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD- AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR (ADAM) AIR POLLUTION SUMMARIES.

**TABLE 3.3-4: RED BLUFF-1834 WALNUT STREET - AIR QUALITY MONITORING DATA SUMMARY - PM<sub>2.5</sub>**

Year	Est. Days > Nat'l '06 Std.	Annual Average		Nat'l Ann. Std. D.V. <sup>1</sup>	State Annual D.V. <sup>2</sup>	Nat'l '06 Std. 98th Percentile	Nat'l '06 24-Hr Std. D.V. <sup>1</sup>	High 24-Hour Average		Year Coverage
		Nat'l	State					Nat'l	State	
2022	1.0	5.8	*	9.9	13	18.6	59	35.5	35.5	99
2021	21.0	10.7	*	9.8	13	70.7	58	116.0	116.0	98
2020	32.2	13.2	13.2	9.7	13	87.1	55	142.9	142.9	95

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE

### 3.3 AIR QUALITY

STRINGENT THAN THE NATIONAL CRITERIA. D.V.<sup>1</sup> = STATE DESIGNATION VALUE. D.V.<sup>2</sup> = NATIONAL DESIGN VALUE. \*=MEANS THERE WAS INSUFFICIENT DATA AVAILABLE TO DETERMINE THE VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD- AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR (ADAM) AIR POLLUTION SUMMARIES.

**TABLE 3.3-5: RED BLUFF-1834 WALNUT STREET - AIR QUALITY MONITORING DATA SUMMARY - PM<sub>10</sub>**

Year	Est. Days > Std.		Annual Average		3-Year Average		High 24-Hr Average		Year Coverage
	Nat'l	State	Nat'l	State	Nat'l	State	Nat'l	State	
2022	0.0	*	15.4	*	20	*	53.2	52.1	98
2021	*	*	20.7	*	20	15	96.1	93.7	96
2020	7.1	*	24.6	*	21	24	172.0	172.5	83
2019	0.0	0.0	14.4	14.6	19	24	43.6	45.1	98
2018	0.0	33.1	22.7	23.8	20	24	102.5	105.7	100

NOTES: THE NATIONAL ANNUAL AVERAGE PM<sub>10</sub> STANDARD WAS REVOKED IN DECEMBER 2006 AND IS NO LONGER IN EFFECT. AN EXCEEDANCE IS NOT NECESSARILY A VIOLATION. STATISTICS MAY INCLUDE DATA THAT ARE RELATED TO AN EXCEPTIONAL EVENT. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. NATIONAL STATISTICS ARE BASED ON STANDARD CONDITIONS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. \*=MEANS THERE WAS INSUFFICIENT DATA AVAILABLE TO DETERMINE THE VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD- AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR (ADAM) AIR POLLUTION SUMMARIES.

### Tehama County Air Quality Monitoring

Data for Tehama County as a whole over the last 3-year period is shown below, in Table 3.3-6.

**TABLE 3.3-6: AMBIENT AIR QUALITY MONITORING DATA (TEHAMA COUNTY)**

Pollutant	Cal.	Fed.	Year	Max Concentration	Days Exceeded State/Fed Standard
	Primary Standard				
Ozone (O <sub>3</sub> ) (1-hour)	0.09 ppm for 1 hour	NA	2020 2019 2018	0.080 0.070 0.068	0/NA 0/NA 0/NA
Ozone (O <sub>3</sub> ) (8-hour)	0.07 ppm for 8 hour	0.07 ppm for 8 hour	2020 2019 2018	0.072 0.070 0.068	0/0 0/0 0/0
Particulate Matter (PM <sub>10</sub> )	50 ug/m <sup>3</sup> for 24 hours	150 ug/m <sup>3</sup> for 24 hours	2020 2019 2018	118.0 79.6 181.7	* /0 * /0 * /1.0
Fine Particulate Matter (PM <sub>2.5</sub> )	No 24 hour State Standard	35 ug/m <sup>3</sup> for 24 hours	2020 2019 2018	31.8 31.1 55.2	NA/* NA/* NA/*

SOURCES: CALIFORNIA AIR RESOURCES BOARD (ADAM) AIR POLLUTION SUMMARIES, 2018, 2019, 2020

**NOTES:**

PPM = PARTS PER MILLION.

UG/M3 = MICRONS PER CUBIC METER.

NA= NOT APPLICABLE

\* = THERE WAS INSUFFICIENT (OR NO) DATA AVAILABLE TO DETERMINE THE VALUE

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## ODORS

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Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

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## SENSITIVE RECEPTORS

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Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. The closest sensitive receptors to the Planning Area include existing residences and other sensitive receptors such as schools that located within the Planning Area itself.

### 3.3.2 REGULATORY SETTING

#### FEDERAL

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##### **Clean Air Act**

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. EPA is responsible for administering the FCAA. The FCAA requires the U.S. EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM<sub>2.5</sub> ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

NAAQS standards have been designed to accurately reflect the latest scientific knowledge and are reviewed every five years by a Clean Air Scientific Advisory Committee (CASAC), consisting of seven members appointed by the U.S. EPA Administrator. Reviewing NAAQS is a lengthy undertaking and includes the following major phases: Planning, Integrated Science Assessment (ISA), Risk/Exposure Assessment (REA), Policy Assessment (PA), and Rulemaking. The process starts with a comprehensive review of the relevant scientific literature. The literature is summarized and conclusions are presented in the ISA. Based on the ISA, U.S. EPA staff perform a risk and exposure assessment, which is summarized in the REA document. The third document, the PA, integrates the findings and conclusions of the ISA and REA into a policy context, and provides lines of reasoning that could be used to support retention or revision of the existing NAAQS, as well as several alternative standards that could be supported by the review findings. Each of these three documents are released for public comment and public peer review by the CASAC. Members of CASAC are appointed by the U.S. EPA Administrator for their expertise in one or more of the subject areas covered in the ISA. The CASAC's role is to peer review the NAAQS documents, ensure that they reflect the thinking of the scientific community, and advise the Administrator on the technical and scientific aspects of standard setting. Each document goes through two to three drafts before CASAC deems it to be final.

Although there is some variability among the health effects of the NAAQS pollutants, each has

been linked to multiple adverse health effects including, among others, premature death, hospitalizations, and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. NAAQS standards were last revised for each of the six criteria pollutant as listed below, with detail on what aspects of NAAQS changed during the most recent update:

- Ozone: On October 1, 2015, the U.S. EPA lowered the national eight-hour standard from 0.075 ppm to 0.070 ppm, providing for a more stringent standards consistent with the current California state standard.
- CO: In 2011, the primary standards were retained from the original 1971 level, without revision. The secondary standards were revoked in 1985.
- NO<sub>2</sub>: The national NO<sub>2</sub> standard was most recently revised in 2010 following an exhaustive review of new literature pointed to evidence for adverse effects in asthmatics at lower NO<sub>2</sub> concentrations than the existing national standard.
- SO<sub>2</sub>: On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb.
- PM: the national annual average PM<sub>2.5</sub> standard was most recently revised in 2012 following an exhaustive review of new literature pointed to evidence for increased risk of premature mortality at lower PM<sub>2.5</sub> concentrations than the existing standard.
- Lead: The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. In 2016, the primary and secondary standards were retained.

The law recognizes the importance for each state to locally carry out the requirements of the FCAA, as special consideration of local industries, geography, housing patterns, etc. are needed to have full comprehension of the local pollution control problems. As a result, the U.S. EPA requires each state to develop a State Implementation Plan (SIP) that explains how each state will implement the FCAA within their jurisdiction. A SIP is a collection of rules and regulations that a particular state will implement to control air quality within their jurisdiction. The CARB is the state agency that is responsible for preparing the California SIP.

### **Transportation Conformity**

Transportation conformity requirements were added to the FCAA in the 1990 amendments, and the U.S. EPA adopted implementing regulations in 1997. See §176 of the FCAA (42 U.S.C. §7506) and 40 CFR Part 93, Subpart A. Transportation conformity serves much the same purpose as general conformity: it ensures that transportation plans, transportation improvement programs, and projects that are developed, funded, or approved by the United States Department of Transportation or that are recipients of funds under the Federal Transit Act or from the Federal Highway Administration (FHWA), conform to the SIP as approved or promulgated by U.S. EPA.

Currently, transportation conformity applies in nonattainment areas and maintenance areas. Under transportation conformity, a determination of conformity with the applicable SIP must be made by the agency responsible for the proposed Project, such as the Metropolitan Planning

Organization, the Council of Governments, or a federal agency. The agency making the determination is also responsible for all the requirements relating to public participation. Generally, a project will be considered in conformance if it is in the transportation improvement plan and the transportation improvement plan is incorporated in the SIP. If an action is covered under transportation conformity, it does not need to be separately evaluated under general conformity.

### **Transportation Control Measures**

One aspect of the SIP development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

## STATE

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### **Advanced Clean Cars II**

The Advanced Clean Cars II regulations reduce light-duty passenger car, pickup truck and SUV emissions starting with the 2026 model year through 2035. The regulations are two-pronged. First, it amends the Zero-emission Vehicle Regulation to require an increasing number of zero-emission vehicles, and relies on currently available advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric and plug-in hybrid electric-vehicles, to meet air quality and climate change emissions standards. These amendments support Governor Newsom's 2020 Executive Order N-79-20 that requires all new passenger vehicles sold in California to be zero emissions by 2035. Second, the Low-emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.

### **Advanced Clean Trucks**

On June 25, 2020, the California Air Resources Board (CARB) adopted the Advanced Clean Trucks (ACT) rule, which requires the sale of zero-emission or near zero-emission HDTs starting with the manufacturer-designated model year 2024. Sales requirements are defined separately for three vehicle groups: Class 2b-3 trucks and vans, Class 4-8 rigid trucks, and Class 7-8 tractor trucks. The regulation is structured as a credit and deficit accounting system. In 2023, the EPA granted the state the waiver it needs to enact the ACT rule. The enacted rule requires truck makers to sell an increasing percentage of electric models annually through 2035. Forty percent of big rigs, half of all cargo and travel vans and 75 percent of box truck and dump truck sales need to be zero emissions by 2035.

### **CARB Mobile-Source Regulation**

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, the CARB motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the way they are achieved. Towards this end, the CARB has adopted regulations which require auto manufacturers to phase in less polluting vehicles.

### **California Clean Air Act**

The California Clean Air Act (CCAA) was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. The CARB is the agency responsible for administering the CCAA. The CARB established ambient air quality standards pursuant to the California Health and Safety Code (CH&SC) [§39606(b)], which are like the federal standards.

### **California Air Quality Standards**

Although NAAQS are determined by the U.S. EPA, states can set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards. Federal and state ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates, and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations, and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. The existing state and federal primary standards for major pollutants are shown in Table 3.3-1.

Air quality standard setting in California commences with a critical review of all relevant peer reviewed scientific literature. The Office of Environmental Health Hazard Assessment (OEHHA) uses the review of health literature to develop a recommendation for the standard. The recommendation can be for no change, or can recommend a new standard. The review, including the OEHHA recommendation, is summarized in a document called the draft Initial Statement of Reasons (ISOR), which is released for comment by the public, and for public peer review by the Air Quality Advisory Committee (AQAC). AQAC members are appointed by the President of the University of California for their expertise in the range of subjects covered in the ISOR, including health, exposure, air quality monitoring, atmospheric chemistry and physics, and effects on plants, trees, materials, and ecosystems. The Committee provides written comments on the draft ISOR. The ARB staff next revises the ISOR based on comments from AQAC and the public. The revised ISOR is then released for a 45-day public comment period prior to consideration by the Board at a regularly scheduled Board hearing.

In June of 2002, the CARB adopted revisions to the PM<sub>10</sub> standard and established a new PM<sub>2.5</sub>

annual standard. The new standards became effective in June 2003. Subsequently, staff reviewed the published scientific literature on ground-level ozone and nitrogen dioxide and the CARB adopted revisions to the standards for these two pollutants. Revised standards for ozone and nitrogen dioxide went into effect on May 17, 2006 and March 20, 2008, respectively. These revisions reflect the most recent changes to the CAAQS.

#### **Tanner Air Toxics Act (TACs)**

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted U.S. EPA's list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technologies (BACT) to minimize emissions.

AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule.

#### **Omnibus Low-NOx Rule**

The CARB approved the Omnibus Low-NOx Rule on August 28, 2020, which will require engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty truck and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements. The regulatory requirements in the Omnibus Low-NOx Rule will first become effective in 2024, at the same time as the Advanced Clean Trucks regulations that CARB approved that mandates manufacturers convert increasing percentages of their heavy-duty trucks sold in California to zero-emission vehicles.



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## LOCAL

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### **Tehama County Air Pollution Control District**

The Tehama County Air Pollution Control District (TCAPCD) is the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the TCAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the FCAA and CCAA.

### 3.3.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

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Consistent with Appendix G of the CEQA Guidelines, the proposed General Plan will have a significant impact on the environment associated with air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### METHODOLOGY

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The analysis presented below was completed to include a qualitative approach to address consistency with current air quality plan control measures. The qualitative analysis discusses the proposed General Plan's consistency with the Regulations of the Tehama County Air Pollution Control District and the proposed General Plan's VMT projections. The VMT analysis is described in greater detail in Chapter 3.14, Transportation and Circulation.

#### IMPACTS AND MITIGATION MEASURES

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##### **Impact 3.3-1: General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants (Significant and Unavoidable)**

CEQA requires lead agencies to determine whether a project is consistent with all applicable air quality plans. Under the existing state and federal environmental regulatory structure, the federal government's Environmental Protection Agency is granted primary authority to establish health-based ambient air quality standards and specific technology and emission requirements for sources of air pollution, regulate selected sources of air pollution, and mandate that states comply with these requirements. The federal government has the authority to withhold transportation funds from the state if certain requirements are not met. Under the state of California regulatory structure, the state's California Air Resources Board maintains primary authority to regulate mobile sources of air pollution (e.g. establish vehicle and engine emission standards), and possess regulatory oversight authority over local and regional air pollution control agencies. Local and regional agencies maintain primary authority to regulate stationary sources of air pollution (e.g. permitting industry activities and regulating open burning).

As described previously, Tehama County has a State designation of nonattainment for O<sub>3</sub> and PM<sub>10</sub>, and is either Unclassified or Attainment for all other criteria pollutants. The County has a national designation of Unclassified or Unclassified/Attainment for the remaining national standards. The Tehama County Air Pollution Control District does not provide criteria pollutant thresholds for General Plans (such as the proposed Project). As such, there is no programmatic threshold of significance established for criteria pollutants for which to compare the proposed General Plan.

This EIR acknowledges that the proposed General Plan will allow new residential and non-residential growth, as described in detail in Chapter 2.0 (Project Description). This new growth will undoubtedly result in increases in the emissions of criteria pollutants, most notably from mobile-source and area-source emissions increases associated with increased growth and development in Red Bluff. Additionally, the implementation of individual projects within the General Plan would have the potential to conflict with the Tehama County Air Pollution Control District's requirements for criteria pollutants at the project-level.

The proposed General Plan includes policies and actions that are specifically aimed at improving air quality throughout the City and region. These policies and actions (provided below) limit impacts to air quality by reducing the number and length of vehicle trips, encourage non-automobile travel modes, support green and sustainable building development, promote the use of renewable energy, and encourage the conservation of resources.

The policies and actions included throughout the proposed General Plan cover the full breadth of air quality issues. If approval of the proposed General Plan would cause the disruption, delay, or otherwise hinder the implementation of any air quality plan control measure, it may be inconsistent with the applicable air quality plans. The proposed General Plan does not cause the

disruption, delay, or otherwise hinder the implementation of any quality plan or control measure; therefore, it is consistent with the applicable air quality plans. All future development and infrastructure projects within the Planning Area would be subject to the General Plan goals, policies, and actions described above and include below, which were adopted to reduce emissions and air quality impacts. However, the proposed General Plan includes higher levels and rates of growth than those that would be facilitated under the existing General Plan. As such, total emissions levels associated with Project buildout would increase, which may indirectly hinder the efforts to reduce total emissions of criteria pollutants.

The Planning Area is surrounded by a variety of existing rural, commercial, residential, open space, and agricultural uses, and includes California State Routes 36 (SR 36), State Routes 99 (SR 99) and Interstate 5 (I-5). The proposed General Plan includes policies and land uses that promote development patterns that emphasizes alternative transportation access and multi-modal connectivity throughout the Planning Area and surrounding areas.

Implementation of the proposed General Plan, which is consistent with all federal and state guidelines, and would be consistent with the applicable air quality plans, but would still be anticipated to lead to overall increases in emissions of criteria pollutants, given the total growth in vehicle trips projected upon full buildout of the proposed General Plan. Moreover, as described in Chapter 3.14 (Transportation and Circulation) of this DEIR, under Impact 3.14-1, the proposed General Plan would result in similar or increased per capita VMT in the City of Red Bluff, compared to the existing (baseline) condition.

As described previously, the policies and actions included throughout the proposed General Plan cover the full breadth of air quality issues and promote air quality and vehicle trip reductions throughout the city. With implementation of the General Plan policies and actions that would reduce criteria pollutant emissions, air quality impact would be limited. However, the proposed General Plan would create new development that would increase overall criteria air pollutant emissions within the City of Red Bluff, due to an increase in vehicle trips in the City in the cumulative year 2045 buildout scenario, compared to the existing condition. Therefore, this impact is considered **significant and unavoidable**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.4: Support a balanced distribution of well-maintained, functional, and appropriate commercial, office, and industrial use areas to expand local employment opportunities and support a stable tax base.

LU 1.5: Provide for a variety of housing types and density ranges that meet the needs of individuals and families while ensuring that there is adequate land designated to meet housing goals. (Additional policies specifically related to housing are included in the Housing Element).

LU 1.6: Maintain safe, attractive, pedestrian-friendly residential neighborhoods and districts with identifiable centers, consistent development patterns, and a range of public and private services.

LU 2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.

LU 2.2: Ensure that public facilities and services needed to support development are available concurrent with the impacts of such development.

LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

LU 3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU 3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors. Ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

LU 3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.

#### LAND USE ELEMENT ACTIONS

*LU 3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU 3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU 3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure*

*that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

#### CIRCULATION ELEMENT POLICIES

CIRC 1.1: Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities.

CIRC 2.1: Implement best practices to improve and expand the pedestrian and bicycle environment and network.

CIRC 2.2: Consider walking and bicycling access to schools as a priority over vehicular movements when any such conflicts occur.

CIRC 2.3: Encourage connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance.

CIRC 2.4: Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible.

CIRC 2.5: Support convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2.6: Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC 4.1: Support land use with increased densities and mixed uses, consistent with the Land Use Element, to reduce vehicle miles traveled and promote the use of walking, biking, and transit.

CIRC 4.2: Encourage employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home.

CIRC 4.3: Monitor the deployment of new transportation technologies and services and develop policies that implement best practices to ensure these technologies and services benefit the public and the multimodal transportation system.

CIRC 4.4: Support the creation of electric vehicle charging stations at commercial, government, and other employment and community destinations.

#### CIRCULATION ELEMENT ACTIONS

*CIRC 2a: Implement and build on recommendations for pedestrian and bicycle improvements included in the Tehama County Active Transportation Plan.*

*CIRC 2b: Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Tehama County.*

### 3.3 AIR QUALITY

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*CIRC 2c: Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.*

*CIRC 2d: Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.*

*CIRC 2e: Increase walking and bicycling to local destinations and regional transportation services by developing wayfinding signage for pedestrians and bicyclists*

*CIRC 2f: Partner with Tehama Rural Area Express and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.*

*CIRC 2g: Encourage transit providers to enhance transit stops with high quality, well-maintained shelters, and transit timetables.*

*CIRC 2h: Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.*

*CIRC 4a: Adopt VMT thresholds and screening criteria for environmental impact analysis. Review and update those guidelines on a regular basis using updated data.*

*CIRC 4b: Explore the feasibility of a VMT impact fee program to fund transportation demand management strategies that are proven to reduce VMT.*

*CIRC 4c: Require development projects to consider reasonable and feasible project modifications and other measures during the projects design and environmental review stage that would reduce VMT in a manner consistent with State guidance on VMT reduction.*

*CIRC 4d: Encourage carpooling by providing additional carpool pickup and park-and-ride locations near transit centers and at freeway interchanges.*

*CIRC 4e: Consider requiring new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet. Encourage installation of electric vehicle charging stations at existing developments.*

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

**COS 5.1:** Require all development projects to comply with the mandatory energy efficiency requirements of the California Green Building Standards Code (CALGreen) and Building and Energy Efficiency Standards.

**COS 5.2:** Support and encourage the implementation of innovative and green building Best Management Practices (BMPs) including, but not limited to, sustainable site planning, solar

opportunities, LEED certification, and exceeding the most current “green” development standards in the California Code of Regulations (CCR), Title 24, as feasible.

COS 5.3: Promote energy efficiency throughout City operations and install, as feasible, energy-efficient lighting, appliances, and alternative-energy infrastructure in City facilities during routine maintenance and as upgrades are needed.

COS 5.4: As City fleet vehicles are replaced, procure alternative-energy and fuel-efficient City vehicles and equipment that meet or surpass State emissions requirements, to the extent feasible.

COS 5.5: Promote incentives from local, State, and federal agencies for improving energy efficiency and expanding renewable energy installations.

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

*COS 5a: Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations (CCR), Title 24 and CalGreen standards as well as the energy efficiency standards established by the General Plan and the Zoning Ordinance.*

*COS 5b: Consider offering reduced permit fees and or expedited permit applications on solar installation projects and promote State, federal, and private rebate programs.*

*COS 5c: Consider use of alternative fuel vehicles or electric vehicles for City use. If deemed appropriate, identify vehicle purchase needs in any fleet replacement plan.*

*COS 5d: Provide an energy conservation page (or similar page) on the City’s website that provides links to resource agencies and provides information regarding local and regional conservation and energy upgrade and efficiency programs.*

*COS 5e: Review local standards and permitting processes related to renewable energy infrastructure, and update as appropriate to comply with State and federal law, and reduce barriers to installation and deployment.*

#### **Impact 3.3-2: General Plan implementation would expose sensitive receptors to substantial pollutant concentrations (Less than Significant)**

Local communities’ risks from air pollutants may include exposure to TACs and PM<sub>2.5</sub> concentrations. TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health and PM<sub>2.5</sub> can cause a wide range of health effects (e.g., aggravating asthma and bronchitis, causing visits to the hospital for respiratory and cardiovascular systems, and contributing to heart attacks and deaths). Common stationary source types of TAC and PM<sub>2.5</sub> emissions include gasoline stations, dry cleaners, and other sources, which are subject to Tehama County Air Pollution Control District’s requirements. The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships, and trains. Implementation of the proposed General Plan would have the potential of introducing new sources of TAC and PM<sub>2.5</sub> emissions

within the city as well as siting new sensitive receptors, such as new homes in close proximity to existing sources of TAC and PM<sub>2.5</sub> emissions.

The proposed General Plan includes policies and actions that would minimize exposure to emissions, TAC, and PM<sub>2.5</sub> concentrations within the City. These policies and actions are included within various elements of the proposed General Plan. For example, Policy LU-3.2 requires that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents. Additionally, Policy LU-3.3 requires the City to promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors, and ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

Individual projects will be required to determine air quality impacts from the construction and operation of their projects. In the event that future individual projects may result in exposure to pollutants including TACs by sensitive receptors, these future projects would be required to implement mitigation measures to reduce the impact to the greatest extent feasible. Therefore, compliance with the applicable policies and programs in the proposed General Plan as well applicable Tehama County Air Pollution Control District rules and regulations, would minimize the potential exposure of sensitive receptors to substantial concentrations of TACs and PM<sub>2.5</sub> within the City, and impacts at the program level would be **less than significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU 3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors. Ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

LU 3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.



#### LAND USE ELEMENT ACTIONS

*LU 3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU 3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU 3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

#### CIRCULATION ELEMENT ACTIONS

*CIRC 2e: Increase walking and bicycling to local destinations and regional transportation services by developing wayfinding signage for pedestrians and bicyclists*

*CIRC 2f: Partner with Tehama Rural Area Express and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.*

*CIRC 2h: Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.*

*CIRC 4a: Adopt VMT thresholds and screening criteria for environmental impact analysis. Review and update those guidelines on a regular basis using updated data.*

*CIRC 4b: Explore the feasibility of a VMT impact fee program to fund transportation demand management strategies that are proven to reduce VMT.*

*CIRC 4c: Require development projects to consider reasonable and feasible project modifications and other measures during the projects design and environmental review stage that would reduce VMT in a manner consistent with State guidance on VMT reduction.*

*CIRC 4e: Consider requiring new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet. Encourage installation of electric vehicle charging stations at existing developments.*

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 5.1: Require all development projects to comply with the mandatory energy efficiency requirements of the California Green Building Standards Code (CALGreen) and Building and Energy Efficiency Standards.

COS 5.2: Support and encourage the implementation of innovative and green building Best Management Practices (BMPs) including, but not limited to, sustainable site planning, solar opportunities, LEED certification, and exceeding the most current “green” development standards in the California Code of Regulations (CCR), Title 24, as feasible.

COS 5.3: Promote energy efficiency throughout City operations and install, as feasible, energy-efficient lighting, appliances, and alternative-energy infrastructure in City facilities during routine maintenance and as upgrades are needed.

COS 5.4: As City fleet vehicles are replaced, procure alternative-energy and fuel-efficient City vehicles and equipment that meet or surpass State emissions requirements, to the extent feasible.

COS 5.5: Promote incentives from local, State, and federal agencies for improving energy efficiency and expanding renewable energy installations.

#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS 5a: Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations (CCR), Title 24 and CalGreen standards as well as the energy efficiency standards established by the General Plan and the Zoning Ordinance.*

*COS 5b: Consider offering reduced permit fees and or expedited permit applications on solar installation projects and promote State, federal, and private rebate programs.*

*COS 5c: Consider use of alternative fuel vehicles or electric vehicles for City use. If deemed appropriate, identify vehicle purchase needs in any fleet replacement plan.*

*COS 5d: Provide an energy conservation page (or similar page) on the City’s website that provides links to resource agencies and provides information regarding local and regional conservation and energy upgrade and efficiency programs.*

*COS 5e: Review local standards and permitting processes related to renewable energy infrastructure, and update as appropriate to comply with State and federal law, and reduce barriers to installation and deployment.*

### **Impact 3.3-3: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people) (Less than Significant)**

#### **ODORS**

Objectionable odors can be generated from certain types of commercial and/or industrial land uses. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. In general, residential land uses are not associated with odor generation, but they do serve as sensitive receptors. Odors rarely have direct health impacts, but they can be very unpleasant and can lead to anger and concern over possible health effects among the public.

The proposed General Plan does not propose any specific development projects, but could result in additional development that may trigger the need for public and quasi-public facilities that could include expanded wastewater treatment facilities, and other potential odor sources. Similarly, lands designated for Industrial uses could include new or expanded uses that could result in odors, including chemical manufacturing, materials manufacturing, food and beverage processing, and other uses that may involve odors. Similarly, existing agricultural uses may include on-site processing or confined animal facilities that may result in odors. Individual projects that have the potential to generate significant objectionable odors would be required to undergo individual CEQA review.

The Tehama County Air Pollution Control District responds to complaints about odors, dust or chemical air pollutants emitted by industrial plants, refineries, neighborhood businesses, gas station nozzles, idling trucks, locomotives and buses. It also processes complaints about smoke from agricultural fires, controlled burns, non-cooking backyard fires and outdoor trash burning.

With respect to other emissions, future development under the proposed General Plan would be required to comply with Tehama County Air Pollution Control District, SIP, and CARB, regulations, Title 24 energy efficiency standards, and the proposed General Plan policies and actions.

The proposed General Plan included policies and actions that support compatible land uses and does not propose any development that includes potential source of objectionable odors. Individual projects that have the potential to generate significant objectionable odors would be required to undergo individual project level environmental review. In addition, the General Plan policies and actions listed below would further minimize the potential for other emissions (such as odors) to adversely affect a substantial number of people. Therefore, implementation of the proposed General Plan would have a **less than significant** impact relative to this topic.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU 3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors. Ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

LU 3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.

#### LAND USE ELEMENT ACTIONS

*LU 3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU 3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU 3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

Figure 3.3-1. California Air Basins



Sources: Air Resources Board; ArcGIS Map Service; California State Geoportal.

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This section describes biological resources in the Planning Area. This section provides a background discussion of the bioregions, regionally important habitat and wildlife, and special status species found in the vicinity of Red Bluff. This section is organized with an environmental setting, regulatory setting, and impact analysis.

One comment from the California Department of Fish and Wildlife (CDFW) was received on April 15, 2024 regarding this environmental topic during the NOP comment period. The CDFW provided comments about the regulatory framework, and potential impacts to species and sensitive habitat. The letter provided information on the types of impacts that could occur. These comments have been addressed throughout this EIR. The NOP and all comments received are included in Appendix A of this Draft EIR.

## KEY TERMS

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The following key terms are used throughout this section to describe biological resources and the framework that regulates them:

**Hydric Soils.** One of the three wetland identification parameters, according to the Federal definition of a wetland, hydric soils have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. There are approximately 2,000 named soils in the United States that may occur in wetlands.

**Hydrophytic Vegetation.** Plant types that typically occur in wetland areas. Nearly 5,000 plant types in the United States may occur in wetlands. Plants are listed in regional publications of the U.S. Fish and Wildlife Service (USFWS) and include such species as cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains.

**Sensitive Natural Community.** A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, State, or Federal agencies. The California Environmental Quality Act (CEQA) identifies the elimination or substantial degradation of such communities as a significant impact. The California Department of Fish and Wildlife (CDFW) tracks sensitive natural communities in the California Natural Diversity Database (CNDDDB).

**Special Status Species.** Special status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by Federal, State, or other agencies. Some of these species receive specific protection that is defined by Federal or State endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this report, following a convention that

has developed in practice but has no official sanction. For the purposes of this assessment, the term “special status” includes those species that are:

- Federally listed or proposed for listing under the Federal Endangered Species Act (50 CFR 17.11-17.12);
- Candidates for listing under the Federal Endangered Species Act (61 FR 7596-7613);
- State listed or proposed for listing under the California Endangered Species Act (14 CCR 670.5);
- Species listed by the USFWS or the CDFW as a species of concern (USFWS), rare (CDFW), or of special concern (CDFW);
- Fully protected animals, as defined by the State of California (California Fish and Game Code Section 3511, 4700, and 5050);
- Species that meet the definition of threatened, endangered, or rare under CEQA (CEQA Guidelines Section 15380);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.); and
- Plants listed by the California Native Plant Society (CNPS) as rare, threatened, or endangered (List 1A and List 2 status plants in Skinner and Pavlik 1994).

**Waters of the U.S.** The Federal government defines waters of the U.S. as "lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows" [33 C.F.R. §328.3(a)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the U.S. Army Corps of Engineers (USACE) as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

**Wetlands.** Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The Federal government defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Wetlands require wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to waters of the U.S.

### 3.4.1 ENVIRONMENTAL SETTING

Red Bluff is located in the central portion of Tehama County. Red Bluff is accessible by both State Route 36, State Route 99 and Interstate 5. The City has a total area of 7.7 square miles. The City is situated in the northern Sacramento Valley along the Sacramento River and is primarily comprised



of riparian, oak woodland and grassland habitats. The Sacramento River fosters a rich biological mosaic, comprising of numerous diverse ecosystems.

## GEOMORPHIC PROVINCES/BIOREGIONS

California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landform. Earth scientists recognize eleven provinces in California. Each region displays unique, defining features based on geology, faults, topographic relief and climate. These geomorphic provinces are remarkably diverse. They provide spectacular vistas and unique opportunities to learn about earth's geologic processes and history. The Planning Area is located in the northern portion of the Great Valley Geomorphic Province of California.

The Great Valley is an alluvial plain about 50 miles wide and 400 miles long in the central part of California. Its northern part is the Sacramento Valley, drained by the Sacramento River and its southern part is the San Joaquin Valley drained by the San Joaquin River. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west.

The planning area is defined by the Sacramento Valley bioregion. Figure 3.4-1 illustrates the boundaries of the bioregions within Tehama County, which includes the Planning Area.

The Sacramento Valley Bioregion is a watershed of the Sierra Nevada that encompasses the northern end of the great Central Valley, stretching from Redding to the southeast corner of Sacramento County. The bioregion is generally flat, and is rich in agriculture. The climate is characterized by hot dry summers and cool wet winters. Oak woodlands, riparian forests, vernal pools, freshwater marshes, and grasslands provide the major natural vegetation of the bioregion. This bioregion is the most prominent wintering area for waterfowl, attracting significant numbers of ducks and geese to its seasonal marshes along the Pacific Flyway. Species include northern pintails, snow geese, speckled-belly geese, tundra swans, sandhill cranes, mallards, grebes, peregrine falcons, heron, egrets, and hawks. Black-tailed deer, coyotes, river otters, muskrats, beavers, ospreys, bald eagles, salmon, steelhead, and swallowtail butterflies are some of the wildlife that are common in this bioregion.

## VEGETATION

Vegetation occurring within the Planning Area primarily consists of agricultural, ruderal, riparian, and landscaping vegetation. Because of urban nature of the developed areas within the city and the active agricultural uses in surrounding lands, there is limited undisturbed natural vegetation. Common plant species observed in the region include: wild oat (*Avena barbata*), rip-gut brome (*Bromus diandrus*), softchess (*Bromus hordeaceus*) alfalfa (*Medicago sativa*), Russian thistle (*Salsola tragus*), Italian thistle (*Carduus pycnocephalus*), rough pigweed (*Amaranthus retroflexus*), sunflower (*Helianthus annuus*), tarragon (*Artemisia dracunculus*), coyote brush (*Baccharis pilularis*), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), sow thistle (*Sonchus asper*), telegraph weed (*Heterotheca grandiflora*), barley (*Hordeum* sp.), mustard (*Brassica niger*), and heliotrope (*Heliotropium curassavicum*).

### WILDLIFE

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Agricultural, riparian vegetation along the Sacramento River, and ruderal vegetation found in the Planning Area provides habitat for both common and special-status wildlife populations. For example, some commonly observed wildlife species in the region include: California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis* species), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting.

### PLANT COMMUNITIES

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Agricultural and natural plant communities provide habitat for a variety of biological resources in the region. Sensitive habitats include those that are of special concern to resource agencies or those that are protected under a Habitat Conservation Plan, Natural Community Conservation Plan, the California Environmental Quality Act (CEQA), the Fish and Game Code, or the Clean Water Act (CWA). Additionally, sensitive habitats are usually protected under specific policies from local agencies.

### CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

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The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

According to the California Wildlife Habitat Relationship System, there are 16 land cover types (wildlife habitat classification) found in proximity to Red Bluff out of the 59 found in California. These include: Annual Grassland, Barren land, Blue Oak Woodland, Coastal Scrub, Cropland, Deciduous Orchard, Dryland Grain Crops, Evergreen Orchard, Fresh Emergent Wetland, Irrigated Hayfield, Lacustrine, Montane Hardwood Riverine, Urban, Valley Foothill Riparian, Valley Oak Woodland. Table 3.4-1 identifies the area by acreage for each cover type (classification) found in the County. Figure 3.4-2 illustrates the location of each cover type (classification) within proximity to Red Bluff. A brief description of each cover type follows.

**TABLE 3.4-1: COVER TYPES - CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM**

COVER TYPES	ACRES IN RED BLUFF	ACRES IN SOI	TOTAL
Annual Grassland	5776.8	1142.7	6919.5
Barren	82.2	13.8	96.0
Blue Oak Woodland	545.5	535.8	1081.3
Coastal Scrub	4.6	0.3	4.9
Cropland	224.3	10.1	234.3
Deciduous Orchard	182.2	4.9	187.1
Dryland Grain Crops	23.1	1.1	24.2
Evergreen Orchard	31.0	0.1	31.1
Fresh Emergent Wetland	6.2	6.4	12.7
Irrigated Hayfield	27.9	73.6	101.5
Lacustrine	7.8	-	7.8
Montane Hardwood	17.7	7.6	25.4
Riverine	197.8	105.5	303.3
Urban	1248.7	2882.9	4131.5
Valley Foothill Riparian	301.0	199.1	500.1
Valley Oak Woodland	233.1	49.2	282.3
Grand Total	8909.7	5033.3	13943.0

SOURCE: CALFIRE FRAP VEGETATION (FVEG15-1) "BEST AVAILABLE" LAND COVER DATA, SPANNING 1990 TO 2014.

### Developed Cover Types

**Cropland** includes a variety of sizes, shapes, and growing patterns. Field corn can reach ten feet while strawberries are only a few inches high. Although most crops are planted in rows, alfalfa hay and small grains (barley and wheat) form dense stands with up to 100 percent canopy closure. Most croplands support annual crops, planted in spring and harvested during summer or fall. In many areas, second crops are commonly planted after harvesting the first. Wheat is planted in fall and harvested in late spring or early summer. Overwintering of sugar beets occurs in the Sacramento Valley, with harvesting in spring after the soil dries. Croplands are located on flat to gently rolling terrain. When flat terrain is put into crop production, it usually is leveled to facilitate irrigation. Rolling terrain is either dry farmed or irrigated by sprinklers. Soils often dictate the crops grown. Climate influences the type of crops grown. Within the Planning Area, there are 234.3 acres of cropland habitat.

**Dryland Grain Crops** are composed of vegetation in the dryland (non-irrigated) grain and seed crops habitat includes seed producing grasses, primarily barley, cereal rye, oats, and wheat. These seed and grain crops are annuals. They are usually planted by drilling in rows which produce solid stands, forming 100 percent canopy at maturity in good stands. They are normally planted in fall and harvested in spring. However, they may be planted in rotation with other irrigated crops and winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in late spring. Within the Planning Area, there are approximately 24.2 acres of Dryland Grain Crop habitat.

**Irrigated Hayfield** normally has a two- to six-month initial growing period, depending on climate, and soil, this habitat is dense, with nearly 100 percent cover and average height is about 1.5 feet. Planted fields generally are monocultures (the same species or mixtures or a few species with similar structural properties). Structure changes to a lower stature following each harvest, grows up again and reverts to bare ground following plowing or discing. Plowing may occur annually but usually occurs less often. Layering generally does not occur in this habitat. Unplanted "native" hay fields may contain short and tall patches. If not harvested for a year, they may develop a dense thatch of dead leaves between the canopy and the ground. Within the City limits, SOI and Planning Area, there are approximately 101.5 acres of Irrigated Hayfield habitat.

**Urban** habitats are not limited to any particular physical setting. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. Within the Planning Area, there are 4131.5 acres of urban habitat.

### **Herbaceous Cover Types**

**Annual Grassland** habitat occurs mostly on flat plains to gently rolling foothills. Climatic conditions are typically Mediterranean, with cool, wet winters and dry, hot summers. The length of the frost-free season averages 250 to 300 days. Annual precipitation is highest in northern California. Within the Planning Area, there are 6919.5 acres of annual grassland habitat.

**Fresh Emergent Wetland** habitats occur on virtually all exposures and slopes, provided a basin or depression is saturated or at least periodically flooded. They are most common on level to gently rolling topography. They are found in various depressions or at the edge of rivers or lakes. Soils are predominantly silt and clay, although coarser sediments and organic material may be intermixed. In some areas organic soils (peat) may constitute the primary growth medium. Climatic conditions are highly variable and range from the extreme summer heat to winter temperatures well below freezing. Within the Planning Area, there are 12.7 acres of fresh emergent wetland habitat.

### **Tree-Dominated Cover Types**

**Valley Foothill Riparian** habitats are found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains. They are generally associated with low velocity flows, flood plains, and gentle topography. Valleys provide deep alluvial soils and a high water table. The substrate is coarse, gravelly, or rocky soils more or less permanently moist, but probably well aerated. Frost and short periods of freezing occur in winter (200 to 350 frost-free days). This habitat is characterized by hot, dry summers and mild and wet winters. Temperatures range from 75 degrees to 102 degrees Fahrenheit in the summer to 29 degrees to 44 degrees Fahrenheit in the winter. Average precipitation ranges from six to 30 inches, with little or no snow.

The growing season is seven to 11 months. Within the City limits, there are approximately 500.1 acres of Valley Foothill Riparian habitat.

**Blue Oak Woodland** have an overstory of scattered trees, although the canopy can be nearly closed on better quality sites. The density of blue oaks on slopes with shallow soils is directly related to water stress. Blue Oak Woodland is usually associated with shallow, rocky, infertile, well-drained soils from a variety of parent materials. The climate is Mediterranean, with mild wet winters and hot dry summers. Climatic extremes are relatively great in these woodlands, because they have a considerable geographic and elevational range. Average annual precipitation varies from 51 to 102 cm (20 to 40 in) over most of the blue oak's range. Mean maximum temperatures are from 24 to 36 C (75 to 96 F) in summer, and minima are from 2 to 6 C (29 to 42 F) in winter. Within the Planning Area, there are 1081.3 acres of Blue Oak Woodland habitat.

**Montane Hardwood** is composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer. Canyon live oak and associates are found on a wide range of slopes, especially those that are moderate to steep. Soils are for the most part rocky, alluvial, coarse textured, poorly developed, and well drained. Soil depth classes range from shallow to deep. Canyon live oak, incense-cedar, and a few other associates are also found on ultrabasic soils. Mean summer temperatures in the Montane Hardwood habitat vary between 20 and 25 C (68 and 77 F) and mean winter temperatures between 3 and 7 C (37 and 45 F). Frost-free days range from 160 to 230. Annual precipitation varies from 2794 mm (110 in) in the northern Coast Range to 914 mm (36 in) in the mountains of southern California. Within the Planning Area, there are 25.4 acres of Montane Hardwood.

**Valley-foothill riparian** habitats are found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains. They are generally associated with low velocity flows, flood plains, and gentle topography. Valleys provide deep alluvial soils and a high water table. The substrate is coarse, gravelly, or rocky soils more or less permanently moist, but probably well aerated. Frost and short periods of freezing occur in winter (200 to 350 frost-free days). This habitat is characterized by hot, dry summers and mild and wet winters. Temperatures range from 75 to 102 F in the summer to 29 to 44 F in the winter. Average precipitation ranges from 6-30 inches, with little or no snow. The growing season is 7 to 11 months. Within the Planning Area, there are 500.1 acres of valley-foothill riparian habitat.

**Valley Oak Woodland** varies from savanna-like to forest-like stands with partially closed canopies, comprised mostly of winter-deciduous, broad-leaved species. Denser stands typically grow in valley soils along natural drainages. This habitat occurs in a wide range of physiographic settings but is best developed on deep, well-drained alluvial soils, usually in valley bottoms. Most large, healthy valley oaks are probably rooted down to permanent water supplies. Stands of valley oaks are found in deep sills on broad ridge-tops in the southern Coast Range. Where this type occurs near the coast, it is usually found away from the main fog zone. The climate is Mediterranean, with mild, wet winters and hot, dry summers. Within the Planning Area, there are 282.3 acres of Valley Oak Woodland habitat.

### **Aquatic Habitats**

**Riverine** habitats can occur in association with many terrestrial habitats. Riverine habitats are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats. This habitat requires intermittent or continually running water generally originating at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved oxygen will decrease, and the bottom will change from rocky to muddy. Within the City limits, there are approximately 303.3 acres of Riverine habitat.

**Lacustrine** habitats are inland depressions or dammed riverine channels containing standing water. These habitats may occur in association with any terrestrial habitats, Riverine, or Fresh Emergent Wetlands. They may vary from small ponds less than one acre to large areas covering several square miles. Depth can vary from a few inches to hundreds of feet. Typical lacustrine habitats include permanently flooded lakes and reservoirs, and intermittent lakes and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom. Most permanent lacustrine systems support fish life; intermittent types usually do not. Within the Planning Area, there are 7.8 acres of lacustrine habitat.

### **Other Cover Types**

**Barren** habitat is defined by the absence of vegetation. Any habitat with less than two percent total vegetation cover by herbaceous, desert, or non-wildland species and less than 10 percent cover by tree or shrub species is defined as barren habitat. The physical settings for permanently barren habitat represent extreme environments for vegetation. An extremely hot or cold climate, a near-vertical slope, an impermeable substrate, constant disturbance by either human or natural forces, or a soil either lacking in organic matter or excessively saline can each contribute to a habitat being inhospitable to plants. Within the Planning Area, there are approximately 96.0 acres of Barren habitat.

## **SPECIAL-STATUS SPECIES**

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The following discussion is based on a background search of special-status species that are documented in the CNDDDB, the CNPS Inventory of Rare and Endangered Plants, and the USFWS endangered and threatened species lists. The background search was regional in scope and focused on the documented occurrences within the 1 mile and 9 U.S. Geological Survey [USGS] Quadrangle Radius of Red Bluff (9-quadrangle).

### **Special Status Plants**

The search revealed documented occurrences of 5 special-status plant species within one mile of the Planning Area. The search revealed documented occurrences of 19 special-status plant species within the 9-quadrangle search area of the Planning Area.

Tables 3.4-2 and 3.4-3 provide a list of special-status plant species that are documented within the 9-quadrangle search area for the Planning Area, and their current status. Figure 3.4-3 illustrates the special status species located within the 9-quadrangle search area for the Planning Area.

**TABLE 3.4-2: SPECIAL STATUS PLANTS PRESENT OR POTENTIALLY PRESENT (ONE MILE)**

<i>PLANTS SPECIES LATIN NAME</i>	<i>COMMON NAME</i>	<i>FEDERAL STATUS</i>	<i>STATE STATUS</i>	<i>CALIFORNIA RARE PLANT RANK (CNPS)*</i>
<i>Cryptantha crinita</i>	silky cryptantha	None	None	1B.2
<i>Downingia pusilla</i>	dwarf downingia	None	None	2B.2
<i>Legenere limosa</i>	legenere	None	None	1B.1
<i>Juncus leiospermus</i> var. <i>ahartii</i>	Ahart's dwarf rush	None	None	1B.2
<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	None	None	1B.1

SOURCE: CDFW CNDDDB 2024.

\*1B.1 PLANTS RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE; SERIOUSLY THREATENED IN CALIFORNIA

1B.2 PLANTS RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE; FAIRLY THREATENED IN CALIFORNIA

2B.2 PLANTS RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE; FAIRLY THREATENED IN CALIFORNIA

**TABLE 3.4-3: SPECIAL STATUS PLANTS PRESENT OR POTENTIALLY PRESENT (9-QUADS)**

<i>PLANTS SPECIES LATIN NAME</i>	<i>COMMON NAME</i>	<i>FEDERAL STATUS</i>	<i>STATE STATUS</i>	<i>CALIFORNIA RARE PLANT RANK (CNPS)*</i>
<i>Acmispon rubriflorus</i>	red-flowered bird's-foot trefoil	None	None	1B.1
<i>Agrostis hendersonii</i>	Henderson's bent grass	None	None	3.2
<i>Antirrhinum subcordatum</i>	dimorphic snapdragon	None	None	4.3
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	None	None	1B.2
<i>Cryptantha crinita</i>	silky cryptantha	None	None	1B.2
<i>Downingia pusilla</i>	dwarf downingia	None	None	2B.2
<i>Euphorbia hooveri</i>	Hoover's spurge	Threatened	None	1B.2
<i>Euphorbia ocellata</i> ssp. <i>rattanii</i>	Stony Creek spurge	None	None	1B.2
<i>Fritillaria pluriflora</i>	adobe-lily	None	None	1B.2
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	None	Endangered	1B.2
<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	None	None	1B.1
<i>Legenere limosa</i>	legenere	None	None	1B.1
<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	None	None	4.2
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	None	None	1B.1
<i>Orcuttia pilosa</i>	hairy Orcutt grass	Endangered	Endangered	1B.1
<i>Orcuttia tenuis</i>	slender Orcutt grass	Threatened	Endangered	1B.1
<i>Paronychia ahartii</i>	Ahart's paronychia	None	None	1B.1

<i>PLANTS SPECIES LATIN NAME</i>	<i>COMMON NAME</i>	<i>FEDERAL STATUS</i>	<i>STATE STATUS</i>	<i>CALIFORNIA RARE PLANT RANK (CNPS)*</i>
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	None	None	1B.2
<i>Tuctoria greenei</i>	Greene's tuctoria	Endangered	Rare	1B.1

SOURCE: CDFW CNDDDB 2024.

\*.1B.1 PLANTS RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE; SERIOUSLY THREATENED IN CALIFORNIA

1B.2 PLANTS RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE; FAIRLY THREATENED IN CALIFORNIA

2B.2 PLANTS RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE; FAIRLY THREATENED IN CALIFORNIA

3.2 PLANTS ABOUT WHICH WE NEED MORE INFORMATION; FAIRLY THREATENED IN CALIFORNIA

4.2 PLANTS OF LIMITED DISTRIBUTION; FAIRLY THREATENED IN CALIFORNIA

4.3 PLANTS OF LIMITED DISTRIBUTION; NOT VERY THREATENED IN CALIFORNIA

## Special-Status Animals

The search revealed documented occurrences of 21 special-status animal species within one mile of the Planning Area. The search revealed documented occurrences of 36 special status animal species within the 9-quadrangle search area.

Tables 3.4-4 and 3.4-5 provide a list of the special-status animal species that are documented within the 9-quadrangle search area for the Planning Area, and their current status. Figure 3.4-3 illustrates the location of documented occurrences within the 9-quadrangle search area.

**TABLE 3.4-4: SPECIAL STATUS ANIMALS PRESENT OR POTENTIALLY PRESENT (ONE MILE)**

<i>ANIMAL SPECIES</i>	<i>COMMON NAME</i>	<i>FEDERAL STATUS</i>	<i>STATE STATUS</i>	<i>CDFW STATUS*</i>
<i>Acipenser medirostris</i> pop. 1	green sturgeon - southern DPS	Threatened	None	SSC
<i>Agelaius tricolor</i>	tricolored blackbird	None	Threatened	SSC
<i>Anthicus antiochensis</i>	Antioch Dunes anthicid beetle	None	None	
<i>Antrozous pallidus</i>	pallid bat	None	None	SSC
<i>Athene cunicularia</i>	burrowing owl	None	None	SSC
<i>Bombus crotchii</i>	Crotch's bumble bee	None	Candidate Endangered	
<i>Bombus pensylvanicus</i>	American bumble bee	None	None	
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None	
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	Threatened	None	
<i>Elanus leucurus</i>	white-tailed kite	None	None	FP
<i>Lasionycteris noctivagans</i>	silver-haired bat	None	None	
<i>Lasiurus cinereus</i>	hoary bat	None	None	
<i>Lasiurus frantzii</i>	western red bat	None	None	SSC
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	Endangered	None	
<i>Linderiella occidentalis</i>	California linderiella	None	None	
<i>Myotis yumanensis</i>	Yuma myotis	None	None	
<i>Oncorhynchus mykiss irideus</i> pop. 11	steelhead - Central Valley DPS	Threatened	None	SSC
<i>Oncorhynchus tshawytscha</i> pop. 7	chinook salmon - Sacramento River winter-run ESU	Endangered	Endangered	



Pandion haliaetus	osprey	None	None	WL
Riparia riparia	bank swallow	None	Threatened	
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	

SOURCE: CDFW CNDDDB 2024. \* FP - FULLY PROTECTED; SSC - SPECIES OF SPECIAL CONCERN; WL - WATCH LIST

**TABLE 3.4-5: SPECIAL STATUS ANIMALS PRESENT OR POTENTIALLY PRESENT (9-QUADS)**

ANIMAL SPECIES	COMMON NAME	FEDERAL STATUS	STATE STATUS	CDFW STATUS*
Actinemys marmorata	northwestern pond turtle	Proposed Threatened	None	SSC
Agelaius tricolor	tricolored blackbird	None	Threatened	SSC
Andrena blennospermatis	Blennosperma vernal pool andrenid bee	None	None	
Anthicus sacramento	Sacramento anthicid beetle	None	None	
Antrozous pallidus	pallid bat	None	None	SSC
Ardea alba	great egret	None	None	
Ardea herodias	great blue heron	None	None	
Athene cunicularia	burrowing owl	None	None	SSC
Atractelmis wawona	Wawona riffle beetle	None	None	
Bombus pensylvanicus	American bumble bee	None	None	
Branchinecta conservatio	Conservancy fairy shrimp	Endangered	None	
Branchinecta lynchi	vernal pool fairy shrimp	Threatened	None	
Buteo swainsoni	Swainson's hawk	None	Threatened	
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	Endangered	
Corynorhinus townsendii	Townsend's big-eared bat	None	None	SSC
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Threatened	None	
Elanus leucurus	white-tailed kite	None	None	FP
Erethizon dorsatum	North American porcupine	None	None	
Eumops perotis californicus	western mastiff bat	None	None	SSC
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	FP
Icteria virens	yellow-breasted chat	None	None	SSC
Lanx patelloides	kneecap lanx	None	None	
Lasionycteris noctivagans	silver-haired bat	None	None	
Lasiurus cinereus	hoary bat	None	None	
Lasiurus frantzii	western red bat	None	None	SSC
Lepidurus packardii	vernal pool tadpole shrimp	Endangered	None	
Linderiella occidentalis	California linderiella	None	None	
Myotis evotis	long-eared myotis	None	None	
Myotis yumanensis	Yuma myotis	None	None	
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Threatened	None	SSC
Pandion haliaetus	osprey	None	None	WL

Rana boylei pop. 1	foothill yellow-legged frog - north coast DPS	None	None	SSC
Riparia riparia	bank swallow	None	Threatened	
Setophaga petechia	yellow warbler	None	None	SSC
Spea hammondi	western spadefoot	Proposed Threatened	None	SSC
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	

SOURCE: CDFW CNDDDB 2024. \* FP - FULLY PROTECTED; SSC - SPECIES OF SPECIAL CONCERN; WL - WATCH LIST

### Sensitive Natural Communities

The California Department of Fish and Wildlife (CDFW) considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The CNDDDB search revealed documented occurrences of sensitive natural communities within the region. All of these community types were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them “highest inventory priorities” for future conservation. The CNDDDB documents four Sensitive Natural Communities within 1-mile of the Planning Area and each are briefly described below.

#### COASTAL AND VALLEY FRESHWATER MARSH

Coastal and Valley Freshwater Marsh is found along the coast and in coastal valleys near river mouths and around the margins of lakes and springs, and they are the most extensive in the upper portion of the Sacramento-San Joaquin River Delta. This natural community is common in the river oxbows and other areas of a flood plain. This natural community is found in areas that lack significant stream/river current and are permanently flooded by fresh water (rather than brackish, alkaline, or variable). Prolonged saturation permits accumulation of deep, peaty soils. Perennial, emergent monocots up to 4-5m tall dominate this habitat. They often form completely closed canopies.

#### GREAT VALLEY COTTONWOOD RIPARIAN FOREST

Great Valley Cottonwood Riparian Forest is found in fine-grained alluvial soils near perennial or nearly-perennial streams that provide subsurface irrigation even when the channel is dry. These sites are inundated yearly during spring, resulting in annual input of nutrients, soil, and new germination sites. This natural community is a dense, broadleafed, winter-deciduous riparian forest dominated by Fremont's cottonwood (*Populus fremontii*) and San Joaquin willow (*Salix goodingii*). Understories are dense, with abundant vegetative reproduction of canopy dominants. California wild grape (*Vitis californica*) is the most conspicuous vine species. Scattered seedlings and saplings of shade-tolerant species such as Box elder (*Acer negundo*) or Oregon ash (*Fraxinus latifolia*) may be found, but frequent flooding prevents their reaching into the canopy.

#### GREAT VALLEY MIXED RIPARIAN FOREST

Great Valley Mixed Riparian Forest is found on relatively fine-textured alluvium somewhat back from active river channels. These sites experience overbank flooding (with abundant alluvial deposition and groundwater recharge) but not too severe physical battering or erosion. This natural community is a tall, dense, winter-deciduous, broadleafed riparian forest with a tree

canopy that is fairly well closed and moderately to densely stocked with several species including Box elder (*Acer negundo*), California black walnut (*Juglans hindsii*), California sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*) and San Joaquin willow (*Salix goodingii*), red willow (*Salix laevigata*), and shining willow (*Salix lucida*). Understories consist of these taxa plus shade-tolerant shrubs like buttonbush (*Cephalanthus occidentalis*) and Oregon ash (*Fraxinus latifolia*). Several vine species are conspicuous in both tree and shrub canopies.

#### *GREAT VALLEY VALLEY OAK RIPARIAN FOREST*

The Great Valley Oak Riparian Forest is the highest elevational element of the riparian complex, this community intergrades with typically upland communities at the margins of the floodplain. This community is composed of medium-to-tall broadleaved, winter-deciduous species and is dominated by the Valley oak. Associated understory vegetation includes sycamore, Oregon ash, Hind's walnut, California rose, wild grape, poison oak, blackberry, and greenbriar.

#### *NORTHERN HARDPAN VERNAL POOL*

Northern Hardpan Vernal Pools occur on old to moderately old acidic terraces. These terraces are the outwash of soils eroded from the high mountains to the east. The terraces have an underlying iron-silica cemented hardpan in the subsoil that prevents water from draining out of the pool. Without this character to the soil, the pools could not exist.

### SALMON AND STEELHEAD FISHERIES

Additionally Sensitive Natural Communities have also been documents within the grater region including *Central Valley Drainage Fall Run Chinook Stream*. Central Valley fall-run Chinook salmon historically spawned in all major Central Valley rivers from the upper Sacramento, McCloud, and Pit rivers (Siskiyou County) in the north to the Kings River (King County) in the south. Today, they are restricted to a small fraction of their historical habitat by dams in every major river in the Central Valley.

Salmon and steelhead trout are anadromous fish species that are present in the Bay Delta and San Joaquin and Sacramento River Basins. Anadromous fish are born in freshwater rivers and streams, and then migrate to the Pacific Ocean to grow and mature before returning to their place of origin to spawn. The San Joaquin and Sacramento River system produces most of the Chinook salmon (*Oncorhynchus tshawytscha*) and a large percentage of the steelhead trout (*Oncorhynchus mykiss*) in California.

Anadromous fish resources once flourished naturally in the San Joaquin and Sacramento River system, but as a result of habitat destruction from water storage/diversion projects, flood control, mining, sedimentation, and bank degradation, they are protected species under the Federal Endangered Species Act. The San Joaquin and Sacramento River system has historically supported steelhead trout and four distinct spawning runs of Chinook salmon: fall, late fall, winter, and spring. The salmon runs have declined since the late 1800s and are now characterized as episodic. The Central Valley steelhead was Federally listed as threatened in 2003. The fall/late fall-run salmon is a Federal and State species of concern, and a candidate species for Federal listing. The spring-run Chinook salmon population is listed as threatened by both Federal and State agencies. Winter-run Chinook salmon population is listed as a Federally and State endangered species. Populations of Central Valley Steelhead and Chinook salmon are supported by natural spawning grounds and hatcheries within the San Joaquin and Sacramento River Basin.

Water remaining behind the dams by the start of the spawning run in October is often warmed by summer heat. Warm water and low water elevation are harmful to most coldwater anadromous fish species. Riparian vegetation is critical for the maintenance of high quality fish habitat. It provides cover, controls temperature, stabilizes stream banks, provides food, and buffers streams from erosion and impacts of adjacent land uses. Riparian vegetation also affects stream depth, current velocity, and substrate composition. The decline of riparian communities in California is a factor contributing to the loss of high quality fish habitat.

### **Wildlife Movement Corridors**

Wildlife corridors refer to contiguous tracts of habitat that connect larger areas of habitat and facilitate genetic exchange within a population or between subpopulations by allowing for movement within or between habitat patches. Habitat reduction and fragmentation are among the primary causes of species decline; consequently, the identification and preservation of key corridors is important to retaining native populations in Tehama County.

According to the California Essential Habitat Connectivity dataset available in CDFW's Biogeographic Information System (BIOS), the Project Area bisects an Essential Connectivity Area (ECA) that spans the entire length of the Project area north to south. Similarly, the California Fish Passage Assessment Database, available in BIOS, indicates 15 unassessed potential fish passage barriers.

### **Native Nursery Sites**

Native Nursery Sites refer to areas in which members of the same species collectively breed and rear offspring in substantial numbers. There is one native nursery site in the vicinity of the Planning Area, the Tehama Environmental Solutions located at 910 Main Street.

### 3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the State and nation including the CDFW, the USFWS, the USACE, and the National Marine Fisheries Service (NMFS). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the Federal, State, and local regulations that are applicable to implementing the General Plan.

#### FEDERAL

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##### **Federal Endangered Species Act**

The Federal Endangered Species Act, passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a “take” unless a take permit is issued by the United States Fish and Wildlife Service. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

##### **Migratory Bird Treaty Act**

To kill, possess, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

##### **Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act (16 USC Section 668) protects these birds from direct take and prohibits the take or commerce of any part of these species. The USFWS administers the act, and reviews Federal agency actions that may affect these species.

##### **Clean Water Act – Section 404**

Section 404 of the Clean Water Act (CWA) regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §323.2(f)].

Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows [33 C.F.R. §328.3(a)]. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

The USACE is the agency responsible for administering the permit process for activities that affect waters of the U.S. Executive Order 11990 is a Federal implementation policy, which is intended to result in no net loss of wetlands.

### **Clean Water Act – Section 401**

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the Regional Water Quality Control Board. To obtain the water quality certification, the Regional Water Quality Control Board must indicate that the proposed fill would be consistent with the standards set forth by the State.

### **Department of Transportation Act - Section 4(f)**

Section 4(f) has been part of Federal law since 1966. It was enacted as Section 4(f) of the Department of Transportation (DOT) Act of 1966 and set forth in Title 49 United States Code (U.S.C.), Section 1653(f). In January 1983, as part of an overall recodification of the DOT Act, Section 4(f) was amended and codified in 49 U.S.C. Section 303. This law established policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites as follows:

It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities. The Secretary of Transportation may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of a historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if: a) There is no prudent and feasible alternative to using that land; and b) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

**Rivers and Harbors Act of 1899**

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

**STATE**

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**Fish and Game Code §2050-2097 - California Endangered Species Act**

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

**Fish and Game Code §1900-1913 California Native Plant Protection Act**

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the State. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

**Fish and Game Code §3503, 3503.5, 3800 - Predatory Birds**

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called "raptors," are protected. The law indicates that it is unlawful to take, possess, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

**Fish and Game Code §1601-1603 – Streambed Alteration**

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a "Streambed Alteration Agreement" from CDFW prior to any alteration of a lake bed, stream channel, or their banks.

Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

### **Public Resources Code § 21000 - California Environmental Quality Act**

CEQA identifies that a species that is not listed on the Federal or State endangered species list may be considered rare or endangered if the species meets certain criteria. Under CEQA public agencies must determine if a project would adversely affect a species that is not protected by FESA or CESA. Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e., candidate or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere. List 3 contains plants where additional information is needed. List 4 contains plants with a limited distribution.

### **Public Resources Code § 21083.4 - Oak Woodlands Conservation**

In 2004, the California legislature enacted SB 1334, which added oak woodland conservation regulations to the Public Resources Code. This new law requires a county to determine whether a project, within its jurisdiction, may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county must require oak woodland mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. Such mitigation alternatives include: conservation through the use of conservation easements; planting and maintaining an appropriate number of replacement trees; contribution of funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures developed by the county.

### **California Oak Woodland Conservation Act**

The California Legislature passed Assembly Bill 242, known as the California Oak Woodland Conservation Act, in 2001 as a result of widespread changes in land use patterns across the landscape that were fragmenting oak woodland character over extensive areas. The Act created the California Oak Woodland Conservation Program within the Wildlife Conservation Board. The legislation provides funding and incentives to ensure the future viability of California’s oak woodland resources by maintaining large scale land holdings or smaller multiple holdings that are not divided into fragmented, nonfunctioning biological units. The Act acknowledged that the



conservation of oak woodlands enhances the natural scenic beauty for residents and visitors, increases real property values, promotes ecological balance, provides habitat for over 300 wildlife species, moderates temperature extremes, reduces soil erosion, sustains water quality, and aids with nutrient cycling, all of which affect and improve the health, safety, and general welfare of the residents of the State.

### **California Wetlands Conservation Policy**

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and Federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

### **Natural Community Conservation Planning Act**

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

### **Water Quality Control Plan for the Sacramento-San Joaquin River Basins**

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), adopted by the CVRWQCB in 1998, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and San Joaquin River basins, including the Delta.

State and federal laws mandate the protection of designated "beneficial uses" of water bodies. State law defines beneficial uses as "domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves" (Water Code Section 13050[f]). Additional protected beneficial uses of the San Joaquin River include groundwater recharge and fresh water replenishment.

### 3.4.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

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Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

#### IMPACTS AND MITIGATION

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**Impact 3.4-1: General Plan implementation could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant)**

Approval of the General Plan would not directly approve or entitle any development or infrastructure projects. However, implementation of the General Plan and Land Use Map would allow and facilitate future development in Red Bluff, which could result in adverse impacts on special-status plant and wildlife species, as well as sensitive natural habitats or wildlife movement corridors.

#### SPECIAL STATUS PLANT SPECIES

The search revealed documented occurrences of six special-status plant species within one mile of the Planning Area. The search revealed documented occurrences of 19 special status plant species within the 9 quads of the Planning Area of which five occur within the one-mile radius. Tables 3.4-2 and 3.4-4 provide a list of the special-status plant species that are documented within approximately one mile and 9 quads of the Planning Area, along with their current protective status. Figure 3.4-3 illustrates the special status species located within approximately 16 quads of the Planning Area.

Subsequent development under the proposed General Plan could result in the direct loss of habitat areas associated with these special status plant species since suitable habitat for these species does occur in the region. Additionally, indirect impacts on special-status plant species could occur with the implementation of the General Plan. Indirect impacts could include habitat degradation as a result of impacts on water quality.

Special status plant species receive protection from various Federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of plant species without a special permit. Additionally, the proposed General Plan includes numerous policies and actions intended to reduce or avoid impacts on special-status plant species. These policies and actions are listed below.

#### SPECIAL STATUS ANIMAL SPECIES

The search revealed documented occurrences of 36 special status animal species within approximately 9 quads of the Planning Area. Of these species, 19 are documented within approximately one mile of the City's SOI. Tables 3.4-4 and 3.4-5 provide a list of the special-status animal species that are documented within approximately one mile and 16 quads of the Planning Area, along with their current protective status. Figure 3.4-3 illustrates the special status species located within approximately 16 quads of the Planning Area.

While most new development in Red Bluff that would occur under the proposed General Plan would occur in areas that have been previously developed, subsequent development under the proposed General Plan could result in the direct loss of habitat areas associated with these special-status animal species, since suitable habitat for these species does occur in the region and may occur on future development project sites within Red Bluff. Additionally, indirect impacts on special-status animal species could occur with the implementation of the General Plan. Indirect impacts could include habitat degradation as a result of impacts on water quality, increased human presence, and the loss of foraging habitat.

Special-status animal species receive protection from various Federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of a species or direct impact on foraging and breeding habitat without a special permit. Additionally, the proposed General Plan includes numerous policies and actions intended to reduce or avoid impacts on special-status animal species. These policies and actions are listed below.

## CONCLUSION

Construction and maintenance activities associated with future development projects under the proposed General Plan could result in the direct and indirect loss or indirect disturbance of special status plant or animal species or their habitats that are known to occur, or have the potential to occur, in the region. Impacts on special status species or their habitat could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. Significant impacts on special status species associated with individual subsequent projects could include:

- increased mortality caused by higher numbers of automobiles in new areas of development;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through construction areas;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;
- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special status nesting birds, including raptors, and other non-special status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special status raptor species;
- loss of migration corridors resulting from the construction of permanent structures or features; and
- impacts to fisheries/species associated with waterways.

However, implementation of the General Plan policies and actions listed below would assist in minimizing impacts. Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of special-status plants and animals, including habitat.

The City of Red Bluff has prepared the General Plan to include numerous policies and actions intended to protect special status plants and animals, including habitat, from adverse effects associated with future development and improvement projects. Additionally, the General Plan requires project proponents to satisfy applicable U.S. Endangered Species Act (ESA), California

Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

While future development has the potential to result in significant impacts on protected special status plants and animals, including habitat, the implementation of the policies and actions described above and listed below, as well as Federal and State regulations, would reduce impacts on these resources to a **less than significant** level.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### CONSERVATION ELEMENT POLICIES

*COS 1.2: Encourage infill development in existing urbanized areas, and direct growth out of habitat areas.*

*COS 1.3: Encourage projects to take the natural environment into consideration and act as a buffer to sensitive areas.*

*COS 1.4 Restrict urban intrusion into floodplains and associated greenway corridors.*

*COS 3.1: Conserve and protect biological communities in Red Bluff, with a focus on sensitive habitat areas associated with endangered, threatened, migratory, or special-status species of plants and animals.*

*COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.*

*COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.*

##### CONSERVATION ELEMENT ACTIONS

*COS-3a: Continue to maintain and apply the City's Trees and Shrubs Regulations (Municipal Code Chapter 23A) to conserve trees and other foliage wherever practical.*

*COS-3b: Make available a list of plants and trees native to the region that are suitable for use in landscaping, consistent with the requirements of California's Model Water Efficient Landscape Ordinance. The plant and tree species should be drought-tolerant, and consideration should be given to the suitability of the plant and tree species for use as habitat to native animals, birds, and insects.*

*COS-3c: Require all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.*

*COS-3e: Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of creeks, wetlands, and riparian habitats.*

**Impact 3.4-2: General Plan implementation could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant)**

As describe in the environmental setting, the California Department of Fish and Wildlife (CDFW) considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The California Natural Diversity Database (CNDDDB) search revealed documented occurrences of sensitive natural communities within the Red Bluff planning area and region. as described previously in the environmental setting, within one mile of the planning area the CNDDDB search revealed 4 sensitive natural communities including: Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Oak Riparian Forest, and Northern Hardpan Vernal Pool.

Natural Communities similar to this type were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them “highest inventory priorities” for future conservation.

While not always documented as a sensitive natural community in the CNDDDB, streams, rivers, wet meadows, and vernal pools are of high concern because they provide unique aquatic habitats for many endemic species, including special-status plants, birds, invertebrates, and amphibians. Red Bluff is located in a bioregion that supports a variety of habitats and species, including migratory birds, fish like salmon and steelhead, and numerous plant species adapted to its Mediterranean climate.

As noted in Table 3.4-1, approximately 500.1 acres of Valley Foothill Riparian habitat is located within the Planning Area. Many species of birds, mammals, reptiles, and amphibians depend on California’s riparian habitats, including the endangered riparian brush rabbit and the endangered riparian woodrat. Development accommodated by the General Plan in or near riparian and habitat areas could result in the removal of vegetation or further habitat degradation from pollutants transported by urban runoff, changes in vegetation as a result of changes in land use and management practices, as well as altered site hydrology from the construction of adjacent urban development and roadways. Alterations to the flow, bed, channel, or bank of creeks and streams within the Planning Area would affect the ability of riparian corridors to provide habitat for wildlife species that utilize them for feeding, cover, and nesting, and thus could result in a loss of riparian habitat function; therefore, this is considered a potentially significant impact.

The City of Red Bluff has prepared the General Plan to include numerous policies and actions intended to protect sensitive natural communities, including riparian habitat, from adverse effects associated with future development and improvement projects. The General Plan also includes a number of policies and actions related to habitat restoration and protection, including riparian and aquatic habitats.

No development projects or other land disturbing activities are proposed or would be approved through adoption of the General Plan Update. Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including riparian habitats. While future development has the potential to result in impacts on protected habitats, the implementation of the policies and actions discussed above and listed below, as well as Federal and State regulations, would ensure that program level impacts on these resources are **less than significant**.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### **CONSERVATION ELEMENT POLICIES**

*COS 1.2: Encourage infill development in existing urbanized areas, and direct growth out of habitat areas.*

*COS 1.3: Encourage projects to take the natural environment into consideration and act as a buffer to sensitive areas.*

*COS 1.4 Restrict urban intrusion into floodplains and associated greenway corridors.*

*COS 3.1: Conserve and protect biological communities in Red Bluff, with a focus on sensitive habitat areas associated with endangered, threatened, migratory, or special-status species of plants and animals.*

*COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.*

*COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.*

*COS 3.4: Promote awareness of natural communities existing in Red Bluff through partnerships and educational opportunities.*

##### **CONSERVATION ELEMENT ACTIONS**

*COS-3a: Continue to maintain and apply the City's Trees and Shrubs Regulations (Municipal Code Chapter 23A) to conserve trees and other foliage wherever practical.*

*COS-3b: Make available a list of plants and trees native to the region that are suitable for use in landscaping, consistent with the requirements of California's Model Water Efficient Landscape Ordinance. The plant and tree species should be drought-tolerant, and consideration should be given to the suitability of the plant and tree species for use as habitat to native animals, birds, and insects.*

*COS-3c: Require all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.*

*COS-3e: Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of creeks, wetlands, and riparian habitats.*

**Impact 3.4-3: General Plan implementation could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than Significant)**

Streams, rivers, wet meadows, and vernal pools (wetlands and jurisdictional waters) are of high concern because they provide unique aquatic habitat (perennial and ephemeral) for many endemic species, including special status plants, birds, invertebrates, and amphibians. These aquatic habitats oftentimes qualify as protected wetlands or jurisdictional waters and are protected from disturbance through the CWA.

As shown on Figure 3.4-2, Fresh Emergent Wetland are found in the Planning Area. The majority of land adjacent to wetlands within the City limits is designated Riverine and Annual Grassland while the majority land adjacent to wetlands outside of the City limits but within the SOI boundary is designated to Urban, Annual Grassland, and Riverine.

Section 404 of the CWA requires any project that involves disturbance to a wetland or water of the U.S. to obtain a permit that authorizes the disturbance. If a wetland or jurisdictional water is determined to be present, then a permit must be obtained from the USACE to authorize a disturbance to the wetland. Although subsequent projects may disturb protected wetlands and/or jurisdictional waters, the regulatory process that is established through Section 404 of the CWA ensures that there is "no net loss" of wetlands or jurisdictional waters. If, through the design process, it is determined that a future development project cannot avoid a wetland or jurisdictional water, then the USACE would require that there be an equal amount of wetland created elsewhere to mitigate any loss of wetland.

The proposed project is a planning document that does not itself approve any specific physical changes to the environment, adoption of the proposed General Plan would not directly impact the environment. However, the project could have an indirect change on the physical environment through subsequently projects that are consistent with the buildout that is contemplated in the General Plan. The implementation of an individual project would require a detailed and site-specific review of the site to determine the presence or absence of water



features. If water features are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process.

Construction and development activities associated with individual future projects could result in the disturbance or loss of waters of the United States. This includes perennial and intermittent drainages; unnamed drainages; vernal pools; freshwater marshes; and other types of seasonal and perennial wetland communities. Wetlands and other waters of the United States could be affected through direct removal, filling, hydrological interruption (including dewatering), alteration of bed and bank, encroachment, habitat conversion, routine maintenance, and other development-related activities. Impacts on wetlands and other waters could occur through habitat conversion, encroachment, routine maintenance, or other activities in the immediate vicinity of waterways and in habitat supporting wetlands. Indirect impacts could result from adjacent development that leads to habitat modifications such as changes in hydrology and reduction in water quality caused by urban runoff, erosion, and siltation.

This is considered a potential impact, which would be minimized through the implementation of the policies and actions listed below. Specifically, General Plan Policy COS 3.2 calls for the protection oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and calls for cooperation with the County to provide protection for those areas located outside the city limits within the Sphere of Influence. Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including protected wetlands. The City of Red Bluff has prepared the General Plan to include numerous policies and actions intended to protect wetlands and waters of the U.S. from adverse effects associated with future development and improvement projects. While future development has the potential to result in significant impacts to protected water features, the implementation of the policies and actions listed below, as well as Federal and State regulations, would reduce program level impacts to these resources to a **less than significant** level.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### **CONSERVATION ELEMENT POLICIES**

*COS 1.3: Encourage projects to take the natural environment into consideration and act as a buffer to sensitive areas.*

*COS 3.1: Conserve and protect biological communities in Red Bluff, with a focus on sensitive habitat areas associated with endangered, threatened, migratory, or special-status species of plants and animals.*

*COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.*

*COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.*

#### CONSERVATION ELEMENT ACTIONS

*COS-3c: Require all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.*

*COS-3e: Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of creeks, wetlands, and riparian habitats.*

#### **Impact 3.4-4: General Plan implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)**

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (i.e., linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat fragments). Wildlife habitat corridors maintain connectivity for daily movement, travel, mate-seeking, and migration; plant propagation; genetic interchange; population movement in response to environmental change or natural disaster; and recolonization of habitats subject to local extirpation or removal. The suitability of a habitat as a wildlife movement corridor is related to, among other factors, the habitat corridor's dimensions (length and width), topography, vegetation, exposure to human influence, and the species in question.

Species utilize movement corridors in several ways. "Passage species" are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers. Passage species use corridors for brief durations, such as seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet the habitat requirements necessary for a passage species' everyday survival. "Corridor dwellers" are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and use corridors for a greater length of time.

The areas of land near waterways within the Red Bluff City Limits are designated for urban uses by the proposed Land Use Map and are generally developed with urban and developed uses currently. All future development would be reviewed and would be required to comply with the General Plan, and adopted Federal, State, and local regulations for the protection waterways. The City of Red Bluff has prepared the General Plan to include numerous policies and actions intended to protect waters of the U.S. from adverse effects associated with future development and improvement projects.

Because the proposed project is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed General Plan would not directly impact the environment. However, future development in the Planning Area could impede the movement of wildlife by disturbing and/or blocking local movement corridors or by disturbing nursery sites. Many of the species that would normally use annual grasslands and vernal pool complexes as foraging areas would not as easily move across the future urbanized landscapes planned for development. The General Plan includes areas designated for Open Space uses, including, creeks, riparian areas, and grasslands, which would become the primary wildlife corridors as the landscape urbanizes. However, there is still a reasonable chance that movement corridors could be impacted throughout the buildout of subsequent individual projects.

Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of movement corridors. The City of Red Bluff has prepared the General Plan to include policies and actions intended to protect movement corridors from adverse effects associated with future development and improvement projects. The detailed and site-specific review of the site should include a determination of whether wildlife movement corridors are present or absent on a given project site. If movement corridors are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts on these resources. The requirements of these Federal and State laws are implemented through the project review, conditions of approval, and permit process.

While future development has the potential to result in impacts on protected movement corridors, the implementation of the policies and action listed below, as well as Federal and State regulations, would ensure program level impacts on these resources are **less than significant** level.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### **CONSERVATION ELEMENT POLICIES**

*COS 1.2: Encourage infill development in existing urbanized areas, and direct growth out of habitat areas.*

*COS 1.3: Encourage projects to take the natural environment into consideration and act as a buffer to sensitive areas.*

*COS 1.4 Restrict urban intrusion into floodplains and associated greenway corridors.*

*COS 1.5: Protect Red Bluff's scenic resources, including river and creek corridors, riparian areas, oak woodland, hillside views, and other significant natural features, to the extent practical.*

*COS 3.1: Conserve and protect biological communities in Red Bluff, with a focus on sensitive habitat areas associated with endangered, threatened, migratory, or special-status species of plants and animals.*

*COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.*

*COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.*

#### CONSERVATION ELEMENT ACTIONS

*COS-3a: Continue to maintain and apply the City's Trees and Shrubs Regulations (Municipal Code Chapter 23A) to conserve trees and other foliage wherever practical.*

*COS-3b: Make available a list of plants and trees native to the region that are suitable for use in landscaping, consistent with the requirements of California's Model Water Efficient Landscape Ordinance. The plant and tree species should be drought-tolerant, and consideration should be given to the suitability of the plant and tree species for use as habitat to native animals, birds, and insects.*

*COS-3c: Require all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.*

*COS-3e: Collaborate with responsible agencies to plan and implement an integrated management plan for the long-term conservation and restoration of creeks, wetlands, and riparian habitats.*

*COS-3f: Where feasible, vegetation and tree removal should occur outside of the bird nesting season (February 1 to August 31). If not feasible, the project applicant shall retain a qualified biologist to conduct a nesting bird survey no more than three days prior to the commencement of construction activities. The biologist conducting the clearance survey shall document the negative results if no active bird nests are observed on the project site or within the vicinity during the clearance survey with a brief letter report, submitted to the City of Red Bluff Community Development Department prior to construction, indicating that no impacts to active bird nests would occur before construction can proceed. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside a 300-foot buffer around the active nest. For listed and raptor species, this buffer shall be 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure the nesting behavior is not adversely affected by construction activity, pursuant to the Migratory Bird Treaty Act (MBTA). Prior to the commencement of construction activities and the issuance of any permits, results of the pre-construction survey and any subsequent monitoring shall be provided to the City of Red Bluff Community Development Department, California Department of Fish and Wildlife (CDFW), and other appropriate agencies.*

**Impact 3.4-5: The General Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant)**

The proposed project is a policy document, in which local policies are established. This EIR presents the numerous policies of the General Plan. Red Bluff has established a comprehensive plan for planting and maintenance of trees, plants and shrubs within the city. Chapter 23A of the City's Municipal Code includes rules and regulations relating to the planting, care, removal and maintenance of trees, plants and shrubs within or adjacent to public streets and rights-of-way, and heritage trees and mature native trees (as defined herein) located within the city. The General Plan itself does not conflict with its policies and is internally consistent. Additionally, the General Plan supports the City's Municipal Code requirements related to conservation and tree protection through policies and actions listed below. Subsequent development projects will be required to comply with the General Plan policies, as well as the Municipal Code. As such, this impact would be **less than significant**.

***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS*****CONSERVATION ELEMENT POLICIES**

COS 3.1: Conserve and protect biological communities in Red Bluff, with a focus on sensitive habitat areas associated with endangered, threatened, migratory, or special-status species of plants and animals.

COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.

COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.

**CONSERVATION ELEMENT ACTIONS**

COS-3a: Continue to maintain and apply the City's Trees and Shrubs Regulations (Municipal Code Chapter 23A) to conserve trees and other foliage wherever practical.

COS-3b: Make available a list of plants and trees native to the region that are suitable for use in landscaping, consistent with the requirements of California's Model Water Efficient Landscape Ordinance. The plant and tree species should be drought-tolerant, and consideration should be given to the suitability of the plant and tree species for use as habitat to native animals, birds, and insects.

COS-3c: Require all new developments to achieve a status of no net-loss of native tree species. This may be accomplished through site design, replanting, or any other method that the City deems acceptable.

**Impact 3.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan (Less than Significant)**

The City of Red Bluff is currently not a permittee of a Habitat Conservation Plan or Natural Community Conservation Plan. Given that there is no adopted Habitat Conservation Plan or Natural Community Conservation Plan within the Planning Area the General Plan would have a **less than significant** impact relative to this topic.

Figure 3.4-1. California Bioregions

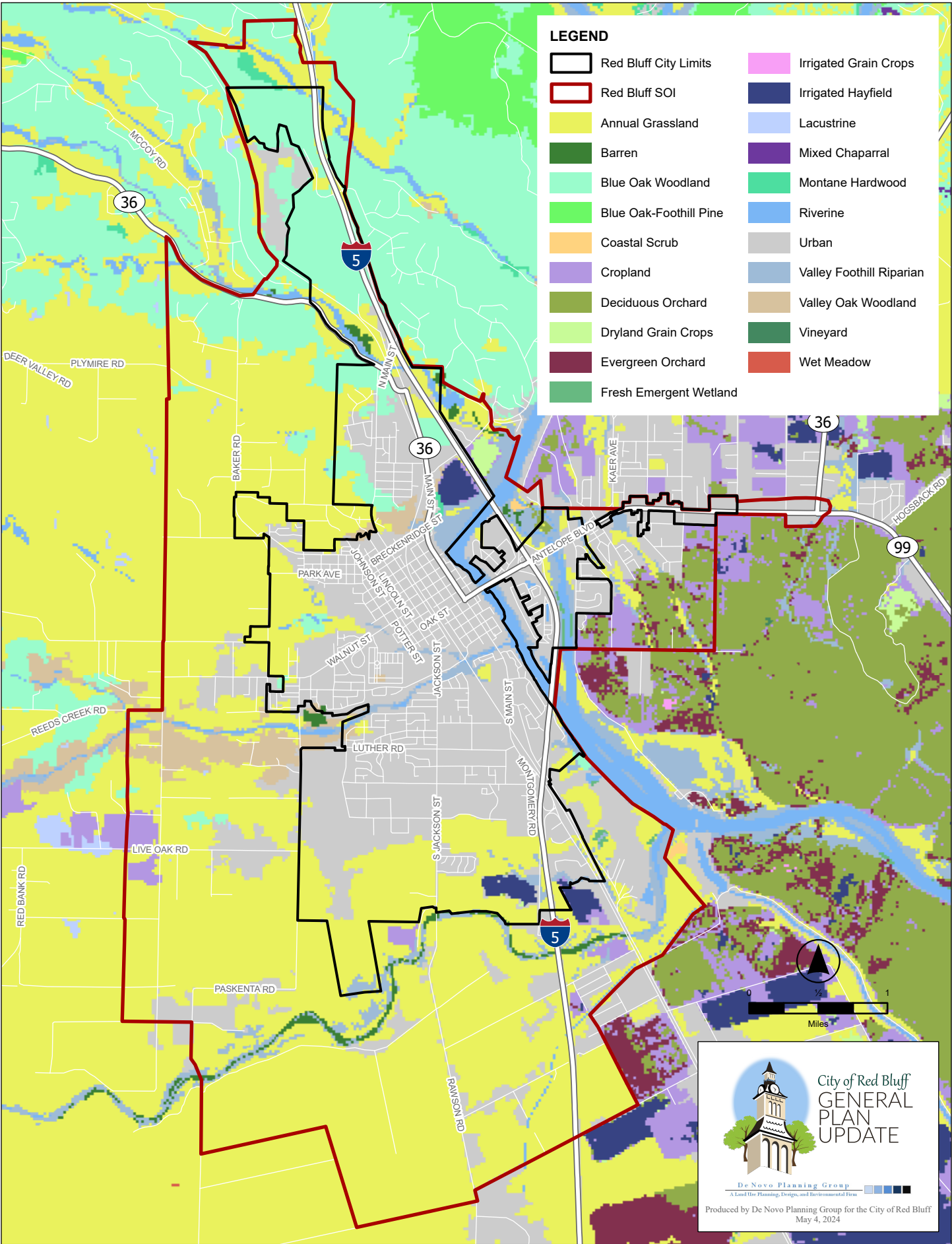


Sources: INACC 2004; ArcGIS Map Service; Tehama County GIS; California State Geoportal.

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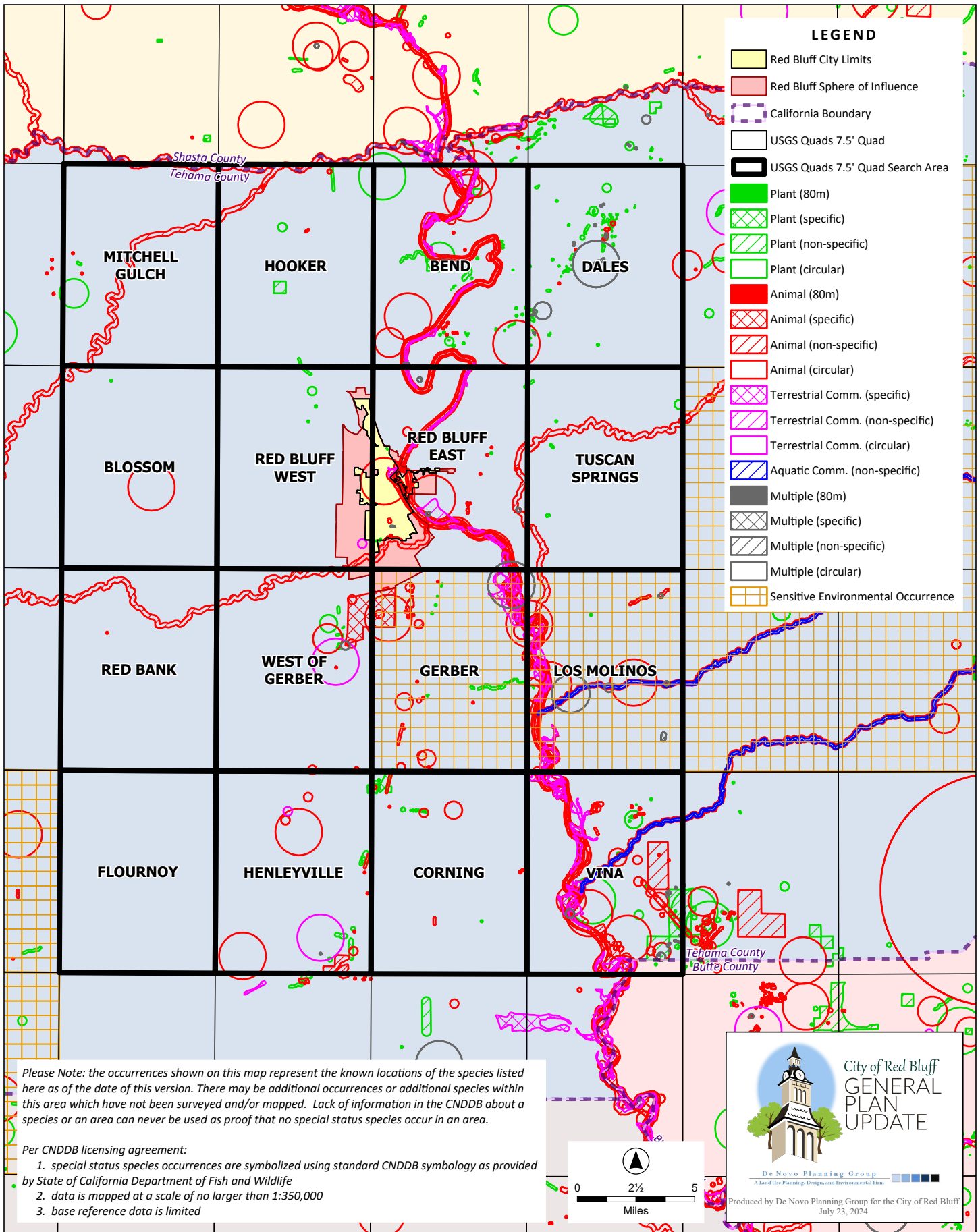
Figure 3.4-2. Land Cover Types



Sources: CalFire FRAP FYEG\_15\_1; Tehama County GIS; California State Geportal.

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Figure 3.4-3. California Natural Diversity Database



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Cultural resources are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. Preservation of the city's cultural heritage should be considered when planning for the future.

This section provides a background discussion of the prehistory, ethnology, historical period background, and cultural resources found in Red Bluff. This section is organized with an existing setting, regulatory setting, and impact analysis. Paleontological resources are discussed in Section 3.6, Geology and Soils, of this Draft EIR.

The City received two comment letters related to this environmental topic during the Notice of Preparation (NOP) comment period. The Native American Heritage Commission (NAHC) submitted a letter that provided an overview of tribal consultation requirements, and provided examples of recommended approaches to reducing potential impacts to cultural and tribal resources. The issues raised in this letter have been addressed in this chapter of the Draft EIR. Additionally, one NOP letter was received from a Tribal Organization. This included a letter from the Paskenta Band of Nomlaki Indians requesting formal consultation on the project. The consultation has been initiated, but the results have not been concluded at this time.

No specific resources were identified in either letter, and all issues raised during the NOP comment period have been addressed in this chapter of the Draft EIR. The NOP and all comments received during the NOP comment period are included in Appendix A of this Draft EIR.

## KEY TERMS

The following key terms are used throughout this section to describe cultural and tribal resources and the framework that regulates them:

**Archaeology.** The study of historic or prehistoric peoples and their cultures by analysis of their artifacts and monuments.

**Complex.** A patterned grouping of similar artifact assemblages from two or more sites, presumed to represent an archaeological culture.

**Ethnography.** The study of contemporary human cultures.

**Midden.** A deposit marking a former habitation site and containing such materials as discarded artifacts, bone and shell fragments, food refuse, charcoal, ash, rock, human remains, structural remnants, and other cultural leavings.

### 3.5.1 ENVIRONMENTAL SETTING

#### **Prehistory**

For the Red Bluff GPU study area, a regional chronology proposed by Farber and Neuenschwander (1984) based on results from the Squaw Creek site in Shasta County proposed three periods:

Early Prehistoric Period	7600 B.P. - 5000 B.P.
Middle Prehistoric Period	5000 B.P. - 1450 B.P.
Late Prehistoric Period	1450 B.P. - 100 B.P.

Early Prehistoric Period--Within the immediate project vicinity, only Component I at Squaw Creek dates to the Early Prehistoric Period. The earliest deposits at Squaw Creek appear to reflect occasional visits by a highly mobile band practicing, primarily, big game hunting supplemented with collection and processing of seeds. As time went on their use of the site became more substantial, new forms of dart points became the norm and reliance on plant foods increased (Clewett and Sundahl 1983:83). The shift to different point styles could result from a change in hunting practices (lowered emphasis on big game?), an improved technology for taking large game, or a change in the group using the site to a population with different cultural affiliations.

Middle Prehistoric Period--The long-time span assigned to Component II at Squaw Creek defines the Middle Prehistoric Period. This period stretches from the first intensive occupation of most sites in the southern Cascades through the introduction of the bow and arrow and generally features a population with less emphasis on big game hunting and more emphasis on vegetable food collecting and processing. Over time, these groups become increasingly adapted to their environment, in part by responding to long term changes in environmental conditions.

Late Prehistoric Period--The introduction of the bow and arrow marks the beginning of the Late Prehistoric Period. This is considered a prime temporal marker, since the appearance of smaller projectile points begins almost everywhere at this time *circa* 1700 B.P. to 1500 B.P. In some areas, its introduction is accompanied by a simple reduction in size of the projectile point forms currently used in the region. Elsewhere, the introduction of the bow and arrow apparently came as a package, that is, the style of the new, smaller point forms were completely different from the earlier forms.

Perhaps correlated with the results of the introduction of the bow and arrow but occurring somewhat later in time depending on the region, was a widespread intensification of resource exploitation. For the southeast Great Basin, Bettinger and Baumhoff (1982) see this as a shift to resources requiring comparatively high energy to process, but which are common (i.e., grass seeds), in comparison to those requiring less energy to process but are less common or are more widely distributed (i.e., deer). The shift in the Central Valley is clearly towards acorn processing and an anadromous fishing emphasis, seen in the Northern Valley as the Shasta Complex, which appears to coincide with the movement of the Wintu into the area. In the southern Cascades there appears to be a more conservative response, which Clewett and Sundahl (1983) term the Tehama Complex.

The Tehama Complex reflects a seasonal round similar to the ethnographic for the Yana, i.e., villages are seasonally occupied, there are diversified resource exploitation strategies, and

seasonal settlements are located both on major rivers and their tributaries. This seasonal scheduling stands in contrast to that of the Shasta Complex is better correlated with the population increase and intensified resource exploitation characteristic of that period. The villages are permanent, located next to the major rivers, and there is heavy reliance upon anadromous fish and acorns.

### **Ethnology**

The Wintu are the northernmost dialectical groups of the Wintun, whose territory roughly incorporates the western side of the Sacramento Valley from the Carquinez Straits north to include most of the upper Sacramento River drainage, the McCloud River, and the lower reaches of the Pit River. The Wintun, a collective name, were subdivided into three sub-groups with the Southern, Central, and the Northern dialects known respectively as Patwin, Nomlaki, and Wintu. The area surrounding the City of Red Bluff General Plan Study Area is reported to be the territory of the River Nomlaki (Goldschmidt 1978:341).

Although economic subsistence was heavily weighted toward the acorn, the staple of the diet, the rich riverine resources of the Sacramento River supplied a large variety of foodstuffs. Hunting of game and small mammals augmented the diet with protein. Seasonal procurement of vegetable foods and the hunting of game occurred throughout the territory held by villages.

Villages were usually situated along rivers and streams or close to springs where reliable water supplies allowed a semi-permanent occupation. Major villages were located along the riverbanks, with locations oriented to higher spots on the natural levees. Smaller villages tended to be along the tributary streams and near springs. Cultural resources surveys in the region have demonstrated that there was very heavy use of tributary streams and other areas at a distance from the main river, while early ethnographies had emphasized the concentration of population along the Sacramento.

### **Historic Period Background**

The origin of Tehama County began in 1856, with the incorporation of portions of Colusa, Butte and Shasta Counties. The community of Tehama was the first county seat, but this honor was transferred to Red Bluff in 1857 (Hoover, Rensch, and Rensch 1970: 547).

The earliest European explorers in the area was most likely the Spanish explorer Luis Argüello in 1821, followed seven years later by Jedediah Strong Smith. Other fur trappers and travelers followed, and the route along the Sacramento River became known as the California-Oregon Trail, and later, the California-Oregon Road (Hoover, Rensch, and Rensch 1970: 547).

Interest in settlement in the county began somewhat by accident when John Bidwell, Peter Lassen, and John Burheim were in pursuit of horse thieves in 1843 and ended their chase somewhere near Red Bluff. Peter Lassen was so impressed with the area that he applied for a Mexican land grant for Rancho Bosquejo, lands south of present-day Red Bluff.

The community of Red Bluff was named after the prominent geologic feature located along the Sacramento River. The earliest known reference to the future town is in May 1850 when Sashel Woods and Charles L. Wilson were noted to be laying out a town at Red Bluffs, or the Bluffs (Bruff cited in Gudde 1969:264). Other early names applied to Red Bluff include Leodocia and Covertsburg. By 1854, maps showed the community as Red Bluffs (Gudde 1969:264).

### ***William B. Ide***

The post-Contact history of early Red Bluff begins with William Brown Ide, born in 1796 in Rutland, Massachusetts. Ide had little formal education, but became a carpenter, working with his father. In 1820, Ide married Susan Haskell and continued to work as a carpenter in Vermont. In 1833, he began his move westward, moving the wife and six children to Canton, Kentucky. After a short stay there, he moved to Madison, Ohio. The Ide family remained in Ohio until 1838, when Ide sold the farm and the family moved to a farm eight miles east of Springfield, Illinois.

Although it has been disputed, it may be that Ide became a member of the Mormon faith during his stay in Ohio. In 1844, Ide had rejoined the Mormon fellowship and was a participant in the political convention which nominated Joseph Smith for President of the United States. In the fall of 1844, Ide sold his Illinois farm and moved the family to live with his brother and to prepare for their trip westward to Oregon.

The family left April 1, 1845, with three wagons for the family and 165 head of cattle. At Fort Hall, Caleb Greenwood helped to convince some of the members of the party to travel to California instead of Oregon, including the Ide family. After a rough journey, Ide and his family arrived at Sutter's Fort on October 25, 1845, with sixty-five head of the cattle.

Ide stayed at Sutter's Fort but a few days, leaving to travel north to work for Peter Lassen. This was short-lived and wintered over in a log cabin they built on another ranch. Ide traveled north to begin work on a house on the lands of Josiah Belden, the Rancho de la Barranca Colorado. Belden offered Ide a one-half interest in the ranch in exchange for taking care of Belden's cattle on the ranch for three years, giving him the northern half. In April of 1846, the Ide family moved into the cabin.

In June of that year, Sutter called for all men to come to join him to stop the advancing party led by Lieutenant Arce, thought to be planning to drive Americans from California. This culminated in what is called the Bear Flag Revolt declaring California an independent republic at Sonoma, with Ide taking a major leadership role. After John Fremont and U.S. Troops arrived, Ide and other Bear Flaggers joined his command as the California Battalion. In November of 1846, Ide and his son William returned to his family on the rancho, having served as commander of Sonoma, and in some recollections as Governor of California, and President of California.

Ide became involved in public life, serving as an alcalde, and also working as a land surveyor. After the January 1848 discovery of gold, Ide and his sons mined somewhere in Upper Sacramento region, probably in the Shasta mining area.

By September 1849, Ide was a very successful man. He had purchased the northern half of Belden's grant, and one-third of the southern half of Belden's grant. In September 1849, Ide made a trip to New England, returning in the summer of 1850. In early 1851, Ide was elected as Associate Justice of Colusa County, one of the original counties in the new State of California. Tehama County was not created until 1856 from portions of Colusa, Butte and Shasta counties.

Ide was apparently dissatisfied with his life in California, and desired to sell out his holdings and livestock to return to the East. He estimated the value of his 30,000 acres of land and horses, oxen and cattle at about \$50,000. He was living in Monroeville and continued to work as a justice and clerk in Colusa County, serving as virtually a one-man government. In December of 1852, he fell ill, reportedly from smallpox, and died a week later (Holland 1997).



***Rancho de la Barranca Colorado***

The Rancho de la Barranca Colorado (Red Bank rancho) was four leagues of land, a total of 17,707.49 acres, bordered by Red Bank Creek on the north, the Sacramento River on the east, and Chard's Rancho de las Flores on the south. Belden had come to California with the first emigrant party from the Midwest, arriving in the San Joaquin Valley in November of 1841. Belden was a naturalized Mexican citizen who lived in San Jose. Governor Micheltorena had made the grant to Belden in December of 1844. Ultimately, he sold both halves of the Rancho to William Ide, with his wife relinquishing all rights in 1851.

The lands of the Rancho were divided among the heirs of William B. Ide in various sized tracts. The Rancho was formally confirmed to William B. Ide in 1860, confirming the title.

William Haskell Ide, William B. Ide's second son born in 1824 in New Hampshire, built an inn on the early wagon road, reportedly in 1849 (Cheever 1949). This place was an inn called "Massachusetts House", used as a changing station for horse teams. The building was reportedly a two-story adobe building (Hood 1999). In 1949, a researcher found two large holes that he felt were the former location of this feature (Cheever 1949). Early plats of the adjacent township, Township 27 North Range 3 West, dating to 1865 and 1868, show the location of "Ide's House." This location is just outside the Study Area, to the east of Red Bank Creek, and is a California State Park. This place was also referred to as "Young Ide's Hotel." By 1857, William Ide had left the property and lived in Santa Clara County (Cheever 1949). It is possible that the references made to Ide's adobe are to the Massachusetts House, and not to the Ide adobe commemorated by the State of California. Research has shown that this property was never owned by Ide and should be correctly attributed to Abraham Dibble (Hood 1999: 18-19).

The Ide family members sold many tracts of the rancho back and forth to each other throughout the years. Family members began selling tracts to others beginning in the 1860s. William H. Ide died in 1872.

***Red Bluff***

Red Bluff is located at the head of navigation on the Sacramento River, and many of the early trails and roadways were routed through the area, with supplies freighted to the mining districts in the Trinity County area. The steamships brought goods up the Sacramento River from San Francisco and Sacramento for many years. The Oregon Division of the Central Pacific Railroad was built through the region in 1871 and became a more important method of shipping. The town was incorporated in 1876.

The agricultural value of the land was recognized very early on, with stock-raising and dry farming of grains produced in the area. The community also produced a great deal of lumber, with the Sierra Flume and Lumber Company a major employer, building a large plant on the other side of the river in 1877 (Shelton 2006). In the 1880s, another important early industry were the woolen mills, with wool from southern and eastern Oregon and northern California being brought to the area (McKenney 1884; Polk 1890).

Shipments through Red Bluff included lumber, wool, wheat, fruit, livestock and chrome. The town had grown greatly in size, with a number of large buildings completed including the Courthouse, four public schools, the Odd Fellows Temple, Red Bluff College, and the Kingsley Opera House. Businesses in the city in 1890 included lumber planing mills, foundry, soda factory, brickyards,

broom factory, a mill and a glove factory. The town had well-developed services that included water and gas works, fire department, and telephone connections. The population totaled 4,340, with 8 churches, and two newspapers (Polk 1890).

Steamboats continued to operate on the river, but eventually the lack of maintenance, removing snags, and dredging, made it too difficult for most ships to travel further north than Chico Landing for some years. After work in 1912, Red Bluff was again served weekly with steamboat service from Sacramento and San Francisco (*Daily People's Cause* 11 July 1912; *Oakland Tribune* 28 January 1913). Ultimately, completion of bridges and better highways led to the demise of the steamboat era.

Red Bluff has remained an important hub for supplying a wide region with goods and services, as well as shipping agricultural products by rail and through trucking, with the City's proximity to Interstate 5 and Highway 99.

### **Cultural Resources**

Forty-seven cultural resources have been identified within the City of Red Bluff General Plan Study Area, according to files maintained by the Northeast Information Center (NEIC) of the California Historical Resources Information System (CHRIS). The 47 cultural resources represent both the prehistoric and historic periods as shown in Table 3.5-1 below.

**TABLE 3.5-1: RESOURCES LISTED WITH THE NORTHEAST INFORMATION CENTER FILE DIRECTORY**

Property #	Address	Period Type	Name
P-52-000055/ CA-TEH-000055	Not Listed	Prehistoric/ Unknown	Not Listed
P-52-000059/ CA-TEH-000059	Not Listed	Prehistoric/ Unknown	Not Listed
P-52-000060/ CA-TEH-000060	Not Listed	Prehistoric/ Campsite	Not Listed
P-52-000061/ CA-TEH-000061	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-000062/ CA-TEH-000062	Not Listed	Prehistoric/Protohistoric Habitation area	Not Listed
P-52-000071/ CA-TEH-000071	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-000075/ CA-TEH-000075	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-000094/ CA-TEH-000094/H	Not Listed	Prehistoric/Historic/ Habitation area	Not Listed
P-52-000112/ CA-TEH-000112	Not Listed	Prehistoric/ Campsite	Not Listed
P-52-000113/ CA-TEH-000113	Not Listed	Unknown	Not Listed
P-52-000114/ CA-TEH-000114	Not Listed	Unknown	Not Listed
P-52-000881/ CA-TEH-881/H	Not Listed	Prehistoric/Historic/ Campsite	Not Listed
P-52-000882/ CA-TEH-882	Not Listed	Prehistoric/ Habitation area	Wacantheri pasyai
P-52-000883/ CA-TEH-883H	Not Listed	Historic/ Refuse scatter	Red Bluff Dump
P-52-001525/ CA-TEH-1525H	Not Listed	Historic/Foundation, refuse scatter	Not Listed
P-52-001681	604 Antelope Boulevard, Red Bluff	Historic/ Building	Red Bluff Ranger Unit Headquarters
P-52-001745/ CA-TEH-1745	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-001775	South Jackson Street, Red Bluff	Historic	Reeds Creek Bridge/ Bridge 8C-55
P-52-001776	Not Listed	Historic	Brickyard Creek Bridge/

Property #	Address	Period Type	Name
			Bridge 8C-170
P-52-001777	790 Musick Avenue, Red Bluff	Historic/ Single family property	790 Musick Avenue
P-52-001778	124 South Jackson Street, Red Bluff	Historic/ Building complex	124 South Jackson Street
P-52-001834/ CA-TEH-001834	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-001837/ CA-TEH-1837	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-001953/ CA-TEH-1953/H	Not Listed	Prehistoric/Historic/ Habitation area	Not Listed
P-52-001970	Not Listed	Historic	Red Bluff Roundhouse
P-52-001972/ CA-TEH-001972H	Not Listed	Historic	Central and Southern Pacific Railroads
P-52-001977/ CA-TEH-001977H	Not Listed	Historic/ Road	Jellys Ferry Road
P-52-002037	Not Listed	Historic/Refuse scatter	Mason Avon Truck Site
P-52-002066/ CA-TEH-002066H	Not Listed	Historic/ Foundations	Not Listed
P-52-002081	Not Listed	Historic/ Structure	Brewery Creek Aerial/Subsurface Sewer Pipeline
P-52-002082	11585 Rawson Road, Red Bluff	Historic/ Single family property	Lourence Residence
P-52-002083	11825 Rawson Road, Red Bluff	Historic/ Single family property	Mendonca Residence
P-52-002084	11900 Rawson Road, Red Bluff	Historic/ Single family property	Bosenko Residence
P-52-002085	11900 Rawson Road, Red Bluff	Historic/ Single family property	Bosenko Barn and Farm
P-52-002086	11914 Rawson Road, Red Bluff	Historic/ Single family property	David Pimentel Residence
P-52-002146	Not Listed	Historic	Diamond Integrated Forest Products Mill, Red Bluff
P-52-002265	Not Listed	Prehistoric/ Isolated artifact	Not Listed
P-52-002283/ CA-TEH-002283	Not Listed	Prehistoric/ Habitation area	Not Listed
P-52-002284/	Not Listed	Prehistoric/Historic/	Not Listed

Property #	Address	Period Type	Name
CA-TEH-002283/H		Campsite	
P-52-002285/ CA-TEH-002285H	Not Listed	Historic/ Road	Not Listed
P-52-002286	Not Listed	Historic/ Mile marker post	Not Listed
P-52-002287	Not Listed	Historic/ Mile marker post	Not Listed
P-52-002288	Not Listed	Prehistoric/ Isolated artifact	Not Listed
P-52-002289	Not Listed	Prehistoric/ Isolated artifact	Not Listed
P-52-002413/ CA-TEH-002413	Not Listed	Prehistoric/ Campsite	Not Listed
P-52-002565	Not Listed	Historic	500 Riverside Way/Riverside Auto Camp

SOURCE: SOURCE: NORTHEAST INFORMATION CENTER, CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM, CALIFORNIA STATE UNIVERSITY, CHICO

Eighteen buildings and structures within the City of Red Bluff Study Area are identified on the Tehama County Built Environment Resources Directory as shown in Table 3.5-2.

**TABLE 3.5-2: BUILDINGS LISTED WITH THE NORTHEAST INFORMATION CENTER FILE DIRECTORY**

Property #	Address	Period Type	Name
50437	342 Oak Street, Red Bluff	1883	Odd Fellows Building
50438	Highway 99, Red Bluff	1924	SR 8-13
50439	Highway 99, Red Bluff	1924	BR 8-14
50440	Highway 99, Red Bluff	1924	BR 8-15
50441	Highway 99, Red Bluff	1924	BR 8-16
50442	Highway 99, Red Bluff	1924	BR 8-18
50443	Highway 99, Red Bluff	1924	BR 8-19
50444	515 Main Street, Red Bluff	1902	St. Mary's Parish/Sacred Heart Catholic Church
50445	710 Main Street, Red Bluff	1925	Bank of America Building/Daily News Building
50446	747 Main Street, Red Bluff	1886	Cone & Kimball Building/Clock Tower Building
50448	535 Breckenridge Avenue	1929	Michell House
50449	1016 Madison Street, Red Bluff	1877	African Methodist Episcopal Church/Daves Appliance

Property #	Address	Period Type	Name
50550	655 Main Street, Red Bluff	1899	Tonsorial Artist and Hair Dresser
50551	1125 Monroe Street, Red Bluff	1910	Clinton House/Higgins House
50552	1135 Monroe Street, Red Bluff	1900	Clinton House
50553	515 Walnut Street, Red Bluff	1907	Martins Department Store & Shoe Repair
50554	1112 Washington Street, Red Bluff	1880	Thomas Hughes House
50557	135 Main Street, Red Bluff	1866	Mrs. John Brown House

SOURCE: TEHAMA COUNTY BUILT ENVIRONMENTAL RESOURCES DIRECTORY

The National Register of Historic Places (NRHP) lists six properties for the City of Red Bluff General Plan Study area as of July 14, 2021. These six NRHP properties are: Cone and Kimball Building; Herbert Kraft Memorial Free Library; Odd Fellows Building; Old Bank of America Building; St. Mary's Parish; and, State Theatre.

### Consultation

Letters requesting a check of the Sacred Lands files was sent to the Native American Heritage Commission; they responded with a letter dated May 25, 2021 that gave negative results. They identified one contact: Mr. Andrew Alejandre, Chairperson, Paskenta Band of Nomlaki Indians. A letter has been sent to the group requesting information on concerns. A letter has also been sent to the Tehama County Genealogical & Historical Society asking for information and concerns about cultural resources.

The City received two comment letters during the Notice of Preparation (NOP) comment period. The Native American Heritage Commission (NAHC) submitted a letter that provided an overview of tribal consultation requirements, and provided examples of recommended approaches to reducing potential impacts to cultural and tribal resources. The issues raised in this letter have been addressed in this chapter of the Draft EIR. Additionally, one NOP letter was revived from a Tribal Organization. This included a letter from the Paskenta Band of Nomlaki Indians requesting consultation on the project. The consultation has been initiated, and the tribe consulted with the City on Monday, July 1, 2024 to discuss the project. No specific resources were identified during the consultation. The Tribe looks forward to reviewing the DEIR and General Plan.

## 3.5.2 REGULATORY SETTING

### FEDERAL

#### **National Historic Preservation Act**

Most regulations at the Federal level stem from the National Environmental Policy Act (NEPA) and historic preservation legislation such as the National Historic Preservation Act (NHPA) of 1966, as amended. NHPA established guidelines to "preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice." The NHPA includes regulations specifically for Federal land-holding agencies, but also includes regulations (Section 106) which pertain to all projects that are funded, permitted, or approved by any Federal agency and which have the potential to affect cultural resources. All projects that are subject to NEPA are also subject to compliance with Section 106 of the NHPA and NEPA requirements concerning cultural resources. Provisions of NHPA establish a National Register of Historic Places (The National Register) maintained by the National Park Service, the Advisory Councils on Historic Preservation, State Historic Preservation Offices, and grants-in-aid programs.

#### **American Indian Religious Freedom Act and Native American Graves and Repatriation Act**

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

#### **Other Federal Legislation**

Historic preservation legislation was initiated by the Antiquities Act of 1966, which aimed to protect important historic and archaeological sites. It established a system of permits for conducting archaeological studies on federal land, as well as setting penalties for noncompliance. This permit process controls the disturbance of archaeological sites on federal land. New permits are currently issued under the Archaeological Resources Protection Act (ARPA) of 1979. The purpose of ARPA is to enhance preservation and protection of archaeological resources on public and Native American lands. The Historic Sites Act of 1935 declared that it is national policy to "Preserve for public use historic sites, buildings, and objects of national significance."

### STATE

#### **California Register of Historic Resources (CRHR)**

California State law also provides for the protection of cultural resources by requiring evaluations of the significance of prehistoric and historic resources identified in documents prepared pursuant to the California Environmental Quality Act (CEQA). Under CEQA, a cultural resource is considered

an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the CEQA Guidelines. Criteria identified in the CEQA Guidelines are similar to those described under the NHPA. The State Historic Preservation Office (SHPO) maintains the CRHR. Historic properties listed, or formally designated for eligibility to be listed, on The National Register are automatically listed on the CRHR. State Landmarks and Points of Interest are also automatically listed. The CRHR can also include properties designated under local preservation ordinances or identified through local historical resource surveys.

### **California Environmental Quality Act (CEQA)**

CEQA requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. This determination applies to those resources which meet significance criteria qualifying them as “unique,” “important,” listed on the California Register of Historical Resources (CRHR), or eligible for listing on the CRHR. If the agency determines that a project may have a significant effect on a significant resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. If a cultural resource is found not to be significant under the qualifying criteria, it need not be considered further in the planning process.

CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant environmental effects resulting from projects. If avoidance is not feasible, an excavation program or some other form of mitigation must be developed to mitigate the impacts. In order to adequately address the level of potential impacts, and thereby design appropriate mitigation measures, the significance and nature of the cultural resources must be determined. The following are steps typically taken to assess and mitigate potential impacts to cultural resources for the purposes of CEQA:

- identify cultural resources;
- evaluate the significance of the cultural resources found;
- evaluate the effects of the project on cultural resources; and
- develop and implement measures to mitigate the effects of the project on cultural resources that would be significantly affected.

In 2015, CEQA was amended to require lead agencies to determine whether projects may have a significant effect on tribal cultural resources. (Public Resources Code [PRC] § 21084.2). To qualify as a tribal cultural resource, the resource must be a site, feature, place, cultural landscape, sacred place, or object, which is of cultural value to a California Native American Tribe and is listed, or eligible for listing, on the national, state, or local register of historic resources. Lead agencies may also use their discretion to treat any notable resource as a tribal cultural resource. To determine whether a project may have an impact on a resource, the lead agency is required to consult with any California Native American tribe that requests consultation and is affiliated with the geographic area of a proposed project (PRC § 21080.3.1). CEQA requires that a lead agency consider the value of the cultural resource to the tribe and consider measures to mitigate any adverse impact.



### **State Laws Pertaining to Human Remains**

Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. CEQA Guidelines (Section 15064.5) specify the procedures to be followed in case of the discovery of human remains on non-Federal land. The disposition of Native American burials falls within the jurisdiction of the Native American Heritage Commission.

Several sections of the California Public Resources Code protect paleontological resources.

Section 5097.5 prohibits “knowing and willful” excavation, removal, destruction, injury, and defacement of any “vertebrate paleontological site, including fossilized footprints,” on public lands, except where the agency with jurisdiction has granted express permission. “As used in this section, ‘public lands’ means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

California Public Resources Code, Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

The sections of the California Administrative Code relating to the State Division of Beaches and Parks afford protection to geologic features and “paleontological materials” but grant the director of the State park system authority to issue permits for specific activities that may result in damage to such resources, if the activities are in the interest of the State park system and for State park purposes (California Administrative Code, Title 14, Section 4307–4309).

### **California Public Resources Code**

Section 5097 of the Public Resources Code specifies the procedures to be followed in the event of the unexpected discovery of historic, archaeological, and paleontological resources, including human remains, historic or prehistoric resources, paleontological resources on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the California NAHC. Section 5097.5 of the Code states the following:

*No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.*

### **California Health and Safety Code**

Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. CEQA Guidelines (Section 15064.5) specify the procedures to be followed in case of the discovery of

human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the Native American Heritage Commission.

### **Senate Bill 18 (Burton, Chapter 905, Statutes 2004)**

SB 18, authored by Senator John Burton and signed into law by Governor Arnold Schwarzenegger in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places (“cultural places”) through local land use planning. This legislation, which amended §65040.2, §65092, §65351, §65352, and §65560, and added §65352.3, §653524, and §65562.5 to the Government Code; also requires the Governor’s Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

### **Assembly Bill 978**

In 2001, Assembly Bill (AB) 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a State commission with statutory powers to assure that Federal and State laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-Federally recognized tribes for repatriation.

### **Assembly Bill 52**

Assembly Bill (AB) 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - A) Included or determined to be eligible for inclusion in the CRHR
  - B) Included in a local register of historical resources as defined in PRC Section 5020.1(k)
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1 (c). In applying the criteria set forth in PRC Section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC Section 21084.1, a unique archaeological resource

as defined in PRC Section 21083.2(g), or a “non-unique archaeological resource” as defined in PRC Section 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

## LOCAL

### **Project Review**

In June of 2000, the City Council adopted Ordinance 915. The ordinance was a re-write of the City Zoning Ordinance. It included two new zoning districts intended to preserve and enhance those unique historic neighborhoods; the "Historic Commercial" and "Historic Residential" zoning districts.

On September 5, 2000, the City Council adopted Resolution No. 37-2000. The resolution amended several "Objective" statements of the "Central Business Development" Goal (Goal V, LU Element pg. 9) to address development and redevelopment in the downtown area. These amendments mirror recommendations in the DRP and legislatively confirm the City's interest in improving the appearance and economic conditions in the downtown area.

In the interest of creating a model for streetscape improvements that could be accomplished throughout the Historic Commercial district, the City Council commissioned the preparation of a Downtown Demonstration Project. A four-block section of Washington Street (500-800 Block) and the 300 and 400 blocks of Pine Street were selected to serve as the template.

The intent of these guidelines is to influence design in order to protect, preserve, enhance and improve the unique architectural character of the historic commercial and residential neighborhoods of the Historic Commercial (H-C) and Historic Residential (H-R) zoning districts. Additionally, these guidelines are intended to enrich the pedestrian experience by creating an attractive "sense of place" downtown through streetscape enhancement and improvements such as landscaping, decorative pavement treatment, street trees, uniform street furniture and decorative streetlights.

Adjacent to the H-C and H-R zoning districts are several properties developed or used for public purposes such as government offices, emergency services stations, public parking lots, transit facilities, etc., that are zoned "P-A"; Public Agency. Excluding those areas could result in development that conflicts with the intent of these guidelines. Therefore, these Historic Design Review Guidelines are applicable to the Historic Commercial (H-C), Historic Residential (H-R) zoning districts and to the "Public Agency" (P-A) zoning district properties that immediately adjoin the H-C or H-R zoning districts.

## 3.5 CULTURAL AND TRIBAL RESOURCES

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As described below, all projects within the Red Bluff Historic District, which require a building, sign, demolition or grading permit from the Community Development Department must conform to these Guidelines.

1. Review by the Community Development Department is required for all projects which require a building, sign, demolition or grading Permit from the City, except those listed in subsection E.3. Review is required to determine whether they conform to these Design Review Guidelines.
2. Unless specifically required by the Community Development Department, Planning Commission or City Council, design review is not required for the following projects:
  - a. Reroofing, when no part of the roof is within the public view.
  - b. Interior alterations and construction except as provided in Subsection E.6.
3. Additions to structures: All additions shall comply with these guidelines. Also, If the total construction value of the addition exceeds \$100,000, (as determined pursuant to Resolution No. 22-1989) façade improvements and street frontage improvements to comply with these guidelines shall be completed for the entire building. The façade and street frontage improvements shall be required only when the project affects a building that does not otherwise comply with these guidelines. The \$100,000 valuation threshold shall be annually updated equivalent to the value of the Consumer Price Index for All Urban Consumers (CPI-U) published by the Bureau of Labor Statistics.
  - a. Undue hardship for minor additions to structures: If the total construction value of the building addition (in combination with the value any other additions completed within the most recent 36-month period) is less than \$100,000, (as determined pursuant to Resolution No. 22-1989) an amount up to an additional 10% of the total construction value shall be expended for façade improvements to the building and for street frontage improvements. Priority for such improvements shall be: 1) The building front; 2) The adjacent street side of the building if the building occupies a corner lot or is visible from another street; 3) Street frontage improvements, 4) Signage replacement; 5). The rear side of the building.
  - b. The \$100,000 valuation threshold shall be annually updated equivalent to the value of the Consumer Price Index for All Urban Consumers (CPI-U) published by the Bureau of Labor Statistics. The façade and street tree improvements shall be required only when the project affects a property that does not fully comply with these guidelines.
4. Exemptions for additions to "Unique buildings". The Community Development Director may exempt certain building addition or improvement projects from compliance with specific portions of these guidelines upon finding that the building is a unique example of non-target period architecture. In the case of such exemption, alternative design features and standards consistent with the original building design period may be allowed.
5. Major interior alterations: Interior alterations are not subject to compliance with these guidelines. However, if the total construction value of the interior remodel (in combination with the value of any other interior alterations completed in the most recent 36-month

period) is in excess of \$100,000 (as determined pursuant to Resolution No. 22-1989), an amount up to an additional 10% of the total construction value shall be expended for façade improvements to the building and street frontage improvements. The \$100,000 valuation threshold shall be annually updated equivalent to the value of the Consumer Price Index for All Urban Consumers (CPI-U) published by the Bureau of Labor Statistics. These façade and street frontage improvements shall be required only when the project affects a building that does not comply with these guidelines.

Cultural Resources Impacts (from City of Red Bluff General Plan, Land Use Element, Section 6 C, p. 50)

Environmental Impacts: Historic riverbanks and bluffs in the Red Bluff area are archeologically sensitive. Development in these areas may result in the loss of historical resources and site evaluations should preclude approval of any subdivision map.

Mitigations: Adverse impacts on cultural resources may be mitigated by requiring site review by qualified professional prior to development approval.

### 3.5.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project is considered to have a significant impact on cultural or tribal resources if it will:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k);
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

## IMPACTS AND MITIGATION MEASURES

### **Impact 3.5-1: General Plan implementation could cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5 (Less than Significant)**

A substantial adverse change in the significance of an historic resource is defined in Section 15064.5 (b)(1) of the CEQA Guidelines as the “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” Known historic and prehistoric resource sites are located throughout the Planning Area, as shown in Tables 3.5-1 and 3.5-2, and it is expected that additional undiscovered sites may be located in various areas of the City as well.

While the General Plan does not directly propose any adverse changes to any historic or archaeological resources, future development allowed under the General Plan could affect known historical and archaeological resources or unknown historical and archaeological resources which have not yet been identified.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the City’s General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The General Plan includes policies and actions that would reduce impacts to cultural, historic, and archaeological resources, as well as policies and actions for the conservation of cultural, historic, and archaeological resources. Specifically, General Plan policies require the City to protect resources by requiring projects to comply with the requirements of CEQA and the National Historic Preservation Act. Additionally, General Plan policies require development projects with a potential to impact archeological resources to consult with the NEIC of the California Historical Resources Information System to determine the potential for a discovery of cultural resources, conduct a site evaluation as may be indicated and, mitigate any adverse impacts according to the recommendation of a qualified archaeologist. Adoption and implementation of the policies and actions listed below, combined with adopted CEQA review requirements, would ensure that adverse effects on significant historic and archaeological resources are **less than significant**.

## 3.5 CULTURAL AND TRIBAL RESOURCES

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### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 4.1: Recognize significant historical resources and use these resources to promote a sense of place and history in Red Bluff. Seek to incorporate reminders of Red Bluff's culture in the built and natural environment through adaptive reuse, signage, markers, and other reminders of Red Bluff's heritage.

COS 4.2: Identify, designate, and protect buildings, districts, and sites of historic importance within Red Bluff. As feasible, encourage preservation, adaptive reuse, or other conservation alternatives to prevent demolition of potentially historical structures.

COS 4.3: Educate and actively involve the public in preserving historic cultural assets, including techniques, incentives, and any legal requirements for preservation.

COS 4.4: Protect areas containing significant historical, archaeological, and/or paleontological resources, as defined by the California Public Resources Code.

COS 4.5: If found during construction, ensure that human remains are treated with sensitivity and dignity, and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98.

COS 4.6: Work in collaboration with Native American tribal representatives for development projects to ensure preservation of culturally significant findings, and the identification of resources and sacred sites during the development review process.

COS 4.7: Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18 and AB 52, consult as necessary with Native American tribes that may be interested in proposed new development projects and land use policy changes.

#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-4a: Develop a citywide Historical Resources Inventory that identifies buildings, neighborhoods, and other features of historic, architectural, or cultural significance.*

*COS-4b: Continue to assess development proposals for potential impacts to sensitive historical, archaeological, and paleontological resources pursuant to the California Environmental Quality Act (CEQA).*

*COS-4c: Create incentives to promote historic preservation, maintenance, and adaptive reuse by property owners, such as expedited permits, lower permit fees, and Mills Act Contracts for tax benefits.*

*COS-4d: Establish historic preservation goals for the Historic Residential District and Historic Commercial District and implement the goals through the City's Zoning Ordinance, including through Design Review. Periodically review and modify the Zoning Ordinance as necessary in order to ensure that it continues to meet the City's historic preservation goals.*



*COS-4e: Provide educational resources and public outreach efforts that inform citizens of historic preservation efforts including:*

- *School age programs, and on-line exhibits; and*
- *Collaboration with community groups to promote local awareness and appreciation of Red Bluff's rich history.*

*COS-4f: Require all development, infrastructure, and other ground-disturbing projects to comply with applicable federal, State, and local laws in*

### **Impact 3.5-2: Implementation of the General Plan could lead to the disturbance of human remains (Less than Significant)**

Indications are that humans have occupied the areas throughout California for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities allowed under the General Plan may yield human remains that may not be interred in marked, formal burials.

Although Native American human remains are normally associated with former residential village locations, isolated burials and cremations have been found in many other locations. Future projects may disturb or destroy buried Native American human remains, including those interred outside of formal cemeteries. Consistent with state laws protecting these remains (that is, Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98), sites containing Native American human remains must be treated in a sensitive manner.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the City's General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that Native American human remains are inadvertently discovered during development activities. No specific development project are proposed or would be approved by the General Plan adoption. Additionally, no grading or other land clearing activities are proposed as part of the proposed Project. All future projects would be required to be consistent with the General Plan and Municipal Code, as well as State and Federal standards related to cultural resources protections. The General Plan requires that human remains are treated in compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. Implementation of the policies and actions below ensures that potential adverse impacts to human remains would be **less than significant**.

## 3.5 CULTURAL AND TRIBAL RESOURCES

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### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 4.3: Educate and actively involve the public in preserving historic cultural assets, including techniques, incentives, and any legal requirements for preservation.

COS 4.4: Protect areas containing significant historical, archaeological, and/or paleontological resources, as defined by the California Public Resources Code.

COS 4.5: If found during construction, ensure that human remains are treated with sensitivity and dignity, and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98 .

COS 4.6: Work in collaboration with Native American tribal representatives for development projects to ensure preservation of culturally significant findings, and the identification of resources and sacred sites during the development review process

COS 4.7: Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18 and AB 52, consult as necessary with Native American tribes that may be interested in proposed new development projects and land use policy changes.

#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-4b: Continue to assess development proposals for potential impacts to sensitive historical, archaeological, and paleontological resources pursuant to the California Environmental Quality Act (CEQA).*

*COS-4f: Require all development, infrastructure, and other ground-disturbing projects to comply with applicable federal, State, and local laws in*

### **Impact 3.5-3: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency (Less than Significant)**

The City of Red Bluff conducted Native American consultations under Senate Bill 18 (Chapter 905, Statutes of 2004), also known as SB18, which requires local governments to consult with Tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendments in order to preserve, or mitigate impacts to, cultural places that may be affected. In addition to SB18 consultation, the City conducted tribal consultations under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as AB 52, which requires consulting for projects within the City of Red Bluff's jurisdiction and within the traditional territory of the Tribal Organizations who have previously requested AB52 consultations with the City. Notification letters were sent to Tribal Organizations who have requested to be on the City's notification list. One

response letter was revived from a Tribal Organizations. This included a letter from the Paskenta Band of Nomlaki Indians. The consultation has been initiated but the results have not been concluded at this time.

The Native American Heritage Commission (NAHC) submitted a letter that provided an overview of tribal consultation requirements, and provided examples of recommended approaches to reducing potential impacts to cultural and tribal resources. The issues raised in this letter have been addressed in this chapter of the Draft EIR.

Specific development and improvements have not been identified. Future projects would be required to be evaluated for project-specific impacts at the time of application. The General Plan and local CEQA guidelines require tribal consultation and the protections of any identified archeological and tribal resources. All future development projects would be required to follow development requirements, including compliance with local policies, ordinances, and applicable permitting procedures related to protection of tribal resources. Subsequent projects would be required to prepare site-specific project-level analysis to fulfill CEQA requirements, which also would include additional AB 52 and/or SB 18 consultation that could lead to the identification of potential site-specific tribal resources.

As discussed under Impacts 3.5-1 and 3.5-2, impacts from future development could impact unknown archaeological resources including Native American artifacts and human remains. Impacts are considered less-than-significant at the program level with implementation of General Plan policies and actions and local review guidelines. Compliance with the General Plan policies and actions, as well as State and local guidelines would provide an opportunity to identify, disclose, and avoid or minimize the disturbance of and impacts to a tribal resource through tribal consultation and CEQA review procedures. Therefore, impacts related to tribal resources as a result of General Plan implementation would be considered **less than significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **CONSERVATION AND OPEN SPACE ELEMENT POLICIES**

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#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-4b: Continue to assess development proposals for potential impacts to sensitive historical, archaeological, and paleontological resources pursuant to the California Environmental Quality Act (CEQA).*

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This section provides a background discussion of the seismic and geologic hazards found in the Red Bluff and the regional vicinity. This section is organized with an environmental setting, regulatory setting, and impact analysis.

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

### 3.6.1 ENVIRONMENTAL SETTING

#### GEOMORPHIC PROVINCE

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California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landform. Earth scientists recognize eleven provinces in California. Each region displays unique, defining features based on geology, faults, topographic relief and climate. These geomorphic provinces are remarkably diverse. They provide spectacular vistas and unique opportunities to learn about earth's geologic processes and history. The Planning Area is located in the northern portion of the Sierra Nevada Geomorphic Province of California.

The planning area is defined by the Sacramento Valley bioregion. Figure 3.4-1 illustrates the boundaries of the bioregions within the State, and Tehama County, which the planning area resides.

The Sacramento Valley Bioregion, a watershed of the Sierra Nevada, is rich in agriculture, but is also significant as the seat of California's state government. Lying halfway between the Pacific Ocean and the Sierra Nevada, the Sacramento Valley affords convenient travel time to San Francisco and Lake Tahoe. The bioregion encompasses the northern end of the great Central Valley, stretching from Redding to the southeast corner of Sacramento County. Its southern boundary borders the northern edge of the Sacramento-San Joaquin River Delta.

#### REGIONAL GEOLOGY

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The Planning Area lies in the Sacramento Valley in Northern California. The Sacramento Valley is located in the Northern portion of the Great Valley Geomorphic Province. The Great Valley, also known as the Central Valley, is a topographically flat, northwest-trending, structural trough (or basin) about 50 miles wide and 400 miles long. It is bordered by the Tehachapi Mountains on the south, the Klamath Mountains on the north, the Sierra Nevada on the east, and the Coast Ranges on the west.

The Sacramento Valley is filled with thick sedimentary rock sequences that were deposited as much as 130 million years ago. Large alluvial fans have developed on each side of the Valley. The larger and more gently sloping fans are on the east side of the Sacramento Valley, and overlie metamorphic and igneous basement rocks. These basement rocks are exposed in the Sierra Nevada foothills and consist of meta-sedimentary, volcanic, and granitic rocks.

## SEISMIC HAZARDS

Seismic hazards include both rupture (surface and subsurface) along active faults and ground shaking, which can occur over wider areas. Ground shaking, produced by various tectonic phenomena, is the principal source of seismic hazards in areas devoid of active faults. All areas of the state are subject to some level of seismic ground shaking.

Several scales may be used to measure the strength or magnitude of an earthquake. Magnitude scales (ML) measure the energy released by earthquakes. The Richter scale, which represents magnitude at the earthquake epicenter, is an example of an ML. As the Richter scale is logarithmic, each whole number represents a 10-fold increase in magnitude over the preceding number. Table 3.6-1 represents effects that would be commonly associated with Richter Magnitudes.

**TABLE 3.6-1: RICHTER MAGNITUDES AND EFFECTS**

MAGNITUDE	EFFECTS
< 3.5	Typically not felt
3.5 – 5.4	Often felt but damage is rare
5.5 – < 6	Damage is slight for well-built buildings
6.1 – 6.9	Destructive potential over ±60 miles of occupied area
7.0 – 7.9	“Major Earthquake” with the ability to cause damage over larger areas
≥ 8	“Great Earthquake” can cause damage over several hundred miles

SOURCE: USGS, EARTHQUAKE PROGRAM.

According to the California Geological Survey’s Probabilistic Seismic Hazard Assessment Program, Tehama County is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong. Table 3.6-2 below presents Modified Mercalli intensity effects at each level.

**TABLE 3.6-2: MODIFIED MERCALLI INTENSITIES AND EFFECTS**

RICHTER MAGNITUDE	MODIFIED MERCALLI	EFFECTS OF INTENSITY
0.1 – 0.9	I	Earthquake shaking not felt
1.0 – 2.9	II	Shaking felt by those at rest.
3.0 – 3.9	III	Felt by most people indoors, some can estimate duration of shaking.
4.0 – 4.5	IV	Felt by most people indoors. Hanging objects rattle, wooden walls and frames creak.
4.6 – 4.9	V	Felt by everyone indoors, many can estimate duration of shaking. Standing autos rock. Crockery clashes, dishes rattle and glasses clink. Doors open, close and swing.
5.0 – 5.5	VI	Felt by all who estimate duration of shaking. Sleepers awaken, liquids spill, objects are displaced, and weak materials crack.
5.6 – 6.4	VII	People frightened and walls unsteady. Pictures and books thrown, dishes and glass are broken. Weak chimneys break. Plaster, loose bricks and parapets fall.
6.5 – 6.9	VIII	Difficult to stand. Waves on ponds, cohesionless soils slump. Stucco and masonry

<i>RICHTER MAGNITUDE</i>	<i>MODIFIED MERCALLI</i>	<i>EFFECTS OF INTENSITY</i>
		walls fall. Chimneys, stacks, towers, and elevated tanks twist and fall.
7.0 – 7.4	IX	General fright as people are thrown down, hard to drive. Trees broken, damage to foundations and frames. Reservoirs damaged, underground pipes broken.
7.5 – 7.9	X	General panic. Ground cracks, masonry and frame buildings destroyed. Bridges destroyed, railroads bent slightly. Dams, dikes and embankments damaged.
8.0 – 8.4	XI	Large landslides, water thrown, general destruction of buildings. Pipelines destroyed, railroads bent.
8.5 +	XII	Total nearby damage, rock masses displaced. Lines of sight/level distorted. Objects thrown into air.

SOURCE: UNITED STATES GEOLOGICAL SURVEY

The Significant United States Earthquake data published by the USGS in the National Atlas identifies earthquakes that caused deaths, property damage, and geologic effects or were felt by populations near the epicenter. No significant earthquakes are identified within the Planning Area. However, significant earthquakes are documented in the region. The following table presents the significant earthquakes in the region.

**TABLE 3.6-3: SIGNIFICANT EARTHQUAKES IN THE REGION**

<i>MAGNITUDE</i>	<i>INTENSITY</i>	<i>LOCATION</i>	<i>YEAR</i>
5.6	VII	Petrolia	2019
5.0	V	Geysers	2016
5.1	IV	Upper Lake	2016
5.7	VII	Greenville	2013
5.1	N/A	Redding	1998
5.7	N/A	Palermo	1975
5.5	N/A	Lassen Peak	1950
5.0	N/A	Lassen Peak	1946
5.6	N/A	Ukiah	1869
5.5	N/A	Sierra County	1855

SOURCE: UNITED STATE GEOLOGICAL SURVEY, 2020.

The 2015 Uniform California Earthquake Rupture Forecast, Version 3, or UCERF3, is the latest official earthquake rupture forecast (ERF) for the state of California. It provides estimates of the likelihood and severity of potentially damaging earthquake ruptures in the long- and near-term. Combining this with ground motion models produces estimates of the severity of ground shaking that can be expected during a given period (seismic hazard), and of the threat to the built environment (seismic risk). This information is used to inform engineering design and building codes, plan for disaster, and evaluate whether earthquake insurance premiums are sufficient for the prospective losses.

The potential for seismic ground shaking in California is expected. As a result of the foreseeable seismicity in California, the State requires special design considerations for all structural improvements in accordance with the seismic design provisions in the California Building Code.

These seismic design provisions require enhanced structural integrity based on several risk parameters.

### FAULTS

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A fault is a fracture in the crust of the earth. A fault trace is the line on the earth's surface defining the fault. Displacement of the earth's crust along faults releases energy in the form of earthquakes and in some cases in fault creep. Most faults are the result of repeated displacements over a long period of time.

Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Surface ruptures have been known to extend up to 50 miles with displacements of an inch to 20 feet. Fault rupture almost always follows preexisting faults, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking.

Faults are further distinguished as active, potentially active, or inactive:

- **Active:** An active fault is a Historic or Holocene fault that has had surface displacement within the last 11,000 years;
- **Potentially Active:** A potentially active fault is a pre-Holocene Quaternary fault that has evidence of surface displacement between about 1.6 million and 11,000 years ago; and
- **Inactive:** An inactive fault is a pre-Quaternary fault that does not have evidence of surface displacement within the past 1.6 million years. The probability of fault rupture is considered low; however, this classification does not mean that inactive faults cannot, or will not, rupture.

The 2010 Fault Activity Map provided by the California Department of Conservation identified potential seismic sources within 100 kilometers (62 miles) of the Planning Area. The closest known faults classified by the California Geological Survey are the Corning fault, located approximately 5 miles to the northwest of the planning area; the Chico Monocline fault, located approximately 7 miles east of the planning area; and the Battle Creek fault zone, located approximately 15 miles northwest of the planning area; the Cohasset Ridge fault, located approximately 13 miles east of the Planning Area; and the Peavine Gulch fault, located approximately 20 miles northeast of the Planning Area.

The Corning Fault, Battle Creek Fault zone, Cohasset Ridge fault, the Monocline Fault, and the Peavine Gulch fault, have had movement as recently as the Late Quaternary Period (less than 130,000 years ago), thus, is considered potentially active faults. Figure 3.6-1 provides a map of known area faults.

### Fault Rupture

A fault rupture occurs when the surface of the earth breaks as a result of an earthquake, although this does not happen with all earthquakes. These ruptures generally occur in a weak area of an existing fault. Ruptures can be sudden (i.e. earthquake) or slow (i.e. fault creep). The Alquist-Priolo



Fault Zoning Act requires active earthquake fault zones to be mapped and it provides special development considerations within these zones. Red Bluff does not have surface expression of active faults and fault rupture is not anticipated. Figure 3.6-1 shown regional faults in relation to Red Bluff.

## SEISMIC HAZARD ZONES

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### **Alquist-Priolo Fault Zones**

An active earthquake fault, per California's Alquist-Priolo Act, is one that has ruptured within the Holocene Epoch ( $\approx 11,000$  years). Based on this criterion, the California Geological Survey identifies Earthquake Fault Zones. These Earthquake Fault Zones are identified in Special Publication 42 (SP42), which is updated as new fault data become available. The SP42 lists all counties and cities within California that are affected by designated Earthquake Fault Zones. The Fault Zones are delineated on maps within SP42 (Earthquake Fault Zone Maps).

The California legislature passed the Alquist-Priolo Special Studies Zone Act in 1972 to address seismic hazards associated with faults and to establish criteria for developments for areas with identified seismic hazard zones. The California Geologic Survey (CGS) evaluates faults with available geologic and seismologic data and determines if a fault should be zoned as active, potentially active, or inactive. If CGS determines a fault to be active, then it is typically incorporated into a Special Studies Zone in accordance with the Alquist-Priolo Earthquake Hazard Act. Alquist-Priolo Special Study Zones are usually one-quarter mile or less in width and require site-specific evaluation of fault location and require a structure setback if the fault is found traversing a project site. The Planning Area is not within an Alquist-Priolo Special Study Zone. The nearest Alquist-Priolo fault zone, the Lake Pillsbury, is located approximately 65 miles southwest of Red Bluff.

## LIQUEFACTION

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Liquefaction, which is primarily associated with loose, saturated materials, is most common in areas of sand and silt or on reclaimed lands. Cohesion between the loose materials that comprise the soil may be jeopardized during seismic events and the ground will take on liquid properties. Thus, specific soil characteristics and seismic shaking must exist for liquefaction to be possible. Liquefaction susceptibility based on soil types, deposit, and age is presented below.

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. Soil data from the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2020) suggests that the potential for liquefaction is low within the Planning Area.

## EARTHQUAKE-INDUCED LANDSLIDES

Earthquake-Induced Landslide Zone Areas are areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required. The California Geological Survey Landslides Maps have not mapped any landslide areas in the Planning Area or its vicinity. The potential for landslides within the planning area is generally low.

## NON-SEISMIC HAZARDS

### Soils

A Custom Soil Survey was completed for the Planning Area using the NRCS Web Soil Survey program. The NRCS Soils Map is provided in Figure 3.6-2. Table 3.6-4 below identifies the type and range of soils found in the Planning Area.

**TABLE 3.6-4: PLANNING AREA SOILS**

<b>SOIL TYPES</b>	<b>SOI</b>	<b>CITY</b>	<b>GRAND TOTAL</b>
Arbuckle gravelly fine sandy loam, 0 to 2 percent slopes, MLRA 17	575.08	342.82	917.90
Arbuckle gravelly loam, 0 to 2 percent slopes, MLRA 17	109.88	423.56	533.45
Arbuckle gravelly loam, clayey substratum, 0 to 3 percent slopes	146.25	199.60	345.85
Arbuckle gravelly loam, clayey substratum, channeled	169.95	63.01	232.96
Arbuckle-Tehama complex, 0 to 8 percent slopes, MLRA 17	177.70	77.48	255.19
Clear Lake clay, 0 to 4 percent slopes, MLRA 17	21.67	8.19	29.86
Columbia complex, channeled	130.24	117.42	247.66
Columbia fine sandy loam, 0 to 3 percent slopes	426.34	233.57	659.91
Columbia fine sandy loam, 3 to 8 percent slopes	24.69	0.68	25.37
Columbia silt loam, 0 to 3 percent slopes	30.61	53.05	83.65
Corning gravelly loam, 0 to 6 percent slopes, MLRA 17	101.05	-	101.05
Corning-Newville gravelly loams, 3 to 10 percent slopes, eroded	365.26	346.46	711.72
Corning-Redding gravelly loams, 0 to 5 percent slopes	1346.52	469.44	1815.95
Cortina coarse sandy loam, MLRA 17	114.02	66.50	180.52
Cortina complex	131.41	68.76	200.17
Cortina gravelly fine sandy loam, moderately deep	-	8.66	8.66
Cortina very gravelly fine sandy loam	4.03	15.91	19.94
Dibble-Newville complex, 10 to 30 percent slopes	0.29	-	0.29
Gravel pits	6.35	-	6.35
Hillgate loam, 0 to 3 percent slopes	96.51	34.73	131.24
Hillgate loam, 3 to 8 percent slopes	8.12	-	8.12
Hillgate silt loam, 0 to 3 percent slopes	548.10	27.28	575.37
Kimball loam, 0 to 3 percent slopes	3.58	-	3.58
Maywood fine sandy loam, 0 to 3 percent slopes	25.03	149.26	174.29

Maywood fine sandy loam, moderately deep, 0 to 3 percent slopes	234.07	1.75	235.82
Maywood loam, 0 to 3 percent slopes	29.20		29.20
Maywood loam, high terrace, 0 to 3 percent slopes	86.05	38.76	124.81
Maywood silt loam, 0 to 3 percent slopes	150.49	-	150.49
Miscellaneous water	8.72	-	8.72
Molinos complex, channeled	1.76	-	1.76
Nacimiento-Newville complex, 3 to 10 percent slopes	144.60	0.37	144.98
Newville gravelly loam, 10 to 30 percent slopes	55.95	184.43	240.38
Newville gravelly loam, 10 to 30 percent slopes, eroded	666.60	200.17	866.77
Newville gravelly loam, 10 to 40 percent slopes, MLRA 17	60.76	55.82	116.58
Newville gravelly loam, 3 to 10 percent slopes	361.60		361.60
Newville-Dibble complex, 10 to 30 percent slopes	12.10	71.71	83.81
Newville-Dibble complex, 30 to 50 percent slopes	110.81	61.38	172.19
Perkins gravelly loam, 0 to 3 percent slopes, MLRA 17	436.83	315.11	751.94
Perkins gravelly loam, 3 to 8 percent slopes	38.93	17.68	56.61
Red Bluff gravelly loam, 0 to 3 percent slopes	441.30	267.84	709.14
Red Bluff gravelly loam, hardpan substratum, 0 to 3 percent slopes	36.95	15.18	52.13
Red Bluff loam, 0 to 3 percent slopes, MLRA 17	88.74	264.41	353.15
Redding gravelly loam, 0 to 3 percent slopes, MLRA 17	14.75	153.20	167.95
Redding gravelly loam, 0 to 8 percent slopes, MLRA 17	41.93	240.79	282.72
Riverwash	263.68	45.09	308.78
Tehama gravelly loam, 0 to 3 percent slopes, MLRA 17	13.16		13.16
Tehama loam, 0 to 3 percent slopes, MLRA 17	112.54	38.51	151.05
Tehama loam, 3 to 8 percent slopes, MLRA 17	-	9.70	9.70
Tehama silt loam, 0 to 3 percent slopes, gravelly substratum, MLRA 17	605.51	141.49	747.00
Water	26.23	1.15	27.38
Water-Fluventic Haploxerepts-Oxyaquic Xerofluvents-Oxyaquic Xerorthents complex, 0 to 8 percent slopes, MLRA 17	147.82	137.00	284.82
Yolo silt loam, very gravelly substratum, 0 to 10 percent slopes, MLRA 17	12.08	-	12.08
Zamora clay loam, 0 to 3 percent slopes	4.90	-	4.90
Zamora loam, 0 to 3 percent slopes	138.98	65.37	204.35
<b>Grand Total</b>	<b>8,909.74</b>	<b>5,033.27</b>	<b>13,943.01</b>

SOURCE: NRCS CUSTOM WEB SOIL SURVEY, 2024.

## Erosion

The NRCS delineates soil units and compiles soils data as part of the National Cooperative Soil Survey. The following description of erosion factors is provided by the NRCS Physical Properties Descriptions:

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Erosion factor Kw indicates the erodibility of the whole soil, whereas Kf indicates the erodibility of the fine soils. The estimates are modified by the presence of rock fragments.

The *Custom Soils Report* identified the erosion potential for the soils in the Planning Area. This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. Soil property data for each map unit component includes the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the surface horizon.

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Within the Planning Area, the erosion factor K varies from 0.15 to 0.49, which is considered a low to moderate-high potential for erosion. Furthermore, given the drainage characteristics of the majority of the soils and the nearly level topography of the Planning Area, runoff erosion hazard is considered low. The wind erosion potential ranges from moderate-to-high during the spring, summer, and fall, however this potential for wind erosion diminishes during the winter.

### **Expansive Soils**

The NRCS delineates soil units and compiles soils data as part of the National Cooperative Soil Survey. The following description of linear extensibility (also known as shrink-swell potential or expansive potential) is provided by the NRCS Physical Properties Descriptions:

“Linear extensibility” refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Expansive soils can undergo significant volume change with changes in moisture content. They shrink and harden when dried and expand and soften when wet. If structures are underlain by expansive soils, it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscaping watering.

According to the NRCS Web Soil Survey, the majority of soils in the Planning Area have a low to moderate potential of soil expansion. Figure 3.6-3 provides a map of the shrink-swell potential of the soils within the Planning Area.

### **Lateral Spreading**

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Soil data from the NRCS Web Soil Survey (NRCS 2020) suggests that the potential for lateral spreading is low within the Planning Area.

### **Landslide**

The California Geological Survey classifies landslides with a two-part designation based on Varnes (1978) and Cruden and Varnes (1996). The designation captures both the type of material that failed and the type of movement that the failed material exhibited. Material types are broadly categorized as either rock or soil, or a combination of the two for complex movements. Landslide movements are categorized as falls, topples, spreads, slides, or flows.

Landslide potential is influenced by physical factors, such as slope, soil, vegetation, and precipitation. Landslides require a slope, and can occur naturally from seismic activity, excessive saturation, and wildfires, or from human-made conditions such as construction disturbance, vegetation removal, wildfires, etc. The potential for landslides within the planning area is generally low.

### **Subsidence**

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include: pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. Subsidence has not been identified as an issue in the Planning Area.

### **Collapsible Soils**

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Soils prone to collapse are commonly associated with manmade fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. During an earthquake, even slight settlement of fill materials can lead to a differentially settled structure and significant repair costs. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been

identified in the Planning Area as an issue. However, in areas subject to potential liquefaction, the potential for liquefaction induced settlement is present.

### **Naturally Occurring Asbestos**

The term “asbestos” is used to describe a variety of fibrous minerals that, when airborne, can result in serious human health effects. Naturally occurring asbestos is commonly associated with ultramafic rocks and serpentinite. Ultramafic rocks, such as dunite, peridotite, and pyroxenite are igneous rocks comprised largely of iron-magnesium minerals. As they are intrusive in nature, these rocks often undergo metamorphosis, prior to their being exposed on the Earth’s surface. The metamorphic rock serpentinite is a common product of the alteration process.

The presence of ultramafic rocks within the region indicates the possibility of naturally occurring asbestos materials. Ultramafic rocks that are associated with shear zones are considerably denser than other rock formations in the area and many are serpentinitized. Minerals known to contain asbestos-quality (i.e., asbestiform) fibers include ultramafic minerals of the amphibole group and phyllosilicates. Fibrous varieties of the amphibole group include tremolite, actinolite, amosite, crocidolite and anthophyllite. Serpentine is a phyllosilicate that occurs in a platy variety (antigorite) and an asbestiform variety (chrysotile) and is the most common variety of commercially mined asbestos. Amphibole asbestos, when disturbed emits needle-like fibers that can be inhaled into the lungs. Amphibole asbestos is more friable than chrysotile, which requires considerable flexing to break. Both forms of asbestos are found in serpentinite commonly found in the Sierra Nevada foothills and in the areas. When serpentinite rock is disturbed by grading and construction activities, asbestos fibers may be released. Naturally occurring asbestos is not identified within Red Bluff, although it is located in mountainous areas in the surrounding counties.

### **PALEONTOLOGICAL RESOURCES**

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Among the natural resources deserving conservation and preservation, and existing within the update Study Area, are the often-unseen records of past life buried in the sediments and rocks below the pavement, buildings, soils, and vegetation which now cover most of the area. These records – fossils and their geologic context – undoubtedly exist in large quantities below the surface in many areas in and near the City of Red Bluff, and span millions of years in age of origin. Fossils constitute a non-renewable resource: Once lost or destroyed, the exact information they contained can never be reproduced.

Paleontology is the science that attempts to unravel the meaning of these fossils in terms of the organisms they represent, the ages and geographic distribution of those organisms, how they interacted in ancient ecosystems and responded to past climatic changes, and the changes through time of all of these aspects.

The sensitivity of a given area or body of sediment with respect to paleontological resources is a function of both the potential for the existence of fossils and the predicted significance of any fossils which may be found there. The primary consideration in the determination of paleontological sensitivity of a given area, body of sediment, or rock formation is its potential to

include fossils. Information that can contribute to assessment of this potential includes: 1) direct observation of fossils within the project area; 2) the existence of known fossil localities or documented absence of fossils in the same geologic unit (e.g., “Formation” or one of its subunits); 3) descriptive nature of sedimentary deposits (such as size of included particles or clasts, color, and bedding type) in the area of interest compared with those of similar deposits known elsewhere to favor or disfavor inclusion of fossils; and 4) interpretation of sediment details and known geologic history of the sedimentary body of interest in terms of the ancient environments in which they were deposited, followed by assessment of the favorability of those environments for the preservation of fossils.

The most general paleontological information can be obtained from geologic maps, but geologic cross sections (slices of the layer cake to view the third dimension) must be reviewed for each area in question. These usually accompany geologic maps or technical reports. Once it can be determined which formations may be present in the subsurface, the question of paleontological resources must be addressed. Even though a formation is known to contain fossils, they are not usually distributed uniformly throughout the many square miles the formation may cover. If the fossils were part of a bay environment when they died, perhaps a scattered layer of shells will be preserved over large areas. If on the other hand, a whale died in this bay, you might expect to find fossil whalebone only in one small area of less than a few hundred square feet. Other resources to be considered in the determination of paleontological potential are regional geologic reports, site records on file with paleontological repositories and site-specific field surveys.

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. However, even a previously designated low potential site may yield significant fossils.

## 3.6.2 REGULATORY SETTING

### FEDERAL

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#### **Earthquake Hazards Reduction Act**

The Earthquake Hazards Reduction Act of 1977 (42 USC, 7701 et seq.) requires the establishment and maintenance of an earthquake hazards reduction program by the Federal government.

#### **Executive Order 12699**

Signed in January 1990, this executive order of the President implements provisions of the Earthquake Hazards Reduction Act for “federal, federally assisted or federally regulated new building construction” and requires the development and implementation of seismic safety programs by Federal agencies.

**International Building Code (IBC)**

The purpose of the International Building Code (IBC) is to provide minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. IBC standards address foundation design, shear wall strength, and other structurally related conditions.

**STATE**

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**California Building Standards Code**

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC) or simply "Title 24," contains the regulations that govern the construction of buildings in California. The CBSC includes 12 parts: California Building Standards Administrative Code, California Building Code, California Residential Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Historical Building Code, California Fire Code, California Existing Building Code, California Green Building Standards Code (CAL Green Code), and the California Reference Standards Code. Through the CBSC, the State provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control. The California Building Code, Title 24, Part 2, Chapter 16 addresses structural design, Chapter 17 addresses structural tests and special inspections, and Chapter 18 addresses soils and foundations. Section 1610 provides structural design standards for foundation walls and retaining walls to ensure resistance to lateral soil loads. Section 1613 provides structural design standards for earthquake loads. Section 1704.7 requires special inspections for existing site soil conditions, fill placement and load-bearing requirements during the construction as specified in Table 1704.7 of this section. Sections 1704.8 through 1704.16 provide inspection and testing requirements for various foundation types, and construction material types. Section 1803.1.1.1 requires each city and county enact an ordinance which requires a preliminary soil report and that the report be based upon adequate test borings or excavations, of every subdivision, where a tentative and final map is required pursuant to Section 66426 of the Government Code. Section 1803.5.3 defines expansive soils and specifies that in areas likely to have expansive soil, the building official shall require soil tests to determine where such soils do exist. Section 1803.5.4 specifies that a subsurface soil investigation must be performed to determine whether the existing ground-water table is above or within 5 feet (1524 mm) below the elevation of the lowest floor level where such floor is located below the finished ground level adjacent to the foundation. Section 1803.5.8 provides specific standards where shallow foundations will bear on compacted fill material more than 12 inches (305 mm) in depth. Sections 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design Categories in accordance with Section 1613. Section 1804 provides standards and requirements for excavation, grading, and fill. Sections 1808, 1809, and 1810 provide standards and requirements for the construction of varying foundations.



### **California Health and Safety Code**

Section 19100 et seq. of the California Health and Safety Code establishes the State's regulations for earthquake protection. This section of the code requires structural designs to be capable of resisting likely stresses produced by phenomena such as strong winds and earthquakes.

### **Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 sets forth the policies and criteria of the State Mining and Geology Board, which governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones, as delineated on maps officially issued by the State Geologist. Working definitions include:

- Fault – a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side;
- Fault Zone – a zone of related faults, which commonly are braided and sub parallel, but may be branching and divergent. A fault zone has a significant width (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles;
- Sufficiently Active Fault – a fault that has evidence of Holocene surface displacement along one or more of its segments or branches (last 11,000 years); and
- Well-Defined Fault – a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success.

"Sufficiently Active" and "Well Defined" are the two criteria used by the State to determine if a fault should be zoned under the Alquist-Priolo Act.

### **Seismic Hazards Mapping Act**

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced landslides. Under the Act, seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The program and actions mandated by the Seismic Hazards Mapping Act closely resemble those of the Alquist-Priolo Earthquake Fault Zoning Act (which addresses only surface fault-rupture hazards) and are outlined below:

The State Geologist is required to delineate the various "seismic hazard zones."

- Cities and counties, or other local permitting authority, must regulate certain development "projects" within the zones. They must withhold the development permits for a site within a zone until the geologic and soil conditions of the site are investigated and appropriate mitigation measures, if any, are incorporated into development plans.

- The State Mining and Geology Board provides additional regulations, policies, and criteria to guide cities and counties in their implementation of the law. The Board also provides guidelines for preparation of the Seismic Hazard Zone Maps and for evaluating and mitigating seismic hazards.
- Sellers (and their agents) of real property within a mapped hazard zone must disclose that the property lies within such a zone at the time of sale.

### **Caltrans Seismic Design Criteria**

The California Department of Transportation (Caltrans) has Seismic Design Criteria (SDC), which is an encyclopedia of new and currently practiced seismic design and analysis methodologies for the design of new bridges in California. The SDC adopts a performance-based approach specifying minimum levels of structural system performance, component performance, analysis, and design practices for ordinary standard bridges. The SDC has been developed with input from the Caltrans Offices of Structure Design, Earthquake Engineering and Design Support, and Materials and Foundations. Memo 20-1 Seismic Design Methodology (Caltrans 1999) outlines the bridge category and classification, seismic performance criteria, seismic design philosophy and approach, seismic demands and capacities on structural components, and seismic design practices that collectively make up Caltrans' seismic design.

### **Division of Mines and Geology**

The California Division of Mines and Geology (DMG) operates within the Department of Conservation. The DMG is responsible for assisting in the utilization of mineral deposits and the identification of geological hazards.

### **State Geological Survey**

Similar to the DMG, the California Geological Survey is responsible for assisting in the identification and proper utilization of mineral deposits, as well as the identification of fault locations and other geological hazards.

## LOCAL

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### **Tehama County Department of Environmental Health**

In Tehama County and the City of Red Bluff, septic systems are regulated by the Tehama County Department of Environmental Health. the Department functions include Inspection, complaint investigation, permitting and regulation is conducted in the areas of food establishments, individual sewage disposal systems, public water systems, solid waste facilities, medical waste generators, hazardous materials, waste handlers, waste generators, institutions, land development and underground storage tanks, adult use and cultivation of marijuana, and code enforcement.

**Red Bluff Municipal Code****§ 18.3 REQUIREMENT TO CONNECT WITH CITY SEWER SYSTEM.**

Chapter 18.3 of the Red Bluff Municipal Code states that “No person within the corporate limits of the city whose property is located where a city sewer line, available to serve the property, is within 250 feet of the place of origin of sewage on the premises, shall install any septic tank or use any means of disposing of sewage other than through a connection with the city sewer system. Each person shall be required to connect the premises with the city sewer system pursuant to this chapter and to pay in advance all connection charges provided for under this chapter.”

**§ 27.3-5 SOIL MANAGEMENT REPORT.**

In order to reduce runoff and encourage healthy plant growth, a soil management report may be required for any project and be completed by the project applicant, or his or her designee, as follows: (A) Submit soil samples to a laboratory for analysis and recommendations. (1) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants. (2) The soil analysis may include: (a) Soil texture; (b) Infiltration rate determined by laboratory test or soil texture infiltration rate table; (c) pH; (d) Total soluble salts; (e) Sodium; (f) Percent organic matter; and (g) Recommendations.

**3.6.3 IMPACTS AND MITIGATION MEASURES****THRESHOLDS OF SIGNIFICANCE**

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on geology and soils if it will:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### IMPACTS AND MITIGATION MEASURES

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#### **Impact 3.6-1: General Plan implementation has the potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides (Less than Significant)**

There is one active or potentially active fault, Corning fault, located within the Planning Area. Additionally, there are numerous faults located in the region. Figure 3.6-1 illustrates the location of these faults. The Planning Area is located approximately 20 miles south of the Battle Creek fault zone and approximately 12 miles west of the Chico Monocline fault. Rupture of any of these faults, or of an unknown fault in the region, could cause seismic ground shaking. As a result, future development in the City of Red Bluff may expose people or structures to potential adverse effects associated with a seismic event, including strong ground shaking and seismic-related ground failure.

Since there is a known active fault located within the Planning Area, the area could experience considerable ground shaking generated by faults. For example, Red Bluff could experience an intensity of MM V to VII generated by seismic events. The effect of this intensity level could have structural damage. Soil data from the NRCS Web Soil Survey (NRCS 2020) suggests that the potential for liquefaction is low within the Planning Area. The potential for impacts to occur related to this topic would be minimized through the implementation of the policies and actions listed below.

All projects would be required to comply with the provisions of the CBSC, which requires development projects to: perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, General Plan, Zoning Ordinance, and other regulations. Subsequent development and infrastructure would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. In addition to the requirements associated with the CBSC and the Municipal Code, the General Plan includes policies and actions to address potential impacts associated with seismic activity.

The General Plan policies and actions (listed below) require review of development proposals to ensure compliance with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces such as earthquakes and wind. All development and construction proposals must be

reviewed by the City to ensure conformance with applicable building standards. Development on soils sensitive to seismic activity is only allowed after adequate site analysis, including appropriate siting, design of structure, and foundation integrity. All future projects are subject to CEQA review to address seismic safety issues and provide adequate mitigation for existing and potential hazards identified. With the implementation of the policies and actions in the General Plan, as well as applicable State and City codes, potential impacts associated with a seismic event, including rupture of an earthquake fault, seismic ground shaking, liquefaction, and landslides would be **less than significant**.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### **SAFETY ELEMENT POLICIES**

SA 1.1: Require review and mitigation of all potential geologic and seismic hazards for new development in identified hazardous areas.

SA 1.2: Ensure that all new development and construction is in conformance with applicable California Building Code standards related to geologic and seismic safety.

SA 1.3: Avoid placement of critical structures, public facilities, and high- occupancy buildings in areas prone to ground failure during an earthquake.

SA 1.4: Require adequate mitigation on sites with landslide potential or erodible soils to protect against injury and property damage and to assure a standard of development that will not accelerate runoff or degrade water quality.

##### **SAFETY ELEMENT ACTIONS**

*SA-1a: Require adherence to the requirements of the California Building Code (California Code of Regulations, Title 24) during the plan check review process.*

*SA-1b: Periodically review the structural integrity of all existing City-owned critical facilities and, if any facilities are found unsatisfactory, take steps to ensure structural integrity and safety.*

*SA-1c: Continue to maintain and provide an inventory of all natural hazards, including active faults, Alquist-Priolo Special Study Zones, hazardous soil conditions, floodplains, and dam failure inundation areas.*

#### **Impact 3.6-2: General Plan implementation has the potential to result in substantial soil erosion or the loss of topsoil (Less than Significant)**

The General Plan would allow development and improvement projects that would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters. The potential for impacts to occur related to this topic would be minimized through the implementation of the policies and actions listed below.

Within the Planning Area, the erosion factor K varies from 0.15 to 0.49, which is considered a low to moderate-high potential for erosion. Furthermore, given the drainage characteristics of the majority of the soils and the nearly level topography of the Planning Area, runoff erosion hazard is considered low. The wind erosion potential ranges from moderate-to-high during the spring, summer, and fall, however this potential for wind erosion diminish during the winter.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, General Plan, Zoning Ordinance, and other regulations. In addition to compliance with City standards and policies, the Regional Water Quality Control Board will require a project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each project that disturbs an area of one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The General Plan includes a range of policies and actions related to best management practices, discharge requirements, and minimizing substantial soil erosion or the loss of top soils. With the implementation of the policies and actions in the General Plan, as well as applicable State and City requirements, potential impacts associated with erosion and loss of topsoil would be **less than significant**.

### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

#### **SAFETY ELEMENT POLICIES**

SA 1.1: Require review and mitigation of all potential geologic and seismic hazards for new development in identified hazardous areas.

SA 1.4: Require adequate mitigation on sites with landslide potential or erodible soils to protect against injury and property damage and to assure a standard of development that will not accelerate runoff or degrade water quality.

SA 1.5: Require approval of final site development plans, including drainage and erosion control plans, in areas subject to high erosion hazard potential prior to authorization of any initial grading and clearing activities.

#### **CONSERVATION ELEMENT POLICIES**

COS 7.3: Require new development and redevelopment projects to control stormwater runoff through implementation of Best Management Practices (BMPs) and protect or mimic natural features to the greatest extent feasible, while ensuring that these features adequately convey and control stormwater to protect human health, safety, and welfare.

COS 8.1: Encourage best management practices (BMPs) to enhance soil quality and to minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.

COS 8.4: Restrict development in areas of unstable soils.

#### CONSERVATION ELEMENT ACTIONS

*COS-7a: To reduce soil erosion and pollutants in urban runoff, require new development and redevelopment projects control stormwater runoff through implementation of Best Management Practices (BMPs) to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. Existing development shall control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. As specific development projects are implemented, project proponents will be required to consult with relevant agencies such as the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Game (CDFG). Also, ensure that construction projects of one acre or more complete a Stormwater Pollution Prevention Plan (SWPPP) pursuant to the California Regional Water Quality Control Board (RWQCB) Construction General Permit (Order 2022-0057-DWQ).*

#### SAFETY ELEMENT ACTIONS

*SA-1a: Require adherence to the requirements of the California Building Code (California Code of Regulations, Title 24) during the plan check review process.*

*SA-1d: Require protection of exposed soil from erosion during the wet/rainy season (October 15th until April 15th). Require topsoil to be stockpiled and reapplied upon completion of grading to promote vegetative regrowth where feasible.*

*SA-1e: Require replanting of vegetation on all slopes prone to erosion and/or instability following development. Drought-resistant plant types shall be used for landscaping on post-development slopes where excess watering might induce land slippage or soil erosion.*

*SA-1f: Prohibit earthmoving operations in areas of high soil and slope erosion hazard potential during the wet/rainy season (October 15th until April 15th) unless preauthorized. If such activities are allowed, measures for sediment containment and erosion control must be in place at the conclusion of each day's work.*

*SA-1g: As part of any new development tentative map, review preliminary grading plans and ensure they are designed to control erosion and prevent sedimentation or damage to off-site properties.*

#### **Impact 3.6-3: General Plan implementation has the potential to result in development located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (Less than Significant)**

No specific development projects have been proposed or would be approved through adoption of the General Plan, however, future development allowed under the General Plan could result in the exposure of people and structures to conditions that have the potential for adverse effects associated with ground instability or failure. The potential for soils and geologic conditions in the

Red Bluff Planning Area to have the potential for landslides, lateral spreading, subsidence, liquefaction, or collapse are discussed below:

### LANDSLIDES

The potential for landslides within the planning area is generally low. The proposed General Plan includes policies and actions in order to reduce impacts associated with landslides. For example, policy SA 1.4 requires adequate mitigation on sites with landslide potential or erodible soils to protect against injury and property damage and to assure a standard of development that will not accelerate runoff or degrade water quality.

### LATERAL SPREADING

Lateral spreading generally is a phenomenon where blocks of intact, non-liquefied soil move down slope on a liquefied substrate of large areal extent. The potential for lateral spreading is present where open banks and unsupported cut slopes provide a free face (unsupported vertical slope face). Ground shaking, especially when inducing liquefaction, may cause lateral spreading toward unsupported slopes. The potential for lateral spreading is low within the Planning Area.

### SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include: pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. Subsidence has not been identified as an issue in the Planning Area.

### LIQUEFACTION

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesion-less soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. Soil data from the NRCS Web Soil Survey (NRCS 2020) suggests that the potential for liquefaction is low within the Planning Area. The proposed General Plan includes policies and actions in order to reduce impacts associated with liquefaction. For example, policy SA 1.1 requires review and mitigation of all potential geologic and seismic hazards for new development in identified hazardous areas.

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been identified in the



Planning Area as an issue. However, in areas subject to potential liquefaction, the potential for liquefaction induced settlement is present.

#### CONCLUSION

As future development and infrastructure projects are considered by the City of Red Bluff, each project will be evaluated for conformance with the CBSC, the General Plan, Zoning Ordinance, and other regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Future development and improvement projects would be required to have a specific geotechnical study prepared and incorporated into the improvement design, consistent with the requirements of the State and City codes. In addition to the requirements associated with the CBSC and the Municipal Code, the General Plan includes policies and actions to ensure that development projects address potential geologic hazards, at-risk buildings and infrastructure is evaluated for potential risks, and site-specific studies are completed for area subject to liquefaction. With the implementation of the policies and actions in the General Plan, as well as applicable State and City codes, potential impacts associated with ground instability or failure would be **less than significant**.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### SAFETY ELEMENT POLICIES

SA 1.1: Require review and mitigation of all potential geologic and seismic hazards for new development in identified hazardous areas.

SA 1.2: Ensure that all new development and construction is in conformance with applicable California Building Code standards related to geologic and seismic safety.

SA 1.3: Avoid placement of critical structures, public facilities, and high- occupancy buildings in areas prone to ground failure during an earthquake.

##### CONSERVATION ELEMENT POLICIES

COS 8.1: Encourage best management practices (BMPs) to enhance soil quality and to minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.

COS 8.4: Restrict development in areas of unstable soils.

##### SAFETY ELEMENT ACTIONS

*SA-1a: Require adherence to the requirements of the California Building Code (California Code of Regulations, Title 24) during the plan check review process.*

*SA-1b: Periodically review the structural integrity of all existing City-owned critical facilities and, if any facilities are found unsatisfactory, take steps to ensure structural integrity and safety.*

*SA-1c: Continue to maintain and provide an inventory of all natural hazards, including active faults, Alquist-Priolo Special Study Zones, hazardous soil conditions, floodplains, and dam failure inundation areas.*

*SA-1e: Require replanting of vegetation on all slopes prone to erosion and/or instability following development. Drought-resistant plant types shall be used for landscaping on post-development slopes where excess watering might induce land slippage or soil erosion.*

### **Impact 3.6-4: General Plan implementation has the potential to result in development on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property (Less than Significant)**

Expansive soil properties can cause substantial damage to building foundations, piles, pavements, underground utilities, and/or other improvements. Structural damage, such as warping and cracking of improvements, and rupture of underground utility lines, may occur if the expansive potential of soils is not considered during the design and construction of all improvements.

Linear extensibility is a method for measuring expansion potential. The expansion potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

The linear extensibility of the soils within the Planning Area is generally considered low to moderate. Figure 3.6-3 illustrates the shrink-swell potential of soils in the Planning Area.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, General Plan, Municipal Code, and Zoning Ordinance, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The Safety Element of the General Plan establishes policies that are designed to protect from geologic hazards, including expansive soils. Consistency with the General Plan policies will require identification of geologic hazards and risk inventory of existing at-risk buildings and infrastructure. As required by the CBSC, a site-specific geotechnical investigation will identify the potential for damage related to expansive soils and non-uniformly compacted fill and engineered fill. If a risk is identified, design criteria and specification options may include removal of the problematic soils, and replacement, as needed, with properly conditioned and compacted fill material that is designed to withstand the forces exerted during the expected shrink-swell cycles and settlements.

Design criteria and specifications set forth in the design-level geotechnical investigation will ensure impacts from problematic soils are minimized. There are no additional significant adverse environmental impacts, apart from those disclosed in the relevant chapters of this Draft EIR, that

are anticipated to occur associated with expansive soils. Therefore, this impact is considered **less than significant**.

***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

SAFETY ELEMENT POLICIES

SA 1.2: Ensure that all new development and construction is in conformance with applicable California Building Code standards related to geologic and seismic safety.

SA 1.4: Require adequate mitigation on sites with landslide potential or erodible soils to protect against injury and property damage and to assure a standard of development that will not accelerate runoff or degrade water quality.

CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 8.4: Restrict development in areas of unstable soils.

SAFETY ELEMENT ACTIONS

*SA-1a: Require adherence to the requirements of the California Building Code (California Code of Regulations, Title 24) during the plan check review process.*

*SA-1c: Continue to maintain and provide an inventory of all natural hazards, including active faults, Alquist-Priolo Special Study Zones, hazardous soil conditions, floodplains, and dam failure inundation areas.*

*SA-1g: As part of any new development tentative map, review preliminary grading plans and ensure they are designed to control erosion and prevent sedimentation or damage to off-site properties.*

CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-8d: Require an on-site soil survey for all developments occurring on soils that have been given a Subclass "e" (erosion susceptibility) sub-classification by the USDA Natural Resources Conservation Service Land Capability Class system.*

**Impact 3.6-5: General Plan implementation does not have the potential to have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water (Less than Significant)**

The wastewater generated by the City of Red Bluff is treated and disposed of at the City of Red Bluff Wastewater Treatment Plant (WWTP). According to the City's 2018 Sewer System Management Plan, the City reports that there are 4142 sewer connections to the sanitary sewer collection system. These service connections are further categorized as residential 3672, and 470 commercial/Industrial. The sewer collection system contains approximately 1050 manholes and 60

miles of gravity piping ranging in size from 4 inches to 30 inches. The City also provides extra territorial services to sixty-six (66) individual private parcels in the Lakeside area. The City has entered into separate Utility Services Agreements with these private sewer systems.

On-site systems, commonly referred to as septic systems, are useful for handling the wastewater disposal needs of individual dwellings or commercial establishments for which connection to community facilities is not feasible. Projects developed within the city under the proposed General Plan would be anticipated to tie into the City of Red Bluff's existing wastewater system and are not anticipated to use alternative on-site wastewater treatment.

In Tehama County and the City of Red Bluff, septic systems are regulated by the Tehama County Department of Environmental Health. Permits are required for construction of a new septic system, various repairs, and installation of new tanks.

Local septic system ordinances often incorporate portions of the Uniform Plumbing Code and other specific requirements. Chapter 18.3 of the Red Bluff Municipal Code states that "No person within the corporate limits of the city whose property is located where a city sewer line, available to serve the property, is within 250 feet of the place of origin of sewage on the premises, shall install any septic tank or use any means of disposing of sewage other than through a connection with the city sewer system. Each person shall be required to connect the premises with the city sewer system pursuant to this chapter and to pay in advance all connection charges provided for under this chapter."

As described previously, it is not anticipated that there will be septic tanks or alternative waste water disposal systems utilized for new development within the city under the General Plan, and any development within the county that utilizes onsite disposal would undergo review and approval under a County Environmental Health Department permit. Therefore, this impact is considered **less than significant**.

### **Impact 3.6-6: General Plan implementation has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (Less than Significant)**

#### DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;

4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.
6. All identifiable vertebrate fossils are considered significant due to the rarity of their preservation.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and invertebrate animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important.

#### PALEONTOLOGICAL SENSITIVITY FOR PLANNING AREA

The sensitivity of a given area or body of sediment with respect to paleontological resources is a function of both the potential for the existence of fossils and the predicted significance of any fossils which may be found there. The primary consideration in the determination of paleontological sensitivity of a given area, body of sediment, or rock formation is its potential to include fossils. Information that can contribute to assessment of this potential includes: 1) direct observation of fossils within the project area; 2) the existence of known fossil localities or documented absence of fossils in the same geologic unit (e.g., "Formation" or one of its subunits); 3) descriptive nature of sedimentary deposits (such as size of included particles or clasts, color, and bedding type) in the area of interest compared with those of similar deposits known elsewhere to favor or disfavor inclusion of fossils; and 4) interpretation of sediment details and known geologic history of the sedimentary body of interest in terms of the ancient environments in which they were deposited, followed by assessment of the favorability of those environments for the preservation of fossils.

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. However, even a previously designated low potential site may yield significant fossils. The Planning Area is in a region where fossils and paleontological resources have been identified.

#### CONCLUSION

It is possible that undiscovered paleontological resources could be encountered during ground-disturbing activities. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. Implementation of the proposed General Plan policies and actions (listed below) would ensure steps would be taken to reduce impacts to paleontological resources in the event that they are discovered during

construction. Implementation of these policies and actions would ensure program level impacts to paleontological resources are **less than significant**.

***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

CONSERVATION ELEMENT POLICIES

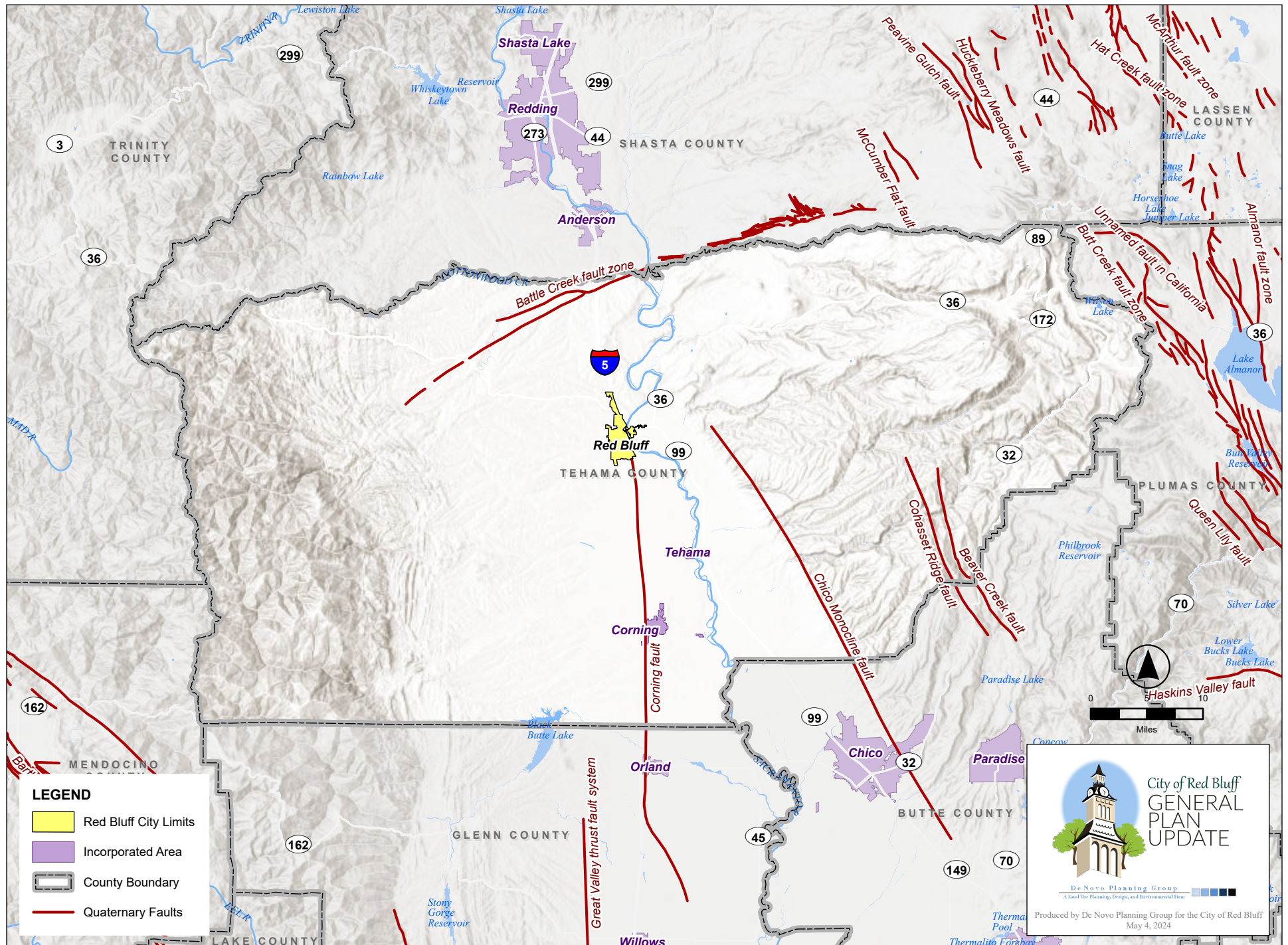
COS 4.4: Protect areas containing significant historical, archaeological, and/or paleontological resources, as defined by the California Public Resources Code.

CONSERVATION ELEMENT ACTIONS

*COS-4b:Continue to assess development proposals for potential impacts to sensitive historical, archaeological, and paleontological resources pursuant to the California Environmental Quality Act (CEQA).*



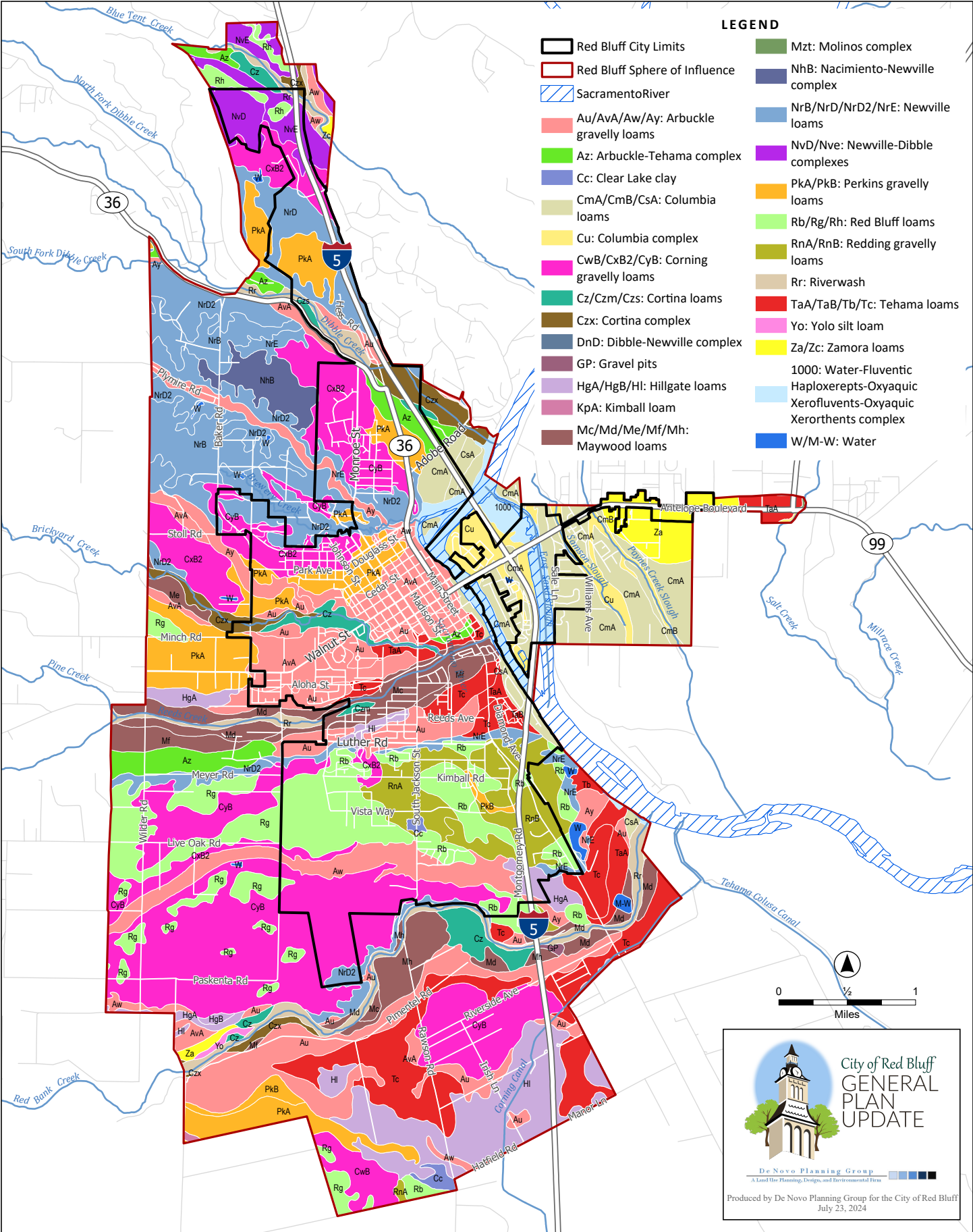
Figure 3.6-1. Earthquake Faults



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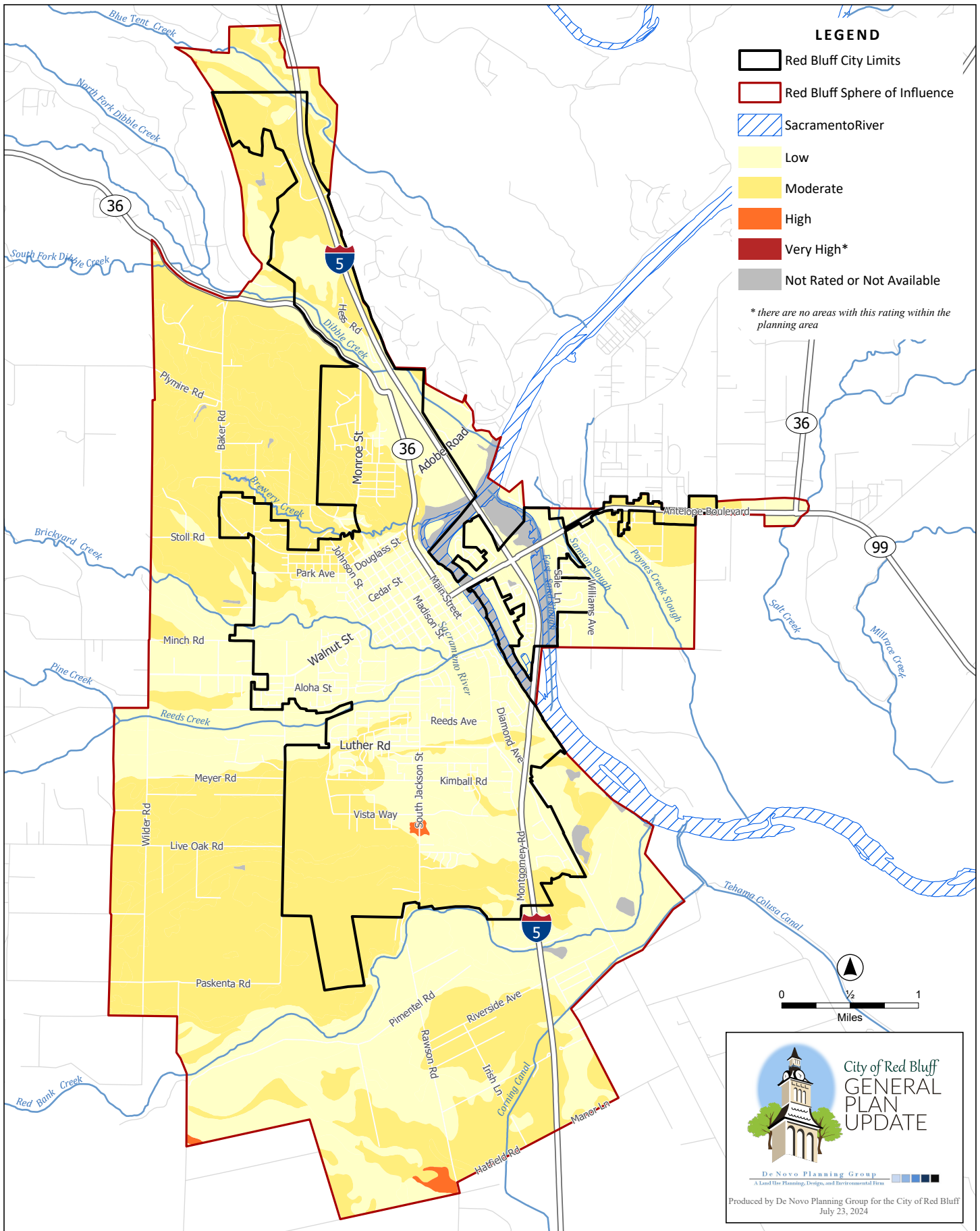


Figure 3.6-2. Soil Types



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Figure 3.6-3. Shrink-Swell Potential of Soils



Sources: California State University, Chico Geographical Information Center; USGS National Hydrography Dataset; NRCS Web Soil Survey, 7/23/2024. Linear Extensibility Rating calculated using the "Dominant Component" aggregation method using the Weighted Average of all soil horizons.

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This section discusses regional greenhouse gas (GHG) emissions, climate change, and energy conservation impacts that could result from implementation of the General Plan. This section provides a background discussion of greenhouse gases and climate change linkages and effects of global climate change. This section also provides background discussion on energy use in the City of Red Bluff, Tehama County, and the region. This section is organized with an existing setting, regulatory setting, approach/methodology, and impact analysis.

The analysis and discussion of the GHG, climate change, and energy conservation impacts in this section focuses on the General Plan's consistency with local, regional, statewide, and federal climate change and energy conservation planning efforts and discusses the context of these planning efforts as they relate to the proposed project. Disclosures of the estimated energy usage and greenhouse gas emissions due to implementation of the General Plan are provided.

Emissions of GHGs have the potential to adversely affect the environment in a cumulative context. The emissions from a single project will not cause global climate change; however, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change. Therefore, the analysis of GHGs and climate change presented in this section is presented in terms of the proposed project's contribution to cumulative impacts and potential to result in cumulatively considerable impacts related to GHGs and climate change.

No comments were received during the NOP comment period regarding this environmental topic.

### 3.7.1 ENVIRONMENTAL SETTING

#### GREENHOUSE GASES AND CLIMATE CHANGE LINKAGES

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Various gases in the Earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and ozone (O<sub>3</sub>). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2019, concentrations of these three GHGs have increased globally by 47, 156, and 23 percent, respectively (IPCC, 2023).

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), ozone (O<sub>3</sub>), water vapor, nitrous oxide (N<sub>2</sub>O), and chlorofluorocarbons (CFCs).

### 3.7 GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

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Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial and electricity generation sectors (California Energy Commission, 2023).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 369 million gross metric tons of carbon dioxide equivalents (MMTCO<sub>2</sub>e) in 2022 (California Air Resources Board, 2023).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO<sub>2</sub> were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2022, accounting for 38% of total GHG emissions in the State. This category was followed by the industrial sector (23%), the electricity generation sector (including both in-state and out of-state sources) (16%), the agriculture and forestry sector (9%), the residential energy consumption sector (8%), and the commercial energy consumption sector (6%) (California Air Resources Board, 2023).

#### EFFECTS OF GLOBAL CLIMATE CHANGE

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The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature because of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the State. The snowpack portion of the supply could potentially decline by 50% to 75% by the end of the 21<sup>st</sup> century (National Resources Defense Council, 2014). This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels. If this occurs,

resultant effects could include increased coastal flooding, saltwater intrusion, and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. According to the Indicators of Climate Change in California report (OEHHA, 2022), the impacts of global warming in California are anticipated to include, but are not limited to, the following:

### **Public Health**

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25% to 35% under the lower warming range and to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

### **Water Resources**

The State's surface water supplies include a vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California Rivers, and additional supplies from the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25% of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming

range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70% to 90%. Under the lower warming scenario, snow pack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snow pack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snow pack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

### **Agriculture**

Increased GHG emissions are expected to cause widespread changes to the agriculture industry, reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for several of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

### **Forests and Landscapes**

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout



the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30% toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90%.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60% to 80% by the end of the century because of increasing temperatures. The productivity of the State's forests is also expected to decrease because of global warming.

### **Rising Sea Levels**

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

## **ENERGY CONSUMPTION**

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Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are the most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 60 percent of electricity generated by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under Senate Bill 100). The 2021 SB 100 Joint Agency Report was published in 2021, which found that the long-term goals contained in SB 100 are technically achievable through multiple pathways, although achieving 100 clean electricity would increase the total annual electricity system cost by 6% relative to the cost under the state's Renewables Portfolio Standard requirement of having at least 60 percent clean electricity by the end of 2030. These estimates will change over time as markets change, new technologies are commercialized, and additional factors such as grid reliability are included in future analyses.

Overall, in 2023, California's per capita energy usage was ranked second-lowest in the nation (U.S. Energy Information Administration, 2024). California's per capita rate of energy usage has remained relatively constant since the 1970's. Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e., fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

### **Electricity Consumption**

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and a very small amount of nuclear generation resources. In 2020, nearly one-half of the electricity supply came from facilities outside of the State. Much of the power delivered to California from states in the Pacific Northwest was generated by wind. States in the Southwest delivered power generated at coal-fired power plants, at natural gas-fired power plants, and from nuclear generating stations (U.S. Energy Information Administration, 2022). In 2020, approximately 41 percent of California’s utility-scale net electricity generation was fueled by natural gas. In addition, about 48 percent of the State’s utility-scale net electricity generation came from renewable sources, such as solar, wind, geothermal, hydropower, and biomass. Nuclear energy powered an additional 11 percent. The amount of electricity generated from coal was effectively zero (U.S. Energy Information Administration, 2022). The percentage of renewable resources as a proportion of California’s overall energy portfolio is increasing over time, as directed the State’s Renewable Portfolio Standard (RPS).

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 228,038 GWh in 1990, which is an estimated annual growth rate of 3.66 percent. The statewide electricity consumption in 1997 was 246,225 GWh, reflecting an annual growth rate of 1.14 percent between 1990 and 1997 (U.S. Energy Information Administration, 2023b). Statewide consumption was 274,985 GWh in 2010, an annual growth rate of 0.9 percent between 1997 and 2010. In 2022, electricity consumption in Tehama County was 531 GWh (California Energy Commission, 2024).

PG&E is a publicly traded utility company that, under contract with the California Public Utilities Commission (CPUC), generates, purchases, and distributes energy. PG&E’s service area covers 70,000 square miles, roughly extending north to south from Eureka to Bakersfield and east to west from the Sierra Nevada to the Pacific Ocean. PG&E’s electricity distribution system consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines.

PG&E’s electricity is generated from a combination of traditional sources, such as coal-fired plants, nuclear power plants, and hydroelectric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, or “solar farms.” “The grid,” or bulk electric grid, is a network of high-voltage transmission lines that link power plants to the PG&E system. The distribution system, comprising lower-voltage secondary lines, is at the street and neighborhood level. It consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to individual customers.

In addition to its base plan, PG&E has three plan options, known as Solar Choice options and Green Saver, which give customers the option of purchasing energy from solar resources. The first Solar Choice option provides up to 50 percent of a customer’s energy from solar resources, while the other option provides up to 100 percent of a customer’s energy from solar resources, and the Green Saver option provides up to 90 percent of a customer’s energy from solar resources.

Table 3.7-1 outlines PG&E's power mix in 2022, compared to the power mix for the state. The table identifies the renewable and non-renewable energy sources for PG&E. It should be noted that some GHG free sources are not considered renewable (e.g., nuclear is GHG free but not renewable).

**TABLE 3.7-1. PG&E AND THE STATE OF CALIFORNIA POWER MIX IN 2022**

ENERGY RESOURCES	CALIFORNIA POWER MIX 2022
<b>Overall Eligible Renewable</b>	<b>54.23%</b>
Biomass	2.15%
Geothermal	4.67%
Small hydroelectric	1.12%
Solar	17.04%
Wind	10.83%
Coal	2.15%
Oil	0.02%
Large Hydroelectric	9.24%
Natural Gas	36.38%
Nuclear	9.18%
Other (Waste Petroleum/Petroleum Coke)	0.11%
Unspecified <sup>A</sup>	7.11%

SOURCE: PG&E. 2024. 2022 POWER CONTENT LABEL. AVAILABLE: [HTTPS://WWW.PGE.COM/CONTENT/DAM/PGE/DOCS/ACCOUNT/BILLING-AND-ASSISTANCE/BILL-INSERTS/1022-POWER-CONTENT-LABEL.PDF](https://www.pge.com/content/dam/pge/docs/account/billing-and-assistance/bill-inserts/1022-POWER-CONTENT-LABEL.PDF). ACCESSED: JULY 18, 2024.

<sup>A</sup>ELECTRICITY FROM TRANSACTIONS THAT ARE NOT TRACEABLE TO SPECIFIC GENERATION SOURCES ARE CLASSIFIED AS UNSPECIFIED SOURCES OF POWER.

In 2022, the latest year for which data is available, statewide consumption was 277,205 GWh (California Energy Commission, 2024).

## Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2016, world consumption of oil had reached 96 million barrels per day. The United States, with approximately five percent of the world's population, accounts for approximately 19 percent of world oil consumption, or approximately 18.6 million barrels per day (U.S. EIA, 2020c). The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 96 percent of the State's transportation energy needs.

California was the seventh-largest producer of crude oil among the 50 states in 2019, and, as of January 2020, it ranked third in oil refining capacity. Foreign suppliers, led by Saudi Arabia, Iraq, Ecuador, and Colombia, provided more than half of the crude oil refined in California in 2019. California is the largest consumer of both jet fuel and motor gasoline among the 50 states and

accounted for 17% of the nation's jet fuel consumption and 11% of motor gasoline consumption in 2019. The state is the second-largest consumer of all petroleum products combined, accounting for 10% of the U.S. total.

### **Natural Gas/Propane**

Natural gas supplies are derived from underground sources and brought to the surface at gas wells. Once it is extracted, gas is purified and the odorant that allows gas leaks to be detected is added to the normally odorless gas. Natural gas suppliers, such as PG&E, then send the gas into transmission pipelines, which are usually buried underground. Compressors propel the gas through the pipeline system, which delivers it to homes and businesses.

The state produces approximately 12 percent of its natural gas, while obtaining 22 percent from Canada and 65 percent from the Rockies and the Southwest (California Energy Commission, 2019). Total natural gas demand in California in 2012 was 2,313 billion cubic feet of natural gas (California Energy Commission, 2019).

### 3.7.2 REGULATORY SETTING

#### FEDERAL

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##### **Clean Air Act**

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, State attainment plans, NAAQS motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

In 2007, in the court case of *Massachusetts et al. vs. the USEPA et al.* (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the Federal Clean Air Act (42 USC Sections 7401-7671q). The Supreme Court held that the Administrator of the United States Environmental Protection Agency must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA) and CARB, the USEPA developed emission standards for light-duty vehicles (2012-2025 model years), and heavy-duty vehicles (2014-2027 model years).

### **Energy Policy and Conservation Act**

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

### **Federal Climate Change Policy**

According to the U.S. EPA, "the United States government has established a comprehensive policy to address climate change" that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, "the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science." The U.S. EPA administers multiple programs that encourage voluntary GHG reductions, including "ENERGY STAR," "Climate Leaders," and Methane Voluntary Programs.

The following are actions taken at the federal level relating to GHG emissions.

**Clean Vehicles.** Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the U.S. EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light duty trucks, and medium duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO<sub>2</sub> per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO<sub>2</sub> level solely through fuel economy improvements. The U.S. EPA and the National Highway Safety Administration issued final rules on a second phase joint rulemaking, establishing national standards for light duty vehicles for

model years 2017 through 2025 in August 2012.<sup>1</sup> The standards for model years 2017 through 2025 apply to passenger cars, light duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO<sub>2</sub> in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The U.S. EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies adopted engine and vehicle standards that began in the 2014 model year and achieved up to a 20 percent reduction in CO<sub>2</sub> emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies adopted separate gasoline and diesel truck standards, which phased in starting in the 2014 model year.

**Mandatory Reporting of Greenhouse Gases.** The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the U.S. EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the U.S. EPA.

**Cap and Trade.** Cap and trade refer to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently, only California and Quebec are participating in the cap-and-trade program.

## STATE

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with

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<sup>1</sup> United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. Website: <http://www.epa.gov/otaq/climate/documents/420f12051.pdf>. Accessed January 21, 2021.

statewide climate objectives. The discussion below will address each of these key sets of statutes, as well as Executive Orders and CARB “Scoping Plans” intended to achieve GHG reductions under the first set of statutes and recent building code requirements intended to reduce energy consumption.

### **Statutes Setting Statewide GHG Reduction Targets**

#### **ASSEMBLY BILL 32 (GLOBAL WARMING SOLUTIONS ACT)**

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006 (Health & Safety Code Section 38500 et seq.), also known as Assembly Bill (AB) 32 (Stats. 2006, ch. 488). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction was accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directed the CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

#### **SENATE BILL 32**

SB 32 (Stats. 2016, ch. 249) added Section 38566 to the Health and Safety Code. It provides that “[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB] shall ensure that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030.” In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

#### **EXECUTIVE ORDERS S-3-05, B-30-15, AND B-55-18**

The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger’s 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued Executive Order, B-30-15, which created and established a “new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050.” SB 32 codified this target.



In 2018, the Governor issued Executive Order B-55-18, which established a statewide goal to “achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter.” The order directs the CARB to work with other State agencies to identify and recommend measures to achieve those goals. As discussed below, the 2022 Scoping Plan lays out a path towards achieving carbon neutrality by 2045.

#### SB 350

Senate Bill 350 (SB 350) (Stats. 2015, ch. 547) added to the Public Utilities Code language that puts into statute the 2050 GHG reduction target identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code states that “[t]he Legislature finds and declares [that] ... [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification.” Furthermore, Section 740.12(b) states that the California Public Utilities Commission (CPUC), in consultation with CARB and the California Energy Commission (CEC), must “direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, ... and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

#### AB 1279

In September 2022, the Legislature enacted AB 1279 (Stats. 2022, ch. 337). The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

### **Statutes Setting Target for the Use of Renewable Energy for the Generation of Electricity**

#### CALIFORNIA RENEWABLES PORTFOLIO STANDARD

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., ch. 1) set aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State’s electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All these entities were required to meet renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 et seq. [subsequently amended].) SB 350, discussed below, increases the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd (a); see also Section 399.30, subd. (c)(2).) In 2018, Senate Bill 100 (Stats. 2018, ch. 312) revised the above-described deadlines and targets so that the State will have to achieve 50% renewable resources target by December 31, 2026 (instead of by 2030) and achieve a 60% target by December 31, 2030.

The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies by December 31, 2045.

### **Statutes and CARB Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels**

#### **ASSEMBLY BILL 1493, PAVLEY CLEAN CARS STANDARDS**

In 2002, the Legislature enacted Assembly Bill 1493 (“Pavley Bill”) (Stats. 2002, ch. 200), which directed CARB to develop and adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. (See Health and Safety Code Section 43018.5.) In September 2004, pursuant to this directive, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. These regulations created what are commonly known as the “Pavley standards.” In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. These regulations created what are commonly known as the “Pavley II standards.” (See California Code of Regulations, Title 13, Sections 1900, 1961, and 1961.1 et seq.)

In 2012, CARB adopted an Advanced Clean Cars (ACC) program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program, developed in coordination with the USEPA and NHTSA, combined the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years. (See California Code of Regulations, Title 13, Sections 1900, 1961, 1961.1, 1961.2, 1961.3, 1965, 1968.2, 1968.5, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317 et seq.)

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 34 percent below 2016 levels by 2025, all while improving fuel efficiency and reducing motorists’ costs.

### **Statute Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives**

#### **CALIFORNIA SENATE BILL 375 (SUSTAINABLE COMMUNITIES STRATEGY)**

This 2008 legislation built on AB 32 by setting forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for

each metropolitan region for 2020 and 2035. Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed that demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

### Climate Change Scoping Plans

#### 2022 SCOPING PLAN UPDATE

In accordance with AB 32, the CARB developed the first Scoping Plan in 2008 to outline the State's strategy to achieve 1990 level emissions by year 2020. In May 2014, the CARB released and adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate the progress that has been made between 2000 and 2012. A newer version of the Scoping Plan was then adopted by the CARB in December 2017 (entitled *California's 2017 Climate Change Scoping Plan*). Lastly, the most recent version of the Scoping Plan was adopted by the CARB in November 2022 (entitled *Final 2022 Scoping Plan for Achieving Carbon Neutrality*) (2022 Scoping Plan), which was designed consistent with the long-term GHG reduction targets embedded in AB 1279. Since adoption of the 2008 Scoping Plan and the subsequent updates in 2014, 2017, and 2022, State agencies have adopted programs identified in the plan, and the Legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Building Standards (e.g., CALGreen and the 2022 Building and Energy Efficiency Standards), zero carbon electricity by 2045, and changes in the corporate average fuel economy standards (e.g., Pavley I and California Advanced Clean Cars).

#### SB 605 AND SB 1383

SB 605 (2014) required CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state, and SB 1383 (2016) required CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of short-lived climate pollutants (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy (Reduction Strategy) in March 2017. The Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

#### ASSEMBLY BILL 1757

AB 1757 (September 2022) requires the California Natural Resources Agency (CNRA) to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions that reduce GHG emissions for future years 2030, 2038, and 2045. These targets are to be determined

by no later than January 1, 2024, and are established to support the state's goals to achieve carbon neutrality and foster climate adaptation and resilience.

### **Building Code Requirements Intended to Reduce GHG Emissions**

#### CALIFORNIA ENERGY CODE

The California Energy Code (CCR Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The most recent Title 24 standards are the 2022 Title 24 standards. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. The California Energy Commission updates the standards every three years. The CEC estimates that the 2022 Title 24 standards will reduce 10 million metric tons of GHG over 30 years. When compared to the 2019 Title 24 standards, the 2022 update focuses on: encouraging electric heat pump technology and use; establishing electric-ready requirements when natural gas is installed; expanding solar photovoltaic (PV) system and battery storage standards; and strengthening ventilation standards to improve indoor air quality.

#### CALIFORNIA GREEN BUILDING STANDARDS CODE

The purpose of the California Green Building Standards Code (CalGreen) (CCR Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. CalGreen, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- Tier I: 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent

recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.

- Tier II: 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

The latest version of CalGreen is the 2022 CalGreen Code, which became effective on January 1, 2023. Between 2010 and 2022, continuous updates and additions have been made to CALGreen, including water conservation and recycling, electric vehicle infrastructure and charging, and changes intended to eliminate conflicts with the California Energy Code, which is Part 6 of Title 24.

#### TITLE 20

CCR Title 20 requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

#### SOLID WASTE

AB 939, AB 341, and AB 1826. In 1989, AB 939, known as the Integrated Waste Management Act (PRC Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal (CalRecycle, 2012).

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood

### 3.7 GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

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waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses subject to the law decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

#### REGIONAL

PG&E adopted the 2020 Integrated Resource Plan (IRP) on September 1, 2020, to provide guidance for serving the electricity and natural gas needs of residents and businesses within its service area while fulfilling regulatory requirements. The IRP contains the following objectives that are relevant to the Project:

- **Clean Energy:** In 2021, PG&E delivered nearly 50 percent of its electricity from RPS-eligible renewable resources, such as solar, wind, geothermal, biomass, and small hydropower. In addition, PG&E's GHG-free energy production, which encompasses renewable resources, large hydropower, and nuclear, satisfied all of PG&E's bundled retail sales in 2021.
- **Reliability:** PG&E's IRP analysis includes PG&E's contribution to system and local reliability, in compliance with the CPUC's resource adequacy requirements, especially as California transitions toward higher shares of GHG-free generation resources.
- **Affordability:** PG&E's IRP analysis selects resources to meet the state's clean energy and reliability goals and provides a system average rate forecast in compliance with the CPUC's requirements for investor-owned utilities.

#### LOCAL

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##### **Tehama County Regional Transportation Plan (RTP)**

The Tehama County Transportation Commission (TCTC) is the Regional Transportation Planning Agency (RTPA) for Tehama County, which includes the Cities of Red Bluff, Corning, and Tehama. Pursuant to state law, the TCTC is comprised of four staff members located in Red Bluff and three City representatives, one from each of the incorporated cities of Red Bluff, Corning, and Tehama, and three Board of Supervisor representatives, as elected annually. Together, these Commissioners represent the transportation interests of the region as a whole.

### 3.7.3 IMPACTS AND MITIGATION MEASURES

#### ENERGY AND GREENHOUSE GASES THRESHOLDS OF SIGNIFICANCE

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Per Appendix G of the CEQA Guidelines, climate change-related impacts are considered significant if implementation of the proposed project would do any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

### IMPACTS AND MITIGATION MEASURES

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#### **Impact 3.7-1: General Plan implementation has the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Significant and Unavoidable)**

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. Implementation of the proposed project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO<sub>2</sub> and other GHG pollutants, such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), from mobile sources and utility usage.

Development anticipated under the proposed General Plan's Land Use Map would include activities that emit greenhouse gas emissions over the short and long term. A summary of short- and long-term emissions and the analysis for each are included below.

The major projected impacts of climate change in Red Bluff are expected to be more days of extreme heat over longer periods, as well as potential for localized flooding and drought conditions. The major sources of GHGs in Red Bluff are on-road transportation, non-residential energy, and residential energy use. Short-term and long-term emissions typically associated with construction and operations of future development projects.

#### SHORT-TERM EMISSIONS

Short-term greenhouse gas emissions would occur because of construction equipment used for the following: demolition, grading, paving, and building construction activities associated with future development and infrastructure projects that will be undertaken in Red Bluff over the next 20 years. GHG emissions would also result from worker and vendor trips to and from project sites and from demolition and soil hauling trips. Construction activities are short-term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. There is no threshold of significance for construction-related GHG emissions for plan-level impacts (including general plans).

Adoption of the proposed General Plan does not directly approve or otherwise entitle any new development projects or infrastructure improvement projects in Red Bluff. As such, the construction-related GHG emissions of future projects cannot be known or quantified at this time, as it would be highly speculative. Typically, construction-related GHG emissions contribute unsubstantially (less than one percent) to a project's annual greenhouse gas emissions inventory



and mitigation for construction-related emissions is not effective in reducing a project's overall contribution to climate change, given how small of a piece of the total emissions construction emissions are. Short-term climate change impacts due to future construction-related activities would be subject to State requirements for GHG emissions and would be assessed on project-by-project basis, as required by CEQA.

#### LONG-TERM EMISSIONS

Future development projects will result in continuous GHG emissions from mobile, area, and operational sources. Mobile sources, including vehicle trips to and from development projects, will result primarily in emissions of CO<sub>2</sub>, with minor emissions of CH<sub>4</sub> and N<sub>2</sub>O. Other significant GHG emission come from natural gas usage and methane. Electricity usage by future development and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO<sub>2</sub> emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas inventory for typical development projects.

The effectiveness of efforts by the Tehama County Regional Transportation Plan (RTP) to provide transportation alternatives and to implement policies and strategies consistent with State and national goals of reducing GHG emissions can be measured in terms of reductions in vehicle miles traveled (VMT) or expected growth in VMT. VMT reductions correlate directly with reductions in GHG emissions. Caltrans reports VMT by County on an annual basis. Tehama County has experienced modest growth in population and employment over the past two decades and is forecast to continue this trend into the future. As described in greater detail in the 2020 Tehama County RTP, although the daily vehicle mileages for the Cities of Red Bluff, Corning, and Tehama have decreased between 5%-25% between 2010 and 2016, the county-wide daily vehicle mileage has increased by 7.5% during the same time period. This indicates that in-town driving has decreased but commuting has increased between communities within and outside of Tehama County. The County will continue to monitor population and employment and VMT growth consistent with the RTP, RTP performance measures, and the County's General Plan policies to track changes in travel demand.

As shown in Chapter 2.0 of this Draft EIR, with implementation of the proposed Project, the Planning Area is estimated to grow to a total population of up to 3,092 persons. Separately, the City is expected to add 1,267 dwelling units and 767,853 square feet of non-residential building space by 2045, as described in Chapter 2.0, Project Description. Overall, as described in Section 3.14: Transportation and Circulation of the Draft EIR, the proposed General Plan would result in a similar or increased VMT per capita when compared to the existing (baseline) condition. This can be concluded based on the General Plan land use designations for new job centers, such as industrial and commercial facilities planned on the periphery of town. The newly designated growth areas for low and medium density residential uses are similarly far from the central city and in the western portion of the City but close to several job centers. As growth occurs on the

### 3.7 GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

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periphery of the city, total VMT will increase, and vehicle trip lengths may lengthen causing higher VMT per capita levels than that of existing development.

The City of Red Bluff plans for improved bicycle and pedestrian facilities in many parts of the City, which are expected to decrease VMT. Residents of Red Bluff in the future will likely engage in similar travel patterns to existing residents based on planned land use, roadways, and alternative modes of transportation in the City.

According to the CARB's 2022 Climate Change Scoping Plan, the transportation sector remains the largest source of GHG emissions in the State, accounting for approximately 40% of the inventory (CARB, 2022). A typical passenger vehicle emits approximately 4.6 metric tons of CO<sub>2</sub> per year (U.S. EPA, 2018). This number can vary based on a vehicle's fuel, fuel economy, and the number of miles driven per year.

In order to reduce community-wide GHG emissions, the proposed General Plan includes policies and programs that would limit increases to greenhouse gas emissions within the city. These policies and actions are included within various elements of the General Plan as listed at the end of this section.

The General Plan includes policies and actions aimed at reducing GHG throughout the Planning Area and region through promoting energy efficiency, encouraging infill development, encouraging connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance, increasing the accessibility of walking and bicycling, supporting the creation of electric vehicle charging stations, encouraging employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home, and implementing various strategies to reduce VMT. For example, Policy CIRC-2.3 encourages connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance. Separately, Action CIRC 4e requires the City to consider that new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet.

#### CONCLUSION

Overall, General Plan policies and implementing actions would minimize potential impacts associated with GHG emissions in the Planning Area through the promotion of VMT reduction strategies, multimodal support and transportation improvements, and the support of green building practices, among other policies and actions, and would support requirements under AB 32, SB 375 and SB 32.

Subsequent development projects will be required to comply with the General Plan and adopted federal, state, and local regulations for the reduction of GHG emissions. The City of has prepared the General Plan to include numerous goals, policies and implementing actions intended to reduce GHG emissions associated with future development and improvement projects. GHG emissions would be minimized through the implementation of the goals, policies, and actions listed below.

However, even with implementation of the goals, policies, and actions contained in the proposed General Plan, there is no guarantee that the General Plan alone would be sufficient to limit GHGs to the extent required by AB 32, SB 375, and SB 32 and other federal and state regulations, and a quantitative GHG at the program levels is not feasible. Therefore, out of an abundance of caution, General Plan implementation is considered to have the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact is considered **significant and unavoidable**.

#### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

##### LAND USE ELEMENT POLICIES

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.4: Support a balanced distribution of well-maintained, functional, and appropriate commercial, office, and industrial use areas to expand local employment opportunities and support a stable tax base.

LU 1.5: Provide for a variety of housing types and density ranges that meet the needs of individuals and families while ensuring that there is adequate land designated to meet housing goals. (Additional policies specifically related to housing are included in the Housing Element).

LU 1.6: Maintain safe, attractive, pedestrian-friendly residential neighborhoods and districts with identifiable centers, consistent development patterns, and a range of public and private services.

LU 2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.

LU 2.2: Ensure that public facilities and services needed to support development are available concurrent with the impacts of such development.

LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

LU 3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

## 3.7 GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

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LU 3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors. Ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

LU 3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.

### LAND USE ELEMENT ACTIONS

*LU 3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU 3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU 3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

### CIRCULATION ELEMENT POLICIES

CIRC 1.1: Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities.

CIRC 2.1: Implement best practices to improve and expand the pedestrian and bicycle environment and network.

CIRC 2.2: Consider walking and bicycling access to schools as a priority over vehicular movements when any such conflicts occur.

CIRC 2.3: Encourage connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance.

CIRC 2.4: Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible.

CIRC 2.5: Support convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2.6: Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC 2a: Implement and build on recommendations for pedestrian and bicycle improvements included in the Tehama County Active Transportation Plan.

CIRC 2b: Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Tehama County.

CIRC 2c: Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.

CIRC 2d: Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.

CIRC 2e: Increase walking and bicycling to local destinations and regional transportation services by developing wayfinding signage for pedestrians and bicyclists

CIRC 2f: Partner with Tehama Rural Area Express and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2g: Encourage transit providers to enhance transit stops with high quality, well-maintained shelters, and transit timetables.

CIRC 2h: Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.

CIRC 4.1: Support land use with increased densities and mixed uses, consistent with the Land Use Element, to reduce vehicle miles traveled and promote the use of walking, biking, and transit.

CIRC 4.2: Encourage employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home.

CIRC 4.3: Monitor the deployment of new transportation technologies and services and develop policies that implement best practices to ensure these technologies and services benefit the public and the multimodal transportation system.

CIRC 4.4: Support the creation of electric vehicle charging stations at commercial, government, and other employment and community destinations.

#### CIRCULATION ELEMENT ACTIONS

*CIRC 4a: Adopt VMT thresholds and screening criteria for environmental impact analysis. Review and update those guidelines on a regular basis using updated data.*

## 3.7 GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

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*CIRC 4b: Explore the feasibility of a VMT impact fee program to fund transportation demand management strategies that are proven to reduce VMT.*

*CIRC 4c: Require development projects to consider reasonable and feasible project modifications and other measures during the projects design and environmental review stage that would reduce VMT in a manner consistent with State guidance on VMT reduction.*

*CIRC 4d: Encourage carpooling by providing additional carpool pickup and park-and-ride locations near transit centers and at freeway interchanges.*

*CIRC 4e: Consider requiring new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet. Encourage installation of electric vehicle charging stations at existing developments.*

### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 5.1: Require all development projects to comply with the mandatory energy efficiency requirements of the California Building Standards Code (Title 24).

COS 5.2: Support and encourage the implementation of innovative and green building Best Management Practices (BMPs) including, but not limited to, sustainable site planning, solar opportunities, LEED certification, and exceeding the most current “green” development standards in the California Code of Regulations (CCR), Title 24, as feasible.

COS 5.3: Promote energy efficiency throughout City operations and install, as feasible, energy-efficient lighting, appliances, and alternative-energy infrastructure in City facilities during routine maintenance and as upgrades are needed.

COS 5.4: As City fleet vehicles are replaced, procure alternative-energy and fuel-efficient City vehicles and equipment that meet or surpass State emissions requirements, to the extent feasible.

COS 5.5: Promote incentives from local, State, and federal agencies for improving energy efficiency and expanding renewable energy installations.

### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS 5a: Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations (CCR), Title 24 and CalGreen standards as well as the energy efficiency standards established by the General Plan and the Zoning Ordinance.*

*COS 5b: Consider incentives, and promote State, federal, and private rebate programs for solar installations.*

*COS 5c: Consider use of alternative fuel vehicles or electric vehicles for City use. If deemed appropriate, identify vehicle purchase needs in any fleet replacement plan.*

*COS 5d: Provide resources upon request to the community regarding local and regional conservation and energy upgrade and efficiency programs.*

*COS 5e: Review local standards and permitting processes related to renewable energy infrastructure, and update as appropriate to comply with State and federal law, and reduce barriers to installation and deployment.*

#### SAFETY ELEMENT POLICIES

SA 7.2: Collaborate with local, regional, State, and/or federal jurisdictions and agencies on climate resiliency and adaptation strategies.

SA 7.3: Consider climate change impacts and adaptive responses in long-term planning and current development decisions.

SA 7.4: Implement necessary actions and programs to improve preparation and response for the most vulnerable community members, areas, and infrastructure.

#### SAFETY ELEMENT ACTIONS

*SA-7a: Coordinate with utility providers to protect interconnected infrastructure.*

*SA-7b: Provide information and resources to the public and businesses regarding steps the City is taking to address the issue of climate change.*

*SA-7c: Periodically assess and monitor the effects of climate change and the associated levels of risk to the community in order to adapt to changing climate conditions.*

*SA-7d: Keep the public informed as to the location of important emergency facilities, such as reception centers, cooling centers, and emergency shelter points of distribution (PODs) for administering medical countermeasures (i.e. vaccines or medical testing), and distribution of emergency supplies and/or food.*

**Impact 3.7-2: General Plan implementation has the potential to result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency (Less than Significant)**

The State CEQA Guidelines require consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce “wasteful, inefficient and unnecessary” energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, a project would be considered “wasteful, inefficient, and unnecessary” if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed project is the updated Red Bluff General Plan, with a horizon year of 2045. Buildout of the General Plan includes residential, commercial, office, industrial, mixed-use, open space, and other land uses (see Chapter 2.0: Project Description for further detail). The amount of energy used in the Planning Area at buildout would directly correlate to the type and size of development, the energy consumption associated with unit appliances, outdoor lighting, and energy use associated with other buildings and activities. Other major sources of Planning Area energy consumption include fuel used by vehicle trips generated during construction and operational activities, and fuel used by off-road and on-road construction vehicles during construction. The following discussion provides a breakdown of the energy uses in the Planning Area upon buildout of the proposed project.

**ELECTRICITY AND NATURAL GAS**

At buildout, the City of Red Bluff’ electricity and natural gas consumption would be used primarily to power buildings (all types of buildings, including residential, commercial, office, industrial, public, etc.). Pacific Gas and Electric Company (PG&E) provides electrical and natural gas services to residences and businesses throughout the City of Red Bluff, though on-site solar generation would generate a substantial source of energy for the community at General Plan buildout.

**FUEL CONSUMPTION - ON-ROAD VEHICLES (OPERATION)**

Buildout of the General Plan would generate vehicle trips during its operational phase. Based on the information included in Chapter 3.14 (Transportation and Circulation), the proposed General Plan would result in a similar or slightly increased VMT per capita in the City of Red Bluff when compared to the existing (baseline) condition. Fuel consumption is anticipated to represent the largest sector of GHG emissions at General Plan buildout. Energy for on-road vehicles would derive from gasoline, diesel, as well as electricity from PG&E and from on-site solar generation.



#### FUEL CONSUMPTION - ON-ROAD VEHICLES (CONSTRUCTION)

The proposed project would also generate on-road vehicle trips during construction activities (from construction workers, vendors, and haulers). The vast majority of on-road mobile vehicle fuel used during the construction activities during buildout of the General Plan would occur during building construction.

#### OFF-ROAD VEHICLES (CONSTRUCTION)

Off-road construction vehicles would use diesel fuel during construction activities. A non-exhaustive list of off-road constructive vehicles expected to be used during construction activities includes: cranes, forklifts, generator sets, tractors, excavators, and dozers.

#### CONCLUSION

Buildout of the General Plan would use energy resources for the operation of buildings (electricity and natural gas), for on-road vehicle trips (e.g. gasoline and diesel fuel), and from off-road construction activities (e.g. diesel fuel) associated with buildout of the General Plan. Each of these activities would require the use of energy resources. Developers of individual projects within the Planning Area would be responsible for conserving energy, to the extent feasible, and would rely heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures.

Buildout of the General Plan would be in compliance with all applicable federal, state, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio.

PG&E is expected to achieve at least 60% renewables by 2030, and 100 percent zero-carbon electricity by 2045 (in compliance with SB 100). Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards ("part 6"), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Furthermore, additional project-specific sustainability features individual development projects could further energy consumption of individual projects. The proposed project would also be in compliance with the planning documents described previously within this section.

As a result, the proposed project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for during General Plan buildout, including during construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the Planning Area. The City of Red Bluff would comply with all existing energy standards, and would not result in significant adverse impacts on energy resources. Furthermore, connections exist between the Planning Area and nearby pedestrian and bicycle pathways, and public transit access exists nearby, reducing the need for local motor vehicle

travel. Although improvements to the City's pedestrian, bicycle, and public transit systems would provide further opportunities for alternative transit, the Planning Area would be linked closely with existing networks that, in large part, are sufficient for most residents of the Planning Area and neighboring communities. For the reasons stated above, buildout of the General Plan would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This is a **less than significant** impact.

#### **GENERAL PLAN POLICIES, AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.4: Support a balanced distribution of well-maintained, functional, and appropriate commercial, office, and industrial use areas to expand local employment opportunities and support a stable tax base.

LU 1.5: Provide for a variety of housing types and density ranges that meet the needs of individuals and families while ensuring that there is adequate land designated to meet housing goals. (Additional policies specifically related to housing are included in the Housing Element).

LU 1.6: Maintain safe, attractive, pedestrian-friendly residential neighborhoods and districts with identifiable centers, consistent development patterns, and a range of public and private services.

*LU 2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.*

*LU 2.2: Ensure that public facilities and services needed to support development are available concurrent with the impacts of such development.*

*LU 2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.*

*LU 3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.*

*LU 3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors. Ensure that industrial development projects, including warehouse,*

*distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.*

*LU 3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.*

#### LAND USE ELEMENT ACTIONS

*LU 3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU 3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU 3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

#### CIRCULATION ELEMENT POLICIES

CIRC 1.1: Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities.

CIRC 2.1: Implement best practices to improve and expand the pedestrian and bicycle environment and network.

CIRC 2.2: Consider walking and bicycling access to schools as a priority over vehicular movements when any such conflicts occur.

CIRC 2.3: Encourage connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance.

CIRC 2.4: Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible.

CIRC 2.5: Support convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2.6: Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC 4.1: Support land use with increased densities and mixed uses, consistent with the Land Use Element, to reduce vehicle miles traveled and promote the use of walking, biking, and transit.

CIRC 4.2: Encourage employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home.

CIRC 4.3: Monitor the deployment of new transportation technologies and services and develop policies that implement best practices to ensure these technologies and services benefit the public and the multimodal transportation system.

CIRC 4.4: Support the creation of electric vehicle charging stations at commercial, government, and other employment and community destinations.

#### CIRCULATION ELEMENT ACTIONS

*CIRC 2a: Implement and build on recommendations for pedestrian and bicycle improvements included in the Tehama County Active Transportation Plan.*

*CIRC 2b: Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Tehama County.*

*CIRC 2c: Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.*

*CIRC 2d: Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.*

*CIRC 2e: Increase walking and bicycling to local destinations and regional transportation services by developing wayfinding signage for pedestrians and bicyclists*

*CIRC 2f: Partner with Tehama Rural Area Express and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.*

*CIRC 2g: Encourage transit providers to enhance transit stops with high quality, well-maintained shelters, and transit timetables.*

*CIRC 2h: Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.*

*CIRC 4a: Adopt VMT thresholds and screening criteria for environmental impact analysis. Review and update those guidelines on a regular basis using updated data.*

*CIRC 4b: Explore the feasibility of a VMT impact fee program to fund transportation demand management strategies that are proven to reduce VMT.*

*CIRC 4c: Require development projects to consider reasonable and feasible project modifications and other measures during the projects design and environmental review stage that would reduce VMT in a manner consistent with State guidance on VMT reduction.*

*CIRC 4d: Encourage carpooling by providing additional carpool pickup and park-and-ride locations near transit centers and at freeway interchanges.*

*CIRC 4e: Consider requiring new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet. Encourage installation of electric vehicle charging stations at existing developments.*

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 5.1: Require all development projects to comply with the mandatory energy efficiency requirements of the California Building Standards Code (Title 24).

COS 5.2: Support and encourage the implementation of innovative and green building Best Management Practices (BMPs) including, but not limited to, sustainable site planning, solar opportunities, LEED certification, and exceeding the most current “green” development standards in the California Code of Regulations (CCR), Title 24, as feasible.

COS 5.3: Promote energy efficiency throughout City operations and install, as feasible, energy-efficient lighting, appliances, and alternative-energy infrastructure in City facilities during routine maintenance and as upgrades are needed.

COS 5.4: As City fleet vehicles are replaced, procure alternative-energy and fuel-efficient City vehicles and equipment that meet or surpass State emissions requirements, to the extent feasible.

COS 5.5: Promote incentives from local, State, and federal agencies for improving energy efficiency and expanding renewable energy installations.

#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS 5a: Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations (CCR), Title 24 and CalGreen standards as well as the energy efficiency standards established by the General Plan and the Zoning Ordinance.*

*COS 5b: Consider incentives, and promote State, federal, and private rebate programs for solar installations.*

*COS 5c: Consider use of alternative fuel vehicles or electric vehicles for City use. If deemed appropriate, identify vehicle purchase needs in any fleet replacement plan.*

*COS 5d: Provide resources upon request to the community regarding local and regional conservation and energy upgrade and efficiency programs.*

*COS 5e: Review local standards and permitting processes related to renewable energy infrastructure, and update as appropriate to comply with State and federal law, and reduce barriers to installation and deployment.*

#### SAFETY ELEMENT POLICIES

SA 7.2: Collaborate with local, regional, State, and/or federal jurisdictions and agencies on climate resiliency and adaptation strategies.

SA 7.3: Consider climate change impacts and adaptive responses in long-term planning and current development decisions.

SA 7.4: Implement necessary actions and programs to improve preparation and response for the most vulnerable community members, areas, and infrastructure.

#### SAFETY ELEMENT ACTIONS

*SA-7a: Coordinate with utility providers to protect interconnected infrastructure.*

*SA-7b: Provide information and resources to the public and businesses regarding steps the City is taking to address the issue of climate change.*

*SA-7c: Periodically assess and monitor the effects of climate change and the associated levels of risk to the community in order to adapt to changing climate conditions.*

*SA-7d: Keep the public informed as to the location of important emergency facilities, such as reception centers, cooling centers, and emergency shelter points of distribution (PODs) for administering medical countermeasures (i.e. vaccines or medical testing), and distribution of emergency supplies and/or food.*

Hazards include man-made or natural materials or man-made or natural conditions that may pose a threat to human health, life, property, or the environment. Hazardous materials and waste present health hazards for humans and the environment. These health hazards can result during the manufacture, transportation, use, or disposal of such materials if not handled properly. In Red Bluff, hazards to humans can also occur from natural or human induced wildfire and air traffic accidents.

This section provides a background discussion of the hazardous materials and waste, fire hazards, and hazards from air traffic related to the Planning Area. This section is organized with an existing setting, regulatory setting, and impact analysis. Additional analysis related to wildfire hazards is contained in Section 3.16, Wildfire, of this EIR.

Comments were received during the public review period for the Notice of Preparation regarding this topic from the Department of Toxic Substances Control (DTSC). Comments related to this topic are addressed within this section. The NOP and full comments received are included in Appendix A of this Draft EIR.

### 3.8.1 ENVIRONMENTAL SETTING

#### HAZARDOUS MATERIALS AND WASTE

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##### **Hazardous Materials**

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of. Hazardous materials are mainly present because of industries involving chemical byproducts from manufacturing, petrochemicals, and hazardous building materials.

##### **Hazardous Waste**

Hazardous waste is the subset of hazardous materials that has been abandoned, discarded, or recycled and is not properly contained, including soil or groundwater that is contaminated with concentrations of chemicals, infectious agents, or toxic elements sufficiently high to increase human mortality or to destroy the ecological environment. If a hazardous material is spilled and cannot be effectively picked up and used as a product, it is considered to be hazardous waste. If a hazardous material site is unused, and it is obvious there is no realistic intent to use the material, it is also considered to be a hazardous waste. Examples of hazardous materials include flammable and combustible materials, corrosives, explosives, oxidizers, poisons, materials that react violently with water, radioactive materials, and chemicals.

### Transportation of Hazardous Materials

The transportation of hazardous materials within California is subject to various Federal, State, and local regulations. It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of such materials (California Vehicle Code §§ 31602(b), 32104(a)). The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is restricted to these routes except in cases where additional travel is required from that route to deliver or receive hazardous materials to and from users.

### HAZARDOUS SITES

#### Envirostor Data Management System

The DTSC maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation/Investigation Sites. The hazardous waste facilities include: Permitted–Operating, Post-Closure Permitted, and Historical Non-Operating.

There are 30 locations listed with a Red Bluff address that are listed in the Envirostor database. One site is listed as active, one site is certified with land use restrictions, two sites are listed inactive and need evaluation, one site is listed inactive and withdrawn, 13 sites are referred to Regional Water Quality Control Board (RWQCB), seven sites are referred to other agencies, and five sites are listed with no action required. Table 3.8-1 lists the Envirostor sites for the City of Red Bluff.

**TABLE 3.8-1: RED BLUFF SITE CLEANUP AND HAZARDOUS FACILITIES LIST (ENVIROSTOR)**

SITE / FACILITY NAME	PROGRAM TYPE	STATUS	ADDRESS DESCRIPTION
Allee Oil Company	Evaluation	Refer: RWQCB	545 South Main Street
Ben's Truck Repair	Historical	Refer: RWQCB	2060 Montgomery Road
Cardan Aircraft Painting	Historical	Refer: Other Agency	1965 Airport Blvd
Crown Plastics	Historical	Refer: Other Agency	1005 Vista Way
Dana Circuits	Tiered Permit	Inactive - Needs Evaluation	1825 Bidwell Street
Diamond Lands Corporation	Evaluation	Refer: RWQCB	1 Diamond Avenue
Diamond Lands Plywood Manufacturing Plant	Evaluation	Refer: RWQCB	Lay Avenue by Reeds Creek & SP Railroad
Fiber Erectors	Historical	Refer: Other Agency	1450 Vista Way
Hess Brothers Auto Wrecking	Historical	Refer: Other Agency	3650 Hess Road
J & R Metals	Evaluation	Refer: Other Agency	20704 Walnut Street
Louisiana-Pacific Corp - Red Bluff	Evaluation	Refer: RWQCB	Reading & Tyler Roads
Modern Dry Cleaners	State	Active	609 Walnut Street



<i>SITE / FACILITY NAME</i>	<i>PROGRAM TYPE</i>	<i>STATUS</i>	<i>ADDRESS DESCRIPTION</i>
	Response		
Mulberry Avenue School Site	School Investigation	No Action Required	Mulberry Avenue
New Red Bluff Elementary School	School Investigation	No Action Required	2700 Monroe Avenue
Packaging Company of California	Historical	Refer: RWQCB	End Of Diamond Avenue
PG&E Former Red Bluff Manufactured Gas Plant	Voluntary Cleanup	Certified O&M - Land Use Restrictions Only - Land Use Restrictions	600 Rio Street
PG&E Manufactured Gas Plant SV-SH-RBL	Evaluation	Inactive - Needs Evaluation	Northwestern Corner of Oak & Rio Streets
Phil's Ag Air	Historical	Refer: RWQCB	1494 Vista Way
Proposed Community Day School	School Investigation	Inactive - Withdrawn	900 Palm Street
Proposed New School Site	School Investigation	No Action Required	1511 S. Jackson St.
Red Bluff Air Force Station (J09CA0913)	Military Evaluation	Refer: RWQCB	1760 Airport Blvd
Red Bluff Airport	Evaluation	Refer: Other Agency	1650 Airport
Red Bluff HSG Annex	Military Evaluation	No Further Action	-
Red Bluff Oil Company	Historical	Refer: RWQCB	402 Pine Street
Red Bluff Products	Evaluation	Refer: RWQCB	2380 Minch Rd.
Red Bluff Sanitary Landfill	Evaluation	Refer: RWQCB	Plymire & Snow Court
Salisbury High School	School Investigation	No Further Action	1050 Kimball Road
Schafer Fuel Oil & Butane	Historical	Refer: RWQCB	412 Madison Street
Signal Oil Company	Historical	Refer: Other Agency	Philbrook & Wiltsey
Warner Petroleum	Evaluation	Refer: RWQCB	2155 North Main Street

SOURCE: CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL, ENVIROSTOR DATABASE, 2024.

### Cortese List

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

There is one active site with a Red Bluff address that are listed on the Cortese List, the Modern Dry Cleaners located at 609 Walnut Street. The property consists of approximately one-acre

surrounded by relatively flat topography and is located within a mixed commercial/residential community of downtown Red Bluff, California. Modern Cleaners is located at 609 Walnut Street in a portion of an historic two-story commercial building with a basement. Two other businesses unrelated to Modern Cleaners share the building. Other businesses and entities located in the immediate vicinity of Modern Cleaners include the Tehama County Courthouse and County Sheriff's Department, a tire store and an office building belonging to Tehama County. There is also located near the cleaners a gas station and a convenience store. Residential housing is located approximately 500 feet north of the cleaners. The Sacramento River is located approximately six city blocks of the Site.

PCE concentrations as high as 349 micrograms per Liter (ig/L) were detected in monitoring wells associated with the One Stop Convenience Store investigations conducted by in 2007. Subsequent sampling conducted in 2008 under the oversight of the Central Valley Regional Water Control Board (CVRWQCB) showed PCE concentrations as high as 46ig/L. Elevated PCE levels in groundwater have also been detected at the Tehama County Sheriff's Department. Historical results for the Tehama County Jail Annex showed groundwater with concentrations of PCE of 36ig/L and indoor air concentrations as high as 64ig/m3. The CVRWQCB has concluded that PCE is migrating onto the One Stop Convenience Store property from an easterly direction and is attenuating from the north towards the south and east. In 2009, the CVRWQCB referred its findings and further regulatory actions to the DTSC.

### GeoTracker

GeoTracker is the California Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating underground storage tanks (USTs) and land disposal sites.

#### LEAKING UNDERGROUND STORAGE TANKS

As shown in Table 3.8-2, there are 72 locations identified with a City of Red Bluff address that are listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST). All these locations have undergone LUST cleanup and the State has closed the cases.

**TABLE 3.8-2: RED BLUFF LUST CLEANUP SITES**

<i>SITE / FACILITY NAME</i>	<i>ADDRESS (OR PARTIAL ADDRESS)</i>
Adobe Market	2001 Main St
Alsco Inc	535 Antelope Blvd
Antelope Beacon SS Red Bluff	615 Antelope Blvd
Antelope Liquors	445 Antelope Blvd
AT&T Hogsback	Hogsback Rd
AT&T Tuscan Butte Radio Relay	Tuscan Butte Rd
Baker Property	Route 2 Box 2656
Beacon # 3679 (Former)	440 Main St S
Bidwell School	1526 Walnut St

<i>SITE / FACILITY NAME</i>	<i>ADDRESS (OR PARTIAL ADDRESS)</i>
Bohannon Theron Vacant Lot	1710 Montgomery Rd
Ca Military Oms #23 Red Bluff	2000 Prospect Park Ave
Carlson James B	17535 Hwy 36w
CDF Red Bluff Headquarters	604 Antelope Blvd
Chevron Ss #9-0239 Red Bluff	855 Main St
Chevron Ss #94336	75 Belle Mill Rd
CHP Red Bluff	605 Antelope Blvd
Clay Residence	22295 Brent Rd
Cumpton Trucking	13565 Hwy 36e
Dales Station	25860 Hwy 36e
Diamond Lands Corporation	Diamond Ave
Dibble Creek Store	19485 Hwy 36
Downtown Smog & Auto Repair	550 Main St
Elliots Garage Red Bluff	1000 Walnut St
Fast Wheels Red Bluff	233 Main St
Firestone Beacon	449 Main St
First Babtist Church	501 Pine
Fisher Oil Company	535 Main St S
Former Cheaper #58	1705 Walnut St
Former Crown Plastics	1005 Vista Way
Friendly Gas Mart	68 Belle Mill Rd
Gas 4 Less	58 Antelope Blvd
Jims Food & Liquor, Former Cheaper #152	15 Antelope Blvd
Mid Valley Bank Red Bluff	950 Main St
Mobil Ss #99-431 Red Bluff	1020 Main St
Nor Cal Nursery	11810 Hwy 99e
One Stop (Case No. 1)	714 Walnut St
One Stop (Case No. 2)	714 Walnut St
P J Helicopters Inc	1495 Vista Way
Pacific Gas & Electric Company, Red Bluff Service Center	515 Luther Road
Payless Gas Station Former	205 Antelope Blvd
PG&E Red Bluff Service Center	515 Luther
Pneumatic Conveying & MFG	205 Kimball Rd
Ramelli's Shell	240 Antelope Blvd
Red Bluff 76 Service Station (Former Exxon Food Mart)	1 Sutter Street
Red Bluff Chrysler	1106 Main St
Red Bluff City Washington St	555 Washington St
Red Bluff Disposal	1375 Montgomery Rd
Red Bluff High School	1260 Union Street
Red Bluff Maintenance Yard	1055 Kimball Rd

<i>SITE / FACILITY NAME</i>	<i>ADDRESS (OR PARTIAL ADDRESS)</i>
Red Bluff Mun Airport, Case 2	1760 Airport Blvd
Red Bluff Products Inc	2380 Minch Rd
Red Bluff Union High School -1 (Use Case #520094)	1525 Douglas St
Red Bluff Union High School -2	1525 Douglas St
Red Bluff VOR Red Bluff Airport	1804 Airport Blvd
Ryan Land and Cattle Company	Altube Ave
Safe Harbor Paynes Creek	Box 41 Route 5
Skooters Market	22777 Antelope Blvd
Sun Country Fairgrounds	600 Antelope Blvd
Sycamore Center	220 Sycamore St
Tehama Co Dept Of Education	1135 Lincoln St
Tehama Co Road Dept Red Bluff	Walnut St
Tehama Co Sheriffs Dept	502 Oak St
Tehama Tire	525 Antelope Blvd
Tops Mini Mart	2370 Main St
Tuttle Trucking	22133 Riverside Ave
Unocal Ss #5584	245 Antelope Blvd
Unocal Ss #5584 Bills Case 2	245 Antelope Blvd
USA Petroleum Corporation #203	65 Antelope Blvd
USDI Red Bluff	22500 Altube Ave
Warner Petroleum Inc	2155 Main St N
Zirkle Md	407 Kimball Rd
Zoe Dell Nutter	22417 Adobe Rd

SOURCE: CALIFORNIA WATER RESOURCES CONTROL BOARD GEOTRACKER DATABASE, 2024.

#### PERMITTED UNDERGROUND STORAGE TANK (UST)

There are 26 locations with a listed Red Bluff address that have permitted Underground Storage Tanks (UST) that are permitted through the California Water Resources Control Board. Table 3.8-3 lists the location of the permitted USTs listed with a Red Bluff Address.

**TABLE 3.8-3: RED BLUFF PERMITTED UST SITES**

<i>SITE / FACILITY NAME</i>	<i>ADDRESS (OR PARTIAL ADDRESS)</i>
Adobe Minimart	2370 Main St
Antelope Liquors & Gas	445 Antelope Blvd
Arco Am/Pm	1080 S Main St
California Highway Patrol Red Bluff Area	2550 Main St
Circle 7 Days	1055 Walnut St
City Of Red Bluff	1760 Airport Blvd
Dibble Creek Store	19485 State Highway 36
Food Mart Valero	1 Sutter St
Hunt N Sons LLC DbA Fisher Oil Co.	535 S Main St

<i>SITE / FACILITY NAME</i>	<i>ADDRESS (OR PARTIAL ADDRESS)</i>
Jill's Freshstop Market & Deli	11625 State Highway 99
Maruti Red Bluff Inc	615 Antelope Blvd
More For Less #26	1715 Walnut St
One Stop Gas Station Inc.	714 Walnut St
Red Bluff Am/Pm	2800 Main St
Red Bluff Food Mart	15 Antelope Blvd
Red Bluff Gas	245 Antelope Blvd
Red Bluff Shell	58 Antelope Blvd
Red Bluff Shell	240 Antelope Blvd
Rina's Mini Mart #2	1055 S Main St
Rina's Mini Mart#1	205 Antelope Blvd
Speedway No. 1999	782 Antelope Blvd
Sunshine Food and Gas	22700 Antelope Blvd
Tesoro (Mobil) 68191	65 Antelope Blvd
Tesoro (Speedway) #68190	440 S Main St
Walmart #6026	10815 State Highway 99
Warner Petroleum Red Bluff LLC	2155 Main St

SOURCE: CALIFORNIA WATER RESOURCES CONTROL BOARD GEOTRACKER DATABASE, 2024.

### Solid Waste Information System (SWIS)

The Solid Waste Information System (SWIS) is a database of solid waste facilities that is maintained by the California Department of Resources Recycling and Recovery (CalRecycle). The SWIS database contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For each facility, the database contains information about location, owner, operator, facility type, regulatory and operational status, authorized waste types, local enforcement agency and inspection and enforcement records.

There are six solid waste facilities listed in the database within the vicinity of the City. The site details are listed in Table 3.8-4 below.

**TABLE 3.8-4: SWIS FACILITIES/SITES**

<i>SWIS NUMBER</i>	<i>SITE NAME</i>	<i>SITE OPERATIONAL STATUS</i>	<i>SITE REGULATORY STATUS</i>
52-AA-0001	Tehama County/Red Bluff Landfill	Active	Permitted
52-AA-0024	Bio Industries	Closed	Surrendered
52-AA-0027	Tehama County/City of Red Bluff MRF	Active	Permitted
52-AA-0028	Reynolds Consumer Products - Red Bluff	Active	Exempt
52-CR-0001	Old Red Bluff Landfill	Closed	Unpermitted
52-CR-0012	Deer Valley Disposal Site	Closed	Unpermitted

*SOURCE: CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY, 2024.*

## HAZARDS FROM AIR TRAFFIC

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The State Division of Aeronautics has compiled extensive data regarding aircraft accidents around airports in California. This data is much more detailed and specific than data currently available from the FAA and the National Transportation Safety Board (NTSB). According to the California Airport Land Use Planning Handbook (2011), prepared by the State Division of Aeronautics, 21 percent of general aviation accidents occur during takeoff and initial climb and 44.2 percent of general aviation accidents occur during approach and landing. The State Division of Aeronautics has plotted accidents during these phases at airports across the country and has determined certain theoretical areas of high accident probability.

### Approach and Landing Accidents

As nearly half of all general aviation accidents occur in the approach and landing phases of flight, considerable work has been done to determine the approximate probability of such accidents. Nearly 77% of accidents during this phase of flight occur during touchdown onto the runway or during the roll-out. These accidents typically consist of hard or long landings, ground loops (where the aircraft spins out on the ground), departures from the runway surface, etc. These types of accidents are rarely fatal and often do not involve other aircraft or structures. Commonly these accidents occur due to loss of control on the part of the pilot and, to some extent, weather conditions. (California Division of Aeronautics, 2002).

The remaining 23% of accidents during the approach and landing phase of flight occur as the aircraft is maneuvered towards the runway for landing, in a portion of the airspace around the airport commonly called the traffic pattern. Common causes of approach accidents include the pilot's misjudging of the rate of descent, poor visibility, unexpected downdrafts, or tall objects beneath the final approach course. Improper use of rudder on an aircraft during the last turn toward the runway can sometimes result in a stall (a cross-control stall) and resultant spin, causing the aircraft to strike the ground directly below the aircraft. The types of events that lead to approach accidents tend to place the accident site fairly close to the extended runway centerline. The probability of accidents increases as the flight path nears the approach end of the runway. (California Division of Aeronautics, 2002).

According to aircraft accident plotting provided by the State Division of Aeronautics, most accidents that occur during the approach and landing phase of flight occur on the airport surface itself. The remainder of accidents that occur during this phase of flight are generally clustered along the extended centerline of the runway, where the aircraft is flying closest to the ground and with the lowest airspeed. (California Division of Aeronautics, 2002).

### Takeoff and Departure Accidents

According to data collected by the State Division of Aeronautics, nearly 65 percent of all accidents during the takeoff and departure phase of flight occur during the initial climb phase, immediately after takeoff. This data is correlated by two physical constraints of general aviation aircraft:

- The takeoff and initial climb phase are times when the aircraft engine(s) is under maximum stress and is thus more susceptible to mechanical problems than at other phases of flight; and
- Average general aviation runways are not typically long enough to allow an aircraft that experiences a loss of power shortly after takeoff to land again and stop before the end of the runway.

While the majority of approach and landing accidents occur on or near to the centerline of the runway, accidents that occur during initial climb are more dispersed in their location as pilots are not attempting to get to any one specific point (such as a runway). Additionally, aircraft vary widely in payload, engine power, glide ratio, and several other factors that affect glide distance, handling characteristics after engine loss, and general response to engine failure. This further disperses the accident pattern. However, while the pattern is more dispersed than that seen for approach and landing accidents, the departure pattern is still generally localized in the direction of departure and within proximity of the centerline. This is partially due to the fact that pilots are trained to fly straight ahead and avoid turns when experiencing a loss of power or engine failure. Turning flight causes the aircraft to sink faster and flying straight allows for more time to attempt to fix the problem (California Division of Aeronautics, 2002).

### Local Airport Facilities

There is one airport facility, Red Bluff Municipal Airport, located within the Red Bluff Planning Area as described below.

**Red Bluff Municipal Airport (RBL):** The Red Bluff Municipal Airport is two miles south of Red Bluff, located just off Interstate 5 in Tehama County. The Red Bluff Municipal Airport is owned by the City of Red Bluff and operated by Cardan Aircraft Services. The Red Bluff Municipal Airport is classified as a “community airport,” providing full service for general aviation. It has a runway length of 5,684 feet, width of 100 feet, and accommodates IFR (Instrument Flight Rules) and VFR (Visual Flight Rules) operations. Based upon information from the Federal Aviation Administration (FAA), the Red Bluff Municipal Airport has estimated annual operations (take-offs and landings) of approximately 26,150. The FAA reports that there are approximately 67 aircraft based year-round at the Red Bluff Municipal Airport.

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport.

### Other Local airports in Tehama County, CA

**Corning Municipal Airport:** Corning Municipal Airport is located one mile northeast of Corning. The airport covers 77 acres at an elevation of 293 feet. Its one runway, 17/35, is 2,702 by 50 feet (824 x 15 m) asphalt. The Corning Municipal Airport is also rated as a “community airport”. It has a 2,700-foot runway, 50 feet in width, with 25-foot-wide taxiways. The Corning Municipal Airport

has an estimated 8,718 annual operations. Approximately 25 aircraft are based at the Corning Municipal Airport.

#### Local airports near Red Bluff

- 29 miles: Orland, CA (037) Haigh Field
- 35 miles: Chico, CA (CL56) Ranchoero Airport
- 43 Miles: Willows, CA (KWLW) Willows-Glenn County Airport
- 56 Miles: Oroville, CA (OVE) Oroville Airport
- 60 miles; Covelo, CA (009) Round Valley Airport

#### Major Regional Airport Facilities

**Redding Municipal Airport:** The Redding Municipal Airport (approximately 23 mile north of Red Bluff) is a full-service airport which provides commercial airline passenger service, rental car, parking, and transportation services, as well as aviation-related services and aircraft hangar facilities.

**Chico Municipal Airport:** The Chico Municipal Airport (CIC) was recently awarded a Federal Aviation Administration grant to assist with the return of commercial air service from the Chico Municipal Airport. Chico Municipal Airport is served by two asphalt runways that are 6,724 feet in length and 150 feet wide and 3,000 feet in length and 60 feet wide, respectively. The Chico Municipal Airport features an airport traffic control tower.

**Sacramento International Airport (SMF):** The Sacramento Airport (approximately 108 mile southeast of Red Bluff serves approximately 9 million passengers per year. SMF serves the Greater Sacramento Area, and it is run by the Sacramento County Airport System. The Airport covers approximately 6,000 acres and has two parallel runways, oriented north–south to align with prevailing winds. The airport has two terminals, terminal A and terminal B, with 32 gates.

#### National Transportation Safety Board Aviation Accident Database

The National Transportation Safety Board Aviation Accident Database identifies that 53 accidents were associated within the vicinity of Red Bluff. (National Transportation Safety Board, 2024). Table 3.8-5 below details each identified aircraft incidents listed by the database within Tehama County.

**TABLE 3.8-5: NATIONAL TRANSPORTATION SAFETY BOARD AVIATION ACCIDENTS WITHIN TEHAMA COUNTY**

<i>EVENT DATE</i>	<i>HIGHEST INJURY LEVEL</i>	<i>MAKE/MODEL</i>
2022-06-19T17:00:00Z	None	PIPER PA-32R-301T
2021-03-07T18:30:00Z	None	PHILLIP B ROLLS PITTS 12-EH
2017-06-18T08:30:00Z	None	PIPER PA 18
2015-03-19T16:30:00Z	Serious	PIPER PA30 - NO SERIES
2013-07-29T09:51:00Z	Fatal	AIRBORNE WINDSPORTS PTY LTD EDGE XT-912-L
2006-08-18T16:42:00Z	Minor	Cessna A150M
2004-02-28T12:30:00Z	None	Cessna 120



<i>EVENT DATE</i>	<i>HIGHEST INJURY LEVEL</i>	<i>MAKE/MODEL</i>
2000-02-14T12:37:00Z	Serious	Fokker FK-28-4000
1999-04-12T09:15:00Z	None	Parker VANS RV-4
1998-12-17T11:51:00Z	Serious	WEBER CA-65
1995-05-02T11:36:00Z	Serious	BEECH C23
1995-02-03T21:07:00Z	Serious	SCHWEIZER 269C
1991-01-06T19:35:00Z	None	PIPER PA 34-200T
1990-07-20T09:45:00Z	None	CESSNA 180B
1990-02-15T11:15:00Z	None	CESSNA 180
1987-10-25T15:15:00Z	Fatal	BELLANCA 7KCAB
1984-06-16T15:45:00Z	Fatal	BAUGH-HUBERT VARIEZE 100
1983-04-10T13:11:00Z	Minor	WALSTON THORP T-18
1981-09-12T04:00:00Z	Serious	MOONEY M20E
1981-07-30T04:00:00Z	None	MOONEY M20J
1980-12-29T05:00:00Z	None	CESSNA T210
1980-12-12T05:00:00Z	None	STITTS SA11A
1980-12-01T05:00:00Z	None	BELLANCA 7ECA
1978-07-02T04:00:00Z	Fatal	CESSNA 182A
1978-05-29T04:00:00Z	None	MOONEY M20C
1978-03-21T05:00:00Z	Fatal	GRUMMAN AA-5A
1976-05-16T04:00:00Z	None	PIPER PA-24
1976-03-24T05:00:00Z	None	PIPER PA-18A
1976-01-13T05:00:00Z	Minor	CESSNA 180
1975-05-31T04:00:00Z	None	CESSNA 182
1975-05-29T04:00:00Z	Fatal	LAKE LA-4
1973-10-06T04:00:00Z	Fatal	NAVION B
1973-08-25T04:00:00Z	None	STARDUSTER SA300
1973-03-09T05:00:00Z	None	CESSNA 150
1971-05-28T04:00:00Z	Serious	PIPER PA-28
1971-02-15T05:00:00Z	None	PIPER PA-24
1970-12-12T05:00:00Z	None	CHAMPION 7AC
1970-03-20T05:00:00Z	Fatal	PIPER J-3
1968-06-16T04:00:00Z	Minor	GLOBE GC-1B
1968-06-06T04:00:00Z	Minor	PIPER PA-32
1967-11-07T05:00:00Z	None	GRUMMAN TBM-3
1967-11-05T05:00:00Z	None	CESSNA 210
1967-05-06T04:00:00Z	None	N AMERICAN B-25N
1967-03-18T05:00:00Z	None	CESSNA 180
1966-07-01T04:00:00Z	Fatal	BEECH C35
1966-06-02T04:00:00Z	Fatal	PIPER PA-30
1966-02-25T05:00:00Z	Fatal	AERO COMOR 680

<i>EVENT DATE</i>	<i>HIGHEST INJURY LEVEL</i>	<i>MAKE/MODEL</i>
1965-11-05T05:00:00Z	None	PIPER PA-24
1965-11-04T05:00:00Z	None	BEECHCRAFT 35
1965-08-08T04:00:00Z	Fatal	AERONCA 11AC
1965-07-07T04:00:00Z	Fatal	PIPER PA-28
1965-07-05T04:00:00Z	None	BELLANCA 14-13
1964-07-17T04:00:00Z	None	CESSNA 170B

SOURCE: NATIONAL TRANSPORTATION SAFETY BOARD ACCIDENT DATABASE 2024

## FIRE HAZARDS

### Fuel Rank

Fuel rank is a ranking system developed by California Department of Forestry and Fire Protection (CAL FIRE) that incorporates four wildfire factors: fuel model, slope, ladder index, and crown index.

The U.S. Forest Service has developed a series of fuel models, which categorize fuels based on burn characteristics. These fuel models help predict fire behavior. In addition to fuel characteristics, slope is an important contributor to fire hazard levels. A surface ranking system has been developed by CAL FIRE, which incorporates the applicable fuel models and slope data. The model categorizes slope into six ranges: 0-10%, 11-25%, 26-40%, 41-55%, 56-75% and >75%. The combined fuel model and slope data are organized into three categories, referred to as surface rank. Thus, surface rank is a reflection of the quantity and burn characteristics of the fuels and the topography in a given area.

The ladder index reflects the distance from the ground to the lowest leafy vegetation for tree and plant species. The crown index reflects the quantity of leafy vegetation present within individual specimens of a given species.

The surface rank, ladder index, and crown index for a given area are combined in order to establish a fuel rank of medium, high, or very high. Fuel rank is used by CalFire to identify areas in the California Fire Plan where large, catastrophic fires are most likely.

Tehama County contains areas with “moderate” “High” “Very High” and “non-wildland fuel” ranks. Generally, the more developed areas within the city center are considered non-wildland with the fuel rank increasing in the northern and eastern foothill areas of the city. The areas warranting “moderate” to “Very High” fuel ranks possess combustible material in sufficient quantities combined with topographic characteristics that pose a wildfire risk.

### Fire Hazard Severity Zones

The state has charged CAL FIRE with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas. In addition, CAL FIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas. The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards. Fire Hazard Severity Zones within the City of Red Bluff planning area are shown on Figure 3.8-1.

#### LOCAL RESPONSIBILITY AREAS

The Red Bluff Planning Area is located within a Local Responsibility Area (LRA). CAL FIRE has determined that the City of Red Bluff contains Very High Fire Hazard Severity Zones (VHFHSZ) within Local Responsibility Areas within the northern portion of the City along I-5 and the Wilcox Oaks Golf Club. Figure 3.8-1 shows Fire Hazard Severity Zones for Local Responsibility Areas.

#### STATE RESPONSIBILITY AREAS

There are numerous State Responsibility Areas within the Red Bluff Planning Area. Specifically, there are High Fire Hazard Severity Zones in State Responsibility Areas along the western boundary of the City along Luther Road, along the eastern boundary of the City along I-5, and within the City's Sphere of Influence (SOI). In addition, there are Moderate Fire Hazard Severity Zones in State Responsibility Areas along the western boundary of the City along Brewery Creek and within the City's SOI west of I-5. The Planning Area also contains Very High Fire Hazard Severity Zones in State Responsibility Areas in the Northern portion of the City's SOI along Dibble Creek. State Responsibility Areas (SRAs) within the County generally are primarily located on the western half of Tehama County and portions of the eastern half of Tehama County. FHSZ within the SRAs range from "Moderate" to "Very High". Figure 3.8-2 shows Fire Hazard Severity Zones for State Responsibility Areas within Tehama County.

### 3.8.2 REGULATORY SETTING

#### FEDERAL

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##### **Aviation Act of 1958**

The Federal Aviation Act resulted in the creation of the Federal Aviation Administration (FAA). The FAA is charged with the creation and maintenance of a National Airspace System.

##### **Federal Aviation Regulations (CFR, Title 14)**

The Federal Aviation Regulation (FAR) establish regulations related to aircraft, aeronautics, and inspection and permitting.

##### **Clean Air Act**

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

##### **Clean Water Act**

The Clean Water Act (CWA), which amended the Water Pollution Control Act (WPCA) of 1972, sets forth the §404 program to regulate the discharge of dredged and fill material into Waters of the U.S. and the §402 National Pollutant Discharge Elimination System (NPDES) to regulate the

discharge of pollutants into Waters of the U.S. The §401 Water Quality Certification program establishes a framework of water quality protection for activities requiring a variety of Federal permits and approvals (including CWA §404, CWA §402, FERC Hydropower and §10 Rivers and Harbors).

### **Comprehensive Environmental Response, Compensation, and Liability Act**

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) introduced active Federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The Act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous material releases. CERCLA deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

### **Environmental Protection Agency**

The primary regulator of hazards and hazardous materials is the EPA, whose mission is to protect human health and the environment. The City of Red Bluff is located within EPA Region 9, which includes Arizona, California, Hawaii, and New Mexico.

### **FY 2001 Appropriations Act**

Title IV of the Appropriations Act required the identification of “Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire” by the U.S. Departments of the Interior and Agriculture.

### **Hazardous Materials Transportation Act**

The Hazardous Materials Transportation Act, as amended, is the statute regulating hazardous materials transportation in the United States. The purpose of the law is to provide adequate protection against the risks to life and property inherent in transporting hazardous materials in interstate commerce. This law gives the U.S. Department of Transportation (USDOT) and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials (DOE 2002).

### **Natural Gas Pipeline Safety Act**

The Natural Gas Pipeline Safety Act authorizes the U.S. Department of Transportation Office of Pipeline Safety to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas. The Office of Pipeline Safety regulates the design, construction, inspection, testing, operation, and maintenance of pipeline facilities. While the Federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for State assumption

of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum Federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible.

### **Resource Conservation and Recovery Act**

The Resources Conservation and Recovery Act (RCRA) established EPA's "cradle to grave" control (generation, transportation, treatment, storage and disposal) over hazardous materials and wastes. In California, the DTSC has RCRA authorization.

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program established tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. The RCRA was further amended in 1988 to set additional standards for USTs.

In July 2015, the EPA revised the federal UST regulation, which strengthened the 1988 federal UST regulations by increasing emphasis on properly operating and maintaining UST equipment. The revision added new operation and maintenance requirements and addressed UST systems deferred in the 1988 UST regulation. The purpose of the revision was to help prevent and detect UST releases, which are a leading source of groundwater contamination. To ensure compliance performance measures reflect the 2015 UST regulation, the Environmental Protection Agency (EPA) and the Association of State and Territorial Solid Waste Management Officials coordinated to update existing compliance performance measures and add new measures. The measures required states to switch from tracking compliance against significant operational compliance measures to the more stringent technical compliance rate (TCR) measures. As of October 2019, only 43.7 percent of USTs were in compliance with all TCR categories.

### **FY 2001 Appropriations Act**

Title IV of the Appropriations Act required the identification of "Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire" by the U.S. Departments of the Interior and Agriculture.

STATE

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**Aeronautics Act (Public Utilities Code §21001)**

The Caltrans Division of Aeronautics bases the majority of its aviation policies on the Aeronautics Act. Policies include permits and annual inspections for public airports and hospital heliports and recommendations for schools proposed within two miles of airport runways.

**Airport Land Use Commission Law (Public Utilities Code §21670 et seq.)**

The law, passed in 1967, authorized the creation of Airport Land Use Commissions (ALUC) in California. Per the Public Utilities Code, the purpose of an ALUC is to protect *public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses* (Pub. Util. Code §21670). Furthermore, each ALUC must prepare an ALUCP. Each ALUCP, which must be based on a twenty-year planning horizon, should focus on broadly defined noise and safety impacts.

**Assembly Bill 337**

Per AB 337, local fire prevention authorities and CAL FIRE are required to identify Very High Fire Hazard Severity Zones (VHFHSZ) in LRAs. Standards related to brush clearance and the use of fire-resistant materials in fire hazard severity zones are also established.

**California Code of Regulations**

Title 3 of the California Code of Regulations (CCR) pertains to the application of pesticides and related chemicals. Parties applying regulated substances must continuously evaluate application equipment, the weather, the treated lands and all surrounding properties. Title 3 prohibits any application that would:

- Contaminate persons not involved in the application;
- Damage non-target crops or animals or any other public or private property; and
- Contaminate public or private property or create health hazards on said property.

Title 8 of the CCR establishes California Occupational Safety and Health Administration (Cal OSHA) requirements related to public and worker protection. Topics addressed in Title 8 include materials exposure limits, equipment requirements, protective clothing, hazardous materials, and accident prevention. Construction safety and exposure standards for lead and asbestos are set forth in Title 8.

Title 14 of the CCR establishes minimum standards for solid waste handling and disposal.

Title 17 of the CCR establishes regulations relating to the use and disturbance of materials containing naturally occurring asbestos.

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

Title 22 of the CCR sets forth definitions of hazardous waste and special waste. The section also identifies hazardous waste criteria and establishes regulations pertaining to the storage, transport, and disposal of hazardous waste.

Title 26 of the CCR is a medley of State regulations pertaining to hazardous materials and waste that are presented in other regulatory sections. Title 26 mandates specific management criteria related to hazardous materials identification, packaging, and disposal. In addition, Title 26 establishes requirements for hazardous materials transport, containment, treatment, and disposal. Finally, staff training standards are set forth in Title 26.

Title 27 of the CCR sets forth a variety of regulations relating to the construction, operation, and maintenance of the state's landfills. The title establishes a landfill classification system and categories of waste. Each class of landfill is constructed to contain specific types of waste (household, inert, special, and hazardous).

### **California Government Code Section 65302**

This section, which establishes standards for developing and updating General Plans, includes fire hazard assessment and Safety Element content requirements.

### **California Health and Safety Code**

Division 11 of the Health and Safety Code establishes regulations related to a variety of explosive substances and devices, including high explosives and fireworks. Section 12000 *et seq.* establishes regulations related to explosives and explosive devices, including permitting, handling, storage, and transport (in quantities greater than 1,000 pounds).

Division 12 establishes requirements for buildings used by the public, including essential services buildings, earthquake hazard mitigation technologies, school buildings, and postsecondary buildings.

Division 20 establishes DTSC authority and sets forth hazardous waste and underground storage tank regulations. In addition, the division creates a State superfund framework that mirrors the Federal program.

Division 26 establishes California Air Resources Board (CARB) authority. The division designates CARB as the air pollution control agency per Federal regulations and charges the Board with meeting Clean Air Act requirements.

### **California Health and Safety Code and Uniform Building Code Section 13000 *et seq.***

State fire regulations are set forth in §13000 *et seq.* of the California Health and Safety Code, which is divided into "Fires and Fire Protection" and "Buildings Used by the Public." The regulations provide for the enforcement of the Uniform Building Code and mandate the abatement of fire hazards.

The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

### **California Vehicle Code §31600 (Transportation of Explosives)**

This code establishes requirements related to the transportation of explosives in quantities greater than 1,000 pounds, including licensing and route identification.

### **California Public Resources Code**

The State's Fire Safety Regulations are set forth in Public Resources Code §4290, which include the establishment of SRAs.

Public Resources Code §4291 sets forth defensible space requirements, which are applicable to anyone who *"...owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material"* (§4291(a)).

### **Food and Agriculture Code**

Division 6 of the California Food and Agriculture Code (FAC) establishes pesticide application regulations. The division establishes training standards for pilots conducting aerial applications as well as permitting and certification requirements.

### **State Oversight of Hazards and Hazardous Materials**

The DTSC is chiefly responsible for regulating the handling, use, and disposal of toxic materials. The State Water Resources Control Board (SWRCB) regulates discharge of potentially hazardous materials to waterways and aquifers and administers the basin plans for groundwater resources in the various regions of the state. The RWQCB oversees surface and groundwater. Programs intended to protect workers from exposure to hazardous materials and from accidental upset are covered under OSHA at the Federal and California Division of Occupational Safety and Health (Cal/OSHA) and the California Department of Health Services (DHS) at the state level. Air quality is regulated through the CARB and Tehama Valley Air Pollution Control District. The State Fire Marshal is responsible for the protection of life and property through the development and application of fire prevention engineering, education, and enforcement; CAL FIRE provides fire protection services for State and privately-owned wildlands.

### **Water Code**

Division 7 of the California Water Code, commonly referred to as the Porter-Cologne Water Quality Control Act, created the SWRCB and the RWQCB. In addition, water quality responsibilities are established for the SWRCB and RWQCBs.

### **Strategic Fire Plan**

**Unit Strategic Fire Plan Tehama Glenn Unit:** The goal of the TGU Strategic Fire Plan is to reduce losses and fire suppression costs from wildland fires within the Unit by protecting at risk assets.



Focused pre-fire management prescriptions will increase initial attack success. The CAL FIRE (TGU) encompasses approximately 2,675,837 acres. CAL FIRE provides direct protection for 1,476,293 of those acres, except for four incorporated cities: Red Bluff, Corning, Orland, Willows, and small areas within the Local Responsibility Area (LRA) lands of Tehama and Glenn Counties. The plan is available at: <https://cdnverify.osfm.fire.ca.gov/media/mqnbwpt4/2023-tehama-glenn-unit-strategic-fire-plan.pdf>

## LOCAL

### City of Red Bluff Municipal Code

#### ***Chapter 8 Section 8.15 Fire Apparatus Access Roads***

Chapter 8 Section 8.15 establishes requirements for fire apparatus access roads. These standards include:

- Fire apparatus access roads in residential areas, public or private, shall have an unobstructed minimum width of 40', curb-to-curb.
- Fire apparatus access roads within multi-family developments shall have an unobstructed minimum width of 30 feet.
- Cul-de-sac turning radius shall be 50', or 100' curb-to-curb minimum.

#### ***Chapter 8 Section 8.14 Open Burning, Recreational Fires, and Portable Outdoor Fireplaces***

This section establishes regulations on burning, including open burning/residential, land clearing, and special events.

#### ***Chapter 8 Article III Weed Abatement***

This article sets standards for weed abatement in the city. It states “Persons owning, leasing, renting, in legal control of the property; and operating or maintaining buildings or structures in, upon or adjoining hazardous fire areas; and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times maintain an effective firebreak, as stipulated in this code. When property lines are adjacent to roadways, the hazard shall be cleared to the center of the roadway.”

### Certified Unified Program Agencies

Senate Bill 1082 (1993) required the establishment of a unified hazardous waste and hazardous materials management program. The result was Cal EPA’s United Program, which consolidates the actions of DTSC, the SWRCB, the RWQCB’s, OES, and the State Fire Marshall. DTSC oversees the implementation of the hazardous waste generator and onsite treatment program, one of six environmental programs at the local level, through Certified Unified Program Agencies (CUPAs). CUPAs have authority to enforce regulations, conduct inspections, administer penalties, and hold hearings. Tehama County implements the CUPA that has enforcement authority over the City of Red Bluff.

**Tehama County Air Pollution Control District (TCAPCD)**

Tehama County Air Pollution Control District (TCAPCD) has jurisdiction over the City of Red Bluff. TCAPCD is tasked with regulating stationary sources of air pollution in Tehama County. It is governed by a 5-member Board of Directors composed of locally elected officials. The Board oversees policies and adopts regulations for the control of air pollution within TCAPCD. The Board also appoints the Air District's Air Pollution Control Officer and District Hearing Board. TCAPCD responds to complaints about smells, answers questions about air quality management permits, and reviews development projects for compliance with air quality and greenhouse gas significance thresholds. The TCAPCD and air quality are addressed in detail in Section 3.3, Air Quality, of this EIR.

**Tehama County Solid Waste Management Agency (TCSWMA)**

The TCSWMA is a joint powers authority (JPA) comprised of the County of Tehama and the cities of Red Bluff, Corning and Tehama. TCSWMA oversees the daily operation of the Tehama County/Red Bluff Landfill and the facilities on site, including the Material Recovery Facility. TCSWMA contracted with Waste Connections for the operation of the Tehama County/Red Bluff Landfill and Material Recovery Facility. TCSWMA is also responsible for maintaining permits and monitoring environmental compliance at the Landfill. TCSWMA also maintains a trust fund to pay for costs associated with landfill closure and post closure maintenance activities.

**3.8.3 IMPACTS AND MITIGATION MEASURES****THRESHOLDS OF SIGNIFICANCE**

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Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact from hazards and hazardous materials if it will:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

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IMPACTS AND MITIGATION MEASURES

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**Impact 3.8-1: General Plan implementation has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Less than Significant)**

Future development, infrastructure, and other projects allowed under the General Plan may involve the transportation, use, and/or disposal of hazardous materials. Hazardous materials are typically used in industrial, and commercial uses, as well as residential uses. Future uses may involve the transport and disposal of such materials from time to time. Future activities may involve equipment or construction activities that use hazardous materials (e.g., coatings, solvents and fuels, and diesel-fueled equipment), cleanup of sites with known hazardous materials, the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated, or disposal of contaminated materials at an approved disposal site. While hazardous materials may be associated with industrial activities, hazardous materials may also be associated with the regular cleaning and maintenance of residential and other less intense uses. Accidental release of hazardous materials that are used in the construction or operation of a project may occur. There is also the potential for accidental release of pre-existing hazardous materials, associated with previous activities on a site. This is considered a potential impact, which would be minimized through the implementation of the General Plan's policies and actions listed below, and through compliance with Federal, State, and local laws.

The use, transportation, and disposal of hazardous materials is regulated and monitored by local fire departments, CUPAs, the Cal OSHA and the DTSC consistent with the requirements of Federal, State, and local regulations and policies. Facilities that store hazardous materials on-site are required to maintain a Hazardous Materials Business Plan in accordance with State regulations. In the event of an accidental release of hazardous materials, the local CUPA and emergency management agencies (e.g., Police and Fire) would respond. All future projects allowed under the General Plan would be required to comply with the provisions of Federal, State, and local requirements related to hazardous materials. As future development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to the project, associated with hazardous materials as required under CEQA.

In addition to the requirements associated with Federal and State regulations and the Municipal Code, the General Plan includes policies and actions to address potential impacts associated with hazardous materials among other issues. These policies and actions in the General Plan, which are listed below, would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. The General Plan also includes policies and actions to ensure that the City has adequate emergency response plans and measures to respond in the event of an accidental release of a hazardous substance.

As described previously in the regulatory setting, hazardous materials regulations related to the use, handling, and transport of hazardous materials are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code. These laws were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the state (e.g., Cal OSHA in the workplace or DTSC for hazardous waste) and/or the County. Implementation of Title 49, Parts 171-180, of the Code of Federal Regulations would reduce any impacts associated with the potential for accidental release of hazardous materials. Therefore, implementation of the proposed General Plan policies and actions listed below, as well as Federal and State regulations, would result in a **less than significant** impacts associated with the routine use, transport, storage, or disposal or accidental release of hazardous materials.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **SAFETY ELEMENT POLICIES**

SA 4.7: Promote continuing training of Fire Department personnel in hazardous materials handling, response, and emergency medical techniques and procedures.

SA 6.1: Utilize resources from the Tehama County Environmental Health Department and the Tehama County Integrated Waste Management Task Force (TCIWMTF) when addressing how to handle waste or materials that pose a threat to human health or the environment by being toxic, reactive, corrosive, or flammable.

SA 6.2: Encourage local producers and users of hazardous materials to reduce the amounts of hazardous materials generated.

SA 6.3 Encourage the use of pesticides consistent with State and federal requirements and product-specific safety recommendations.

SA 6.4: Require hazardous waste generated within the City to be disposed of in a safe manner, consistent with all applicable local, State, and federal laws.

SA 6.5: Require hazardous materials to be stored in a safe manner, consistent with all applicable local, State, and federal laws.

SA 6.6: Require compliance with the Tehama County Environmental Health Department's hazardous materials and hazardous waste programs.

##### **CONSERVATION ELEMENT POLICIES**

COS 6.1: Provide adequate waste disposal, recycling, and reuse services for present and future residents and businesses, including programs that improve public access to solid waste collection and recycling facilities.

COS 6.5: Require that special waste – including hazardous materials, tires, medications, infectious waste, asbestos waste, construction waste, and electronic waste – are recycled and disposed of in a manner that is safe for the environment, residents, and employees.

#### SAFETY ELEMENT ACTIONS

*SA-6a: Work with the Tehama County Solid Waste Management Agency and the City's waste hauler to require acceptance of oils, paints, and other recyclable hazardous materials.*

*SA-6b: Coordinate with the Tehama County Environmental Health Department as the Certified Unified Program Agency (CUPA) to ensure that businesses that handle hazardous materials prepare and file a Hazardous Materials Business Plan (HMBP). The HMBP shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.*

*SA-6c: Provide educational opportunities for generators of small quantity, household, and urban agriculture waste products regarding their responsibilities for source reduction and proper and safe hazardous waste management and disposal.*

*SA-6d: Provide information about drop-off programs for the local disposal of household hazardous waste offered in Tehama County. The availability of the programs should be widely publicized throughout the community.*

*SA-6e: Refer all permits for new projects or major additions to existing uses located on sites identified by the State as having or containing likely hazardous substances or materials to the Tehama County Environmental Health Department to ensure compliance with applicable State and local regulations. If warranted, identify and require mitigation measures to ensure the exposure to hazardous materials from historical uses has been mitigated to acceptable levels consistent with EPA and/or California Department of Toxic Substances Control standards.*

#### CONSERVATION ELEMENT ACTIONS

*COS-6c: Continue to implement, and update as necessary, the City's Municipal Code to regulate issues related to solid waste including, but not limited to, Chapter 18A (Solid Waste Disposal).*

*COS-6e: Provide a conservation page (or similar page) on the City's website that provides links to resources and provides information regarding local and regional recycling programs, opportunities for reuse of materials, composting strategies, organics recycling, and opportunities for the disposal of hazardous waste.*

**Impact 3.8-2: General Plan implementation has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (Less than Significant)**

The Red Bluff Union Elementary School District (RBUESD) and the Red Bluff Joint Union High School District (RBJUSD), provide public school services for elementary and high schools (grades K-12) throughout the City of Red Bluff. A small portion of the eastern side of the City of Red Bluff, east of the Sacramento River, is served by the Antelope Elementary School District. The RBUESD is a Kingdergarten-8th grade district comprised of four campuses; three Kingdergarten-5th grade schools and one 6th grade-8th grade middle school. The Antelope School District is comprised of 2 Elementary Schools, a middle school, and a charter school. In 2018, the RBUESD passed a local bond for the purpose of modernizing the campuses. The primary focus of the bond was the replacement of failing portable classroom structures with new classroom facilities. In addition to the replacement of these portable classrooms, the FMP takes into consideration ongoing repair and maintenance issues that must be addressed on an ongoing basis. Table 3.8-6 lists schools in Red Bluff and the most recent enrollment for each school.

**TABLE 3.8-6: PUBLIC SCHOOLS SERVING RED BLUFF**

<i>SCHOOL</i>	<i>GRADES SERVED</i>	<i>ADDRESS</i>	<i>ENROLLMENT 2022-2023 SCHOOL YEAR</i>
Bidwell Elementary School	K-5	1256 Walnut Street	369
Jackson Heights Elementary School	K-5	225 S Jackson Street	453
Red Bluff Community Day School	K-8	1755 Airport Boulevard	4
Vista Preparatory Academy	6-8	1770 S Jackson Street	549
William M. Metteer Elementary School	K-5	695 Kimball Road	463
Antelope Elementary School	K-8	22630 Antelope Boulevard	274
Berrendos Middle School	6-8	401 Chestnut Avenue	251
Plum Valley Elementary School	K-5	29950 Plum Creek Road	19
Lassen-Antelope Volcanic Academy	5-8	1660 Monroe Street	94
Red Bluff High School	9-12	1260 Union Street	1,618
Salisbury Highschool (Continuation)	9-12	1050 Kimball Road	129

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2022-2023

The General Plan Land Use Element includes land use designations, but does not propose actual development projects, businesses, or school facilities. As such, it is not possible to determine if a specific use will result in hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste in proximity to a school site. The land use designations with the highest possibility of having businesses that result in hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste would be industrial, and commercial type uses. Some of these uses may occur within ¼ mile of an existing school. Each of these uses may use a variety of hazardous materials commonly found in developed areas including: paints, cleaners, and cleaning solvents. If handled appropriately, these materials do not

pose a significant risk. The Industrial designation is intended for land which is suitable for manufacturing and light industrial uses. The Commercial designation is applied to those areas of the City where retail, commercial, and professional business services are acceptable.

The proposed General Plan is not anticipated to directly lead to the establishment of new businesses that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste because the General Plan does not approve any specific development project. However, given the unknown nature of future business establishments within the commercial and industrial use areas, the potential for hazardous materials is present. This is considered a potentially significant impact, which would be minimized through the implementation of the policies and actions listed below related to review requirements as well as land use compatibility standards identified by the proposed General Plan

All hazardous materials would be required to be handled in accordance with Federal, State, and County requirements, which would limit the potential for a project to expose nearby uses, including schools, to hazardous emissions or an accidental release. Hazardous emissions are monitored by RWQCB, DTSC and the local CUPA. In the event of a hazardous materials spill or release, notification and cleanup operations would be performed in compliance with applicable Federal, State, and local regulations and policies, including hazard mitigation plans. As part of the development review process, the City's proposed General Plan also requires projects that may result in significant risks associated with hazardous materials to include measures to address and reduce the risks to an acceptable level such that surrounding uses are not exposed to hazardous materials in excess of adopted state and federal standards. Compliance with all existing regulations as well as the proposed General Plan policies and actions related to land use compatibility and hazardous materials would result in a **less than significant** impact related to this topic.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

LU-3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU-3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and

planned sensitive receptors. Ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

LU-3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.

LU-3.5: To the extent legally possible, regulate and ensure that telecommunications facilities such as cell towers, radio towers, and other appurtenances do not block, impede, or impair the visual quality of Red Bluff.

LU-3.6: In considering land use change requests, consider factors such as compatibility with surrounding uses in terms of privacy, noise, and changes in traffic levels.

#### SAFETY ELEMENT POLICIES

SA 4.7: Promote continuing training of Fire Department personnel in hazardous materials handling, response, and emergency medical techniques and procedures.

SA 6.1: Utilize resources from the Tehama County Environmental Health Department and the Tehama County Integrated Waste Management Task Force (TCIWMTF) when addressing how to handle waste or materials that pose a threat to human health or the environment by being toxic, reactive, corrosive, or flammable.

SA 6.2: Encourage local producers and users of hazardous materials to reduce the amounts of hazardous materials generated.

SA 6.3 Encourage the use of pesticides consistent with State and federal requirements and product-specific safety recommendations.

SA 6.4: Require hazardous waste generated within the City to be disposed of in a safe manner, consistent with all applicable local, State, and federal laws.

SA 6.5: Require hazardous materials to be stored in a safe manner, consistent with all applicable local, State, and federal laws.

SA 6.6: Require compliance with the Tehama County Environmental Health Department's hazardous materials and hazardous waste programs.

#### LAND USE ELEMENT ACTIONS

*LU-1c: Update the Zoning Ordinance to allow appropriate light industrial/manufacturing uses in areas designated Commercial as a discretionary use with approval a Conditional Use Permit, provided such uses are compatible with adjacent land uses and will not create adverse environmental impacts.*

*LU-3a: Ensure all applicable projects are reviewed and processed per the California Environmental Quality Act (CEQA) Guidelines.*



*LU-3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU-3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU-3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

*LU-3e: Coordinate with the County and/or other agencies to identify potentially hazardous areas and notify property owners in at-risk areas. Limit new development in these areas. Monitor and ensure compliance with the Tehama County Multi-Jurisdictional Hazard Mitigation Plan.*

*LU-3f: Establish performance and development standards within the commercial and industrial land use designations to allow for a wide range of uses, provided those uses will not adversely impact adjacent uses.*

*LU-3g: Consider establishing an incentive program to encourage non-conforming properties and uses to redevelop as conforming uses.*

#### SAFETY ELEMENT ACTIONS

*SA-6a: Work with the Tehama County Solid Waste Management Agency and the City's waste hauler to require acceptance of oils, paints, and other recyclable hazardous materials.*

*SA-6b: Coordinate with the Tehama County Environmental Health Department as the Certified Unified Program Agency (CUPA) to ensure that businesses that handle hazardous materials prepare and file a Hazardous Materials Business Plan (HMBP). The HMBP shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.*

*SA-6c: Provide educational opportunities for generators of small quantity, household, and urban agriculture waste products regarding their responsibilities for source reduction and proper and safe hazardous waste management and disposal.*

*SA-6d: Provide information about drop-off programs for the local disposal of household hazardous waste offered in Tehama County. The availability of the programs should be widely publicized throughout the community.*

*SA-6e: Refer all permits for new projects or major additions to existing uses located on sites identified by the State as having or containing likely hazardous substances or materials to the Tehama County Environmental Health Department to ensure compliance with applicable State and*

*local regulations. If warranted, identify and require mitigation measures to ensure the exposure to hazardous materials from historical uses has been mitigated to acceptable levels consistent with EPA and/or California Department of Toxic Substances Control standards.*

**Impact 3.8-3: General Plan implementation has the potential to have projects located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Less than Significant)**

As described previously in the Environmental setting there are locations listed within Red Bluff that are listed in the Envirostor database. Of these sites, one site is listed as active, one site is certified with land use restrictions, two sites are listed inactive and need evaluation, one site is listed inactive and withdrawn, 13 sites are referred to Regional Water Quality Control Board (RWQCB), seven sites are referred to other agencies, and five sites are listed with no action required. Table 3.8-1 lists the Envirostor sites within the City of Red Bluff. There are 70 locations identified with a City of Red Bluff address that are listed in the GeoTracker database for LUST. Table 3.8-2 lists the location of cases for LUSTs in Red Bluff. The City of Red Bluff have three active solid waste facilities listed in the SWIS database.

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

There is one active site within Red Bluff that is listed on the Cortese List. This includes the Modern Dry Cleaners, located within the City center along Walnut Street. The property consists of approximately one-acre and is located within a mixed commercial/residential community of downtown Red Bluff. Modern Cleaners is located at 609 Walnut Street in a portion of an historic two-story commercial building with a basement. Two other businesses unrelated to Modern Cleaners are share the building.

**TETRACHLOROETHYLENE (PCE)**

Tetrachloroethylene (PCE) concentrations as high as 349 micrograms per Liter (ig/L) were detected in monitoring wells associated with the One Stop Convenience Store investigations conducted by in 2007. Subsequent sampling conducted in 2008 under the oversight of the Central Valley Regional Water Control Board (CVRWQB) showed PCE concentrations as high as 46ig/L. Elevated PCE levels in groundwater have also been detected at the Tehama County Sheriff's Department. Historical results for the Tehama County Jail Annex showed groundwater with concentrations of PCE of 36ig/L and indoor air concentrations as high as 64ig/m3. The CVRWQB has concluded that PCE is migrating onto the One Stop Convenience Store property from an easterly direction and is

attenuating from the north towards the south and east. In 2009, the CVRWQCB referred its findings and further regulatory actions to DTSC.

In April of 2023 The California Department of Toxic Substances Control (DTSC) and California Environmental Protection Agency (Cal-EPA) contracted with AECOM Technical Services, Inc. (AECOM) to perform a Limited Phase I Environmental Site Assessment (ESA) of Modern Cleaners (Subject Property). This Phase I ESA was performed in general accordance with the scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice Designation E 152721 for ESAs. The Report recommends conducting a limited Phase II ESA to further assess the following items of concern:

- Conduct soil, groundwater, soil vapor, indoor and ambient air sampling in the area of dry cleaning operations to assess the potential for volatile organic compounds (VOCs) in soil.
- Conduct soil, groundwater, and soil vapor sampling in the area of dry cleaning operations to assess the potential for VOCs in soil and groundwater, as well as soil vapor impacts to the Subject Property.
- Conduct a radon assessment of the basement. The Subject Property is in Zone 3; therefore, radon is not considered to be a significant concern. However, because the Subject Property has an extensive basement and suspect soil gas quality in the general vicinity, any indoor air quality evaluation of the basement should include radon gas.
- Conduct soil vapor, indoor, and ambient air sampling on site to assess potential for vapor encroachment conditions (VECs) from off-site sources, such as the apparent historical automotive repair and AT&T facility to the north of the Subject Property. Although not an REC, impacts resulting from the presence of older structures built from 1938 through 1970s, the potential for asbestos-containing materials, lead-based paint, and pesticides is likely. This is a potential item of concern; therefore, the report recommends collecting soil samples throughout the Subject Property, and analyzing for asbestos, lead-based paint, and pesticide (termiticide) impacts.

The above-mentioned site is subject to various Federal and State laws and regulatory agencies, including the EPA, DTSC, and CVRWQCB. The general plan does not propose, and would not specifically approval any development applications or other activities, however, future development could create a hazard to the public or the environment through a disturbance or release of contaminated materials if the development occurs on or adjacent to contaminated sites without appropriate measures to contain, minimize or mitigate the existing contamination.

The City of Red Bluff has prepared the General Plan to include policies and actions intended to ensure future developments are consistent with Federal, State, and Local regulations regarding existing hazardous areas. Federal and State regulations ensure that existing hazards, including those associated with known hazardous materials sites, are addressed prior to development. Compliance with Federal and State regulations would ensure that potential impacts associated

with the hazardous conditions on sites listed pursuant to Government Code Section 65962.5 would be **less than significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **SAFETY ELEMENT POLICIES**

SA 6.1: Utilize resources from the Tehama County Environmental Health Department and the Tehama County Integrated Waste Management Task Force (TCIWMTF) when addressing how to handle waste or materials that pose a threat to human health or the environment by being toxic, reactive, corrosive, or flammable.

SA 6.2: Encourage local producers and users of hazardous materials to reduce the amounts of hazardous materials generated.

SA 6.3 Encourage the use of pesticides consistent with State and federal requirements and product-specific safety recommendations.

SA 6.4: Require hazardous waste generated within the City to be disposed of in a safe manner, consistent with all applicable local, State, and federal laws.

SA 6.5: Require hazardous materials to be stored in a safe manner, consistent with all applicable local, State, and federal laws.

SA 6.6: Require compliance with the Tehama County Environmental Health Department's hazardous materials and hazardous waste programs.

##### **SAFETY ELEMENT ACTIONS**

*SA-6a: Work with the Tehama County Solid Waste Management Agency and the City's waste hauler to require acceptance of oils, paints, and other recyclable hazardous materials.*

*SA-6b: Coordinate with the Tehama County Environmental Health Department as the Certified Unified Program Agency (CUPA) to ensure that businesses that handle hazardous materials prepare and file a Hazardous Materials Business Plan (HMBP). The HMBP shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.*

*SA-6c: Provide educational opportunities for generators of small quantity, household, and urban agriculture waste products regarding their responsibilities for source reduction and proper and safe hazardous waste management and disposal.*

*SA-6d: Provide information about drop-off programs for the local disposal of household hazardous waste offered in Tehama County. The availability of the programs should be widely publicized throughout the community.*

*SA-6e: Refer all permits for new projects or major additions to existing uses located on sites identified by the State as having or containing likely hazardous substances or materials to the*

*Tehama County Environmental Health Department to ensure compliance with applicable State and local regulations. If warranted, identify and require mitigation measures to ensure the exposure to hazardous materials from historical uses has been mitigated to acceptable levels consistent with EPA and/or California Department of Toxic Substances Control standards.*

**Impact 3.8-4: General Plan implementation is not located within an airport land use plan, two miles of a public airport or public use airport, and would not result in a safety hazard for people residing or working in the project area (Less than Significant)**

Hazards related to airports are typically grouped into two categories: air hazards and ground hazards. Air hazards jeopardize the safety of an airborne aircraft and expose passengers, pilots, and crews to danger. Examples of air hazards include tall structures, glare-producing objects, bird and wildlife attractants, radio waves from communication centers, or other features that have the potential to interfere with take-off or landing procedures, posing a risk to aircraft. Ground hazards jeopardize the safety of current and future residents and/or workers in the vicinity of an airport. The most obvious ground hazard is a crash, which may produce a serious, immediate risk to those residing in or using areas adjacent to the airport. Most accidents occur during take-off and landing. Therefore, the higher the density around an airport, including transportation facilities, the higher the risk associated with this type of hazard.

There is one airport facility, Red Bluff Municipal Airport located within the Red Bluff Planning Area as described below. Figure 3.8-3 shows the Airport Overflight Safety Zone and Airport Runway Protection Zone located in the City of Red Bluff. The airport covers 602 acres (244 ha) and has one asphalt runway: (15/33), 5,431 x 100 ft (1,655 x 30 m). The airport provides for the general aviation needs of the County including direct-by-air access to other airfields in the region.

The Airport Land Use Plan (ALUP) Master Plan was adopted in 2001 and amended December 2015 by the Tehama County Airport Land Use Commission (ALUC). The ALUC addresses three critical land use-planning concerns:

- 1) Compatibility of surrounding land uses with respect to airport noise levels;
- 2) Compatibility of surrounding land uses in terms of exposure of persons on the ground to crash hazards associated with aircraft; and
- 3) The need for appropriate height restrictions to protect the airspace used by aircraft.

The ALUC Map and Land Use Compatibility Guidelines for Safety, contained within the Airport Master Plan, regulate land uses and structure heights that may constitute a hazard to air navigation. The City of Red Bluff has prepared the General Plan to include policies and actions intended to ensure future developments are consistent with the Airport Land Use Plan. The proposed General Plan establishes goals, policies, and actions for (as listed below) to ensure the future compatibility of uses within the vicinity of airport operations, and that future projects are reviewed for consistency with the ALUC compatibility and safety plans. Implementation of the General Plan policies and actions listed below, as well as Federal and State regulations, would

ensure that potential impacts from General Plan implementation relative to this topic would be **less than significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **SAFETY ELEMENT POLICIES**

SA 8.1: Ensure that land uses within the vicinity of the Red Bluff Municipal Airport are compatible with airport operations.

SA 8.2: Ensure that new development proposals do not result in encroachments into future airport expansion areas and do not result in adverse impacts to airport operations.

##### **SAFETY ELEMENT ACTIONS**

*SA-8a: As part of the development review process, new development and expansion proposals within the vicinity of the Red Bluff Municipal Airport shall be:*

- *Reviewed for consistency with setbacks, land use restrictions, and height as determined by the Federal Aviation Administration (FAA) and the Tehama County Airport Land Use Commission; and*
- *Provided to the Airport Land Use Commission for review.*

#### **Impact 3.8-5: General Plan implementation has the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Less than Significant)**

The General Plan would allow a variety of new development, including residential, commercial, industrial, and public projects, which would result in increased jobs and population in Red Bluff. Road and infrastructure improvements would occur to accommodate the new growth. Future development and infrastructure projects are not anticipated to remove or impede any established evacuation routes within the City. Furthermore, the General Plan does not include land uses, policies, or other components that conflict with adopted emergency response or evacuation plans. However, given that the type, location, and size of future development and infrastructure projects is not known at this time, there is the potential that the City could receive a development proposal that could potentially interfere with an established emergency evacuation route or plan. The General Plan ensures that the City's emergency access routes, emergency contact lists, and public information regarding designated facilities and routes are regularly reviewed to ensure that up to date information is available to the City and the public in the event of an emergency. Important new critical facilities would be located to ensure resiliency in the event of a natural disaster. Implementation of the General Plan policies and actions listed below would ensure impacts to adopted emergency response plan or emergency evacuation plans are **less than significant**.

**GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS****CIRCULATION ELEMENT POLICIES**

CIRC 1.7: Maintain hazard and emergency responsiveness by identifying transportation planning measures to address vulnerabilities, respond to emergencies, and mitigate hazards.

**SAFETY ELEMENT POLICIES**

SA 3.1: Ensure that new critical facilities are located in areas that minimize exposure to potential natural hazards.

SA 3.2: Ensure that critical facilities are properly supplied and equipped to provide emergency services.

SA 3.3: Support local and regional disaster planning and emergency response planning efforts, and look for opportunities to collaborate and share resources with other municipalities in the region.

SA 3.4: Develop programs in cooperation with other public agencies to increase public awareness of hazards in Red Bluff and to educate residents on actions that can help to minimize injury and property loss before, during, and after an emergency.

SA 3.5: Maintain effective mutual aid agreements for police, fire, medical response, and other functions as appropriate.

**CIRCULATION ELEMENT ACTIONS**

*CIRC-1b: Review and revise roadway standards to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.*

*CIRC-kl: Work with Tehama County to create a funding plan to implement improvements for emergency access, evacuation, fire protection, public safety, and work with appropriate agencies to identify and prioritize projects.*

**SAFETY ELEMENT ACTIONS**

*SA-3a: Coordinate with the Tehama County Sheriff's Office of Emergency Services (O.E.S.) and other local agencies, as necessary, to participate in and implement the Tehama County Multi-Jurisdictional Hazard Mitigation Plan.*

*SA-3b: Conduct periodic emergency response training exercises and/or participate in regional exercises to ensure that key community members, local leaders, and emergency response personnel are adequately trained and prepared for emergency situations. Critical facilities within Red Bluff should also be assessed annually to ensure they are properly equipped and supplied.*

*SA-3c: Provide emergency preparedness information on the City's website and encourage residents and community leaders to participate in disaster training programs.*

*SA-3d: Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.*

*SA-3e: As part of the development review process, consult with the Fire Department in order to ensure that the project provides adequate emergency access.*

*SA-3f: Seek funding from State, federal, and other sources to assist in emergency management planning, including community education about defensible space and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster, with a focus on reaching at-risk populations.*

*SA-3g: Review procedures for local implementation of the Tehama County Emergency Operations Plan and help to educate the community on the need for emergency preparedness.*

*SA-3h: Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.*

*SA-3i: Coordinate with the Tehama County to periodically to update the Multi-Jurisdiction Hazard Mitigation Plan (LHMP), as needed to meet existing and projected future emergency services needs throughout Red Bluff.*

*SA-3j: Continue to implement the Local Hazard Mitigation Plan Mitigation Actions for Red Bluff.*

### **Impact 3.8-6: General Plan implementation has the potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires ( Less than Significant)**

Wildfires are a potential hazard to development and land uses located in the foothill and forested areas of the City. The severity of wildfire problems depends on a combination of vegetation, climate, slope, and people. The vegetation and topography found in the Planning Area, coupled with hot, dry summers, present fire hazards during critical fire periods for much of the county. In addition to natural factors such as lightning, human activity is a primary factor contributing to the incidence of wildfires. Campfires, smoking, debris burning, arson, public utility infrastructure, and equipment use are common human-related causes of wildfires.

As described previously and shown on Figures 3.8-1 and 3.8-2, there are State Responsibility Areas within the Red Bluff Planning Area. Specifically, there are High Fire Hazard Severity Zones in State Responsibility Areas along the western boundary of the City along Luther Road, along the eastern boundary of the City along I-5, and within the City's SOI. In addition, there are Moderate Fire Hazard Severity Zones in State Responsibility Areas along the western boundary of the City along Brewery Creek and within the City's SOI west of I-5. The Planning Area also contains Very High Fire



Hazard Severity Zones in State Responsibility Areas in the Northern portion of the City's SOI along Dibble Creek. Additionally, CAL FIRE has determined that the City of Red Bluff contains Very High Fire Hazard Severity Zones (VHFHSZ) within Local Responsibility Areas within the northern portion of the City along I-5 and the Wilcox Oaks Golf Club.

Fire threat determination is a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined to create four threat classes ranging from moderate to extreme. Fire threat can be used to estimate the potential for impacts on various assets and values susceptible to fire. Impacts are more likely to occur and/or be of increased severity for the higher threat classes. The Red Bluff Planning Area is located within a Local Responsibility Area. CAL FIRE has determined that the City of Red Bluff has Very High Fire Hazard Severity Zones within Local Responsibility Areas.

The General Plan includes policies and actions, listed below, for adequate water supply and water flow availability, ensuring adequate emergency access, adequate fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety. All future projects allowed under the General Plan would be required to comply with the provisions of Federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements. No development is proposed or would be approved through adoption of the General Plan. As future development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to the project, associated with wildland fire hazards as required General Plan, development review requirements and under CEQA. Additionally development allowed under the General Plan could allow development to place people and/or structures in undeveloped areas that are identified as having varying degrees of wildland fire risk, so there is always a potential for urban wildland interface fire risk, however, as described previously compliance with General Plan policies, fire code requirements, and review and compliance with emergency planning for fire related impacts this program level impact is considered a **less than significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **CIRCULATION ELEMENT POLICIES**

CIRC 1.7: Maintain hazard and emergency responsiveness by identifying transportation planning measures to address vulnerabilities, respond to emergencies, and mitigate hazards.

##### **SAFETY ELEMENT POLICIES**

SA 4.1: Maintain adequate levels of service for personnel, equipment, and facilities for fire protection services.

SA 4.2: Require all new development to be constructed in accordance with fire safety standards contained in the locally-adopted California Fire Code and California Building Code.

SA 4.3: Ensure that adequate water supplies are available for fire suppression throughout the City and that water delivery systems are properly maintained.

SA 4.4: Require new development to construct and fund fire suppression infrastructure and equipment needed to provide adequate fire protection services.

SA 4.5: Require all new development, including single-family dwellings on existing parcels of record, to provide adequate access for fire protection and emergency vehicle access.

SA 4.6: In coordination with the Fire Department, identify and maintain fire hazard reduction projects, including community fuel breaks and private road and public road clearance.

SA 4.7: Promote continuing training of Fire Department personnel in hazardous materials handling, response, and emergency medical techniques and procedures.

SA 9-1: Require development to reduce risks to life and property associated with wildfire events through adherence to the relevant fire safe standards established in the Red Bluff Municipal Code, City Ordinances, and other applicable regulations that meet or exceed title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). New development, which does not meet the applicable State requirements, shall not be permitted.

SA 9-2: Support management of forested lands including fuel management strategies in wildland areas to reduce wildfire hazards.

SA 9-3: Require adequate water source and supply systems, including adequate fire flows, and location of anticipated water supply prior to development approvals in areas that include very high or high Fire Hazard Severity Zones (FHSZs), as defined by CAL FIRE.

SA 9-4: New development projects within and adjacent to wildland, forest, or areas or that are included within a VHFHSZ shall prepare and implement wildland fire protection plans that include the following components:

1. Risk Analysis
2. Fire Response Capabilities
3. Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
4. Measures and Design Considerations for Non-Conforming Fuel Modification
5. Wildfire Education, Maintenance, and Limitations
6. Evacuation Planning.

SA 9-5: Continue to implement the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) to reduce risks associated with wildfire, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the MJHMP.

SA 9-6 Continue to support wildfire planning efforts and programs including the Tehama County Community Wildfire Protection Plan (CWPP) to reduce risks associated with wildfire throughout the Planning Area, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the CWPP.

SA 9-7 Prior to allowing redevelopment in an area devastated by wildfire, the City shall review safety conditions and require any redevelopment to meet all applicable State and local fire safe development standards.

SA 9-8 Ensure adequate evacuation routes for new and existing development. Ensure new residential developments located in High and Very High Fire Hazard Zones have at least two emergency evacuation routes, and Identify existing residential developments in these areas that do not have at least two emergency evacuation routes.

SA 9-9 Discourage new development within Very High Fire Hazard Severity Zones (VHFHSZ) and on the periphery of urban areas where wildfire risks are high due to natural factors or provide adequate mitigation measures to address the elevated fire threat.

SA 9-10 Locate new essential public facilities, such as fire stations, police substations, and emergency evacuation centers outside of High and Very High Fire Hazard Severity Zones.

SA 9-11 Support management and conservation activities to reduce fire hazards, including fire hazard reduction, fuel management, and long-term maintenance strategies, establishment and maintenance of community fuel breaks, public and private road maintenance and vegetation clearance that meet or exceed Public Resources Code Section 4291 requirements, home hardening, and coordinate with the fire department and property owners to implement management and conservation activities on an on-going basis.

#### CIRCULATION ELEMENT ACTIONS

*CIRC-1b: Review and revise roadway standards to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.*

*CIRC-kl: Work with Tehama County to create a funding plan to implement improvements for emergency access, evacuation, fire protection, public safety, and work with appropriate agencies to identify and prioritize projects.*

## SAFETY ELEMENT ACTIONS

*SA-4a: As part of the development review process, consult with the Fire Department in order to ensure that development projects facilitate adequate fire services and fire prevention measures.*

*SA-4b: Continue to require all new development to be reviewed for consistency with the relevant State and local Fire Safe Regulations, and the most recently adopted fire code standards.*

*SA-4c: Proactively enforce the City's Weed Abatement Ordinance to reduce fuel loads and maintain defensible space in order to minimize risk of wildland fires.*

*SA-4d: To the maximum extent feasible conduct periodic inspections of vacant properties to ensure that dry weeds and other combustible fuels are not permitted to accumulate.*

*SA-4e: Promote cooperation between the Red Bluff Fire Department, Tehama County Fire Department, the California Department of Forestry and Fire Protection (CAL FIRE), the U.S. Forest Service, and other agencies and fire districts for training and mutual aid.*

*SA-4f: Review and require all projects to adhere to Municipal Code requirements to ensure adequate safety services. These include, but are not limited to, Chapter 8 (Fire Department) which describes the duties of the Fire Department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers associated with such a determination, and Chapter 20 (Subdivisions) which describes the requirements of a subdivider to supply water and provide fire protection within the subdivision.*

*SA-9a Review, and revise if necessary, the City's Development Standards to require fire protection methods, including fuels management, adequate water supply, and road and driveway standards for new development and expansion projects in areas of high and very high Fire Hazard Severity Zones that meet or exceed the requirements established by the State Fire Safe Regulations. Fire protection methods may consist of the establishment of "defensible space" around structures, using fire resistant ground cover, building with fire-resistant roofing materials, fuel load reductions, visible home and street addressing and signage, and other appropriate measures.*

*SA-9b Consult with CAL FIRE during the review of development applications for projects within high and very high Fire Hazard Severity Zones in areas adjacent to SRAs.*

*SA-9c Implement State recommendations for fire prevention in Fire Hazard Severity Zones.*

*SA-9d Create public outreach and awareness programs to reach at-risk populations, promote the development and awareness of evacuation routes, and to promote the development of "defensible space" around structures using areas free of fuel loads, fire resistant landscaping and fire-resistant building materials. Any new development within VHFHSZs shall be required to implement fuel modification efforts to reduce flammable materials around structures, homes, and subdivisions consistent with California Code, Public Resources Code - PRC § 4291.*

*SA-9e Participate in regional efforts to periodically review and update key emergency and fire protection plans, including but not limited to the Tehama County Multi-Jurisdiction Hazard*

*Mitigation Plan (MJHMP) and the Tehama County Community Wildfire Protection Plan (CWPP). Future updates to these plans shall consider new growth and policy direction facilitated by this General Plan, and shall meet all applicable State requirements and incorporate industry best practices for fuel reduction and management, fuel breaks, fire safety, emergency evacuation, and post-fire recovery.*

*SA-9f Identify areas within the city that are not adequately served by multiple evacuation routes which can be used during a fire or other natural disaster. Develop specific plans to address SB 99 Evacuation-Constrained Parcels, and improve the capacity, safety, and viability of evacuation routes to serve high-risk areas of the city, including areas located within High and Very High Fire Hazard Zones.*

*SA-9g Consistent with Policy SA 9-4, require new development projects to prepare and implement wildland fire protection plans that meets all applicable State requirements.*

*SA-9h Utilize the most current adopted Fire Hazard Severity Zone (FHSZ) maps from the Office of the State Fire Marshal (OSFM). Available at: <https://osfm.fire.ca.gov>.*

*SA-9i As part of the development review process, for all new development projects within fire hazard areas consult with the fire department in order to ensure that the project has adequate fire protection including: the ability to service new development, emergency access (ingress, egress), evacuation routes, fire flow, water supply, defensible space pursuant to Public Resources Code Section 4291 and other regulations if applicable, fuel modification, fire-safe measures, and vegetation clearance including for public and private roads. All residential development projects within fire hazard areas shall be evaluated at that time to see if they have at least two emergency evacuation routes.*

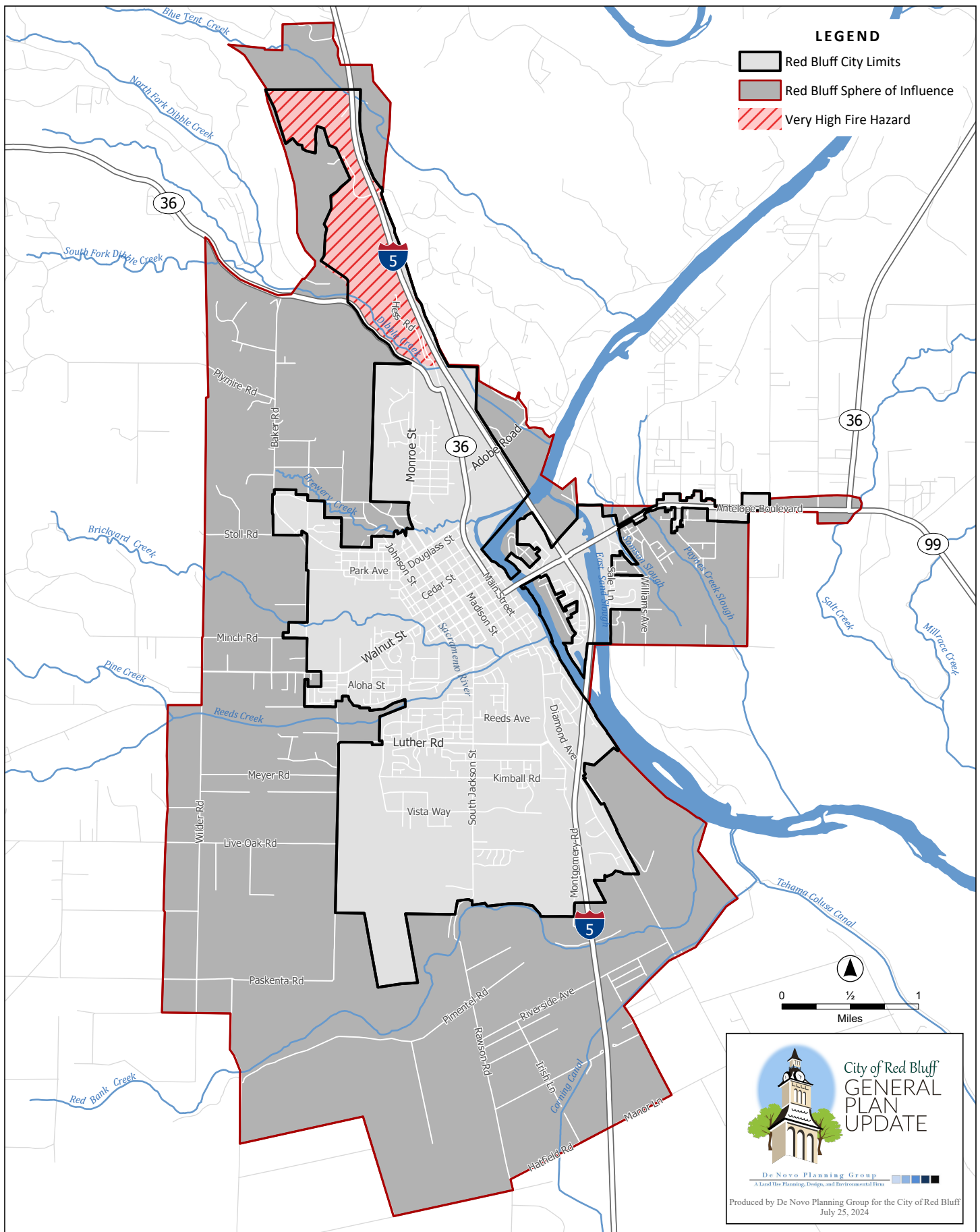
*SA-9j As part of the next update to the MJHMP, participate in the update process and ensure that the MJHMP update identifies evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Improvements should be included on City improvements plans and RTP project lists as appropriate.*

*SA-9k Coordinate with Caltrans to implement vegetation clearance maintenance along State transportation corridors.*

*SA-9l Implement the policies and actions included Under Goal SA-4 that support the review of projects to maintain adequate and efficient fire protection service levels throughout the community.*

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Figure 3.8-1. Fire Hazard Severity Zones in Local Responsibility Areas

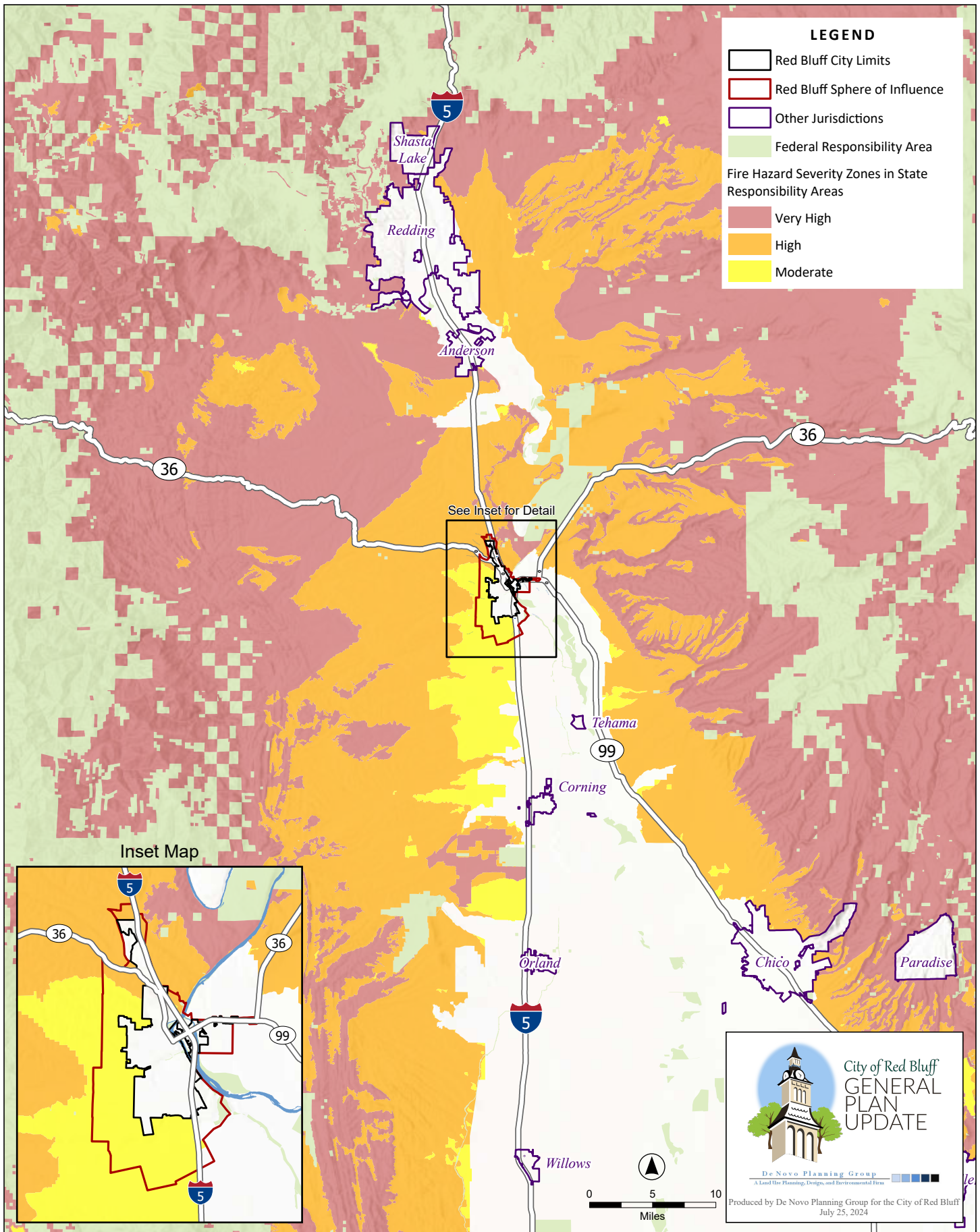


Sources: State Office of the Fire Marshal/CAL FIRE FRAP; 2008; California State University, Chico Geographical Information Center; USGS National Hydrography Dataset.

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Figure 3.8-2. Fire Hazard Severity Zones in State Responsibility Areas

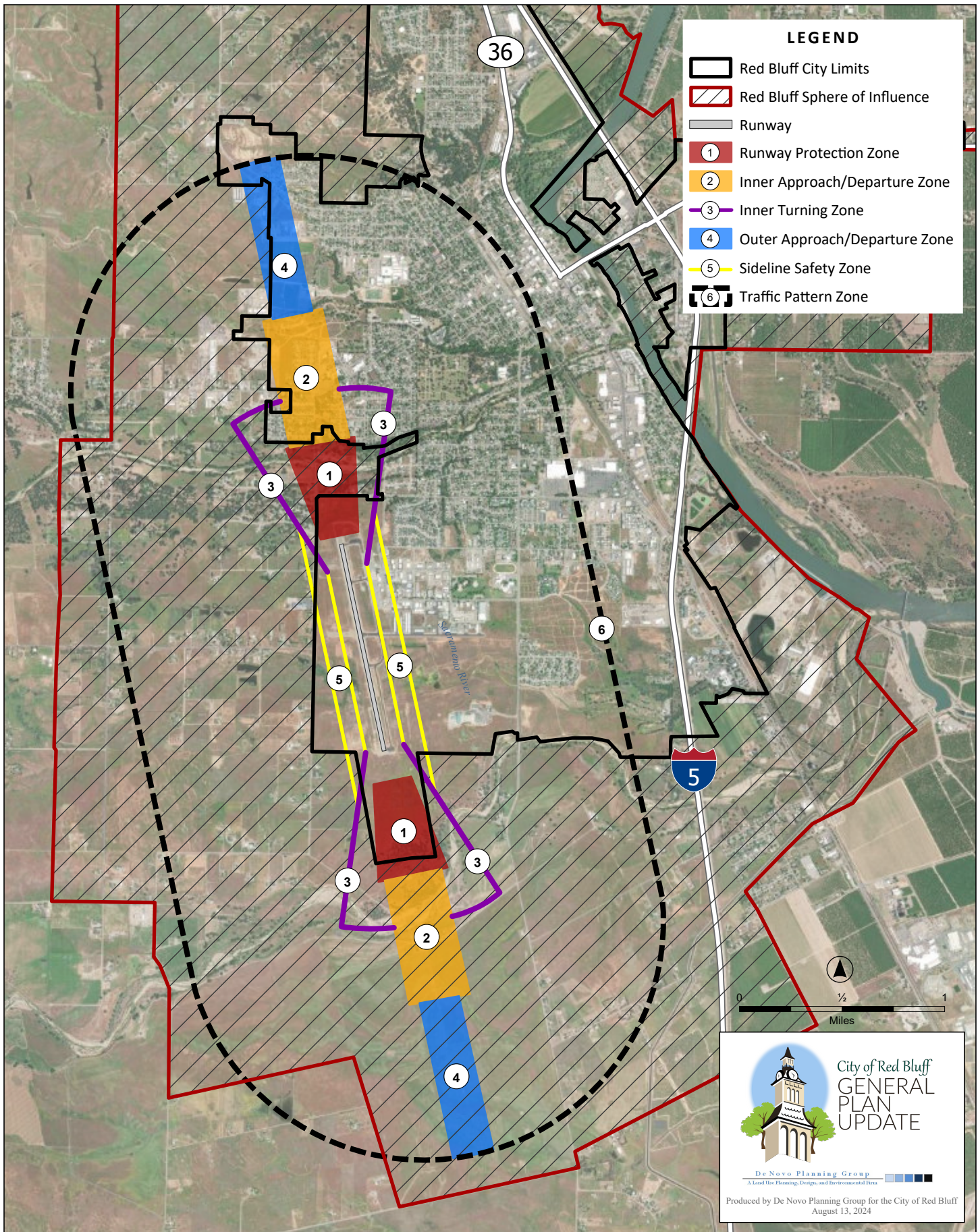


Sources: State Office of the Fire Marshal/CAL FIRE FRAP; April 1, 2024; California State University, Chico Geographical Information Center; USGS National Hydrography Dataset.

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Figure 3.8-3. Red Bluff Municipal Airport



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This section provides a background discussion of the regional hydrology, flooding, water quality, water purveyors, and water sources in Red Bluff. This section is organized with an existing setting, regulatory setting, and impact analysis.

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

## KEY TERMS

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**Groundwater:** Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

**Surface water:** Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is naturally replenished through precipitation but is naturally lost through evaporation and seepage into soil.

## 3.9.1 ENVIRONMENTAL SETTING

### REGIONAL HYDROLOGY

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Tehama County is located in the Sacramento River watershed. The Sacramento River runs north-south through the Central Tehama County, forming its eastern boundary on its way to the Delta and San Francisco Bay. Many tributary streams flow from the mountains on both sides of the valley into the Sacramento River. The Sacramento River is the primary source of surface irrigation water in the County. The total length of the Sacramento River is approximately 327 miles and its drainage area encompasses approximately 27,200 square miles.

### CLIMATE AND PRECIPITATION

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The Sacramento Valley Air Basin (SVAB) has an inland Mediterranean climate, with mild, rainy winter weather from November through March and warm to hot, dry weather from May through September. Sacramento Valley temperatures range from 20 to 115 degrees Fahrenheit and the average annual rainfall is 20 inches. The topographic features giving shape to the SVAB are the Coast Range to the west, the Sierra Nevada to the east, and the Cascade Range to the north. The predominant annual and summer wind pattern in the Sacramento Valley is the sea breeze commonly referred to as the "Delta breeze." These cool winds originate from the Pacific Ocean and flow through a sea-level gap in the Coast Range called the Carquinez Strait.

Tehama County has warm, dry days and relatively cool nights, with clear skies and limited rainfall. Winters are mild with light rains. In summer, high temperatures often exceed 100 degrees, with averages in the mid and high 90's. Summer low temperatures average in the high 50's.



### WATERSHEDS

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special-status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

The State uses a hierarchical naming and numbering convention to define watershed areas for management purposes. This means that boundaries are defined according to size and topography, with multiple sub-watersheds within larger watersheds. Table 3.9-1 shows the primary watershed classification levels used by the State of California. The second column indicates the approximate size that a watershed area may be within a particular classification level, although variation in size is common.

**TABLE 3.9-1: STATE OF CALIFORNIA WATERSHED HIERARCHY NAMING CONVENTION**

<i>WATERSHED LEVEL</i>	<i>APPROXIMATE SQUARE MILES (ACRES)</i>	<i>DESCRIPTION</i>
Hydrologic Region (HR)	12,735 (8,150,000)	Defined by large-scale topographic and geologic considerations. The State of California is divided into ten HRs.
Hydrologic Unit (HU)	672 (430,000)	Defined by surface drainage; may include a major river watershed, groundwater basin, or closed drainage, among others.
Hydrologic Area (HA)	244 (156,000)	Major subdivisions of hydrologic units, such as by major tributaries, groundwater attributes, or stream components.
Hydrologic Sub-Area (HSA)	195 (125,000)	A major segment of an HA with significant geographical characteristics or hydrological homogeneity.

SOURCE: CALWATER, CALIFORNIA INTERAGENCY WATERSHED MAPPING COMMITTEE, 2008.

### Hydrologic Region

The planning area is part of the Sacramento River Hydrologic Region. The Sacramento River hydrologic region covers approximately 17.4 million acres (27,200 square miles) of California. The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Butte, Colusa, Sutter, Yuba, Sierra, Nevada, Placer, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa counties, and small areas of Alpine and Amador counties. Geographically, the region extends south from the Modoc Plateau and Cascade Range at the Oregon border, to the Sacramento-San Joaquin Delta. The Sacramento Valley, which forms the core of the region, is bounded to the east by the crest of the Sierra Nevada and southern Cascades and to the west by the crest of the Coast Range and Klamath Mountains.

### **Local Watersheds (Hydrologic Sub-Areas)**

The Planning Area is encompassed within four principal watersheds as shown on Figure 3.9-1. These watersheds include the Dibble Creek-Sacramento, Oat Creek-Sacramento River, Red Bank Creek, and the Reeds Creek Watershed.

### **LOCAL DRAINAGE**

The City provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. Additionally, the City enforces storm drain regulations established by the US EPA and the State of California.

### **STORMWATER QUALITY**

Surface water quality is affected by point source and non-point source pollutants. Point source pollutants are those emitted at a specific point, such as a pipe, while non-point source pollutants are typically generated by surface runoff from diffuse sources, such as streets, paved areas, and landscaped areas. Point source pollutants are controlled with pollutant discharge regulations or waste discharge requirements (WDRs). Non-point source pollutants are more difficult to monitor and control, although they are important contributors to surface water quality in urban areas.

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, and the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contains oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from landscaped areas. The highest pollutant concentrations usually occur at the beginning of the wet season during the "first flush."

### **303(d) Impaired Water Bodies**

Water quality in the City is governed by the Central Valley Regional Water Quality Control Board (CVRWQCB), which set water quality standards in their Water Quality Control Plan for the respective basins (Basin Plans). The Basin Plans identify beneficial uses for surface water and groundwater and establish water quality objectives to attain those beneficial uses.

Section 303(d) of the Federal Clean Water Act (CWA) requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

According to the California Water Quality Control Monitoring Council, which is part of California Environmental Protection Agency, Natural Resources, there are many areas within Tehama County which are considered Section 303(d) impaired waterbodies. The impaired water bodies are located within the planning area include the Sacramento River (Cottonwood Creek to Red Bluff) and the

## 3.9 HYDROLOGY AND WATER QUALITY

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Sacramento River (Red Bluff to Knights Landing) hydrologic areas. These hydrologic areas extend beyond the county boundary so not all impaired water body segments are located within Tehama County. The pollution source is predominantly agricultural and crop related, although mercury, and resource extraction is also a pollution source. There are a few pollution sources that are not currently known.

Stormwater runoff may play a role in the water quality impairments described above. Runoff that occurs as overland flow across yards, driveways, and public streets is intercepted by the stormwater drainage system and conveyed to local drainages before eventually being routed to the Pacific. This stormwater can carry pollutants that can enter the local waterways and result in the types of water quality impairments described above. Common sources of stormwater pollution in the city include litter, trash, pet waste, paint residue, organic material (yard waste), fertilizers, pesticides, sediments, construction debris, metals from automobile brake pad dust, air pollutants that settle on the ground or attach to rainwater, cooking grease, illegally dumped motor oil, and other harmful fluids.

Potential hazards to surface water quality include the following nonpoint pollution problems: high turbidity from sediment resulting from erosion of improperly graded construction projects, concentration of nitrates and dissolved solids from agriculture or surfacing septic tank failures, contaminated street and lawn run-off from urban areas, and warm water drainage discharges into cold water streams.

The most critical period for surface water quality is following a rainstorm which produces significant amounts of drainage runoff into streams at low flow, resulting in poor dilution of contaminants in the low flowing stream. Such conditions are most frequent during the fall at the beginning of the rainy season when stream flows are near their lowest annual levels. Besides the greases, oils, pesticides, litter, and organic matter associated with such runoff, heavy metals such as copper, zinc, and cadmium can cause considerable harm to aquatic organisms when introduced to streams in low flow conditions.

Urban stormwater runoff was managed as a non-point discharge (a source not readily identifiable) under the Federal Water Pollution Control Amendments of 1972 (PL 92-500, Section 208) until the mid-1980's. However, since then, the Federal Environmental Protection Agency has continued to develop implementing rules which categorize urban runoff as a point source (an identifiable source) subject to NPDES permits. Rules now affect medium and large urban areas, and further rulemaking is expected as programs are developed to meet requirements of Federal water pollution control laws.

Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, quarrying, logging, and agricultural practices all lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. In slower moving water bodies these same factors often cause a buildup of siltation, which ultimately reduces the capacity of the water system to percolate and recharge groundwater basins, as well as adversely affecting both aquatic resources and flood control efforts.



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## GROUNDWATER

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Groundwater serves as an important source of supply for agricultural, municipal, domestic, environmental, and industrial beneficial uses throughout Tehama County, which underlies approximately 1.9 million acres of the County. Agriculture in Tehama County relies on groundwater to produce an array of commodities that contribute to the agricultural economies of the County.

The City currently utilizes local groundwater from the underlying Sacramento Valley Groundwater Basin, Red Bluff Subbasin as its sole water supply source. However, the City limits and SOI also overly the Antelope Subbasin of the Sacramento Valley Groundwater Basin (DWR Groundwater Basin Number 5-21.54).

**The Red Bluff Subbasin** (DWR Subbasin No. 5-021.50) covers 271,800 acres and is located in the Northern Sacramento Valley Groundwater Basin. The lateral extent of the Subbasin is defined by the Subbasin boundaries provided in Bulletin 118 (DWR, 2018). It is bounded on the north by the Bowman Subbasin (DWR Subbasin No. 5-006.01) on the east by the Bend Subbasin (DWR Subbasin No. 5-021.53), the Antelope Subbasin (DWR Subbasin No. 5-021.54), and the Los Molinos Subbasin (DWR Subbasin No. 5-021.56), on the south by the Corning Subbasin (DWR Subbasin No. 5-021.51) and on the west by the Coastal Mountain Range. The eastern and western boundaries of the Subbasin generally follow the Sacramento River and Coastal Mountain Range, respectively, and the southern boundary generally follows Thomes Creek. The vertical boundaries of the Subbasin are the land surface (upper boundary) and the definable bottom of the basin (lower boundary). The definable bottom is the base of fresh water located at approximately 400-2,400 feet below ground surface (bgs).

**The Antelope Subbasin** comprises the portion of the Sacramento Valley Groundwater Basin bounded on the west by the Sacramento River, on the north by the Red Bluff Arch, on the northeast by the Cascade Range, and the southeast by Antelope Creek. The Antelope Subbasin is contiguous with the Dye Creek Subbasin to the south. The Antelope Subbasin covers 19,091 acres. Annual precipitation in the subbasin ranges from 23- to 27-inches, increasing to the east. The definable bottom is the base of fresh water located at approximately 800-2,000 feet bgs.

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## FLOODPLAIN MAPPING

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### FEMA Flood Zones

Federal Emergency Management Agency (FEMA) mapping provides important guidance for the City in planning for flooding events and regulating development within identified flood hazard areas. FEMA's National Flood Insurance Program (NFIP) is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The FEMA FIRM for the Planning Area is shown on Figure 3.9-2.

The FEMA FIRM for the Planning Area shows that a major portion of the city is within the 100-year flood plain, 500-year flood plain, and Regulatory Floodway. The floodplain bounds the eastern

border of the most developed portion of the City and stretches out in most directions from there, including along Red Bank Creek, Reeds Creek, Brickyard Creek, and Dibble Creek.

### **Dam Inundation**

Earthquakes centered close to a dam are typically the most likely cause of dam failure. Dam Inundation maps have been required in California since 1972, following the 1971 San Fernando Earthquake and near failure of the Lower Van Norman Dam. A major dam failure event has not occurred in the Red Bluff Planning Area or within Tehama County. A catastrophic failure of various dams in the region would have a significant impact on Tehama County. According to the California Department of Water Resources (DWR), the Shasta and Whiskeytown Dams are located up gradient from the city along the Sacramento River and the City of Red Bluff is located in the Shasta Dam Inundation area and the Whiskeytown Dam Inundation area that could potentially be subject to inundation in the event of dam failure.

Section 8589.5 of the California Government Code requires local jurisdictions to adopt emergency procedures for the evacuation of populated inundation areas identified by dam owners. The local Office of Emergency Services has prepared a Dam Failure Plan. This plan includes a description of dams, direction of floodwaters, responsibilities of local jurisdictions, and evacuation plans. Figure 3.9-3 shows potential inundation areas along Red Bluff Creek within the City of Red Bluff.

### **3.9.2 REGULATORY SETTING**

There are a number of regulatory agencies whose responsibility includes the oversight of the water resources of the state and nation including FEMA, the US EPA, the State Water Resources Control Board (SWRCB), and the CVRWQCB. The following is an overview of the federal, state and local regulations that are applicable to the proposed project.

#### **FEDERAL**

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### **Clean Water Act (CWA)**

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The CWA establishes the basic structure for regulating the discharges of pollutants into the waters of the United States and gives the US Environmental Protection Agency (EPA) the authority to implement pollution control programs. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and mandates permits for wastewater and stormwater discharges.

The CWA also requires states to establish site-specific water quality standards for navigable bodies of water and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The following CWA sections assist in ensuring water quality for the water of the United States:

CWA Section 208 requires the use of best management practices (BMPs) to control the discharge of pollutants in stormwater during construction CWA Section 303(d) requires the creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies, and preparation of plans to improve the quality of these water bodies. CWA Section 303(d) also establishes TMDLs, which is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards CWA Section 404 authorizes the US Army Corps of Engineers to require permits that will discharge dredge or fill materials into waters in the US, including wetlands.

In California, the EPA has designated the SWRCB and its nine RWQCBs with the authority to identify beneficial uses and adopt applicable water quality objectives.

The SWRCB is responsible for implementing the CWA and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for stormwater discharges (individual permits and general permits).

### **Federal Emergency Management Agency (FEMA)**

FEMA operates the NFIP. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the DWR to insure the proper implementation of FEMA floodplain management regulations.

### **Flood Control Act**

The Flood Control Act (1917) established survey and cost estimate requirements for flood hazards in the Sacramento Valley. All levees and structures constructed per the Act were to be maintained locally but controlled federally. All rights of way necessary for the construction of flood control infrastructure were to be provided to the Federal government at no cost.

Federal involvement in the construction of flood control infrastructure, primarily dams and levees, became more pronounced upon passage of the Flood Control Act of 1936.

### **Flood Disaster Protection Act (FDPA)**

The FDPA of 1973 was a response to the shortcomings of the NFIP, which were experienced during the flood season of 1972. The FDPA prohibited Federal assistance, including acquisition, construction, and financial assistance, within delineated floodplains in non-participating NFIP communities. Furthermore, all Federal agencies and/or federally insured and federally regulated

lenders must require flood insurance for all acquisitions or developments in designated Special Flood Hazard Areas (SFHAs) in communities that participate in the NFIP.

Improvements, construction, and developments within SFHAs are generally subject to the following standards:

- All new construction and substantial improvements of residential buildings must have the lowest floor (including basement) elevated to or above the base flood elevation (BFE).
- All new construction and substantial improvements of non-residential buildings must either have the lowest floor (including basement) elevated to or above the BFE or dry-floodproofed to the BFE.
- Buildings can be elevated to or above the BFE using fill, or they can be elevated on extended foundation walls or other enclosure walls, on piles, or on columns.
- Extended foundation or other enclosure walls must be designed and constructed to withstand hydrostatic pressure and be constructed with flood-resistant materials and contain openings that will permit the automatic entry and exit of floodwaters. Any enclosed area below the BFE can only be used for the parking of vehicles, building access, or storage.

### **National Flood Insurance Program (NFIP)**

Per the National Flood Insurance Act of 1968, the NFIP has three fundamental purposes: *Better indemnify individuals for flood losses through insurance; Reduce future flood damages through State and community floodplain management regulations; and Reduce Federal expenditures for disaster assistance and flood control.*

While the Act provided for subsidized flood insurance for existing structures, the provision of flood insurance by FEMA became contingent on the adoption of floodplain regulations at the local level.

### **National Pollutant Discharge Elimination System (NPDES)**

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The Regional Water Quality Control Board (RWQCB) issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the Federal CWA and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the CWA's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

Individual projects in the City that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing BMP the discharger would use to prevent and retain stormwater runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

### **Rivers and Harbors Appropriation Act of 1899**

One of the country’s first environmental laws, this Act established a regulatory program to address activities that could affect navigation in Waters of the United States.

### **Water Pollution Control Act of 1972**

The Water Pollution Control Act (WPCA) established a program to regulate activities that result in the discharge of pollutants to waters of the United States

## **STATE**

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### **California Fish and Wildlife Code**

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1600 to 1616 of the California Fish and Game Code. The California Fish and Game Code establishes that “an entity may not substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river stream, or lake” (Fish and Game Code Section 1602(a)) without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. The CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

### **California Code of Regulations**

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

### **California Government Code**

Relevant sections of the California Government Code are identified below.

#### **SECTION 65302**

Revised safety elements must include maps of any 200-year flood plains and levee protection zones within the Planning Area.

#### **SECTION 65584.04**

Any land having inadequate flood protection, as determined by FEMA or DWR, must be excluded from land identified as suitable for urban development within the planning area.

#### **SECTION 8589.4**

California Government Code §8589.4, commonly referred to as the Potential Flooding-Dam Inundation Act, requires owners of dams to prepare maps showing potential inundation areas in the event of dam failure. A dam failure inundation zone is different from a flood hazard zone under the National Flood Insurance Program (NFIP). NFIP flood zones are areas along streams or coasts where storm flooding is possible from a “100-year flood.” In contrast, a dam failure inundation zone is the area downstream from a dam that could be flooded in the event of dam failure due to an earthquake or other catastrophe. Dam failure inundation maps are reviewed and approved by the California Office of Emergency Services (OES). Sellers of real estate within inundation zones are required to disclose this information to prospective buyers.

### **California Department of Health Services**

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund (“SRF”) and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

### **Consumer Confidence Report Requirements**

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

### **California Water Code**

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

### **Assembly Bill 162**

Assembly Bill (AB) 162 requires a general plan's land use element to identify and annually review those areas covered by the general plan that are subject to flooding as identified by flood plain mapping prepared by FEMA or DWR. The bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the conservation element of the general plan to identify rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management. By imposing new duties on local public officials, the bill creates a State-mandated local program.

This bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the safety element to identify, among other things, information regarding flood hazards and to establish a set of comprehensive goals, policies, and objectives, based on specified information for the protection of the community from, among other things, the unreasonable risks of flooding.

### **Assembly Bill 70**

AB 70 provides that a city or county may be required to contribute its fair and reasonable share of the property damage caused by a flood to the extent that it has increased the State's exposure to liability for property damage by unreasonably approving, as defined, new development in a previously undeveloped area, as defined, that is protected by a State flood control project, unless the city or county meets specified requirements.

### **Senate Bill 610 and Assembly Bill 901**

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

### **Senate Bill 221**

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.



### **State Updated Model Landscape Ordinance**

Under AB 1881, the updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance. Chapter 17.48, Landscaping, of the Red Bluff Municipal Code includes landscaping water use standards.

### **Water Quality Control Basin Plan**

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), amended by the CVRWQCB in 2018, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and San Joaquin River (SJR) basins, including the Delta.

State and federal laws mandate the protection of designated “beneficial uses” of water bodies. State law defines beneficial uses as “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050[f]). Additional protected beneficial uses of the SJR include groundwater recharge and freshwater replenishment.

### **State Water Resources Control Board Storm Water Strategy**

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board’s role in stormwater resources management and evolve the Storm Water Program by a) developing guiding principles to serve as the foundation of the stormwater program, b) identifying issues that support or inhibit the program from aligning with the guiding principles, and c) proposing and prioritizing projects that the Water Boards could implement to address those issues.

The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board’s Storm Water Program.

## **LOCAL**

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### **Red Bluff Floodway Overlay Zone**

The Red Bluff General Plan establishes a Floodway Overlay Zone to protect life and property from hazards associated with flooding. No use, development or alteration of the Floodway (FW) overlay zone is allowed without prior City approval. Prior to granting approval to use, develop or alter land within an FW overlay area, the City shall make findings that the proposed use, development or alteration of the floodway conforms to the City’s Flood Damage Prevention Regulations and applicable Federal (FEMA) regulations.

Chapter 25.110 of the Red Bluff Municipal Code includes the Floodplain Combining District (FP). This combining district is intended to be applied to those properties or portions thereof that

appear within a “special flood hazard area inundated by 100-year flood,” but outside the “floodway” on the flood insurance rate maps prepared by the Federal Emergency Management Agency. This combining district implements the floodplain overlay district recommended in the land use element of the General Plan.

Chapter 25.111 of the Red Bluff Municipal Code includes the Floodway Combining District (FW). This combining district is intended to be applied to those properties or portions thereof that appear within a “floodway” on the flood insurance rate maps prepared by the Federal Emergency Management Agency. This combining district implements the floodway overlay district recommended in the safety element of the City’s General Plan.

### **Tehama County Multi-Hazard Mitigation Plan**

The Tehama County Multi-Hazard Mitigation Plan provides an explanation of prevalent hazards within the County and how hazards may affect population and property differently across the County. The plan also contains information on natural hazard threats within Tehama County which identifies risks to vulnerable assets (people and property). Most importantly the mitigation strategy presented in this plan responds to the particular vulnerabilities and provides prescriptions or actions to achieve the greatest reduction of vulnerability, which results in saved lives, reduced injuries, reduced property damage, and protection for the environment in the event of a natural hazard. Red Bluff is a participating agency in the County’s hazard mitigation plan.

### **City of Red Bluff Municipal Code Chapter 26, Flood Damage Prevention**

The purpose of Chapter 26, Flood Damage Prevention of the City’s Municipal Code is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in the City of Red Bluff. This is accomplished by provisions designed to restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage; control the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters; control filling, grading, dredging and other development which may increase flood damage; and prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

### **Northern Sacramento Valley Integrated Regional Water Management Plan**

The purpose of this Integrated Regional Water Management Plan (IRWMP) is to document the regional water resource management conditions, needs and strategies; to describe the process and projects that will improve regional water resources management in the IRWM region; and, to comply with the Final DWR Integrated Regional Water Management (IRWM) Grant Program Guidelines.

### **City of Red Bluff 2020 Urban Water Management Plan**

The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during water drought conditions. This document, which was prepared in compliance with the California Water Code (CWC), and as set forth in the 2020 Urban Water Management Plan Guidebook for Urban Water Suppliers (March 2021) established by the DWR, constitutes the City 2020 UWMP.

### **City of Red Bluff Sanitary Sewer Management Plan (SSMP)**

The goal of the Sanitary Sewer Management Plan is to provide a plan and schedule to properly manage, operate and maintain all parts of the sanitary sewer system. The plan helps the city to determine where maintenance is needed in the collection system to prevent and mitigate future sewer overflows. In addition, the SSMP shall include elements that will help the city develop a routine preventive operation and maintenance program, a rehabilitation and replacement plan, a regular training program for staff and an inventory of replacement parts.

### **Red Bluff Subbasin Groundwater Sustainability Plan (GSP)**

The purpose of this GSP is to optimize groundwater use and groundwater storage in the Red Bluff Subbasin while meeting the regulatory requirements set forth in the three-bill legislative package, Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act which became effective in California in January 2015 (Water Code §§ et seq). Under SGMA, all high or medium priority groundwater basins or subbasins must form a GSA to represent the subbasin or a portion thereof and submit an adopted GSP to DWR by January 31, 2022. The Red Bluff Subbasin (DWR Subbasin No. 5-021.50) of the Sacramento Valley Groundwater Basin was assigned a medium priority designation by DWR and is required to submit a GSP. The Tehama County Flood Control and Water Conservation District (Tehama County FCWCD) (District), a local and regional authority, serves as the exclusive GSA for the Red Bluff Subbasin.

## **3.9.3 IMPACTS AND MITIGATION MEASURES**

### **THRESHOLDS OF SIGNIFICANCE**

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with hydrology and water quality if it will:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - Result in substantial erosion or siltation on- or off-site;
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
  - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - Impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

### IMPACTS AND MITIGATION

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#### **Impact 3.9-1: The proposed Project has the potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Less than Significant)**

##### CONSTRUCTION-RELATED ACTIVITIES

Short-term construction activities associated with the proposed Project could impact water quality. Sources of potential construction-related stormwater pollution include the handling, storage, and disposal of construction materials containing pollutants; maintenance and operation of construction equipment; and site preparation activities, such as excavation, grading, and trenching. These sources, if not controlled, can generate soil erosion and on- and off-site transport via storm run-off (siltation) or mechanical equipment. Grading activities would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion.

Construction-related erosion effects would be addressed through compliance with the NPDES program's Construction General Permit. Construction activity subject to this General Permit includes any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre. As the Project proposes land disturbance of an area greater than one acre, the Project would be subject to the Construction General Permit.

To obtain coverage under the Construction General Permit, the future development projects would be required to prepare a SWPPP and monitoring plan, which must include erosion-control and sediment-control BMPs that would meet or exceed measures required by the General Permit to control potential construction-related pollutants. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. Such BMPs may include temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geo fabric, sandbag dikes, and temporary revegetation or other ground covers. The BMPs and overall SWPPP would be reviewed

by the RWQCB as part of the permitting process. Once approved, the SWPPP must be kept on-site and implemented during construction activities. It must also be made available upon request to representatives of the RWQCB and/or the lead agency. Upon completion of the Project, the applicant would be required to submit a Notice of Termination to the RWQCB to indicate that construction is completed. Mandatory compliance with the SWPPP would ensure that the proposed Project would not violate any water quality standards or waste discharge requirements during construction activities.

The General Plan sets policies and actions for the build-out of the city, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future project must include detailed project-specific drainage plans that control stormwater runoff and erosion, both during and after construction. Compliance with the NPDES requirements would ensure the Project's construction-related activities would not violate any water quality standards or otherwise substantially degrade surface or groundwater quality, resulting in a less than significant impact.

#### NEW DEVELOPMENT-RELATED ACTIVITIES

New development and infrastructure improvement projects under the proposed General Plan could introduce constituents into the stormwater system that are typically associated with urban runoff. These constituents include sediments, petroleum hydrocarbons, pesticides, fertilizers, and heavy metals such as lead, zinc, and copper. These pollutants tend to build up during the dry months of the year. Precipitation during the early portion of the wet season (generally from November to April) washes away most of these pollutants, resulting in high pollutant concentrations in the initial wet weather runoff. This initial runoff is referred to as the "first flush" of storm events. Subsequent periods of rain would result in less concentrated pollutant levels in the runoff.

The majority of development allowed under the General Plan would be within areas currently developed with urban-type uses, and the amount and type of runoff generated by various future development and infrastructure projects would be similar to existing conditions. However, new development and infrastructure projects have the potential to result in increases in the amount of impervious surfaces throughout Red Bluff. Future increases in impervious surfaces would result in increased urban runoff, pollutants, and first-flush roadway contaminants, as well as an increase in nutrients and other chemicals from landscaped areas. These constituents could impact water quality on onsite and offsite drainage flows to area waterways.

Waters that are listed under Section 303(d) of the CWA are known as "impaired." CWA Section 303(d) lists many water bodies within the County. The impaired water bodies located within the planning area include the Sacramento River (Cottonwood Creek to Red Bluff) and the Sacramento River (Red Bluff to Knights Landing) hydrologic areas. These hydrologic areas extend beyond the county boundary so not all impaired water body segments are located within Tehama County. The pollution source is predominantly agricultural and crop-related, although mercury and resource

extraction is also a pollution source. There are a few pollution sources that are not currently known.

Stormwater runoff may play a role in the water quality impairments described above. Runoff that occurs as overland flow across yards, driveways, and public streets is intercepted by the stormwater drainage system and conveyed to local drainages before eventually being routed to the Pacific. This stormwater can carry pollutants that can enter the local waterways and result in the types of water quality impairments described above. Common sources of stormwater pollution in the city include litter, trash, pet waste, paint residue, organic material (yard waste), fertilizers, pesticides, sediments, construction debris, metals from automobile brake pad dust, air pollutants that settle on the ground or attach to rainwater, cooking grease, illegally dumped motor oil, and other harmful fluids.

Due to future development and infrastructure projects, the overall volume of runoff in Red Bluff could be increased compared to existing conditions. If the City's drainage system is not adequately designed, General Plan buildout could result in localized higher peak flow rates. Localized increases in flow would be significant if increases exceeded system capacity or contributed to bank erosion.

The General Plan sets policies and actions for the build-out of the city, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future development and infrastructure project is required to prepare a detailed project-specific drainage plan, a Water Quality Management Plan, and a SWPPP that will control stormwater runoff and erosion, both during and after construction. If the project involves the discharge into surface waters the project proponent will need to acquire a Dewatering permit, NPDES permit, and Waste Discharge permit from the CVRWQCB.

As described above, under the Regulatory Setting, the City is required to implement a range of measures and procedures when reviewing new development and infrastructure projects.

The City of Red Bluff has developed the General Plan to include additional policies and actions that, when implemented, will further reduce water pollution from construction, new development, and new infrastructure projects, and protect and enhance natural storm drainage and water quality features. The policies and actions identified below include numerous requirements that would reduce the potential for General Plan implementation to result in increased water quality impacts. Actions by the City during the development review process require the review of development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased beyond pre-development levels during rain and flood events. In addition, compliance with the CWA and regulations enforced by the CVRWQCB would ensure that construction-related impacts to water quality are minimized and future projects comply with all applicable laws and regulations.

The City of Red Bluff provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. The provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The implementation of the General Plan policies and implementation actions listed below include policies aimed to maximize stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events. Existing regulatory requirements that manage water quality include requirements to obtain approval from the CVRWQCB for NPDES permits, other discharge permits, SWPPPs, and to implement Best Management Practices. These regulatory requirements are intended to ensure that water quality does not degrade to levels that would violate water quality standards. Through implementation of the General Plan policies and actions listed below, implementation of the Red Bluff Municipal Code requirements, compliance with mandatory Federal and State regulations, and compliance with the existing regulations for the Hydrological Region would ensure that impacts to drainage patterns and water quality would be **less than significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **SAFETY ELEMENT POLICIES**

SA 1.4: Require adequate mitigation on sites with landslide potential or erodible soils to protect against injury and property damage and to assure a standard of development that will not accelerate runoff or degrade water quality.

##### **CONSERVATION AND OPEN SPACE ELEMENT POLICIES**

COS 7.1: Protect and enhance surface and groundwater resources, including groundwater recharge areas such as the Sacramento River, Red Bank, and Reed's Creek. For example, minimize the use of impervious surfaces in recharge areas, both on private lands and in public lands (including rights of way and utility easements).

##### **CONSERVATION AND OPEN SPACE ELEMENT ACTIONS**

*COS-7a: To reduce soil erosion and pollutants in urban runoff, require new development and redevelopment projects control stormwater runoff through implementation of Best Management Practices (BMPs) to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. Existing development shall control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. As specific development projects are implemented, project proponents will be required to consult with relevant agencies such as the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Game (CDFG). Also, ensure that construction projects of one acre or more complete a Stormwater Pollution Prevention Plan (SWPPP) pursuant to the California Regional Water Quality Control Board (RWQCB) Construction General Permit (Order 2022-0057-DWQ).*

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*COS-7b: Whenever feasible, incorporate improved open space and preservation areas and quasi-active recreation facilities in areas used for groundwater recharge and/or drainage detention.*

*COS-7e: Encourage water conservation in the following ways:*

- *Implementing aquifer and groundwater recharge programs;*
- *Establishing water conservation education programs;*
- *Implementing the City's water shortage contingency plan, when necessary;*
- *Requiring water efficient landscaping in accordance with the City's Landscape Regulations (Chapter 27 of the Municipal Code); and*
- *Requiring the incorporation of water conservation devices, including low flush toilets, flow restriction devices, and water conserving appliances in both new public and private development projects and rehabilitation projects.*

### **Impact 3.9-2: The proposed Project has the potential to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin (Less than Significant)**

The City currently utilizes local groundwater from the underlying Sacramento Valley Groundwater Basin, Red Bluff Subbasin as its sole water supply source. The City limits and SOI also overlie the Antelope Subbasin of the Sacramento Valley Groundwater Basin. Impacts on groundwater in the Red Bluff area are an important consideration in any development plan. See Impact 3.15-1 in Section 3.15, Utilities, for further discussions regarding water demand and groundwater supplies. Impacts related to groundwater supplies and interference with groundwater recharge are considered in two ways: (1) conversion of pervious surfaces (which allow for groundwater recharge), and (2) use of groundwater as a water supply (which reduces the amount of local groundwater supply).

Future development projects in the Planning Area would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge in those areas. Infiltration rates vary depending on the overlying soil types. In general, sandy soils have higher infiltration rates and can contribute to significant amounts of groundwater recharge; clay soils tend to have lower percolation potential; and impervious surfaces such as pavement significantly reduce infiltration capacity and increase surface water runoff.

As discussed in Section 3.15, Utilities and Service Systems, the City's 2020 UWMP the City expects to have adequate supplies to meet future water demand. Subsequent development projects under the General Plan, such as residential, commercial, industrial, and roadway projects would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge. However, the majority of the developable areas within the city are currently developed for urban uses. The amount of new pavement and impervious surfaces, and the extent to which they affect



infiltration, depends on the site-specific features and soil types of a given project site. Projects located in urban areas would have less of an impact than projects converting open lands and spaces.

As described in the City's UWMP, DWR has continuously monitored the groundwater level at a California Statewide Groundwater Elevation Monitoring (CASGEM) well in the Sacramento Valley Groundwater Basin, Red Bluff Subbasin (CASGEM Well No. 22257, Master Site Code 401835N1222319W001) in Red Bluff since 1952. According to the DWR Bulletin 118, there was a decline of 3 to 7 feet associated with the 1976 to 1977 and 1987 to 1994 droughts, followed by a recovery to pre-drought conditions of the early 1970s and 1980s. Overall, there does not appear to be any increasing or decreasing trends in the groundwater levels. DWR has continuously monitored the groundwater level at a CASGEM well in the Sacramento Valley Groundwater Basin, Antelope Subbasin (CASGEM Well No. 22255, Master Site Code 401897N1222049W001) since 2000. This well is within the City SOI. Figure 6-2 shows the groundwater levels at the well from 2000 to 2021. According to the DWR Bulletin 118, there was a decline of 5 to 10 feet associated with the 1976 to 1977 and 1987 to 1994 droughts, followed by a recovery to pre-drought conditions of the early 1970s and 1980s. Generally, groundwater level data show a seasonal fluctuation of approximate 2 to 15 feet for normal and dry years.

Given that implementation of the proposed General Plan would not appreciably add to the volume of impervious surfaces, when compared to the overall size of the regional groundwater basin recharge areas, and that there are adequate water supplies (including groundwater) to serve the General Plan, this impact would be less than significant. The General Plan includes policies and implementation actions that support water conservation and aim to diversify the City's water sources. Implementation of the following General Plan policies and implementation actions would further ensure that the General Plan would have a **less than significant** impact relative to this topic.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **CONSERVATION AND OPEN SPACE ELEMENT POLICIES**

**COS 7.1:** Protect and enhance surface and groundwater resources, including groundwater recharge areas such as the Sacramento River, Red Bank, and Reed's Creek. For example, minimize the use of impervious surfaces in recharge areas, both on private lands and in public lands (including rights of way and utility easements).

##### **CONSERVATION AND OPEN SPACE ELEMENT ACTIONS**

*COS-7b: Whenever feasible, incorporate improved open space and preservation areas and quasi-active recreation facilities in areas used for groundwater recharge and/or drainage detention.*

*COS-7e: Encourage water conservation in the following ways:*

- *Implementing aquifer and groundwater recharge programs;*
- *Establishing water conservation education programs;*

## 3.9 HYDROLOGY AND WATER QUALITY

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- *Implementing the City's water shortage contingency plan, when necessary;*
- *Requiring water efficient landscaping in accordance with the City's Landscape Regulations (Chapter 27 of the Municipal Code); and*
- *Requiring the incorporation of water conservation devices, including low flush toilets, flow restriction devices, and water conserving appliances in both new public and private development projects and rehabilitation projects.*

*COS-7f: Work with regional partners, including the Tehama County Flood Control and Water Conservation District, to monitor groundwater levels and maintain the health of the Sacramento Valley Groundwater Basin.*

### **Impact 3.9-3: The proposed Project would not alter the existing drainage pattern of the site or area, including the alteration of the course of a river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff (Less than Significant)**

The City is within the jurisdictional boundary of the CVRWQCB. Under the CVRWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

General Plan implementation has the potential to impact the Planning Area's storm drainage system. The potential impacts would be primarily derived from development in what are now underdeveloped and/or underutilized areas. Construction activities are regulated by the NPDES General Construction Storm Water Permit. Compliance with the stormwater permit during construction activities requires the preparation of a SWPPP that contains BMPs to control the discharge of pollutants, including sediment, into local surface water drainages.

A gradual increase in impervious cover associated with new development could increase operational stormwater runoff. The City monitors stormwater discharges to facilities to make sure that facilities' capacities are not exceeded. The City is also required to control stormwater quality to meet applicable regulations. The detention basins are used to detain stormwater to attenuate peak flows before pumping drainage flows into facilities. Where required, to meet NPDES permit requirements, stormwater is treated prior to release to natural water bodies within the area. Treatment is provided at detention basin sites, or by on-site source control.

In addition to complying with the NPDES programs and Municipal Code stormwater requirements, the General Plan contains policies and implementation actions to reduce impacts associated with stormwater and drainage including policies that require new development to demonstrate how stormwater runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process. Additionally, the General Plan actions require

the City to continue to review development projects to identify potential stormwater and drainage impacts.

Individual future projects developed after the adoption of the General Plan would create new impervious surfaces. This would result in an incremental reduction in the amount of natural soil surfaces available for infiltration of rainfall and runoff, potentially generating additional runoff during storm events. In addition, the increase in impervious surfaces, along with the increase in surface water runoff, could increase the non-point source discharge of pollutants. Anticipated runoff contaminants include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. Contributions of these contaminants to stormwater and non-stormwater runoff would degrade the quality of receiving waters. During the dry season, vehicles and other urban activities release contaminants onto impervious surfaces, where they can accumulate until the first storm event. During this initial storm event or first flush, the concentrated pollutants would be transported via runoff to stormwater drainage systems. Contaminated runoff waters could flow into the stormwater drainage systems that discharge into rivers, agricultural ditches, sloughs, and channels, and ultimately could degrade the water quality of any of these water bodies.

The General Plan sets policies and actions for the build-out of the city, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. As previously discussed in the Regulatory Setting section of this chapter, future project applicants would be required to obtain permits from the Army Corps of Engineers and CDFW if any work is performed within a waterway. Each future development project must also include detailed project-specific floodplain and drainage studies that assess the drainage characteristics and flood risks so that an appropriate storm drainage plan can be prepared to control stormwater runoff, both during and after construction. The drainage plan will ultimately include project-specific best management measures that are designed to allow for natural recharge and infiltration of stormwater. Construction of storm drainage improvements would occur as part of an overall development or infrastructure project and is considered in the environmental impacts associated with project construction and implementation as addressed throughout this EIR.

The City provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. The provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The City has developed the General Plan to include policies and actions that, when implemented, will reduce flooding from new development, reduce stormwater pollution from new development, and protect and enhance natural storm drainage and water quality features, which will in turn reduce water quality impacts.

Through implementation of the General Plan policies and actions listed below, implementation of the Red Bluff Municipal Code requirements identified above, and compliance with mandatory Federal and State regulations would ensure that impacts related to increased flooding or water quality impacts associated with increased runoff would be considered **less than significant**.

## 3.9 HYDROLOGY AND WATER QUALITY

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### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### SAFETY ELEMENT POLICIES

SA 1.5: Require approval of final site development plans, including drainage and erosion control plans, in areas subject to high erosion hazard potential prior to authorization of any initial grading and clearing activities.

SA 2.2: Require all new development projects to demonstrate how stormwater runoff will be detained or retained on-site, treated, and/or conveyed to the nearest drainage facility as part of the development review process. Project applicants shall demonstrate that project implementation would not result in increases in the peak flow runoff to adjacent lands or drainage facilities that would exceed the design capacity of the drainage facility or result in an increased potential for off-site flooding.

SA 2.4: Ensure that construction activities and new development projects will not result in adverse impacts to existing properties and flood control and drainage structures.

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 7.2: Encourage development that avoids impacts to watershed areas, wetlands, natural drainage channels, riparian areas, and creeks, retaining these resources in their natural condition if feasible.

#### SAFETY ELEMENT ACTIONS

*SA-2d: As part of the development review process require new development projects to prepare hydraulic and storm drainage studies as necessary to define the net increase in stormwater run-off resulting from construction, and require mitigation to reduce impacts. Drainage and grading plans shall identify BMP protections and include standards established and recommended by the City that shall be incorporated into development.*

*SA-2f: Maintain culverts and other drainage facilities on public roads, and eliminate obstructions from existing drainage ways.*

#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-8a: Implement and enforce all guidelines and restrictions of the Land Development Policies and the Grading, Drainage and Ground Cover Policies.*

*COS-8b: Maintain and revise, as necessary, a grading ordinance which protects the natural topography and directs that all roads and structures be designed, built, and landscaped to control erosion and other pollutants during and after construction. This shall include the use of Best Management Practices (BMPs) that demonstrate the ability to treat stormwater drainage consistent with Regional Water Quality Control Board (RWQCB), State, and federal requirements.*

*COS-8c: Require site-specific land management and development practices for proposed development projects, including appropriate measures for drainage control and avoiding or reducing erosion.*

**Impact 3.9-4: The proposed Project has the potential to, in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation (Less than Significant)**

**FLOOD HAZARD ZONES**

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the Planning Area is shown in Figure 3.9-2. The Planning Area is subject to flooding problems immediately adjacent to the natural creeks and drainages that traverse the area. The FEMA FIRM for the Planning Area shows that a portion of the city is within the 100-year flood plain. The FEMA FIRM for the Planning Area shows that a major portion of the city is within the 100-year flood plain, 500-year flood plain, and Regulatory Floodway. The floodplain bounds the eastern border of the most developed portion of the City and stretches out in most directions from there, including along Red Bank Creek, Reeds Creek, Brickyard Creek, and Dibble Creek.

The General Plan would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. As required by the CWA, each subsequent development project or improvement project will require an approved SWPPP that includes best management practices for grading and preservation of topsoil. SWPPPs are designed to control stormwater quality degradation to the extent practicable using best management practices during and after construction.

As described previously in the regulatory setting, the City of Red Bluff regulates stormwater discharge in accordance with the NPDES permit. In addition to complying with the NPDES programs and Municipal Code requirements, the General Plan contains policies to reduce impacts associated with stormwater and drainage including policies to maintain sufficient levels of storm drainage service, maintain drainage channels in a naturalized condition where appropriate, and other best practices in order to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic.

Lastly, the proposed General Plan includes policies and actions in order to reduce impacts associated with flooding. The implementation of the General Plan would result in a **less than significant** impact relative to this topic.

**TSUNAMI AND SEICHES**

Tsunamis and seiches are standing waves that occur in the ocean or relatively large, enclosed bodies of water that can follow seismic, landslide, and other events from local sources (California, Oregon, Washington coast) or distant sources (Pacific Rim, South American Coast, Alaska/Canadian coast). Based on tsunami inundation maps prepared by the Department of Conservation, California

## 3.9 HYDROLOGY AND WATER QUALITY

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Emergency Management Agency, and California Geological Survey, Red Bluff is not identified as being within a tsunami inundation or run-up zone.

Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors, or other bodies large of water. Any body of water may experience limited oscillation during storm events or following seismic events, however, oscillation in small bodies of water is generally limited. In smaller water bodies seiches may have the potential to damage or overtop dams. Generally, in lakes, the threat of large-scale damage from seiches comes from downstream flooding that would be caused by large volumes of water overtopping a dam or reservoir.

As shown in Figure 3.9-3, the eastern portion of the Planning Area is also located within the Shasta Dam and Whiskeytown Dam inundation areas. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. Larger dams that are higher than 25 feet or with storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the Division of Safety of Dams (DSD). The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the OES inundation maps for dams that would cause significant loss of life or personal injury as a result of dam failure. The OES is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, and the direction of floodwaters, and provides emergency information.

Regular inspection by DSD and maintenance by the dam owners ensure that the dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event. In addition, man-made lakes within the Planning Area are shallow with limited surface areas and would not generate devastating seiches. The City of Red Bluff is not within a tsunami hazard area and would not be subject to substantial impacts from seiche events. This is a **less than significant** impact.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### SAFETY ELEMENT POLICIES

SA 2.1: Support and participate in planning efforts undertaken at the local, regional, State, and federal levels to improve flood management facilities and dam safety.

SA 2.2: Require all new development projects to demonstrate how stormwater runoff will be detained or retained on-site, treated, and/or conveyed to the nearest drainage facility as part of the development review process. Project applicants shall demonstrate that project implementation would not result in increases in the peak flow runoff to adjacent lands or drainage facilities that would exceed the design capacity of the drainage facility or result in an increased potential for off-site flooding.

SA 2.3: Ensure that construction activities and new development do not serve to aggravate the flooding potential of the streams and creeks that flow through Red Bluff, especially at times of peak flow.

SA 2.4: Ensure that construction activities and new development projects will not result in adverse impacts to existing properties and flood control and drainage structures.

SA 2.5: Regulate land uses in flood-prone areas and allow development in those areas only with appropriate mitigation.

SA 2.6: Promote community awareness regarding the severity and extent of potential local flooding.

SA 2.7: Maintain and periodically update City flood safety plans, floodplain management ordinances, zoning ordinance, building codes, and other related sections of the Municipal Code to reflect Safety Element goals, policies and standards, applicable federal and State law, and National Flood Insurance Program requirements.

SA 2.8: Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.

#### SAFETY ELEMENT ACTIONS

*SA-2a: Use the FEMA 100-year flood profile for all streams and creeks as a basis for evaluating future land use in floodplain areas.*

*SA-2b: Continue to review projects in flood hazard areas to ensure compliance with Municipal Code Chapter 26 (Flood Damage Prevention).*

*SA-2c: Monitor changes in federal and State laws and regulations related to local flood protection, including the National Flood Insurance Program, and incorporate necessary changes into the Municipal Code and building codes as required, and ensure that the City's regulations continue to require that new development within flood hazard areas is consistent with this Safety Element and is required to meet the flood protection requirements of State law, including but not limited to, Government Code Sections 65007, 65865.5, 65962 and 66474.5.*

*SA-2d: As part of the development review process require new development projects to prepare hydraulic and storm drainage studies as necessary to define the net increase in stormwater run-off resulting from construction, and require mitigation to reduce impacts. Drainage and grading plans shall identify BMP protections and include standards established and recommended by the City that shall be incorporated into development.*

*SA-2e: Periodically review the conditions of bridges, culverts, canals, and other flood control and stormwater conveyance infrastructure, and when feasible include necessary improvements within the capital improvement plan to increase safety and the adequate conveyance of stormwater.*

*SA-2f: Maintain culverts and other drainage facilities on public roads, and eliminate obstructions from existing drainage ways.*

**Impact 3.9-5: The proposed Project has the potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Less than Significant)**

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins guides water quality and sustainable groundwater management in the Project Area.

**WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS**

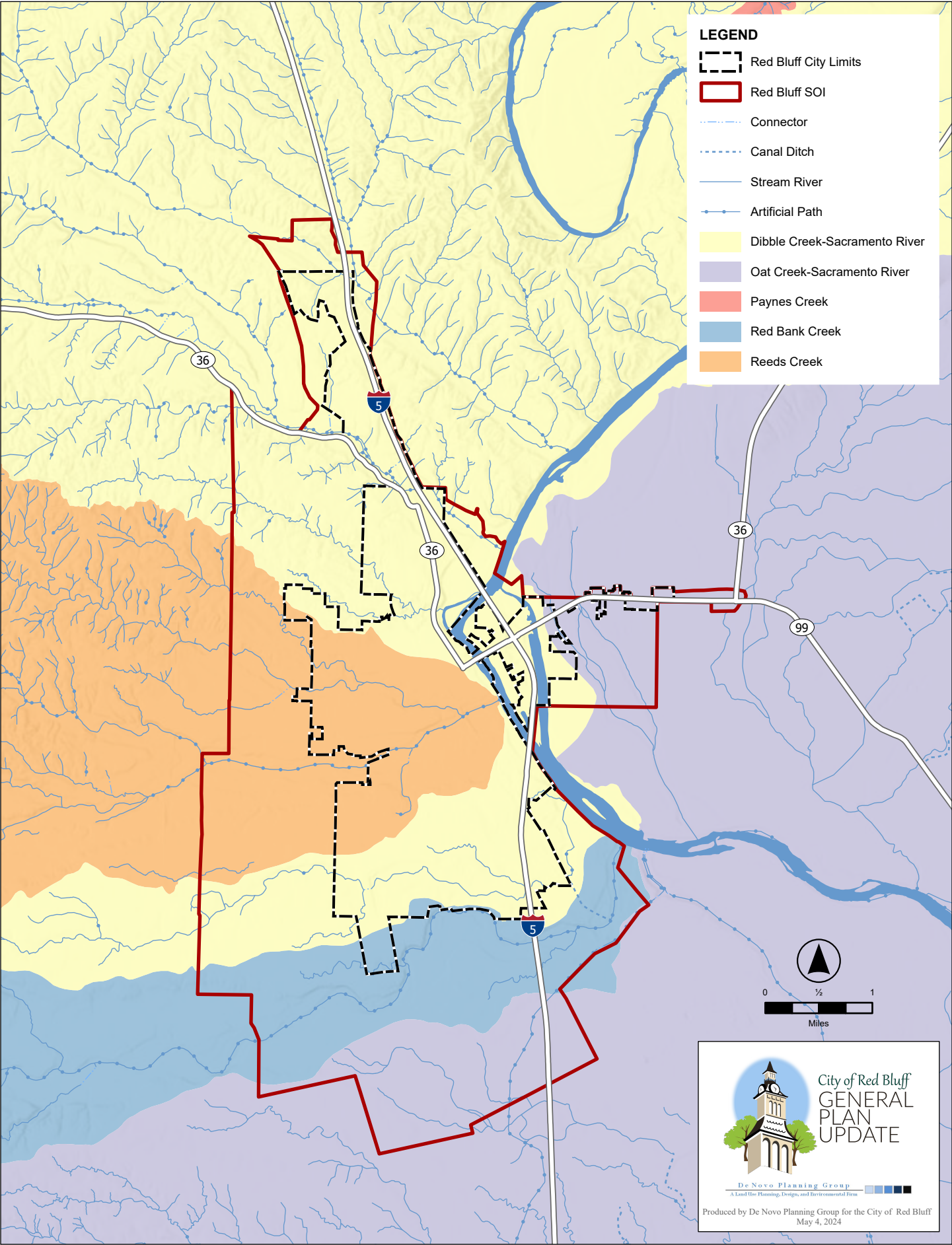
The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The preparation and adoption of the Basin Plans is required by the California Water Code (Section 13240) and supported by the Federal Clean Water Act. Section 303 of the Clean Water Act requires states to adopt water quality standards which "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain water quality standards.

In order to ensure that stormwater runoff from the Project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, or otherwise degrade water quality, the Project would be required to prepare a SWPPP and monitoring plan. The SWPPP would require the application of BMPs to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the Project. The Project would be required to submit a Project Stormwater Quality Control Plan that demonstrates the Project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) to minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff.

Compliance with applicable regulations would ensure Project consistency with the Basin Plan. The implementation of the proposed Project and adherence to existing regulatory requirements would have a ***less than significant*** impact related to conflicts with the Basin Plan.



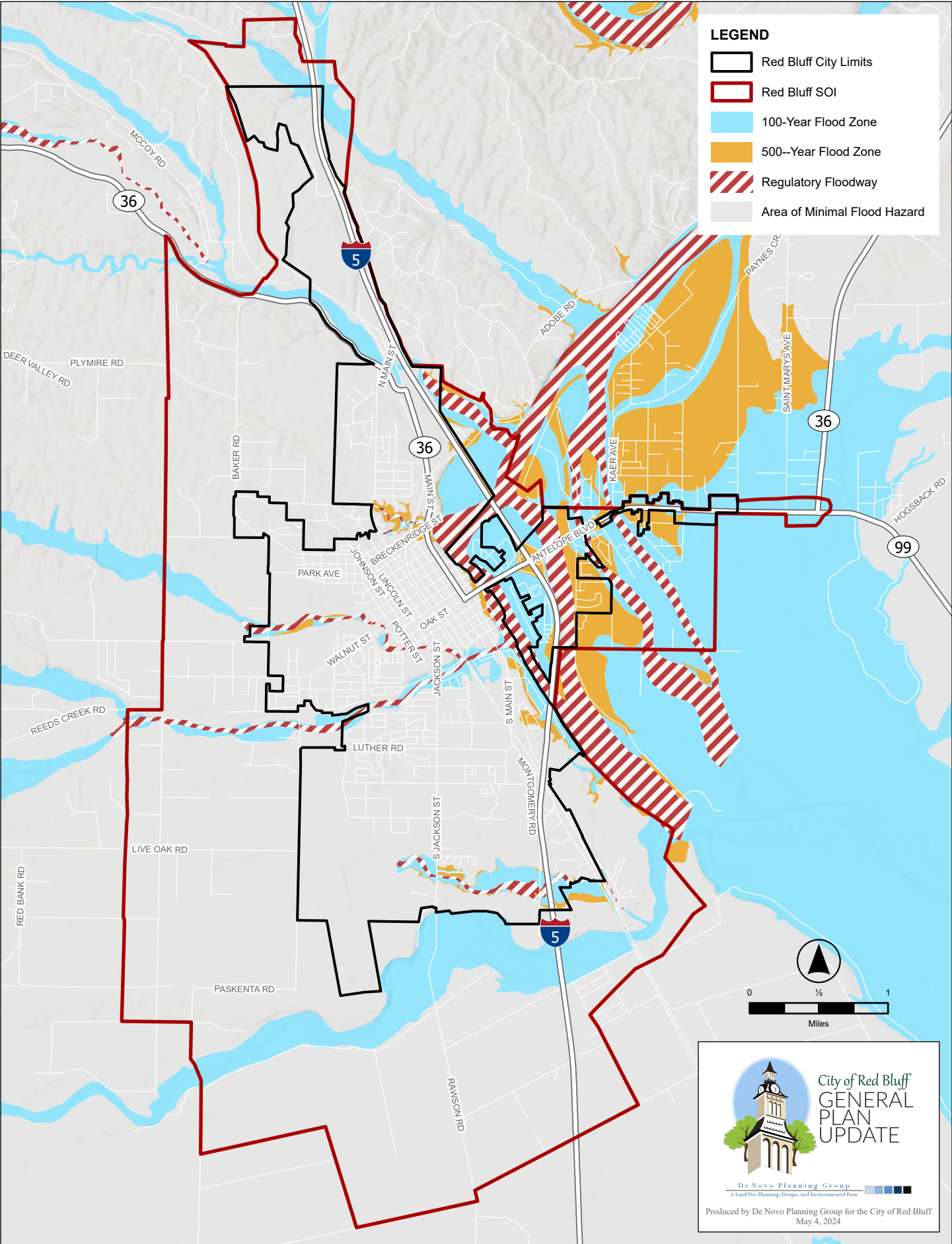
Figure 3.9-1. Watersheds



Sources: USGS NHD and WBD; ArcGIS Map Service; Tehama County GIS; California State Geoportal.

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Figure 3.9-2. FEMA Floodplains

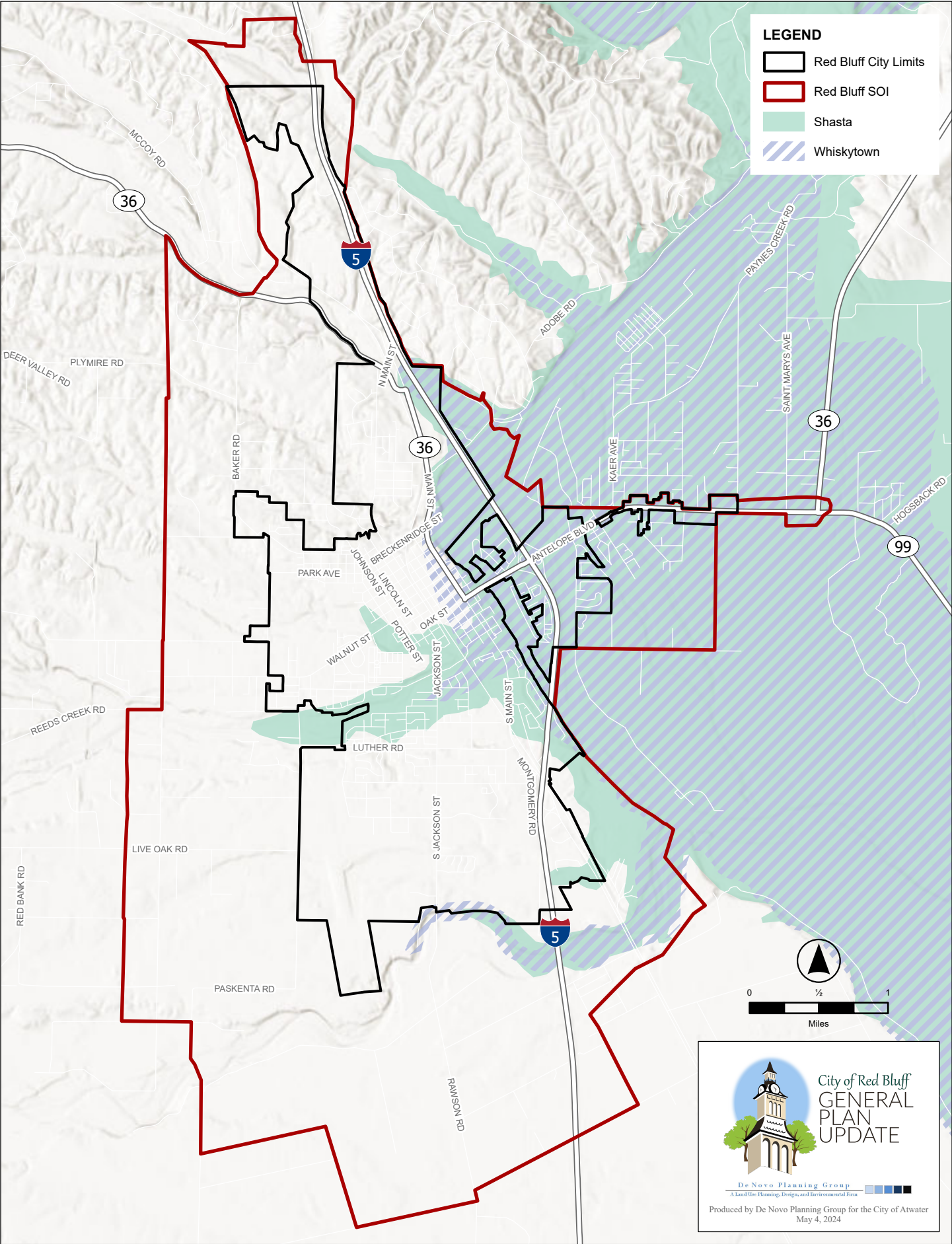


Sources: FEMA; ArcGIS Map Service; Tehama County GIS; California State Geoportal.

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Figure 3.9-3. Dam Inundation Map



Sources: CalOES Statewide Dam Inundation layer; ArcGIS Map Service; Tehama County GIS; California State Geoportal.

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This section identifies the existing land use conditions, discusses population and housing trends, analyzes the project's consistency with relevant planning documents and policies adopted for the purpose of avoiding or mitigating an environmental effect, and as necessary recommends measures to avoid or minimize the significance of potential environmental impacts.

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

### 3.10.1 ENVIRONMENTAL SETTING

#### EXISTING CONDITIONS

The City Limits includes the area within the City's corporate boundary, over which the City exercises land use authority and provides public services. A City's Sphere of Influence (SOI) is the probable physical boundary and service area of a local agency, as adopted by a Local Agency Formation Commission (LAFCO). An SOI may include both incorporated and unincorporated areas within which a city or special district will have primary responsibility for the provision of public facilities and services. For the purposes of the General Plan, the Planning Area is the geographic area for which the General Plan provides a framework for long-term plans for growth, resource conservation, and continued agricultural activity. State law requires the General Plan to include all territory within Red Bluff's incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Planning Area for the General Plan includes the entire City limits, and the City's SOI. Figure 2.0-2 in Chapter 2.0, Project Description, shows the Planning Area boundary.

#### Land Use Patterns

When discussing land use, it is important to distinguish between planned land uses and existing land uses. The General Plan land use designations identify the long-term planned use of land but do not present a complete picture of existing land uses. The Tehama County Assessor's office maintains a database of existing land uses on individual parcels, including the number of dwelling units and related improvements such as non-residential building square footage. This information is used as the basis for property tax assessments and is summarized in Table 3.10-1 and depicted on Figure 3.10-1.

## 3.10 LAND USE, POPULATION, AND HOUSING

**TABLE 3.10-1: ASSESSED LAND USES – RED BLUFF**

ASSESSOR LAND USE CODE*	ACRES (GIS)	% OF AREA
<b>RED BLUFF CITY LIMITS</b>		
Commercial	359.49	8.7%
Dry Farm	55.44	1.3%
Government	10.59	0.3%
Industrial	238.32	5.8%
Institutional	69.29	1.7%
Irrigated Farm	--	--
Miscellaneous	6.95	0.2%
No Land Use Code	1,705.58	41.2%
Recreational	61.51	1.5%
Residential - Motel	23.73	0.6%
Residential - Multiple Family	275.08	6.6%
Residential - Single family	667.15	16.1%
Rural Residential	172.23	4.2%
Vacant	495.44	12.0%
<b>City Limits Total</b>	<b>4,140.79</b>	<b>100.0%</b>
<b>RED BLUFF SOI</b>		
Commercial	52.81	0.6%
Dry Farm	2,910.11	34.5%
Government	1.10	<0.1%
Industrial	400.14	4.7%
Institutional	41.85	0.5%
Irrigated Farm	710.15	8.4%
Miscellaneous	1.13	<0.1%
No Land Use Code	333.40	3.9%
Recreational	142.11	1.7%
Residential - Motel	--	--
Residential - Multiple Family	494.97	5.9%
Residential - Single family	18.55	0.2%
Rural Residential	3,140.49	37.2%
Vacant	200.44	2.4%
<b>SOI Total</b>	<b>8,447.26</b>	<b>100.0%</b>
<b>Grand Total</b>	<b>12,588.05</b>	<b>100.0%</b>

NOTE: \* ASSESSED USES INCLUDE THE ASSESSORS "PRIMARY" USE CODE CATEGORIES. IN SOME CASES PRIMARY USES MAY DIFFER FROM USE DESCRIPTIONS AND SECONDARY USES IDENTIFIED BY THE ASSESSOR, THEREFORE UNIT COUNTS AND SQUARE FOOTAGES LISTED MAY DIFFER FROM ACTUAL CONDITIONS.

SOURCE: TEHAMA COUNTY ASSESSOR'S OFFICE, 2021; DE NOVO PLANNING GROUP.

Existing assessed uses refer to the existing built environment and site uses, which may be different from the land use or zoning designations applied to land for planning purposes. Existing uses are based on data provided by the Tehama County Assessor. As shown in Table 3.10-1 and Figure 3.10-1 the majority of assessed developed land acreage (16.1 Percent) within the City of Red Bluff city limits is associated with residential single family land uses. Other major land uses within the city limits include commercial uses (8.7 percent), and industrial uses (5.6 percent). Within the unincorporated portions within the Red Bluff SOI (37.2 percent) of lands are currently rural residential uses.



## Population

As shown in Table 3.10-2, the Department of Finance (DOF) estimates the total population of Red Bluff at around 14,300 people in the year 2024, which is less than the population identified by the DOF in 2020 (14,808). The DOF also estimated that the Tehama County is home to around 64,308 people in 2024 which is also an overall reduction from 2020 DOF estimates. The available data indicate that the city, county, and state all experienced a population decline between 2020 and 2024.

**TABLE 3.10-2: POPULATION**

<b>Population</b>	<b>2020 DOF</b>	<b>2024 DOF</b>	<b>% Change 2020-2024</b>
Red Bluff	14,808	14,300	-3.4%
Countywide	65,829	64,308	-2.3%
State of California	39,538,223	39,128,162	-1.0%

SOURCES: DEPARTMENT OF FINANCE (DOF), TABLE E-5, 2020-2024.

## Housing Units

Consistent with its rural character, detached single-family homes account for a larger share of the housing stock in Red Bluff and Tehama County. Detached single-family homes account for around 61 percent in the Red Bluff, 64 percent countywide, and 57 percent statewide. After single family homes, multifamily 5+ units are the second most prominent housing type in Red Bluff, accounting for around 15 percent of housing unit types. Comparatively, these types of units account for around 23.7 percent of all housing units statewide. Table 3.10-3 shows that multifamily housing accounts for relatively larger proportions of the housing stock in Red Bluff than Tehama County.

**TABLE 3.10-3: HOUSING UNITS**

<b>County/ City</b>	<b>HOUSING UNITS</b>							<b>Vacancy Rate</b>	<b>Persons per Household</b>
	<b>Total</b>	<b>Single Detached</b>	<b>Single Attached</b>	<b>Two to Four</b>	<b>Five Plus</b>	<b>Mobile Homes</b>	<b>Occupied</b>		
Red Bluff	6,126	3,763	123	827	949	464	5,767	5.9%	2.42
County									
Total	27,601	17,919	468	1,386	1,802	6,026	25,134	8.9%	2.53
State									
Total	14,824,827	8,471,490	1,069,749	1,149,409	3,594,764	539,415	13,880,371	6.4%	2.75

SOURCES: CALIFORNIA DOF E-5 2024 ESTIMATES

## Age of Housing Stock

Housing built using traditional wood framing is generally considered to be at risk for deteriorating condition after approximately 30 years from the date of construction. Around 63.3 percent of housing in Red Bluff was built prior to 1980, which is larger proportion than the average in the county at 49.9 percent. As one of the County's oldest settlements, Red Bluff has a higher concentration of older homes compared to Tehama County. Table 3.10-4 below shows housing units by year built.

## 3.10 LAND USE, POPULATION, AND HOUSING

**TABLE 3.10-4: HOUSING UNITS BY YEAR BUILT (2015-2019 U.S. CENSUS BUREAU 5 YEAR ESTIMATES)**

YEAR BUILT	RED BLUFF		TEHAMA COUNTY		STATE OF CALIFORNIA	
	NUMBER*	PERCENT	NUMBER*	PERCENT	NUMBER*	PERCENT
2014 or later	51	8.2%	164	0.7%	209,480	9.3%
2010 to 2013	128	8.4%	528	2.2%	228,481	6.1%
2000 to 2009	770	19.7%	4,468	18.5%	1,453,135	13.6%
1980 to 1999	1,065	10.1%	6,960	28.8%	3,385,114	13.4%
1960 to 1979	1,827	19.0%	6,874	28.4%	4,039,075	17.8%
1940 to 1959	1,192	14.6%	3,673	15.2%	2,557,166	15.3%
1939 or earlier	450	7.5%	1,522	6.3%	1,171,815	10.9%
<b>Total, Housing Units</b>	<b>5,483</b>	<b>100%</b>	<b>24,189</b>	<b>100%</b>	<b>13,044,266</b>	<b>100%</b>
<b>Built before 1980</b>	<b>3,469</b>	<b>63.3%</b>	<b>12,069</b>	<b>49.9%</b>	<b>7,768,056</b>	<b>59.6%</b>
<b>Built after 2010</b>	<b>179</b>	<b>3.3%</b>	<b>692</b>	<b>2.9%</b>	<b>437,961</b>	<b>3.4%</b>

SOURCES: U.S. CENSUS BUREAU, ACS 2015-2019 5-YEAR SAMPLING PERIOD, B25034. \*NOTE ESTIMATES ARE PROVIDED BY THE AMERICAN COMMUNITY SURVEY SAMPLE AND MAY NOT INCLUDE ALL HOUSING UNITS.

### 3.10.2 REGULATORY SETTING

#### POPULATION, HOUSING

##### STATE

#### California General Plan Law

Government Code Section 65300 requires that each county and city adopt a General Plan, as described in Section 1.1.

Housing element law (Government Code Sections 65580 through 65589.8) requires local governments to adopt a Housing Element that addresses existing and projected housing needs, including their share of the regional housing need. A Housing Element must include an analysis of existing and projected housing needs, identification of governmental and non-governmental constraints to the provision of housing, an inventory of sites appropriate to accommodate the City's housing needs, identification of resources available to assist with meeting housing needs, a review of the effectiveness of the previous Housing Element, and a plan to address the identified housing needs and constraints.

##### LOCAL AND REGIONAL

#### Regional Housing Needs Plan

California General Plan law requires each City and County to have land zoned to accommodate a fair share of the regional housing need. The share is known as the Regional Housing Needs Allocation (RHNA). The determination of the local share of regional housing needs is assigned by the California Department of Housing and Community Development, Division of Housing Policy Development. Regional Housing Needs Allocation numbers are separated into four income categories: very low, low, moderate, and above moderate income levels. A "fair share" policy adjustment of 20% was applied to the city income categories to move city percentages closer to county percentages. The city RHNA for years 2019-2024, and 2024-2029 is summarized in Table 3.10-5.

**TABLE 3.10-5. RED BLUFF REGIONAL HOUSING NEEDS ALLOCATION**

<b>2019-2024 (ADOPTED HOUSING ELEMENT)</b>					
<b>INCOME CATEGORY</b>	<b>RHNA</b>	<b>CITY GOAL</b>	<b>UNITS BUILT</b>	<b>RHNA DEFICIT</b>	<b>RHNA DEFICIT</b>
Extremely Low/ Very low (<30-50% of AMI)*	73	73	0	73	73
Low (51-80% of AMI)	52	61	46	6	15
Moderate (81-120% of AMI)	61	30	29	32	1
Above Moderate (over 120% of AMI)	137	10	0	137	10
<b>Total</b>	<b>323</b>	<b>174</b>	<b>75</b>	<b>248</b>	<b>99</b>
<b>2024-2029 (Housing Element Update RHNA)</b>					
Very low	91	--	--	--	--
Low	59	--	--	--	--
Moderate	59	--	--	--	--
Above Moderate	189	--	--	--	--
<b>Total RHNA (Red Bluff)</b>	<b>398</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

NOTES: \* (AMI) AREA MEDIAN INCOME

SOURCE: RED BLUFF 2019-2024 HOUSING ELEMENT

The city is not required to ensure that adequate development to accommodate the RHNA occurs; however, the city must facilitate housing production by ensuring that land is available and that unnecessary development constraints have been removed.

### City of Red Bluff Housing Element 2019-2024

The certified 2019-2024 Housing Element describes Tehama County and the City of Red Bluff future housing plan, including housing goals, policies, and implementation programs to achieve those goals. The Policy Document within the Housing Element begins with joint goals, policies, and programs, followed by individual programs for each of the jurisdictions. The goals of the Housing Element provide a framework for compliance with California Government Code Section 65583, which requires the Housing Element contain a “statement of the community’s goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing.” Currently, the City of Red Bluff is updating in 2024-2029 Housing Element with a goal of certification by the State of California Housing and Community Development (HCD) Department in 2025.

## LAND USE

### STATE

#### California General Plan Law

Government Code Section 65300 requires that each county and city adopt a General Plan “for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning.”

The General Plan is a comprehensive long-term plan for the physical development of the county or city and is considered a "blueprint" for development. The General Plan provides a statement of the community’s development, economic, circulation, and environmental goals and includes diagrams and text setting forth objectives, standards, policies, and programs. The General Plan

must contain seven State-mandated elements: Land Use, Open Space, Conservation, Housing, Circulation, Noise, and Safety. It may also contain any other elements that the City wishes to include. The land use element designates the general location and intensity of designated land uses to accommodate housing, business, industry, open space, education, public buildings and grounds, recreation areas, and other land uses.

The 2017 General Plan Guidelines, established by the Governor's Office of Planning and Research (OPR) to assist local agencies in the preparation of their general plans, further describe the mandatory land use element as a guide to planners, the general public, and decision makers prescribing the ultimate pattern of development for the city. The General Plan Guidelines include resources, data, tools, and model policies to help cities and counties update their general plans.

### **California Environmental Quality Act**

The California Environmental Quality Act (CEQA) was developed to protect the quality of the environment and the health and safety of persons from adverse environmental effects. Discretionary projects are required to be reviewed consistent with the requirements of CEQA to determine if there is potential for the project to cause a significant adverse effect on the environment. Depending on the type of project and its potential effects, technical traffic, noise, air quality, biological resources, and geotechnical reports may be needed. If potential adverse effects can be mitigated, a mitigated negative declaration is required. If potentially adverse effects cannot be mitigated, an environmental impact report is required. These documents have mandated content requirements and public review times. Preparation of CEQA documents can be costly and, despite maximum time limits set forth in the Public Resources Code, can extend the processing time of a project by a year or longer.

### **Subdivision Code**

A subdivision is any division of land for the purpose of sale, lease or finance. The State of California Subdivision Map Act (Government Code § 66410) regulates subdivisions throughout the state. The goals of the Subdivision Map Act are as follows:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of a subdivision with proper consideration of its relationship to adjoining areas.
- To ensure that areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community.
- To protect the public and individual transferees from fraud and exploitation.

The Map Act allows some flexibility in the processing of subdivisions. The City of Red Bluff controls this process through the subdivision regulations in the Municipal Code (Title 20 Subdivisions).

*LOCAL***Red Bluff Zoning Ordinance - Municipal Code**

Chapter 25 of the Municipal Code includes is the City's Zoning Ordinance. The Zoning Ordinance carries out the policies of the General Plan by classifying and regulating the uses of land and structures within the incorporated City, consistent with the General Plan. The Zoning Ordinance is adopted to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses.

Zoning Designations have been established to implement the intent of the General Plan's Land Use Designations and Land Use Map. Zoning designations are included in the Red Bluff Municipal Code are included in *Chapter 25 Zoning Code*.

**Local Agency Formation Commission of Tehama County**

In 1963, the State Legislature created a local agency formation commission (LAFCO) for each county, with the authority to regulate local agency boundary changes. Subsequently, the State has expanded the authority of a LAFCO. The goals of the LAFCO include preserving agricultural and open space land resources and providing for efficient delivery of services. The Tehama County LAFCO has authority over land use decisions in Tehama County affecting local agency boundaries. Its authority extends to the incorporated cities, including annexation of County lands into a city, and special districts within the County. LAFCO has the authority to review and approve or disapprove the following:

- Annexations to or detachments from cities or districts.
- Formation or dissolution of districts.
- Incorporation or disincorporation of cities.
- Consolidation or reorganization of cities or districts.
- Establishment of subsidiary districts.
- Development of, and amendments to, Spheres of Influence. The Sphere of Influence (SOI) is the probable physical boundary and service area of each local government agency. This may extend beyond the current service area of the agency.
- Extensions of service beyond an agency's jurisdictional boundaries.
- Provision of new or different services by districts.
- Proposals that extend service into previously unserved territory in unincorporated areas.

In addition, the Tehama County LAFCO conducts Municipal Service Reviews (MSRs) for services within its jurisdiction. An MSR typically includes a review of existing municipal services provided by a local agency or district and its infrastructure needs and deficiencies. It also evaluates financing constraints and opportunities, management efficiencies, opportunities for rate restructuring and shared facilities, local accountability and governance, and other issues.

Legislation, including Assembly Bill 1555 and Senate Bill 244, has been enacted to encourage the identification and annexation of islands, which are unincorporated areas substantially surrounded by a city or cities.

### **Airport Land Use Commission Law (Public Utilities Code §21670 et seq.)**

The law, passed in 1967, authorized the creation of Airport Land Use Commissions (ALUC) in California. Per the Public Utilities Code, the purpose of an ALUC is to protect *public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses* (§21670). Furthermore, each ALUC must prepare an Airport Land Use Compatibility Plan (ALUCP). Each ALUCP, which must be based on a twenty-year planning horizon, should focus on broadly defined noise and safety impacts.

The Tehama County Airport Land Use Compatibility Plan (ALUCP) was adopted in amended April 2015 by the Tehama County Airport Land Use Commission (ALUC). The ALUCP Airport Safety Map and Land Use Compatibility Guidelines for Safety, contained within the Airport Master Plan, regulate land uses and structure heights that may constitute a hazard to air navigation. Any proposed object or structure that would penetrate any of these imaginary surfaces as they apply to the airport is considered by the Federal Aviation Administration (FAA) to be an obstruction to air navigation.

### 3.10.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on land use and population if it will:

- Physically divide an established community;
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect;
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

### IMPACTS AND MITIGATION MEASURES

#### **Impact 3.10-1: General Plan implementation would not physically divide an established community (Less than Significant)**

The proposed General Plan establishes the City's vision for future growth and development. The land uses allowed under the proposed General Plan (Figure 2.0-2) provide opportunities for cohesive new growth generally within existing urbanized areas of the city, as well as new growth adjacent to existing urbanized areas, but would not create physical division within the community. New development and redevelopment projects would be designed to complement the character of the existing community and neighborhoods and provide connectivity between existing development and new development. The proposed General Plan Land Use Map designates sites for a range of urban and rural developed uses as well as open space. The proposed General Plan does not include or propose any new roadways, infrastructure, or other features that would divide existing communities. The proposed General Plan would have a **less than significant** impact associated with the physical division of an established community. The policies and actions listed below would ensure that future development is compatible with adjacent communities and land issues.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### LAND USE ELEMENT POLICIES

LU 2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.

LU 3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

LU-3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU-3.3: Promote industrial uses that are environmentally sustainable with limited potential to create nuisances, such as noise and odors, when located within close proximity of existing and planned sensitive receptors. Ensure that industrial development projects, including warehouse, distribution, logistics, and fulfillment projects, mitigate adverse impacts (including health risks and nuisances) to nearby residential land uses and other existing and planned sensitive receptors.

LU-3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.



LU-3.5: To the extent legally possible, regulate and ensure that telecommunications facilities such as cell towers, radio towers, and other appurtenances do not block, impede, or impair the visual quality of Red Bluff.

LU-3.6: In considering land use change requests, consider factors such as compatibility with surrounding uses in terms of privacy, noise, and changes in traffic levels.

#### LAND USE ELEMENT ACTIONS

*LU-3a: Ensure all applicable projects are reviewed and processed per the California Environmental Quality Act (CEQA) Guidelines.*

*LU-3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU-3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU-3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

*LU-3e: Coordinate with the County and/or other agencies to identify potentially hazardous areas and notify property owners in at-risk areas. Limit new development in these areas. Monitor and ensure compliance with the Tehama County Multi-Jurisdictional Hazard Mitigation Plan.*

*LU-3f: Establish performance and development standards within the commercial and industrial land use designations to allow for a wide range of uses, provided those uses will not adversely impact adjacent uses.*

*LU-3g: Consider establishing an incentive program to encourage no*

### **Impact 3.10-2: General Plan implementation would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (Less than Significant)**

#### STATE PLANS

The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection. Discussion of the proposed General Plan's consistency with State regulations, plans, and policies associated with specific environmental issues (e.g., air quality, traffic, water quality, etc.) is provided in the relevant chapters of this Draft EIR. The State would continue to have

## 3.10 LAND USE, POPULATION, AND HOUSING

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authority over any State-owned lands in the vicinity of the city and the proposed General Plan would not conflict with continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects.

### CITY PLANS

As set forth by State law, the General Plan serves as the primary planning document for the City and subordinate documents and plans would be updated to be consistent with the General Plan. Similar to the existing General Plan, the proposed General Plan focuses on a balanced land use pattern, creating a community where new development blends with existing neighborhoods, and promoting the City as a desirable place to live and work. The proposed General Plan aims to enhance policies and measures intended for environmental protection and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. The proposed General Plan would require modifications to the City's Zoning Ordinance to provide consistency between the General Plan and zoning; The Development Code will be periodically updated to keep the zoning classifications consistent with the Land Use Element and the Land Use Map.

Environmental impacts associated with potential development under the proposed General Plan are discussed in Sections 3.1 through 3.16 and 4.0 of this Draft EIR.

### OTHER LOCAL AND REGIONAL PLANS POLICIES AND REGULATIONS

Additionally, the General Plan ensures compatibility with other local and regional plans and policies and provides policy direction.

#### **Airport Land Use Compatibility Plan**

The General Plan Policy SA 8.1 ensures that land uses within the vicinity of the Red Bluff Municipal Airport are compatible with airport operations. Policy SA 8.2 ensures that new development proposals do not result in encroachments into future airport expansion areas and do not result in adverse impacts to airport operations. Actions in support of Goal SA-8 include SA-8a which requires development review within the vicinity of the Red Bluff Municipal Airport to be reviewed for consistency with setbacks, land use restrictions, and height as determined by the Federal Aviation Administration (FAA) and the Tehama County Airport Land Use Commission; and be provided to the Airport Land Use Commission for review.

#### **LAFCO Consistency Review and Coordination**

General Plan Action LU-2b calls on the city to pursue a cooperative collaborative relationship with local and regional agencies, including Tehama County, the Local Agency Formation Commission (LAFCo), and the City of Red Bluff during development of long-range plans and review of development proposals that may impact the City. Action LU-6d requires the City to cooperate with Local Agency Formation Commission and the County to direct growth outside the City Limits on lands that are served or are planned to be served, with a full range of urban services, such as public water and sewer, an extensive road network, public transit, safety and emergency response services, parks, trails, and open space.

## SUMMARY

Subsequent development and infrastructure projects would be required to be consistent with all applicable policies, standards, and regulations, including those land use plans, policies, and regulations adopted to mitigate environmental effects by the City as well as those adopted by agencies with jurisdiction over components of future development projects. Any potential environmental impact associated with conflicts with land use requirements would be **less than significant**. Additionally, the policies and actions listed below would ensure that the General Plan is internally consistent and does not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

## GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

### LAND USE ELEMENT POLICIES

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.2: Ensure consistency between the Land Use Map and implementing plans, ordinances, and regulations.

### LAND USE ELEMENT ACTIONS

*LU-2b: Pursue a cooperative collaborative relationship with local and regional agencies, including Tehama County, the Local Agency Formation Commission (LAFCo), and the City of Red Bluff during development of long-range plans and review of development proposals that may impact the City. Coordinate with these agencies to achieve mutually agreeable outcomes and ensure that local and regional planning and development decisions do not result in adverse impacts to Red Bluff.*

*LU-6d: Cooperate with LAFCo and the County to direct growth outside the City Limits on lands that are served or are planned to be served, with a full range of urban services, such as public water and sewer, an extensive road network, public transit, safety and emergency response services, parks, trails, and open space.*

### SAFETY ELEMENT POLICIES

SA 8.1: Ensure that land uses within the vicinity of the Red Bluff Municipal Airport are compatible with airport operations.

SA 8.2: Ensure that new development proposals do not result in encroachments into future airport expansion areas and do not result in adverse impacts to airport operations.

### SAFETY ELEMENT ACTIONS

*SA-8a: As part of the development review process, new development and expansion proposals within the vicinity of the Red Bluff Municipal Airport shall be:*

## 3.10 LAND USE, POPULATION, AND HOUSING

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- *Reviewed for consistency with setbacks, land use restrictions, and height as determined by the Federal Aviation Administration (FAA) and the Tehama County Airport Land Use Commission; and*
- *Provided to the Airport Land Use Commission for review.*

### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 3.1: Conserve and protect biological communities in Red Bluff, with a focus on sensitive habitat areas associated with endangered, threatened, migratory, or special-status species of plants and animals.

COS 3.2: Protect oak woodlands, riparian habitat, and wetland areas located within the City of Red Bluff, and work with the County to provide protection for those areas located within the Sphere of Influence.

COS 3.3: Preserve existing mature trees and native vegetation where possible and integrate regionally native trees and plant species into development and infrastructure projects where appropriate.

COS 5.1: Require all development projects to comply with the mandatory energy efficiency requirements of the California Building Code (CALGreen).

**Impact 3.10-3: General Plan implementation would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) (Less than Significant)**

The proposed General Plan is a long-range planning document that establishes the City's vision for growth patterns, including areas for development and lands for open space and conservation. The General Plan provides the framework for the City's plan for growth and development, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to be extended to accommodate future growth. As described in Chapter 2.0 (Project Description) while no specific development projects are proposed or would be approved as part of the General Plan Update, the General Plan will accommodate future growth in Red Bluff, including new businesses, expansion of existing businesses, and new residential uses. As shown in in the Project Description (Chapter 2.0) Table 2.0-2 the General Plan by 2045 would be anticipated to result in up to 1,267 dwelling units accommodating an additional 3,092 residents, and an additional 1,396 jobs. The actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City's control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors. Additionally, it should be noted that historic growth rates have been much lower than the total growth allowed under the General Plan. Furthermore, it should be noted that the California Department of Finance (DoF), and Caltrans projections see long term reduced population through 2050 countywide.

Given the historical and current population, housing, and employment trends, growth in the city, as well as the entire state, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Red Bluff during the planning period of the proposed General Plan, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan, new roads, infrastructure, and services would be necessary to serve the development, and this infrastructure would accommodate planned growth. The proposed General Plan is intended to accommodate the City's fair share of statewide housing needs based on regional numbers provided by the California Department of Housing and Community Development on a periodic basis.

The proposed General Plan includes policies and actions that mitigate environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality effects. Chapters 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan. Each of these EIR chapters include relevant policies and action items that would mitigate potential environmental impacts associated with growth, to the greatest extent feasible.

With implementation of General Plan, policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds, beyond those disclosed and analyzed throughout this EIR. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact, as there are no additional potential environmental impacts, beyond those analyzed and disclosed in this EIR that would result from growth accommodated by the proposed Project.

### **Impact 3.10-4: General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (Less than Significant)**

The majority of developed land in the Planning Area is comprised of residential uses, and commercial land uses which are not anticipated to undergo significant land use changes under the Proposed Project. The proposed General Plan focuses on providing the framework for logical, orderly growth from the City's historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities.

While the proposed General Plan may result in development that could redevelop or remove individual residences, development allowed under the General Plan identifies lands for a variety of housing densities and types would result in an increase in the total number of residences and provide housing opportunities for persons that may be displaced as a result of development.

Therefore, impacts of the proposed General Plan on the displacement of people or housing are considered **less than significant**. The policies listed below would further ensure that a range of housing types are provided in the City, and that housing conditions are evaluated as the housing supply ages.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### **LAND USE ELEMENT POLICIES**

LU 1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU 1.2: Ensure consistency between the Land Use Map and implementing plans, ordinances, and regulations.

LU 1.3: Maintain an equitably distributed and fiscally sustainable land use plan with balanced levels of employment and housing.

LU 1.4: Support a balanced distribution of well-maintained, functional, and appropriate commercial, office, and industrial use areas to expand local employment opportunities and support a stable tax base.

LU 1.5: Provide for a variety of housing types and density ranges that meet the needs of individuals and families while ensuring that there is adequate land designated to meet housing goals. (Additional policies specifically related to housing are included in the Housing Element).

#### LAND USE ELEMENT ACTIONS

*LU-1a: Update the City's Zoning Map as appropriate to ensure consistency with the land use designations shown on Figure LU-1.*

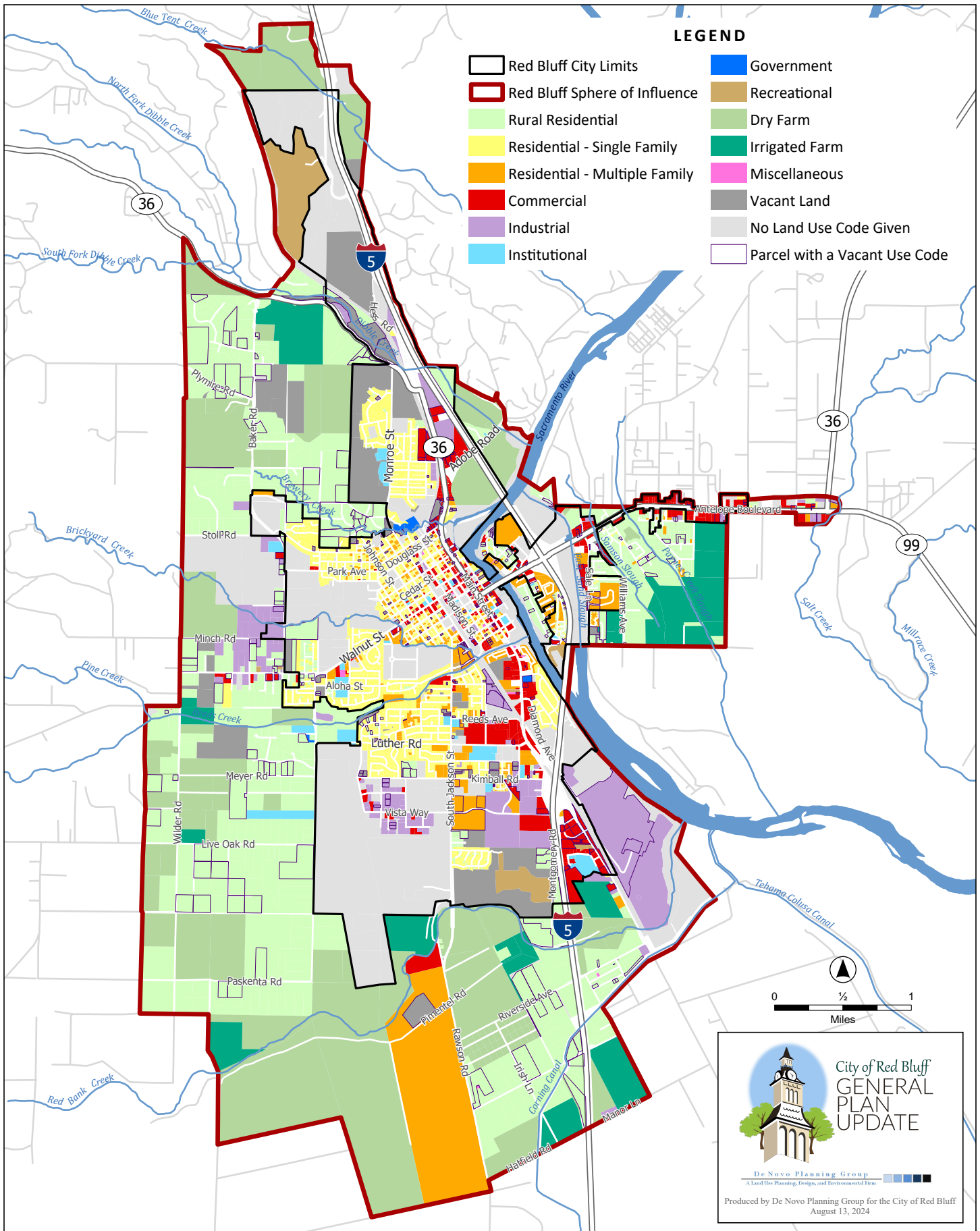
*LU-1b: Review the standards and zoning districts provided in the Zoning Ordinance (Chapter 25 of the Red Bluff Municipal Code) and update as appropriate to reflect Land Use designations and Land Use goals, policies, and actions included in this Plan.*

*LU-1d: Through the development review and permit process, ensure that residential developments fall within the minimum and maximum density requirements stipulated on the Land Use Map in order to ensure that Red Bluff has an ample number of housing units to meet all of its housing needs.*

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Figure 3.10-1. Assessed Land Uses



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This section provides a background discussion and analysis of mineral resources in Red Bluff. This section is organized with an environmental setting, regulatory setting, and impact analysis.

No comments were received on this environmental topic during the NOP comment period.

### 3.11.1 ENVIRONMENTAL SETTING

#### MINERAL RESOURCE CLASSIFICATION

Pursuant to Surface Mining and Reclamation Act (SMARA), the California State Mining and Geology Board oversees the mineral resource zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The mineral resource classification system uses four main MRZs based on the degree of available geologic information, the likelihood of significant mineral resource occurrence, and the known or inferred quantity of significant mineral resources. The four classifications are described in Table 3.11-1.

**TABLE 3.11-1: MINERAL RESOURCE CLASSIFICATION SYSTEM**

CLASSIFICATION	DESCRIPTION
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ classification.

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY, 2002.

#### MINERAL RESOURCES

##### Statewide Resources

In 2014, the California Geological Survey identified that approximately 4 billion tons of permitted aggregate reserves lie within the 31 aggregate study areas in California. These permitted aggregate reserves have been determined to be acceptable for commercial use, exist within properties owned or leased by aggregate producing companies, and have permits allowing mining of aggregate material. Sand, gravel, and crushed stones are construction materials that are collectively referred to as construction aggregate. These materials provide the bulk and strength to Portland cement concrete (PCC), asphaltic concrete (AC), plaster, and stucco. Other uses include road base, subbase, railroad ballast, and fill.

From 1981 to 2010, California consumed an average of about 180 million tons of construction aggregate (all grades) per year. (CGS, 2012).

Mineral resources include commercially viable oil and gas deposits, and nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial

metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. California is the largest producer of sand and gravel in the nation.

### **Regional Setting**

The majority of Tehama County's mineral wealth is derived from the extraction of non-metallic sand, gravel, and volcanic cinder, which are used primarily by local paving and construction industries. The high costs of transportation and the heavy weight and bulk of aggregates ensures that the preponderance of these materials are used for local projects. Mineral extraction and construction account for approximately 4% of current employment in the county. Although mineral extraction is somewhat limited, there is the potential for future expansion. This expansion would be controlled by both resource and availability and future demand. Fourteen other mineral resources have been identified in the county by the California Division of Mines and Geology, Minerals of California; Bulletin No. 189. These minerals include: aragonite, borax, chalcophyrite, chromite, copper, cristobalite, galena, garnet, opal, pectolite, penninite, sassolite, and Wallsonite.

The most plausible mineral for future development is chromite, Chromite is used for steel production. The demand for domestically mined chromite is currently at a lull, given that the majority of the country's supply is imported (Tehama County 1983). Most of the chromite deposits are found in the western section of the country and would therefore have little or no effect on the city.

The California Office of Mines and Geology maintains a database entitled Mine Files, which includes an inventory of mining activity on a county-side basis. According to this source, there are 62 mine sites located within Tehama County. These sites vary in activity status from abandoned to active.

### **Mineral Extraction Activities**

Of the four, the MRZ-2 classification is recognized in land use planning because the likelihood for occurrence of significant mineral deposits is high, and the classification may be a factor in the discovery and development of mineral deposits that would tend to be economically beneficial to society. The Division of Mine Reclamation (DMR) was created to provide a measure of oversight for local governments as they administer the Surface Mining and Reclamation Act (SMARA) within their respective jurisdictions. The DMR identifies one mining operation within the Red Bluff city limits, and two other operations within the Planning Area. Each are briefly described below:

- **Dibble Creek 91-52-0005 (City Limits)**
  - Operation Type: Streambed Or Gravel Bar Skimming And Pitting
  - Primary Product: Sand And Gravel
  - Lead Agency: County of Tehama
- **Red Bank Creek Mine 91-52-0030 (SOI)**

- Operation Type: Streambed Or Gravel Bar Skimming And Pitting
- Primary Product: Sand and Gravel
- Lead Agency: County of Tehama
- **Monitor Rock Quarry 91-53-0030 (SOI)**
  - Operation Type: Quarry
  - Primary Product: Rock
  - Lead Agency: County of Tehama

### Local Resources

Figure 3.11-1 shows mineral resources within and near the Planning Area. As shown on Figure 3.11-1, the planning area is designated as:

**MRZ-2a:** Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. The commodities zoned are indicated as SG (sand and gravel) and RR (rip-rap). Sand and gravel resource applications are indicated parenthetically by PCC (Portland cement concrete), AC (asphalt concrete), and base.

**MRZ-2b:** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. These areas are zoned for the commodity SG (sand and gravel). Sand and gravel resource applications are indicated parenthetically by PCC (Portland cement concrete) and AC (asphalt concrete).

**MRZ-3a:** Areas containing known mineral occurrences of undetermined mineral resource significance. The commodities zoned are indicated by SG (sand and gravel) and CS (crushed stone). Sand and gravel resource applications are indicated parenthetically by PCC (Portland cement concrete) and AC (asphalt concrete).

**MRZ-3b:** Areas containing inferred mineral occurrences of undetermined mineral resource significance. The sole commodity zoned is indicated as SG (sand and gravel). SG resource application is indicated parenthetically by PCC (Portland cement concrete).

**MRZ-4:** Areas of no known mineral occurrences where geologic information does not rule out either a presence or absence of significant mineral resources.

## 3.11.2 REGULATORY SETTING

### STATE

#### Surface Mining and Reclamation Act of 1975

The California Department of Conservation Surface Mining and Reclamation Act of 1975 (§ 2710), also known as SMARA, provides a comprehensive surface mining and reclamation policy that permits the continued mining of minerals, as well as the protection and subsequent beneficial use of the mined and reclaimed land. The purpose of SMARA is to ensure that adverse environmental

effects are prevented or minimized and that mined lands are reclaimed to a usable condition and are readily adaptable for alternative land uses. The production and conservation of minerals are encouraged, while also giving consideration to values relating to recreation, wildlife, range, and forage, as well as aesthetic enjoyment. Residual hazards to public health and safety are eliminated. These goals are achieved through land use planning by allowing a jurisdiction to balance the economic benefits of resource reclamation with the need to provide other land uses.

If a use is proposed that might threaten the potential recovery of minerals from an area that has been classified MRZ-2, SMARA would require the jurisdiction to prepare a statement specifying its reasons for permitting the proposed use, provide public notice of these reasons, and forward a copy of the statement to the State Geologist and the State Mining and Geology Board (Cal. Pub. Res. Code Section 2762). Lands classified MRZ-2 are areas that contain identified mineral resources.

### **Division of Mine Reclamation (DMR)**

The reclamation of mining land wasn't addressed in state law before 1975. The Surface Mining and Reclamation Act (SMARA) is the link between producing the mineral products important to California and protecting the environment. Under SMARA, every mining operation must have a permit to mine, an approved reclamation plan (the mined land must be restored or altered to a condition agreed upon prior to mining), and a sound financial ability to ensure reclamation.

### **California Geological Survey (CGS)**

The CGS Mineral Resources Program gathers, analyzes and distributes information on the state's mineral resources to help prevent valuable mineral deposits from being lost. Similar to the DMR, the California Geological Survey is responsible for assisting in the identification and proper utilization of mineral deposits, as well as the identification of fault locations and other geological hazards.

### **Public Resources Code**

PRC Section 2762(d) and 2763 requires a lead agency to prepare a statement specifying its reasons for permitting a use that would threaten the potential to extract mineral resources either 1) in an area that has been designated in its general plan as having important minerals to be protected, or 2) if the use is proposed in an area with significant resources pursuant to Section 2761(b)(2) and the lead agency has not yet acted on the State's designation. PRC Section 2763 requires that lead agency land use decisions involving areas designated as being of regional significance shall be in accordance with the lead agency's mineral resource management policies and shall also, in balancing mineral values against alternative land uses, consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction.

### **ASSEMBLY BILL 617**

Assembly Bill 617 (AB 617) was signed by Governor Jerry Brown on July 26, 2017, amends California Health and Safety Code section 40920.6, and requires Districts to adopt a schedule of

BARCT regulation implementation. BARCT rules amend existing District Regulations but in the case that no specific District Regulations exist, new Regulations are adopted. In the Districts circumstance, it does not have a BARCT regulation so new rules would need to be evaluated. This schedule referenced in Item 5 is a timeframe for the District to potentially adopt new Regulation(s) specific to certain facilities in the natural gas industry identified by CARB.

### 3.11.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

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Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with mineral resources if it would:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

#### IMPACTS AND MITIGATION MEASURES

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##### **Impact 3.11-1: General Plan implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state (Less than Significant)**

The Planning Area is designated as: MRZ-2a “areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present,” MRZ-2b “areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present,” MRZ-3a “areas containing known mineral occurrences of undetermined mineral resource significance,” MRZ-3b “areas containing inferred mineral occurrences of undetermined mineral resource significance,” and MRZ-4 “areas of no known mineral occurrences where geologic information does not rule out either a presence or absence of significant mineral resources.”

As shown on Figure 3.11-1, mineral resources are present in many areas throughout the Planning Area, with concentrations within historical flood/wash areas, and in areas near the Sacramento River as well as creek tributaries which generally extend north/south along the eastern portion of the Planning Area. Currently many areas within the city are developed with urban uses and are no longer available for mining and extraction activities. Therefore, no significant potential for extraction remains from these known MRZs. Other areas such as those located within the Dibble Creek extraction area are located within the norther portion of the Planning Area generally are undeveloped, and are designated for industrial type uses that accommodate extraction activities and processing. The General Plan update would not directly result in development or approve any development that would lead to the loss of known resource sites. Future development may be included within areas that have identified resources but generally development within the city would be within areas that have been identified and planning for urban type uses, and activities,

and as such would generally not be available for heavy mining and extraction activated due to the proximity to existing sensitive uses. As such, implementation of the proposed General Plan would have a **less than significant** impact on this environmental topic.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 8.3: Ensure that any mining activities conform to the State Mining and Reclamation Act (SMARA) requirements and other applicable federal, State, and local environmental regulations.

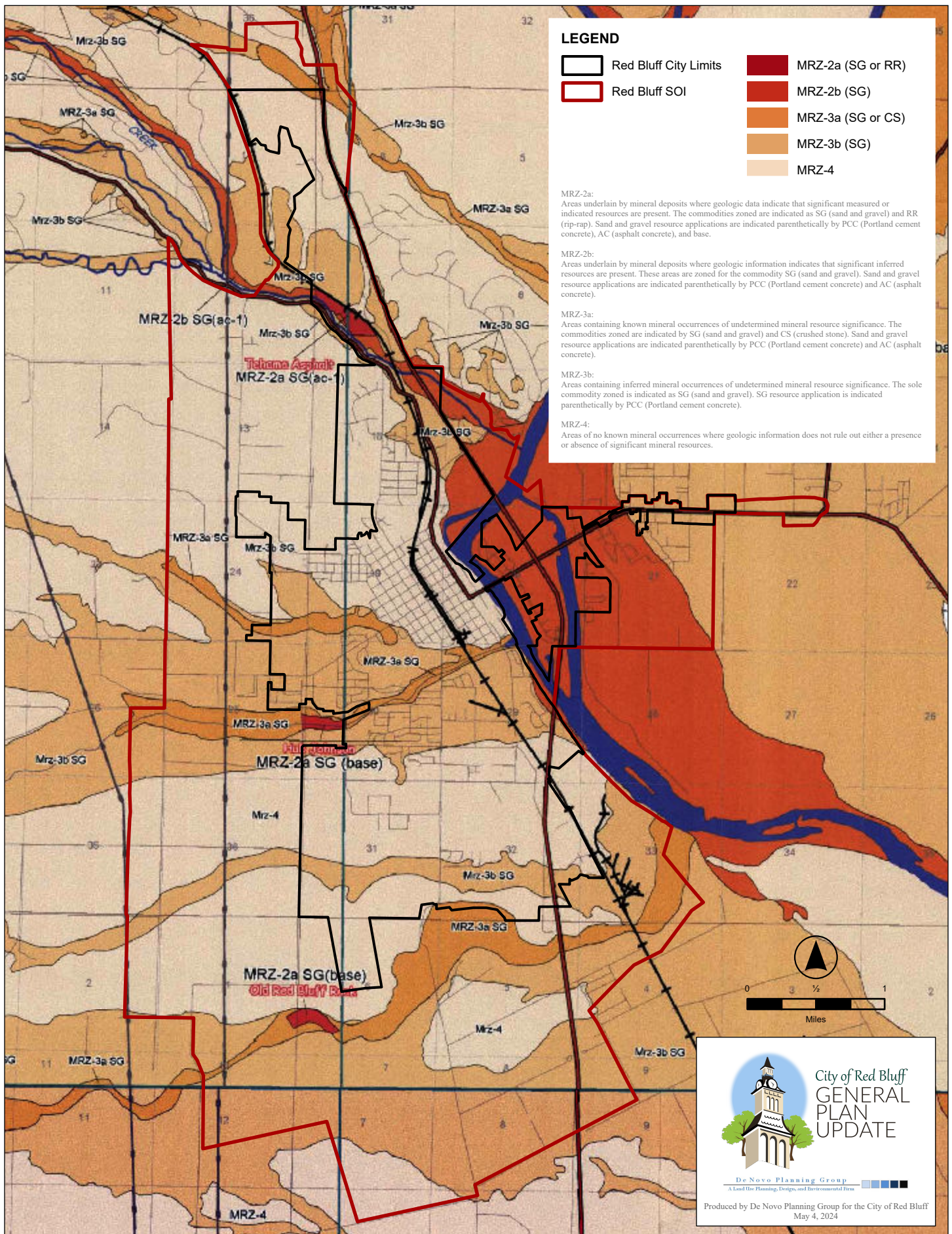
### **Impact 3.11-2: General Plan implementation would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan (Less than Significant)**

Historically, there several four permits granted in the Red Bluff Planning Area for mineral extraction. The extraction sites were located along four creeks; Red Bank Creek, Reed's Creek, Dibble Creek, and Blue Tent Creek (Brewer 1992). The operation of Red Bank Creek has been abandoned. The Reed's Creek, Dibble Creek, and Blue Tent Creek operations are currently active, although do not operate on a year-round basis.

None of the extraction activities located within the Planning Area fall directly under City jurisdiction. However, the Dibble Creek site (91-52-0005) is located within the norther portion of the city but is listed as having the County as the lead agency. As shown on Figure 3.11-1, mineral resources are present in many areas throughout the Planning Area, with concentrations within historical flood/wash areas, and in areas near the Sacramento River as well as creek tributaries which generally extend north/south along the eastern portion of the Planning Area. Currently many areas within the city are developed with urban uses and are no longer available for mining and extraction activities. Therefore, no significant potential for extraction remains from these known MRZs. Other areas such as those located within the Dibble Creek extraction area are located within the norther portion of the Planning Area generally are undeveloped, and are designated for industrial type uses that accommodate extraction activities and processing. The General Plan update would not directly result in development or approve any development that would lead to the loss of knows resource sites. As such, implementation of the proposed General Plan would have a **less than significant** impact on this environmental topic.



Figure 3.11-1. Mineral Resource Zones



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This section provides a discussion of the regulatory setting and a general description of existing noise sources in the City of Red Bluff. The analysis of potential noise-related impacts in this section was prepared with assistance from Saxelby Acoustics.

## KEY TERMS

<b>Acoustics</b>	The science of sound.
<b>Ambient Noise</b>	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
<b>Attenuation</b>	The reduction of noise.
<b>A-Weighting</b>	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
<b>Decibel or dB</b>	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared. All dB levels used in this report are A-weighted values, unless otherwise stated.
<b>CNEL</b>	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by + 5 dB and nighttime hours weighted by +10 dB. Typically, 1 dB higher than Ldn for transportation noise sources.
<b>Frequency</b>	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
<b>Impulsive</b>	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
<b>L<sub>dn</sub></b>	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
<b>L<sub>eq</sub></b>	Equivalent or energy-averaged sound level.
<b>L<sub>max</sub></b>	The highest root-mean-square (RMS) sound level measured over a given period of time.
<b>L(n)</b>	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50 percent of the time during the one hour period.
<b>Loudness</b>	A subjective term for the sensation of the magnitude of sound.
<b>Noise</b>	Unwanted sound.
<b>SEL</b>	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event

## FUNDAMENTALS OF ACOUSTICS

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Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ( $L_{eq}$ ), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptor,  $L_{dn}$ , and shows very good correlation with community response to noise.

The day/night average level ( $L_{dn}$ ) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because  $L_{dn}$  represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to  $L_{dn}$ , but

includes a +3 dB penalty for evening noise. Table 3.12-1 lists several examples of the noise levels associated with common situations.

**TABLE 3.12-1: TYPICAL NOISE LEVELS**

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL (DBA)	COMMON INDOOR ACTIVITIES
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.



### EFFECTS OF NOISE ON PEOPLE

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The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

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

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

### 3.12.1 ENVIRONMENTAL SETTING

#### EXISTING NOISE LEVELS

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##### **Traffic Noise Levels**

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop  $L_{dn}$  (24-hour average) noise contours for all highways and major roadways in the Planning Area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions and is generally considered to be accurate within 1.5 dB. To predict  $L_{dn}$  values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing traffic volumes were obtained from the traffic modeling performed for the General Plan study area. Day/night traffic distributions were based upon continuous hourly noise measurement data. Heavy truck counts were also provided by the traffic engineer. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions. Table 3.12-2 shows the results of this analysis.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segments. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 3.12-2 are generally considered to be conservative estimates of noise exposure along roadways in the City of Red Bluff.

## 3.12 NOISE

**TABLE 3.12-2: PREDICTED EXISTING TRAFFIC NOISE LEVELS (2024 BASELINE)**

ROADWAY	SEGMENT	NOISE LEVEL AT CLOSEST RECEPTORS (dB, L <sub>DN</sub> ) <sup>1</sup>	DISTANCES TO TRAFFIC NOISE CONTOURS, LDN (FEET)		
			60 dB	65 dB	70 dB
Baker Rd.	Beegum Rd. to Estel Ln.	64.2	23	48	104
Baker Rd.	Estel Ln. to Walnut St.	61.4	16	35	75
Jackson St.	Walnut St. to Luther Rd.	67.1	22	48	103
Jackson St.	Luther Rd. to Vista Wy.	65.5	20	43	92
Monroe St.	Beegum Rd. to Walnut St.	61.5	11	23	50
Main St. (SR 36)	Beegum Rd. to Adobe Rd.	62.8	30	64	138
Main St. (SR 36)	Adobe Rd. to Union St.	60.8	18	39	85
Main St. (SR 36)	Union St. to Walnut St.	64.8	18	39	83
Main St. (SR 36)	Walnut St. to Oak St.	65.6	20	44	95
Main St.	Oak Ave. to I-5	64.2	27	57	124
Diamond Ave.	S. Main St. to I-5	57.4	8	17	37
Sale Ln.	Antelope Blvd. to Gilmore Ranch Rd.	60.4	12	25	53
Beegum Rd.	Baker Rd. to Main St.	60.7	27	57	123
Adobe Rd.	Main St. to I-5	59.9	20	43	93
Walnut St.	Main St. to Baker Rd.	59.8	11	25	53
Oak St.	Jackson St. to Main St.	63.2	11	23	49
Antelope Blvd. (SR 36)	Main St. to I-5	66.2	44	95	206
Antelope Blvd. (SR 36)	I-5 to SR 99	68.0	55	119	256
SR 99	East of SR 36	67.2	56	120	258
Luther Rd.	Paskenta Rd. to S. Main St.	64.7	18	38	82

Notes: Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

<sup>1</sup> Traffic noise levels are predicted at the closest sensitive receptors or at a distance of 100 feet in commercial/retail areas.

Source: Fehr & Peers, Caltrans, Saxelby Acoustics., 2024

### Railroad Noise Levels

A Union Pacific rail line crosses through the City of Red Bluff. In order to quantify noise exposure from existing train operations, a noise level measurement was conducted adjacent to the existing Union Pacific rail line, adjacent to Madison Street. The purpose of the noise level measurements was to determine typical sound exposure levels (SEL) for railroad line operations, while accounting for the effects of travel speed, warning horns, and other factors which may affect noise generation. Figure 3.12-1 shows the noise measurement locations.

Continuous, 24-hour noise level measurements were conducted adjacent to the Union Pacific Rail Line, shown as LT-3 in Figure 3.12-1. Noise monitoring equipment was programmed to identify individual train events to determine noise impact of train operations on this line.



Noise measurement equipment consisted of Larson Davis Laboratories (LDL) Model 820 and LDL Model 831 precision integrating sound level meters equipped with LDL ½" microphones. The measurement systems were calibrated using a LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

Table 3.12-3 shows a summary of the noise measurement results for railroad activity within the City.

**TABLE 3.12-3: RAILROAD NOISE MEASUREMENT RESULTS**

MEASUREMENT LOCATION	RAILROAD TRACK	GRADE CROSSING /WARNING HORN	TRAIN EVENTS PER 24-HR PERIOD	AVERAGE SEL AT 100'
LT-3	Union Pacific	Yes	2 (1 Night)	69 dBA

SOURCE: SAXELBY ACOUSTICS, 2021

To determine the distances to the day/night average ( $L_{dn}$ ) railroad contours, it is necessary to calculate the  $L_{dn}$  for typical train operations. This was done using the SEL values and above-described number and distribution of daily train operations. The  $L_{dn}$  may be calculated as follows:

$$L_{dn} = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

SEL is the mean Sound Exposure Level of the event,  $N_{eq}$  is the sum of the number of daytime (7 a.m. to 7 p.m.) events plus 10 times the number of nighttime (10 p.m. to 7 a.m.) events per day, and 49.4 is ten times the logarithm of the number of seconds per day. Based upon the above-described noise level data, number of operations and methods of calculation, the  $L_{dn}$  value for railroad line operations have been calculated, and the distances to the  $L_{dn}$  noise level contours are shown in Table 3.12-4.

**TABLE 3.12-4: APPROXIMATE DISTANCES TO THE RAILROAD NOISE CONTOURS**

EXTERIOR NOISE LEVEL AT 100 FEET, $L_{DN}$	DISTANCE TO EXTERIOR NOISE LEVEL CONTOURS, FEET		
	60 DB $L_{DN}$	65 DB $L_{DN}$	70 DB $L_{DN}$
Union Pacific Rail Line			
69 dB	422'	196'	91'

SOURCE: SAXELBY ACOUSTICS, 2024

## Aviation Noise Levels

Red Bluff Municipal Airport is located at Airport Blvd, Red Bluff. The Red Bluff Municipal Airport has 602 acres of land and a 5,984-foot runway system. It is located entirely within the Red Bluff City Limits and is served by Luther Rd. to Airport Blvd. or South Jackson St. to Airport Blvd. It is bounded on the west by Paskenta Rd. The primary runway, 15-33, is 150 feet wide and 5,984 feet long with single-wheel weight limitations of 30,000 lbs. and double-wheel weight limitations of 65,000 lbs. Aircraft that generally use the airport are single-engine fixed-wing general aviation aircraft and twin-engine aircraft, but jets and helicopters also occasionally utilize the airport. On an average annual basis, there are approximately 72 operations per day. The noise contours for the Red Bluff Airport

were developed as part of the Red Bluff Airport Master Plan. The contours identified are 55 CNEL, 60 CNEL and 65 CNEL, extending in decreasing order approximately 1,000 feet to the north and 1,000 feet south of the runway. Although the majority of the identified noise contours are located southwest of the City, the northwest extensions of the 55 CNEL and 60 CNEL contour lines stretch between approximately 400-800 feet past Paskenta Road in the southwestern corner of Red Bluff. The southern points of the contours extend into unoccupied land, approximately 500 feet north of Red Bank Creek.

Approximately 67 general aviation aircraft are based at Red Bluff Municipal Airport, which has parking space for approximately 545 aircraft. Primary use of the airport is single-engine fixed-wing aircraft for general aviation purposes. However, the airport also accommodates mid-size business jet and helicopters in addition to multi-engine, turbo-jet, and turbo-prop aircraft.

Further information and analysis for this airport can be found in the above referenced Red Bluff Master Plan. Figure 3.12-2 shows the Red Bluff Municipal Airport noise impact area from Figure 9.0-2

### **Fixed Noise Sources**

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by federal and state employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise which affects adjacent sensitive land uses. These noise sources can be continuous and may contain tonal components which have the potential to annoy individuals who live nearby. In addition, noise generation from fixed noise sources may vary based upon climatic conditions, time of day and existing ambient noise levels.

In the City of Red Bluff, fixed noise sources typically include parking lots, loading docks, parks, schools, and other commercial/retail use noise sources (HVAC, exhaust fans, etc.)

From a land use planning perspective, fixed-source noise control issues focus upon two goals:

1. To prevent the introduction of new noise-producing uses in noise-sensitive areas, and
2. To prevent encroachment of noise sensitive uses upon existing noise-producing facilities.

The first goal can be achieved by applying noise level performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in near proximity to noise-producing facilities include mitigation measures that would ensure compliance with noise performance standards.

Fixed noise sources which are typically of concern include but are not limited to the following:

- HVAC Systems
- Pump Stations
- Steam Valves
- Generators
- Air Compressors
- Conveyor Systems
- Pile Drivers
- Drill Rigs
- Welders
- Outdoor Speakers
- Chippers
- Loading Docks
- Cooling Towers/Evaporative Condensers
- Lift Stations
- Steam Turbines
- Fans
- Heavy Equipment
- Transformers
- Grinders
- Gas or Diesel Motors
- Cutting Equipment
- Blowers
- Cutting Equipment
- Amplified music and voice

The types of uses which may typically produce the noise sources described above, include, but are not limited to: wood processing facilities, pump stations, industrial/agricultural facilities, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, special events such as concerts, and athletic fields. Typical noise levels associated with various types of stationary noise sources are shown in Table 3.12-5.

**TABLE 3.12-5: TYPICAL STATIONARY SOURCE NOISE LEVELS**

USE	NOISE LEVEL AT 100 FEET, $L_{EQ}^1$	DISTANCE TO NOISE CONTOURS, FEET			
		50 DB $L_{EQ}$ (NO SHIELDING)	45 DB $L_{EQ}$ (NO SHIELDING)	50 DB $L_{EQ}$ (WITH 5 DB SHIELDING)	45 DB $L_{EQ}$ (WITH 5 DB SHIELDING)
Auto Body Shop	56 dB	200	355	112	200
Auto Repair (Light)	53 dB	141	251	79	141
Busy Parking Lot	54 dB	158	281	89	158
Cabinet Shop	62 dB	398	708	224	398
Car Wash	63 dB	446	792	251	446
Cooling Tower	69 dB	889	1,581	500	889
Loading Dock	66 dB	596	1,059	335	596
Lumber Yard	68 dB	794	1,413	447	794
Maintenance Yard	68 dB	794	1,413	447	794
Outdoor Music Venue	90 dB	10,000	17,783	5,623	10,000
Paint Booth Exhaust	61 dB	355	631	200	355
Skate Park	60 dB	316	562	178	316
School Playground / Neighborhood Park	54 dB	158	281	89	158
Truck Circulation	48 dB	84	149	47	84
Vendor Deliveries	58 dB	251	446	141	251

*1 Analysis assumes a source-receiver distance of approximately 100 feet, no shielding, and flat topography. Actual noise levels will vary depending on site conditions and intensity of the use. This information is intended as a general rule only, and is not suitable for final site-specific noise studies.*

*Source: Saxelby Acoustics 2022.*

## COMMUNITY NOISE SURVEY

A community noise survey was conducted to document ambient noise levels at various locations throughout the City. Short-term noise measurements were conducted at six locations throughout the City on July 20th, 2021 during daytime and nighttime periods. In addition, four continuous 24-hour noise monitoring measurements were also conducted to record day-night statistical noise level trends. The data collected included the hourly average ( $L_{eq}$ ), median ( $L_{50}$ ), and the maximum level ( $L_{max}$ ) during the measurement period. Noise monitoring sites and the measured noise levels at each site are summarized in Table 3.12-6 and Table 3.12-7. Appendix B (Continuous and Short-Term Ambient Noise Measurement Results) graphically shows the results of the noise level measurements. Figure 3.12-1 shows the locations of the noise monitoring sites.

Community noise monitoring equipment included Larson Davis Laboratories (LDL) model 820 and 831 precision integrating sound level meters equipped with ½" microphones. The measurement systems were calibrated using a LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

**TABLE 3.12-6: EXISTING CONTINUOUS 24-HOUR AMBIENT NOISE MONITORING RESULTS**

SITE	LOCATION	DATE	LDN (dBA)	MEASURED HOURLY NOISE LEVELS, dBA, LOW-HIGH (AVERAGE)					
				DAYTIME (7:00 AM - 10:00 PM)			NIGHTTIME (10:00 PM - 7:00 AM)		
				LEQ	L50	LMAX	LEQ	L50	LMAX
LT-1	Highway 36 East Red Bluff	7/20/2021	73	70	68	85	66	55	82
LT-2	I-5 at Holiday Inn Express	7/20/2021	73	71	70	81	66	63	79
LT-3	Union Pacific Railroad	7/20/2021	59	57	46	70	52	43	67
LT-4	Red Bluff Municipal Airport	7/20/2021	52	50	44	67	44	39	58

SOURCE – SAXELBY ACOUSTICS – 2021.

**TABLE 3.12-7: EXISTING SHORT-TERM COMMUNITY NOISE MONITORING RESULTS**

SITE	LOCATION	TIME <sup>1</sup>	MEASURED SOUND LEVEL, DB			NOTES
			L <sub>EQ</sub>	L <sub>50</sub>	L <sub>MAX</sub>	
ST-1	JOHN R. TRAINOR PARK	7/16/2021 – 1:43 P.M.	43	40	54	BACKGROUND NOISE IS TRAFFIC, INDUSTRIAL USES, AIRCRAFT NOISE FROM AIRFIELD AND HELICOPTER PAD. SOME SEMITRUCKS AND SERVICE LOAD INDUSTRIES.
ST-2	LUTHER ROAD	7/16/2021 – 2:31 P.M.	66	61	81	MAIN NOISE SOURCE IS FROM TRAFFIC ON LUTHER ROAD.
ST-3	RED BLUFF ELEMENTARY SCHOOL	7/16/2021 – 2:52 P.M.	70	67	87	PRIMARY NOISE SOURCE IS WALNUT STREET. ELEMENTARY SCHOOL WAS NOT IN SESSION AT THE TIME OF THE STUDY.
ST-4	RED BLUFF HIGH SCHOOL	7/16/2021 – 3:12 P.M.	43	43	53	NOISE SOURCE IS WIND, AS WELL AS SOME RESIDENTIAL AND COMMERCIAL HVAC. OCCASIONAL VEHICLE PASSBY SERVES AS BACKGROUND NOISE.
ST-5	DOG ISLAND PARK	7/21/2021 – 11:52 A.M.	62	63	69	PRIMARY NOISE SOURCE IS TRAFFIC ON MAIN STREET. SECONDARY NOISE SOURCE IS CIRCULATION FROM THE PARKING LOT.
ST-6	FORWARD PARK	7/21/2021 – 12:21 P.M.	63	42	79	PRIMARY NOISE SOURCE IS TRAFFIC ON MONROE AVENUE AND CIRCULATION IN THE PARKING LOT. SECONDARY NOISE SOURCE IS PARK ACTIVITY.

1 - ALL COMMUNITY NOISE MEASUREMENT SITES HAVE A TEST DURATION OF 10:00 MINUTES. SOURCE – SAXELBY ACOUSTICS – 2021.

The results of the community noise survey shown in Table 3.12-6 and 3.12-7 indicate that existing transportation (traffic) noise sources were the major contributor of noise observed during daytime hours, especially during vehicle passbys.

### 3.12.2 REGULATORY SETTING

#### FEDERAL

##### ***Federal Highway Administration (FHWA)***

The FHWA has developed noise abatement criteria that are used for federally funded roadway projects or projects that require federal review. These criteria are discussed in detail in Title 23 Part 772 of the Federal Code of Regulations (23CFR772).

##### ***Environmental Protection Agency (EPA)***

The EPA has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, a L<sub>eq</sub> of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an L<sub>eq</sub> of 55 dBA and interior levels at or below 45 dBA. Although these levels are relevant for planning and design and

useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA has set 55 dBA  $L_{dn}$  as the basic goal for residential environments. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA  $L_{dn}$ , have generally agreed on the 65 dBA  $L_{dn}$  level as being appropriate for residential uses. At 65 dBA  $L_{dn}$ , activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

The Department of Housing and Urban Development (HUD) was established in response to the Urban Development Act of 1965 (Public Law 90-448). HUD was tasked by the Housing and Urban Development Act of 1965 (Public Law 89-117) “to determine feasible methods of reducing the economic loss and hardships suffered by homeowners as a result of the depreciation in the value of their properties following the construction of airports in the vicinity of their homes.”

HUD first issued formal requirements related specifically to noise in 1971 (HUD Circular 1390.2). These requirements contained standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established the following three zones:

- 65 dBA  $L_{dn}$  or less - an acceptable zone where all projects could be approved.
- Exceeding 65 dBA  $L_{dn}$  but not exceeding 75 dBA  $L_{dn}$  - a normally unacceptable zone where mitigation measures would be required, and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA  $L_{dn}$  area and 10 dBA of attenuation in a 70 to 75 dBA  $L_{dn}$  area.
- Exceeding 75 dBA  $L_{dn}$  - an unacceptable zone in which projects would not, as a rule, be approved.

HUD’s regulations do not include interior noise standards. Rather a goal of 45 dBA  $L_{dn}$  is set forth and attenuation requirements are geared towards achieving that goal. HUD assumes that using standard construction techniques, any building will provide sufficient attenuation so that if the exterior level is 65 dBA  $L_{dn}$  or less, the interior level will be 45 dBA  $L_{dn}$  or less. Thus, structural attenuation is assumed at 20 dBA. However, HUD regulations were promulgated solely for residential development requiring government funding and are not related to the operation of schools or churches.

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the EPA. Noise exposure of this type is dependent on work conditions and is addressed through a facility’s or construction contractor’s health and safety plan. With the exception of construction workers involved in facility construction, occupational noise is irrelevant to this study and is not addressed further in this document.

## STATE

***California Department of Transportation (Caltrans)***

Caltrans has adopted policy and guidelines relating to traffic noise as outlined in the Traffic Noise Analysis Protocol (Caltrans 2011). The noise abatement criteria specified in the protocol are the same as those specified by FHWA.

***Governor's Office of Planning and Research (OPR)***

OPR has developed guidelines for the preparation of general plans (Office of Planning and Research, 2003). The guidelines include land use compatibility guidelines for noise exposure.

## LOCAL

## EXISTING TOWN NOISE THRESHOLDS

The City of Red Bluff General Plan Noise Element establishes goals and policies, as well as criteria for evaluating the compatibility of individual land uses with respect to noise exposure.

***Existing City of Red Bluff General Plan (1992) Noise Element:*****Goals**

- N-1: Reduce outdoor noise levels in existing residential areas where economically and aesthetically feasible.
- N-2: Ensure that new development conforms to City noise level standards.
- N-3: Locate new noise sensitive land uses away from noise sources unless mitigation measures are included in development plans.
- N-4: Correct or prevent point source noises that have been demonstrated to be annoying to nearby residents.
- N-5: Plan and design new streets or other public facilities to minimize noise in adjacent areas.
- N-6: Follow policies and noise mitigation measures contained in the Airport Land Uses Master Plan adopted by the Tehama County Airport Land Use Commission.

**Policies**

- N-1: Establish buffer areas between sensitive land uses and noise sources.
- N-2: Establish buffers where necessary to ensure that residential, hospital, retirement care and recreational areas are not particularly subject to excessive noise levels.
- N-3: Require noise mitigation measures when new residences are built in proximity to major transportation.

- N-4: Adopt and implement section III D (page 58) of the Red Bluff Land Development Policies in the Land Use Element to set noise buffering standards within the noise corridors.
- N-5: Require environmental impact reports and/or project initial studies to include a thorough noise analysis for residential projects and all other projects involving other projects involving other sensitive receptors such as schools and health care facilities. All new projects within the noise overlay zones shall also require a project level noise analysis.
- N-6: Encourage and plan for airport development and discourage noise-sensitive activities near the municipal airport.
- N-7: Locate recreational activities that have a potential to cause excessive noise away from noise sensitive land uses.

#### **Implementing Programs for Noise**

- N-1: Adopt and enforce an appropriate noise ordinance
- The City of Red Bluff is considering the adoption of a noise ordinance to regulate noise sources located on private property. The ordinance prohibits the generation of noise levels that increase background 15-minute  $L_{eq}$  values by more than 5 dBA on adjoining residential property, or by more than 8 dBA on adjoining commercial or industrial property. The ordinance also prohibits noise sources on public property if background 15-minute  $L_{eq}$  values are increased by more than 15 dBA at a distance of 25 feet from the noise source. The ordinance contains several exemptions for alarms and warning devices, daytime construction activities, emergencies, public safety activities and related situations. The ordinance also provides a permit procedure to authorize exemptions for special events or situations where it is impractical to comply with ordinance provisions.
- N-2: Utilize the noise corridor overlays as designated in the Land Use Element of the Red Bluff General Plan and delineated on Appendix A of this Noise Element.
- A noise corridor overlay is proposed to be designated for all residential districts through which freeway, state highway or active railway right-of-ways are present. The corridor overlay shall require, at the discretion of the Planning Commission, a noise buffer between the noise source and occupied structures within the proposed development area. Use of the buffer zone maybe required to comply with Title 24 criteria for multifamily dwellings and for the community noise level standards set forth in this General Plan Noise Element. The criterion for the overlay is as follows:
    - A. Buffer Zone Width - The following distances from the edge of the roadway to the nearest occupied structure, without a noise attenuation barrier at the edge of the right-of-way or at the occupied structure property boundary, may be required: Freeway corridor – 450 feet, Railroad Corridor – 600 feet, State highways and urban arterials – 100 feet. These distances can be greatly reduced with the construction of noise barriers as close to the noise source as possible.



These standards reflect worst-case predictions of future noise impacts from transportation sources. See Appendix A for a more accurate delineation of noise contours and the requirements of barriers or other mitigations may be modified after analysis by a qualified professional.

- B. Barrier specification - Noise mitigation barriers should be constructed as specified in item 3 below.
- C. Buffer Zone Uses - Vegetation and land contours should be retained whenever possible in the buffer zone. Only accessory structures and fencing are recommended for occupancy of the buffer zones.
- D. Density Transfer - Transfers of residential densities to accommodate noise buffer zones may be permitted in accordance with the character of the development site and by means of the approach given in Section III (B) of the Land Development Policies in the Land Use Element.

N-3: Implement staff and Planning Commission review of potential noise issues in new project location and design features.

- By taking advantage of the natural shape and terrain of a site, it is often possible to arrange buildings and other uses in ways that will reduce or eliminate noise impacts. Site planning techniques include increasing the distance between the noise source and the receiver; placing non-noise sensitive land uses such as parking lots, maintenance facilities, and utility areas between the source and the receiver; using non-noise sensitive structures such as garages to shield noise sensitive area; and orienting buildings to shield outdoor spaces from a noise source.
- In many cases, noise reduction can be attained by careful layout of noise sensitive spaces. Bedrooms, for example, should be placed away from busy roadways. Quiet outdoor spaces can be provided next to a noisy highway by creating a U-shaped development that faces away from the highway.
- Noise barriers or walls are commonly used to reduce noise levels from ground transportation noise sources. Noise barriers serve a dual purpose in that they can reduce both outdoor and indoor noise levels. To be effective, a noise barrier must be large enough to prevent significant noise transmission through it. It also must be high and long enough to shield the receiver from the noise source. A safe minimum surface weight for a noise barrier is 3.5 pounds per square foot of masonry or similar construction. The barrier must be constructed so that there are no creaks or openings in it. To be effective, a barrier must intercept the line of noise between the noise source and the receiver.
- An important and often overlooked consideration in the design of noise barriers is the phenomenon of 'flanking'. This is a term used to describe the manner by which a noise barrier's effectiveness is compromised by noise passing around the end of a barrier. Short barriers, regardless of height, provide little reduction in overall noise level. The effects of flanking can be minimized by blending the wall away from the noise source at the ends of the barrier.
- If site planning, architectural layout, noise barriers, or a combination of these measures do not achieve the required noise reduction, walls, roofs, ceilings, doors, windows, and other structural features of buildings may need modified.

- N-4: Implement staff and Planning Commission analysis of potential noise problems in proposed rezoning and general plan amendments.
- Where land use changes are being considered, it is appropriate to evaluate the potential for one land use to conflict with another through direct generation of noise or through generation of traffic, which may, in turn, generate additional noise. New or revisions of City zoning and land use map designations should include requirement for distance buffers or constructed barriers between incompatible land uses before the proposed land use change is approved. It should not be the City's policy or procedure to approve land use changes that may create noise problems with the expectation that new development applicants will mitigate those problems.
- N-5: Incorporate the noise mitigations identified in initial studies and EIRs for new projects as conditions for approval.
- Examples of such mitigations or conditions are:
    - A. Development plans shall include features that will mitigate noise impacts originating from project development that will exceed General Plan Noise Element guidelines.
    - B. Development plans shall include mitigation in the form of shielding or building insulation from offsite noises that exceed General Plan Noise Element Standards on site.
    - C. The owner shall retain a Certified Planner, Acoustical Engineer, or other qualified professional to design noise attenuation features for projects that present special acoustical problems.
    - D. Construction activities shall be limited to daylight hours. Construction equipment shall be in good working condition and shall incorporate abatement measures shown in Figure 10 where deemed feasible by City Staff.
    - E. Acoustical Screening shall be provided around mechanical equipment in a manner approved by City Staff.
- N-6: For properties otherwise approved for development within one half mile of the municipal airport, within the Airport Land use Planning Area delineated by the Tehama County Airport Land Use Commission and under the Air Traffic Pattern adopted by the City, a grant of aviation easement shall be required.
- Such agreements should contain perpetual easement and right-of-way for the unobstructed passage of all aircraft in the airspace above the property and the right to cause in all airspace about the surface of the property such noise or other effects that may be caused by the operation of aircraft landing at, or taking off from, or operating at or on the Red Bluff Municipal Airport.

**FIGURE 4.6-1: EXISTING RED BLUFF GENERAL PLAN (1992) NOISE AND LAND USE COMPATIBILITY GUIDELINES**

FIGURE 3.

## AIRPORT/LAND USE NOISE COMPATIBILITY CRITERIA

LAND USE CATEGORY	CNEL or LDN, DBA (1)				
	50-55	55-60	60-65	65-70	70-75
<u>Residential</u>					
Single-Family Detached & Duplexes	+	0	--	---	---
Multi-Family & Transient Lodging	++	+	0	--	---
Mobile Homes	+	--	--	---	---
<u>Public</u>					
Schools, Libraries, Hospitals & Nursing Homes	+	0	--	--	---
Churches, Auditoriums & Concert Halls	+	0	0	--	---
Transportation, Parking & Cemeteries	++	++	++	+	0
<u>Commercial &amp; Industrial</u>					
Office & Retail Trades	++	+	0	0	--
Commercial/Wholesale Trade Service & Warehousing, Light Industrial	++	++	+	0	0
General Manufacturing, Utilities & Extractive Industry	++	++	++	+	+
<u>Agricultural and Recreational</u>					
Cropland	++	++	++	++	+
Livestock Breeding	++	+	0	0	--
Parks, Playgrounds, Zoos	++	+	+	0	--
Golf Courses, Riding Stables & Water Recreation	++	++	+	0	0
Outdoor Spectator Sports	++	+	+	0	--
Amphitheaters	+	0	-	---	---

(1) See Figure 4 for location of contours.

FIGURE 3 cont.

## AIRPORT/LAND USE NOISE COMPATIBILITY CRITERIA

LAND USE ACCEPTABILITY		INTERPRETATION/CONDITIONS
++	Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
0	Marginally Acceptable	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The Land Use is acceptable on the conditions that outdoor activities are minimal and construction features, which provide sufficient noise attenuation, are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the Land Use should be discouraged.
--	Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses, which have conventionally constructed structures and/or involve outdoor activities, which would be disrupted by noise should generally be avoided.
-- --	Clearly Unacceptable	Unacceptable noise intrusion upon Land Use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

### 3.12.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact related to noise if it will result in:

- a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Generate excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions.

#### TRANSPORTATION NOISE INCREASE CRITERIA

Table 3.12-8 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the  $L_{dn}$ .

**TABLE 3.12-8: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE**

AMBIENT NOISE LEVEL WITHOUT PROJECT, $L_{DN}$	INCREASE REQUIRED FOR SIGNIFICANT IMPACT
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON)

Based on Table 3.12-8 data, an increase in the traffic noise level of 1.5 dB or more would be significant where the pre-project noise level exceeds 65 dB  $L_{dn}$ . Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 75 dB  $L_{dn}$ . The rationale for the Table 3.12-10 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

#### NON-TRANSPORTATION NOISE INCREASE CRITERIA

Stationary and Non-Transportation Noise Sources - A significant impact will occur if the project results in an exceedance of the noise level standards contained in Table N-3 of the General Plan Noise Element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

### **Vibration Standards**

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities and railroad operations are addressed as potential noise impacts associated with project implementation.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.12-9 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v).

**TABLE 3.12-9: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS**

PEAK PARTICLE VELOCITY		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of “architectural” damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of “architectural” damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize “architectural” damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic but would cause “architectural” damage and possibly minor structural damage.

Source: Caltrans. Transportation Related Earthborn Vibrations. TAV-02-01-R9601 February 20, 2002.

Construction activities may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams, pile drivers) are used. Construction activities often include demolition of existing structures, excavation, site preparation work, foundation work, and new building framing and finishing.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards.

Table 3.12-10 presents typical vibration levels that could be expected from construction equipment at a distance of 25-100 feet. The highest levels of vibration typically occur from pile driving operations. Pile driving vibrations are typically below 0.5 in/sec, PPV at distances of 50 feet or more.

**TABLE 3.12-10: VIBRATION LEVELS FOR VARYING CONSTRUCTION EQUIPMENT**

TYPE OF EQUIPMENT	P.P.V. @ 25 FEET (INCHES/SECOND)	P.P.V. @ 50 FEET (INCHES/SECOND)	P.P.V. @ 75 FEET (INCHES/SECOND)	P.P.V. @ 100 FEET (INCHES/SECOND)
Pile Drive (Impact)	0.644	0.226	0.124	0.080
Pile Drive (Sonic)	0.170	0.060	0.033	0.021
Large Bulldozer	0.089	0.031	0.017	0.011
Loaded Trucks	0.076	0.027	0.015	0.010
Small Bulldozer	0.003	0.001	0.000	0.000
Auger/Drill Rigs	0.089	0.031	0.017	0.011
Jackhammer	0.035	0.012	0.006	0.004
Vibratory Hammer	0.070	0.025	0.0135	0.009
Vibratory Compactor/Roller	0.210	0.074	0.040	0.026

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006



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## IMPACTS AND MITIGATION MEASURES

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### **Impact 3.12-1: General Plan implementation may result in exposure to significant traffic noise sources (Less-Than-Significant)**

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop  $L_{dn}$  (24-hour average) noise contours for all highways and major roadways in the General Plan study area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly  $L_{eq}$  values for free-flowing traffic conditions and is generally considered to be accurate within 1.5 dB. To predict  $L_{dn}$  values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing (2024) and Proposed 2045 General Plan Buildout volumes were obtained from the traffic modeling performed for the General Plan study area. Day/night traffic distributions were based upon continuous hourly noise measurement data and Saxelby Acoustics file data for similar roadways. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers.

Table 3.12-11 shows the future noise levels and the increase in noise levels associated with traffic on the local roadway network under the proposed General Plan, versus the existing (Baseline 2024) conditions.

**TABLE 3-12.11: EXISTING (2024) VS. PROPOSED 2045 GENERAL PLAN**

ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		BASELINE (2024)	PROPOSED GP	CHANGE	CRITERIA <sup>1</sup>	SIGNIFICANT?
Baker Road	Beegum Road (SR 36) to Estel Lane	60.8	61.7	0.9	+3.0 dB	No
Baker Road	Estel Lane to Walnut Street	62.5	63.3	0.8	+3.0 dB	No
Jackson Street	Walnut Street to Luther Road	62.1	63.0	0.9	+3.0 dB	No
Jackson Street	Luther Road to Vista Way	61.5	62.3	0.8	+3.0 dB	No
Monroe Street	Beegum Road (SR 36) to Walnut Street	57.6	58.4	0.8	+5.0 dB	No
Main Street (SR 36)	Beegum Road (SR 36) to Adobe Road	52.8	53.7	0.9	+5.0 dB	No
Main Street (SR 36)	Adobe Road to Union Street	63.1	63.9	0.8	+3.0 dB	No
Main Street (SR 36)	Union Street to Walnut Street	57.4	58.3	0.9	+5.0 dB	No
Main Street (SR 36)	Walnut Street to Oak Street	49.3	50.1	0.8	+5.0 dB	No
Main Street	Oak Avenue to I-5	56.3	57.1	0.8	+5.0 dB	No
Diamond Avenue	S. Main Street to I-5	59.5	60.3	0.8	+5.0 dB	No
Sale Lane	Antelope Boulevard to Gilmore Ranch Road	61.5	62.3	0.8	+3.0 dB	No
Beegum Road (SR 36)	Baker Road to Main Street (SR 36)	53.8	54.7	0.9	+5.0 dB	No
Adobe Road	Main Street to I-5	56.0	56.8	0.8	+5.0 dB	No
Walnut Street	Main Street to Baker Road	65.8	66.6	0.8	+1.5 dB	No
Oak Street	Jackson Street to Main Street	58.7	59.5	0.8	+5.0 dB	No
Antelope Boulevard (SR 36)	Main Street to I-5	57.2	58.0	0.8	+5.0 dB	No
Antelope Boulevard (SR 36)	I-5 to SR 99	66.8	67.7	0.9	+1.5 dB	No
SR 99	East of to SR 36	75.9	76.7	0.8	+1.5 dB	No
Luther Road	Paskenta Road to S. Main Street	72.8	73.7	0.9	+1.5 dB	No

<sup>1</sup> Where existing noise levels are less than 60 dB an increase of 5 dB would be a significant increase. Where existing noise levels exceed 60 dB but are less than 65 dB, an increase of 3 dB or more would be significant. Additionally, any increase causing noise levels to exceed the City's Normally Acceptable 60 dB Ldn noise level standard at an existing outdoor activity area of a residential use would also be significant. Where existing noise levels exceed 65 dB, an increase of 1.5 dB or more would be significant.

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHRS & PEERS, CALTRANS, AND SAXELBY ACOUSTICS 2024

Buildout of the General Plan may contribute to transportation noise at existing sensitive receptors. As indicated by Table 3.12-11, the related traffic noise level increases with a circulation system buildout of the proposed 2045 General Plan are predicted to increase between 0.1 to 0.9 dB versus the existing (2024) conditions.

General Plan Policies N 1.1 through N 1.8, identified below, are intended to minimize exposure to excessive noise, including noise associated with traffic. Specifically, Policy N 1.5 and Policy N 1.6 support noise-compatible land uses in the vicinity of traffic noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables N-1 and N-2.

As shown in Table 3.12-11, the traffic noise increases associated with the proposed General Plan comply with the applicable test of significance. Therefore, the proposed General Plan would have a **less-than-significant** impact relative to traffic noise on existing noise-sensitive uses in the City.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

- N 1.1: Consider the noise compatibility of existing and future development when making land use planning decisions.
- N 1.2: Require development projects and changes to existing uses to be consistent with the standards indicated in Table N-1 to ensure acceptable noise levels for existing and future development.
- N 1.4: Ensure that new development does not result in indoor noise levels exceeding 45 dBA  $L_{dn}$  for residential uses by requiring the implementation of construction techniques and noise reduction measures for all new residential development.
- N 1.5: Require acoustical studies for new noise-generating and noise-sensitive developments, and transportation improvements that would increase roadway capacity or move traffic closer to sensitive receptors.
- N 1.6: For projects that are required to prepare an acoustical study, the following stationary and transportation noise source criteria shall be used to determine the significance of those impacts:

##### **Stationary and Non-Transportation Noise Sources**

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or for instances where the ambient noise level is already above the standards contained in this element, the project will result in an increase in ambient noise levels by more than 3 dBA, whichever is greater.
- This does not apply to construction activities which are conducted according to the best practices outlined in Action N-1b. Compliance with these requirements shall be sufficient to reduce temporary construction-related noise impacts to a less than significant level.

##### **Transportation Noise Sources**

- Where existing traffic noise levels are 60 dBA  $L_{dn}$  or less at the outdoor activity areas of noise-sensitive uses, a +5 dBA  $L_{dn}$  increase in roadway noise levels will be considered significant;
  - Where existing traffic noise levels are greater than 60 dBA  $L_{dn}$  and up to 65 dBA  $L_{dn}$  at the outdoor activity areas of noise-sensitive uses, a +3 dBA  $L_{dn}$  increase in roadway noise levels will be considered significant; and
  - Where existing traffic noise levels are greater than 65 dBA  $L_{dn}$  at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA  $L_{dn}$  increase in roadway noise levels will be considered significant.
- N 1.7: Work with Caltrans to ensure that adequate noise studies are prepared and alternative noise mitigation measures are considered in State transportation projects.
- N 1.8: Support noise-compatible land uses along Interstate 5, Highway 36, and Highway 99.

**Impact 3.12-2: General Plan implementation may result in exposure to excessive railroad noise sources (Less than Significant)**

Table 3.12-4 indicates that the 60 dBA  $L_{dn}$  railroad noise contours for the Union Pacific Rail Line may extend up to 422 feet from the railroad centerline. Future development located along these railroad lines could therefore be exposed to unacceptable exterior noise levels.

Specifically, Policies N 1.2 through N 1.4 and Policy N 1.12 support noise-compatible land uses in the vicinity of railroad noise sources and requires that new development and infrastructure projects be reviewed for consistency with the noise standards established in Table N-1. The proposed General Plan standards required under Policy N 1.12, for exposure to railroad noise meet or exceed the noise level standards of the adopted General Plan.

Implementation of these General Plan policies and actions would ensure that development allowed under the proposed General Plan is not exposed to noise levels associated with railroad operations in excess of the City's established standards. This is a **less than significant** impact.

**GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

- N 1.2: Require development projects and changes to existing uses to be consistent with the standards indicated in Table N-1 to ensure acceptable noise levels for existing and future development.
- N 1.3: Require new development to reduce excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.
- N 1.4: Ensure that new development does not result in indoor noise levels exceeding 45 dBA  $L_{dn}$  for residential uses by requiring the implementation of construction techniques and noise reduction measures for all new residential development.
- N 1.12: Require proposed developments in close proximity to rail lines (within 100 feet or less of the rail line measured from the property line of proposed development) to demonstrate that groundborne vibration and noise nuisance associated with rail operations have been adequately addressed and would not exceed the Federal Transit Administration guidelines prior to approving the development of sensitive uses.

**Impact 3.12-3: Implementation of the General Plan could result in the generation of excessive stationary noise sources (Less than Significant)**

Implementation of the General Plan could result in the future development of land uses that generate noise levels in excess of applicable City noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, and recreational uses. While the General Plan does not specifically propose any new noise generating uses, the Land Use Map includes industrial land use designations, which may result in new noise sources. Specific land uses that would be located in the city are not known at this time. Additionally, noise from existing stationary sources, as identified in the background section of this chapter, will continue to impact noise-sensitive land uses in the vicinity. New projects which may include stationary noise sources such as automotive

and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields may create noise levels in excess of the City's standards.

While no specific projects are proposed under the General Plan Update, changes in land use may allow for more intensive noise-generating uses in closer proximity to noise-sensitive uses. Where this occurs, detailed noise studies would be required to ensure that noise control measures are implemented into the project design. Such measures could include facing loading docks of industrial buildings away from sensitive uses, construction of sound walls or berms between loading docks and sensitive uses, using buildings to create additional buffer distance and screening, or other site design measures to ensure that non-transportation (stationary receptors) noise sources do not cause exterior noise levels to exceed allowable standards at sensitive.

For example, a typical busy loading dock for a warehouse might generate noise levels of approximately 66 dBA  $L_{eq}$  at a distance of 100 feet, as shown in Table 3.12-5. This would exceed the City's proposed stationary noise standards of 55 dBA  $L_{eq}$  (daytime) and 45 dBA  $L_{eq}$  (nighttime). Construction of a 12-foot-tall sound wall would reduce loading dock noise levels to approximately 53 dBA  $L_{eq}$  (Appendix D). For a daytime use loading dock, this would be sufficient to meet the City's 55 dBA  $L_{eq}$  daytime noise standard. For a loading dock which requires nighttime operation, a sound wall would not be sufficient to achieve the 45 dBA  $L_{eq}$  nighttime noise standard. To achieve the nighttime noise standard, the distance from the loading dock would need to be increased to 250 feet for the 12-foot-tall wall to achieve the 45 dBA  $L_{eq}$  nighttime standard (Appendix D-2). Alternatively, the loading docks could face internal to the project site and the industrial building could be used to screen loading dock noise. In this case the loading dock could be located 150 feet from a sensitive receptor, assuming it was screened by a 20-foot-tall building (Appendix D-3). This would achieve the City's 45 dBA  $L_{eq}$  nighttime noise standard. While this is just a theoretical scenario, it illustrates that use of site design measures, screening walls, etc. can be sufficient to achieve compliance with the City's stationary noise standards, even when more intensive uses are proposed in closer proximity to sensitive receptors.

The General Plan includes policies and actions that are intended to reduce noise associated with stationary sources. Specifically, Policies N 1.3, N 1.6, N 1.10, and N 1.11 would reduce noise associated with stationary sources. Implementation of the proposed policies and actions of the General Plan will reduce noise impacts from stationary noise sources to a **less than significant** level.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

- N 1.3: Require new development to reduce excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.
- N 1.6: For projects that are required to prepare an acoustical study, the following stationary and transportation noise source criteria shall be used to determine the significance of those impacts:

##### **Stationary and Non-Transportation Noise Sources**

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or for instances where the ambient noise

level is already above the standards contained in this element, the project will result in an increase in ambient noise levels by more than 3 dBA, whichever is greater.

- This does not apply to construction activities which are conducted according to the best practices outlined in Action N-1b. Compliance with these requirements shall be sufficient to reduce temporary construction-related noise impacts to a less than significant level.

### Transportation Noise Sources

- Where existing traffic noise levels are 60 dBA  $L_{dn}$  or less at the outdoor activity areas of noise-sensitive uses, a +5 dBA  $L_{dn}$  increase in roadway noise levels will be considered significant;
- Where existing traffic noise levels are greater than 60 dBA  $L_{dn}$  and up to 65 dBA  $L_{dn}$  at the outdoor activity areas of noise-sensitive uses, a +3 dBA  $L$  increase in roadway noise levels will be considered significant; and
- Where existing traffic noise levels are greater than 65 dBA  $L_{dn}$  at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA  $L_{dn}$  increase in roadway noise levels will be considered significant.

N 1.10: Temporary special events including, but not limited to, festivals, concerts, parades, and other similar activities may be allowed to exceed the noise standards established in this General Plan through approval and issuance of a special event permit.

N 1.11: Temporary emergency operations or emergency equipment usage may be exempt from noise standard criteria set by this element.

### Impact 3.12-4: General Plan implementation may result in an increase in construction noise sources (Less than Significant)

New development, maintenance of roadways, and installation of public utilities and infrastructure generally require construction activities. These activities include the use of heavy equipment and impact tools. Table 3.12-12 provides a list of the types of equipment which may be associated with construction activities, and their associated noise levels.

**TABLE 3.12-12: CONSTRUCTION EQUIPMENT NOISE**

TYPE OF EQUIPMENT	PREDICTED NOISE LEVELS, LMAX dB				DISTANCES TO NOISE CONTOURS (FEET)	
	NOISE LEVEL AT 50'	NOISE LEVEL AT 100'	NOISE LEVEL AT 200'	NOISE LEVEL AT 400'	70 dB LMAX CONTOUR	65 dB LMAX CONTOUR
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

Source: Roadway Construction Noise Model User's Guide. Federal Highway Administration. FHWA-HEP-05-054. January 2006. Saxelby Acoustics, LLC 2019.

Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction could result in periods of significant ambient noise level increases and the potential for annoyance. However, the proposed General Plan includes policies and actions that are intended to reduce noise associated with construction noise (listed below). Specifically, Policy N 1.3 and Action N-1b would reduce noise associated with construction noise. Implementation of the proposed policies and actions of the General Plan will ensure noise impacts from construction are **less than significant**.

#### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

- N 1.3: Require new development to reduce excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.
- N-1b: Update the Municipal Code to include the following construction noise best practices and requirements:
- Establish standards for when a construction staging and phasing plan shall be required for new development projects and significant remodels.
  - At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.

- Unnecessary idling of internal combustion engines shall be prohibited. All idling shall be subject to CARBs Airborne Toxic Control Measures (CCR Title. 13, § 2485) to limit Diesel-fueled commercial motor vehicle Idling, and CARB Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation).
- Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.
- The construction general contractor shall act as, or retain a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

#### **Impact 3.12-5: General Plan implementation may result in exposure to excessive aircraft noise sources (Less than Significant)**

Implementation of the General Plan could result in the creation of new noise-sensitive land uses within the 60 dB CNEL noise contours contained within the Red Bluff Municipal Airport Land Use Compatibility Plan, as shown by Figure 3.12-2.

Single-event noise associated with aircraft overflights is also of concern when evaluating aircraft noise effects in terms of land use compatibility. Single-event noise is the maximum sound level produced by an individual approach overflight at a specific location, often described in terms of  $L_{max}$ , which is the maximum sound level recorded for each event. A different measurement is single-event noise, also commonly used when evaluating aircraft noise, is the SEL. The SEL describes the event’s mean energy level over the duration of the noise event. As would be expected, single-event noise levels for aircraft overflights within the Planning Area would be greatest and most frequent near the airport’s primary flight paths.

General Plan Policies N 1.1 through N 1.4, identified below, are intended to minimize exposure to excessive noise, including noise associated with aircraft noise sources. Specifically, Policies Policy N 1.2 and Policy N 1.9 support noise-compatible land uses in the vicinity of aircraft noise sources and require that new development projects be reviewed for consistency with the noise standards established in Tables N-1. The proposed General Plan standards required under Policy N-1.3, for exposure to aircraft noise meet or exceed the noise level standards of the adopted General Plan.

The General Plan includes policies and actions intended to reduce noise impacts throughout the County. With the implementation of the General Plan policies and actions, the noise impact relative to airports would be **less-than-significant**.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

- N 1.1: Consider the noise compatibility of existing and future development when making land use planning decisions.
- N 1.2: Require development projects and changes to existing uses to be consistent with the standards indicated in Table N-1 to ensure acceptable noise levels for existing and future development.
- N 1.3: Require new development to reduce excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design



features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.

- N 1.4: Ensure that new development does not result in indoor noise levels exceeding 45 dBA  $L_{dn}$  for residential uses by requiring the implementation of construction techniques and noise reduction measures for all new residential development.
- N 1.9: Work cooperatively with the Tehama County Airport Land Use Commission to minimize noise impacts from airspace activities in Red Bluff, such as airplane and helicopter flights.

### **Impact 3.12-6: General Plan implementation may result in construction vibration (Less than Significant)**

Construction activities facilitated by the proposed General Plan may include demolition of existing structures, site preparation work, excavation of below grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels may also occur on some project sites and vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

While typical construction vibrations are not predicted to cause damage to existing buildings or cause annoyance to sensitive receptors located further than 25-feet, should pile driving be required within 50 feet of an existing structure, these impacts may be considered significant. With implementation of Action N-1b below would ensure that construction vibrations do not cause damage to any adjacent structures, and thus, the proposed project would result in a **less than significant** impact relative to this environmental topic.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

- N-1b: Update the Municipal Code to include the following construction noise best practices and requirements:
- Establish standards for when a construction staging and phasing plan shall be required for new development projects and significant remodels.
  - At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.
  - Unnecessary idling of internal combustion engines shall be prohibited. All idling shall be subject to CARBs Airborne Toxic Control Measures (CCR Title. 13, § 2485) to limit Diesel-fueled commercial motor vehicle Idling, and CARB Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation).
  - Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.
  - The construction general contractor shall act as, or retain a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone

number for the disturbance coordinator shall be conspicuously posted at the construction site.

**Impact 3.12-7: General Plan implementation may result in exposure to groundborne vibration (Less than Significant)**

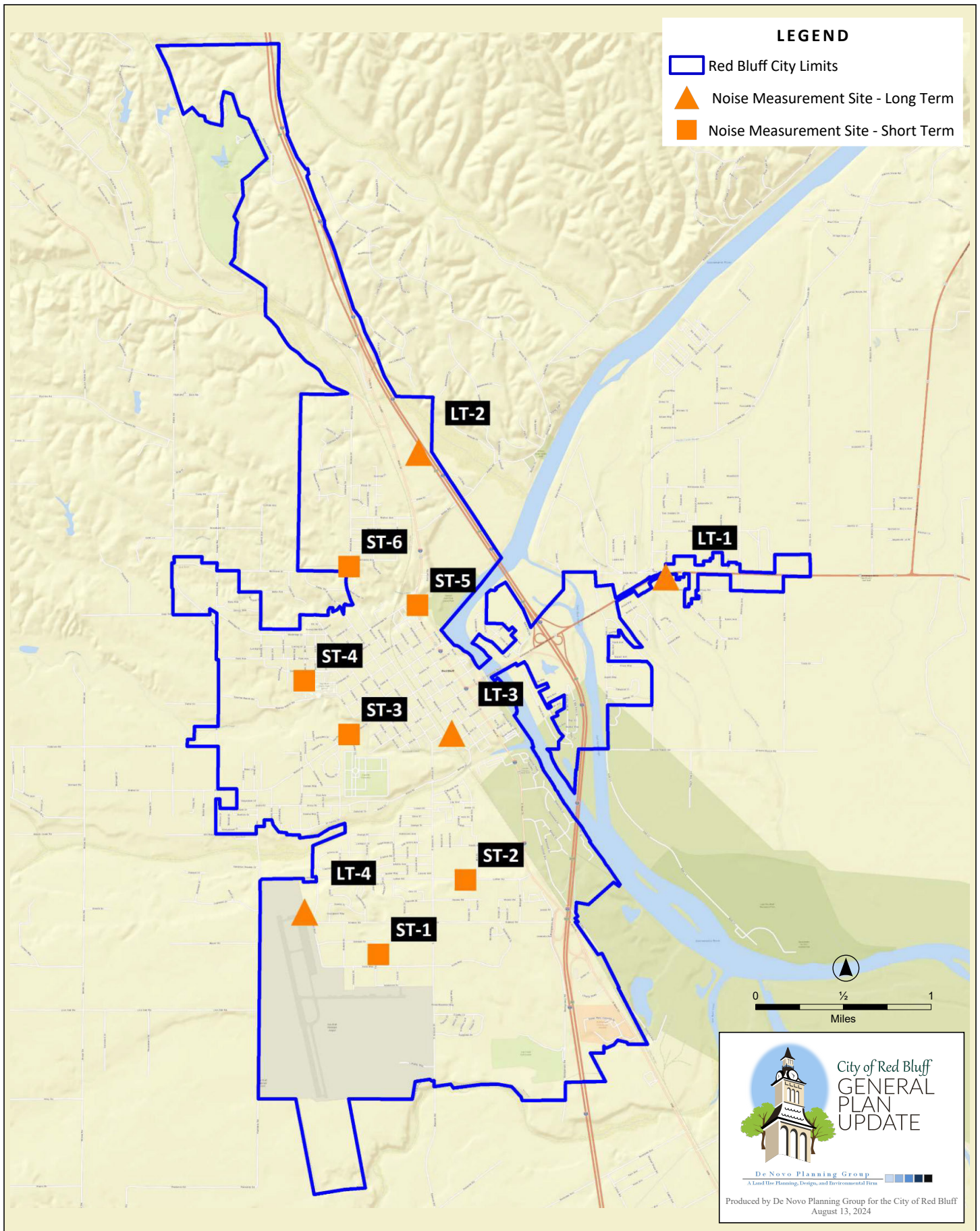
Development facilitated by the General Plan could expose persons to excessive groundborne vibration levels attributable to trains. The proposed locations of buildings and their specific sensitivity to vibration are not known at this time; however, such uses located in close proximity to railroad tracks could be exposed to ground vibration levels exceeding FTA guidelines.

The proposed General Plan includes Policy N 1.12 which requires that individual development projects undergo project-specific environmental review and address potential vibration impacts associated with railroad operations. If project-level significant vibration impacts are identified, specific mitigation measures will be required under CEQA. The implementation of this policy would limit potential groundborne vibrations associated with railroad operations to a **less than significant** level.

**GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

- N 1.12 Require proposed developments in close proximity to rail lines (within 100 feet or less of the rail line measured from the property line of proposed development) to demonstrate that groundborne vibration and noise nuisance associated with rail operations have been adequately addressed and would not exceed the Federal Transit Administration guidelines prior to approving the development of sensitive uses.

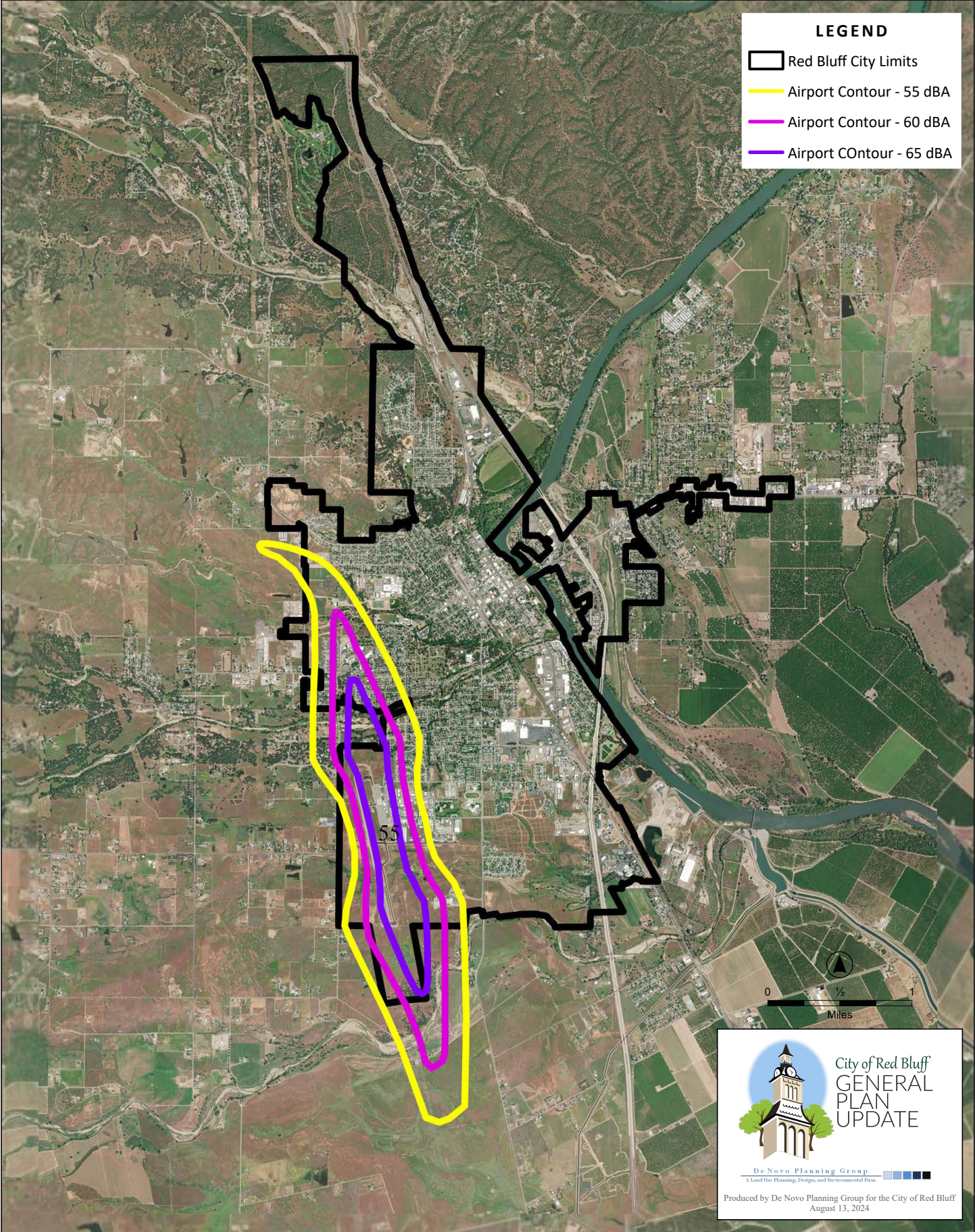
Figure 3.12-1. Noise Measurement Locations



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Figure 3.12-2. Red Bluff Municipal Airport Noise Contours (CNEL)



Source: Saxelby Acoustics.



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Public services such as fire and police protection are vital to maintaining a safe and healthy community. Educational services serve as a foundation for providing citizens with the skills and resources to excel today and in the future. There are many other public services that are important to a community, such as parks and recreational opportunities, libraries, museums, hospitals, and other healthcare facilities.

This section provides a background discussion and analysis of fire protection services, police services, schools, parks and recreational facilities, libraries, and other community facilities and services. This section is organized with an existing setting, regulatory setting, and impact analysis.

Utilities services, including water, sewer, stormwater and drainage, and solid waste disposal, are addressed in Chapter 3.15 (Utilities and Service Systems) of this Draft EIR.

No comments were received during the NOP comment period regarding this environmental topic.

### 3.13.1 EXISTING CONDITIONS

#### FIRE PROTECTION SERVICES

Fire protection services within the City of Red Bluff is provided by the Red Bluff Fire Department (RBFD). The Tehama County Fire Department (TCFD) also provides fire protection services for the surrounding rural area around Red Bluff (in unincorporated Tehama County). The location of the RBFD station in Red Bluff is shown on Figure 3.13-1.

#### **Tehama County Fire Department**

The TCFD serves Tehama County with a mission to protect life, property, and the environment through proactive and responsive fire and emergency services. TCFD operates under the leadership of firefighters, emergency medical responders, and support staff committed to ensuring public safety. The TCFD averages approximately 8,300 all-risk incidents annually. The TCFD has been had a cooperative agreement with CAL FIRE since 1927 to manage and provide all-risk fire and emergency medical services to the unincorporated areas within Tehama County.

#### **Red Bluff Fire Department**

The RBFD provides fire suppression and emergency medical services to all areas within the city limits within an approximately 7.8 square mile service area and a population of approximately 14,000 residents. Services provided by the Red Bluff Fire Department include fire suppression, emergency medical services (EMS), search and rescue (SAR), and extrication. The RBFD station is located at 555 Washington Street. The RBFD currently has 3 structure engines, 1 brush engine, 1 ladder truck and one mobile breathing support unit.

The RBFD provides fire suppression, hazard materials first responder, rescue and basic life support services. RBFD goal of safeguarding the community from fire and environmental hazards is achieved through programs adhering to fire regulations as dictated by the California Fire Code and

the Red Bluff Municipal Code. In addition to fire protection services, the RBFD also provides the following services:

- Checking plans for fire, life safety, and environmental requirements
- Issuing fire permits
- Conducting fire, life safety, and environmental inspections
- Conducting fire investigations
- Providing public education programs

### **ISO Rating**

The Insurance Services Office (ISO) rating measures individual fire protection agencies against a national Fire Suppression Rating Schedule which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm responses and initial attack, and adequacy of the local water supply for the fire suppression purposes. ISO ratings are on a scale of 1-10 with 1 being the highest rating.

An Insurance Services Office (ISO) rating is a collection of information on a community's public fire protection, which is determined by using a Fire Suppression Rating Schedule (FSRS). The FSRS is the manual that the ISO uses in reviewing the firefighting capabilities of individual communities. The schedule measures the major elements of a community's fire suppression system and develops a numerical grading called a Public Protection Classification (PPC). The FSRS determines a Public Protection Classification from 1 to 10. Class 1 represents the best public protection, and Class 10 indicates less than the minimum recognized protection. By classifying a community's ability to suppress fires, ISO helps the communities evaluate their public fire protection services.

In 2015, ISO came and reclassified Red Bluff Fire Department with an ISO rating of (Class) 2. This was an increase from their previous rating of ISO (Class) 5. In 2019, ISO came for reevaluation purposes and again rated RBFD an ISO rating of (Class) 2.

## **POLICE PROTECTION SERVICES**

### **City of Red Bluff Police Department**

The City of Red Bluff Police Department provides law enforcement services within the city limits. The Police Department provides all aspects of law enforcement, including Patrol, Investigations, 911 dispatch, traffic enforcement, and traffic collision investigations.

#### **OPERATIONS DIVISION**

The Operations Division is comprised of Sergeants, Corporals, Officers, and Community Service Officers (CSO) whose primary function is to deliver initial police services to the community. These uniformed personnel provide police response to calls for service as well as the initial response to an emergency 24 hours a day, 7 days a week.



Other personnel within the Operations Division include two full-time School Resource Officers (SRO) and one traffic officer, when available. The Volunteers in Police Services (VIPS) also fall within the Operations Division. Programs associated with this division include the K-9 unit, Field Training, SWAT, Special Events, Professional Development, School Resource, Gang Resistance Education and Training, and Volunteers in Police Service. The Operations Division is currently commanded by one Captain and allocated with five sergeants, two corporals, fifteen police officers, four community service officers (CSO's), two school resource officers (SRO's), and seven volunteers in police services (VIPS).

The Operations Division accounts for most of the department's measurable workload and is the most visible in the community as they are usually the primary contact for persons seeking police services.

#### COMMUNITY SERVICE OFFICERS

The Community Service Officer (CSO) Unit is committed to supporting the mission of the Red Bluff Police Department. Operationally, the non-sworn CSO unit is divided into two sections: a patrol unit which is overseen by the operations division commander, and a support unit overseen by the support/special services division commander.

Patrol CSOs are responsible for taking "after-the-fact" reports and incidents where a suspect is not on-scene. Patrol CSOs also respond to minor traffic collisions, conduct their own follow-up investigations, and prepare their own reports.

Support/Special Services CSOs are tasked with other essential duties necessary to the daily functions of the police department. Some of these duties include animal control, city-wide parking enforcement, and fleet vehicle maintenance. Additionally, one full-time CSO is assigned to the department's Property and Evidence Unit.

#### SCHOOL RESOURCES

The City of Red Bluff has two officers who serve as the school Resource Officers for several Red Bluff schools. Their duties include teaching different safety-related courses, as well as responding to emergencies or reports of crime on campuses

#### SUPPORT AND SPECIAL SERVICES DIVISION

The Support and Special Services Division is commanded by one Lieutenant and encompasses the Communications Center, Records Unit, and Investigations Unit. This Division is also responsible for acquiring and maintaining information technologies, acquisition and maintenance of vehicles, property and evidence management, grant acquisition, and provides for other logistical needs of the Department.

#### RECORDS SPECIALISTS

The job duties of a Records Specialist at the Red Bluff Police Department are varied. They include being the first line of interaction with the general public in the office, processing paperwork of all

arrested persons for submission to the DA or court, reviewing citations and reports for accuracy, preparing and releasing police reports, and answering phone calls and counter inquiries. Under general supervision, the records specialist maintains police records and provides information and assistance to department personnel, allied agencies, and the general public.

### COMMUNICATIONS CENTER

The Red Bluff Police Department's Communications Center consists of seven dispatchers, two reserve dispatchers, and a manager. The center is staffed 24 hours a day, 365 days of the year. There are usually one or two dispatchers on duty at any time.

The dispatchers' primary responsibilities include answering emergency and non-emergency phone lines, keeping track of all on-duty personnel, and monitoring the department's primary radio channel and allied agency radio channels.

Dispatchers use a Computer Aided Dispatch (CAD) system to input calls for service and keep track of all units. They prioritize these calls for service quickly and efficiently, and then dispatch the appropriate units. For these reasons, the Communications Center is considered the hub of the department.

### INVESTIGATIONS

The Investigations Unit is responsible for follow-up investigation of the most serious and significant crimes such as murder, sexual abuse, felonious assaults, and other violent offenses. This unit is also responsible for follow-up investigation of missing persons and runaway juveniles.

### **Tehama County Sheriff's Department**

The Tehama County Sheriff's Department's (TCSD) service area includes the unincorporated portions of Tehama County. The Sheriff's Department provides boating patrol service, dispatch and communications, emergency services, training, evidence, civil division, records and clerical, coroners, code enforcement, K-9, Search and Rescue (SAR), Chaplain's Corp, internal affairs, animal regulation, custody, food services, transportation units, a Special Weapons and Tactics Team (S.W.A.T), transportation, and jail operations.

The California Highway Patrol also assists the Tehama County Sheriff's Department with mutual law enforcement assistance as well as traffic enforcement and collision investigations in the unincorporated areas of the County.

### CRIMES BY CATEGORY IN RED BLUFF

Statistics on the number of crimes by category of crime in Red Bluff during each year for 2021, 2022, and 2023 as reported by the City of Red Bluff Police Department is shown in Table 3.13-1 below.

**TABLE 3.13-1: RED BLUFF POLICE DEPARTMENT CRIME STATISTICS (2021-2023)**

CATEGORY/CRIME	2021	2022	2023
Homicide	2	1	0
Rape	19	17	21
Robbery	26	29	35
Assault - Simple	239	398	432
Assault - Agravated	78	93	121
Burglary	137	81	86
Larceny	351	511	671
Motor Vehicle Theft	106	120	86
Arson	38	42	22

SOURCE: RED BLUFF POLICE DEPARTMENT ANNUAL REPORT 2022; RED BLUFF POLICE DEPARTMENT ANNUAL REPORT 2023.

As shown in the table, the majority of crimes committed in Red Bluff consist of property crimes, primarily larceny. Additionally, in 2023, there were no homicides reported in Red Bluff.

## MISCELLANEOUS PUBLIC SAFETY

### Multi-Jurisdictional Local Government Emergency Response

The Tehama County Sheriff's Office of Emergency Services (OES) primary responsibility is to coordinate response to disasters or other large-scale emergencies. The office is charged with providing the necessary planning, coordination, response support and communications with all agencies affected by large scale emergencies or disasters. OES works in a cooperative effort with other governmental jurisdictions within the county such as: law enforcement, fire, emergency medical services, state and federal agencies, utilities, private industry and volunteer groups in order to provide a coordinated response to disasters. The Emergency Services Coordinator also manages the County Emergency Operations Center (EOC) which is located in the Sheriff's Office and or Red Bluff Community Center. The EOC becomes the single focal point for centralized management and coordination of emergency response and recovery operations during a disaster or other emergency affecting the Tehama County Operational Area. The EOC will be activated when an emergency situation occurs that exceeds local and/or in field capabilities to adequately respond to and mitigate the incident.

The Tehama County Sheriff's Office of Emergency Services (OES) is also responsible for the administration of the county emergency management program on a day to day basis.

### PARKS AND RECREATIONAL FACILITIES

This section addresses the provision of parks and recreation amenities in the City of Red Bluff. Parks and recreational facilities in the City of Red Bluff are managed and maintained by the Parks & Recreation Department. Figure 3.13-1 identifies the City's parks.

#### **Types of Parks**

##### COMMUNITY PARKS

Community parks are generally 15 to 25 acres in size, and include areas for active sports as well as space for family and group activities, such as picnicking. Community parks are larger in size than neighborhood parks and serve to fulfill the active and passive recreational needs of multiple neighborhoods. The community park serves the needs of local neighborhoods by providing a close to home site for more active recreation that is not typically suitable or physically possible in a neighborhood park (i.e. formal sports fields and courts with night lighting). Community parks and sports parks are where most organized activities provided by the Parks and Recreation Department and various league sports are intended to occur.

##### NEIGHBORHOOD PARKS

Neighborhood parks serve as the focal point of neighborhood communities, the hub for both physical and social activities in a recreational setting that should be primarily passive. Appropriately designed neighborhood parks act as “pulse points” within the city. They are spaces that develop a sense of place while at the same time evolve to reflect the neighborhood they represent. Neighborhood parks act as critical building blocks of the city's image and assist in developing an overall sense of community and security. They also serve as critical nodes and access points in the city-wide green space network. Neighborhood parks are generally 5 to 7 acres. Amenities at neighborhood parks may include open multi-uses spaces, basketball, volleyball, bocce ball, and tennis courts, small picnic areas, playground equipment, restroom facilities, water play features, and barbeques.

##### SPECIAL USE PARKS

The Special Use Parks allow for flexibility in providing recreational resources throughout the city-wide park space network. This classification is intended to accommodate special circumstances, unique site characteristics, etc. in park, trail, and recreation resources. These types of resources add diversity to the park network and accommodate a variety of non-traditional recreation amenities beyond the standard neighborhood, and community, park classifications.

#### **City Parks**

The City of Red Bluff Parks and Recreation Department oversees and manages park and recreation resources within the City limits. The City of Red Bluff has 81 acres of recreation land not including public school property, undeveloped future recreation sites and various athletic courts. The City of Red Bluff Parks and Recreation Department makes active use of most of these spaces and facilities

in the summer season and fall-winter-spring season programs. Table 3.13-2 summarizes the City's parks and facilities managed by the City of Red Bluff Parks & Recreation Department.

**TABLE 3.13-2: SUMMARY OF PARKS & RECREATION DEPARTMENT PARKS AND FACILITIES**

<i>PARK/FACILITY NAME</i>	<i>ADDRESS</i>	<i>FACILITY FEATURES</i>	<i>FACILITY TYPE</i>
Trainor Park Frey & Tosh Field	1000 Trainor Street	Play Area, 2 Softball Fields, Lighting, Picnic Tables, Restrooms, Parking Lots, Grassy and Shady Areas.	Park
Campfire Recreation Area and Building	825 Cedar Avenue	Grassy Areas and Shady Areas	Park
Carl Coleman Tennis Courts	1218 Franklin St	Four Lighted Tennis Courts	Facility
Diamond Park/Skate Park	Diamond Avenue	Skate Park, 3 Play Areas, Softball Field, Basketball Court, Restrooms, Picnic Tables, 2 Public Parking Lots, ADA Parking, ADA Picnic Tables, Grassy Area, and Shady Area.	Park
Forward Park	1850 Monroe Avenue	Basketball Court, Walking Trails, BBQ Pit, Softball Field, Restroom, Picnic Area, Picnic Tables, Shady Areas, and Grassy Areas.	Park
Jackson Heights Park	225 South Jackson Street	Lighted Ball Diamond	Park
Lincoln Street Tennis Courts	1135 Lincoln Street	Three Lighted Tennis Courts	Facility
Luning Street / Lots for Tots Playground	1505 Duncan Avenue	Playground Equipment, drinking fountains, grassy and shady areas.	Park
River Park/McGlynn Pool	104 Riverside Way	McGlynn Swimming Pool, Band Stand, Boat Ramp, Volleyball and Basketball Courts, Playground Equipment, Picnicking	Park
Samuel Ayer Park and Dog Island	1350 Main Street	Disc Golf, Walking Trails, Fire Pit, Fishing, Picnic Tables/Areas, Grassy Areas, and Shady Areas	Park

*SOURCE: CITY OF RED BLUFF PARKS AND RECREATION, 2024.*

In addition to the above City maintained facilities, there are other public facilities in the City, which are used, when available, for City-sponsored recreation activities. They include the swimming pool at the Red Bluff High School; volleyball and basketball at the High School and Vista School; softball, baseball and badminton at the High School and soccer at Vista School. The city also has designated an urban bikeway, which affords an excellent opportunity for area family cycling for city residents.

The City of Red Bluff Parks and Recreation Department also offers a year-round program of activities. Its Summer Program and Swim-To-Live Programs offer a variety of community activities at facilities listed above. Activities begin in Mid-June and continue through Mid-August.

The City of Red Bluff is fortunate to be location in a region of abundant recreational opportunities. In the immediate locale, the Sacramento River offers opportunities for boating, fishing and wildlife

viewing. The Red Bluff Recreation Area offers swimming, camping, trails, and environmental study area, interpretive facilities, day use and picnic areas, boating and fishing. On a regional scale, the region offers many opportunities for hiking, camping, hunting, skiing and other activities at Lassen Volcanic National Park.

A number of sites are proposed for expansion of the city recreation land inventory. New city owned sites, which may be improved include the following:

### FORWARD PARK EXPANSION

A large acreage of floodplain and wooded land lies to the east of Forward Park (not unlike Chico's Bidwell Park in character). This land is ideal for recreational and day use and is presently used and somewhat abused, informally. Improving trails, providing family picnic sites and limiting off-road vehicle access while improving auto access and managing activities would provide Red Bluff a very significant addition to its park inventory.

### JACKSON HEIGHTS SCHOOL PROPERTY

A substantial amount of the Jackson Heights School grounds is ideal for recreational purposes. Agreements with the school district for its use will allow expansion of recreational opportunities in a very central location.

### KRAFT PLAYGROUND

The improvement and maintenance of Kraft playground, off Rio Street, is a worthwhile project for the City. The quiet location and river view opportunities make it ideal for day and short-term use for children and downtown workers.

## SCHOOLS

The Red Bluff Union Elementary School District (RBUESD) and the Red Bluff Joint Union High School District (RBJUSD), provide public school services for elementary and high schools (grades K-12) throughout the City of Red Bluff. A small portion of the eastern side of the City of Red Bluff, east of the Sacramento River, is served by the Antelope Elementary School District. The RBUESD is a Kingdergarten-8th grade district comprised of four campuses; three Kingdergarten-5th grade schools and one 6th grade-8th grade middle school. The Antelope School District is comprised of 2 Elementary Schools, a middle school, and a charter school. In 2018, the RBUESD passed a local bond for the purpose of modernizing the campuses. The primary focus of the bond was the replacement of failing portable classroom structures with new classroom facilities. In addition to the replacement of these portable classrooms, the FMP takes into consideration ongoing repair and maintenance issues that must be addressed on an ongoing basis. Table 3.13-3 lists schools in Red Bluff and the most recent enrollment for each school.

**TABLE 3.13-3: PUBLIC SCHOOLS SERVING RED BLUFF**

<i>SCHOOL</i>	<i>GRADES SERVED</i>	<i>ADDRESS</i>	<i>ENROLLMENT 2022-2023 SCHOOL YEAR</i>
Bidwell Elementary School	K-5	1256 Walnut Street	369
Jackson Heights Elementary School	K-5	225 S Jackson Street	453
Red Bluff Community Day School	K-8	1755 Airport Boulevard	4
Vista Preparatory Academy	6-8	1770 S Jackson Street	549
William M. Metteer Elementary School	K-5	695 Kimball Road	463
Antelope Elementary School	K-8	22630 Antelope Boulevard	274
Berrendos Middle School	6-8	401 Chestnut Avenue	251
Plum Valley Elementary School	K-5	29950 Plum Creek Road	19
Lassen-Antelope Volcanic Academy	5-8	1660 Monroe Street	94
Red Bluff High School	9-12	1260 Union Street	1,618
Salisbury Highschool (Continuation)	9-12	1050 Kimball Road	129
<b>Total</b>			<b>4,223</b>

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2022-2023

## OTHER PUBLIC FACILITIES

### Library Services

The Tehama County Library, is located at 545 Diamond Avenue in Red Bluff. The Tehama County Library offers computer workstations for Internet and word processing use, a ready reference collection, and a circulating collection of popular materials in English and Spanish. Items include books, magazines, audiobooks, large print books, DVDs, and music CDs. The Tehama County Library is open Monday through Friday, from 1:00 PM to 7:00 PM.

### Red Bluff Hospital and Medical Facilities

Health care facilities within Red Bluff encompass St. Elizabeth Community Hospital, tribal health care centers, hospice, residential care facilities, as well as private physicians and other medical practitioners.

St. Elizabeth Community Hospital, a hospital operated by Dignity Health, provides acute care service for Red Bluff and the surrounding community. The hospital is located at 2550 Sister Mary Columba Drive in the City of Red Bluff. The St. Elizabeth Community Hospital offers 24-hour emergency care, outpatient care, and general surgical care.

The Tehama County Health Services Agency provides behavioral health, substance abuse recovery services, medical clinic, children's health & safety, family planning, forensic services, medication support services, maternal and child health care programming, child health and disability programs, vaccinations and general public health nursing to the community. Alcohol & drug programs are also organized under the Tehama County Health Service Agency and provide residential treatment, out-patient counseling, perinatal programs and community education and information. Mental Health programs offered by the Tehama County Health Service Agency

provide services to citizens of all ages who have a demonstrated mental disorder or affective disorder. Services include but are not limited to in-patient services, residential services, out-patient counseling, medication monitoring and community education and referral.

### 3.13.2 REGULATORY SETTING

#### FEDERAL

There are no Federal regulations applicable to the environmental topics of public services and recreation.

#### STATE

##### **California Department of Education**

The California Department of Education (CDE) School Facilities Planning Division (SFPD) prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations.

Specific recommendations for school size are provided in the School Site Analysis and Development Guide. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio.

Certain health and safety requirements for school site selection are governed by State regulations and the policies of the SFPD relating to:

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses; and
- Traffic and school bus safety issues.



### **California Fire Protection Code**

The California Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new existing buildings and premises.

### **California Health and Safety Code**

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

### **California Occupational Safety and Health Administration**

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

### **Emergency Response/Evacuation Plans**

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

### **Leroy F. Greene School Facilities Act of 1998 (SB 50)**

The "Leroy F. Greene School Facilities Act of 1998," also known as Senate Bill No. 50 or SB 50 (Chapter 407, Statutes of 1998), governs a school district's authority to levy school impact fees. This comprehensive legislation, together with the \$9.2 billion education bond act approved by the voters in November 1998 known as "Proposition 1A," reformed methods of school construction

financing in California. SB 50 instituted a new school facility program by which school districts can apply for State construction and modernization funds. It imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.
- Level II fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30% of the district's bonding capacity (percentage is based on revenue sources for repayment), having at least 20% of the district's teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50% plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next five years.
- Level III fees are outlined in Government Code Section 65995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of State funding.

### **Uniform Fire Code**

The Uniform Fire Code with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

### **NFPA 1710**

The NFPA 1710 Standards are applicable to urban areas and where staffing is comprised of career Firefighters. According to these guidelines, a career fire department needs to respond within six minutes, 90 percent of the time with a response time measured from the 911 call to the time of arrival of the first responder.

The standards are divided as follows:

- Dispatch time of one (1) minute or less for at least 90 percent of the alarms

- Turnout time of one (1) minute or less for EMS calls (80 seconds for fire and special operations response)
- Fire response travel time of four (4) minutes or less for the arrival of the first arriving engine company at a fire incident and eight (8) minutes or less travel time for the deployment of an initial full alarm assignment at a fire incident
- Eight (8) minutes or less travel time for the arrival of an advanced life support (ALS) (4 minutes or less if provided by the fire department)

### **Quimby Act**

The Quimby Act (California Government Code Section 66477) states that “the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map.” Requirements of the Quimby Act apply only to the acquisition of new parkland and do not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development. The City has adopted park fees as allowed by the Quimby Act, as described in greater detail below.

### **The Kindergarten-University Public Education Facilities Bond Act of 2002 (Prop 47)**

This act was approved by California voters in November 2002 and provides for a bond issue of \$13.05 billion to fund necessary education facilities to relieve overcrowding and to repair older schools. Funds will be targeted at areas of greatest need and must be spent according to strict accountability measures. Funds will also be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California in order to provide adequate higher education facilities to accommodate growing student enrollment.

## **LOCAL**

### **City of Red Bluff Municipal Code**

The City of Red Bluff Municipal Code has ordinances related to fire protection. These include Chapter 8 - Fire Department describes the duties of the municipal fire department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers associated with such a determination.

Chapter 14A – Parks and Recreation of the City of Red Bluff Municipal Code establishes the standards and regulations for maintain parkland and public property within the City of Red Bluff for parkland dedication (or in-lieu fee payment).

Chapter 17 – Development Impact Fees of the City of Red Bluff Municipal Code establishes development impact fee for park and recreation facilities. These fees are imposed on the issuance of all building permits for development within the city to finance the cost of public facilities, improvements, and community services required by new development.

### **Red Bluff Union Elementary School District Facilities Master Plan**

The Facilities Master Plan (FMP) is a comprehensive tool used to aid the district in identifying and acting upon a vision for the facilities for the next 10-15 years in support of the educational program goals established for student achievement. The FMP identifies a general scope of work planned for each school site but does not provide specific design solutions. It presents short- and long-range improvement recommendations and assists in establishing estimated budgets and means of funding for the work proposed. This FMP has been prepared in response to the successful passage of Measure C in November, 2018. As a result, the Red Bluff Union Elementary School District (RBUESD) anticipates selling \$12M in bonds over the course of (5) years. It is the position of the RBUESD leadership that:

1. School facilities should support the district’s educational goals
2. Population changes and community demographics affect facility needs
3. An FMP identifies facility needs to encourage equality throughout the district
4. An FMP encourages mindful use of funds in the short term with long-range goals in mind.

This FMP will be the resource to continue to guide ongoing decisions to ensure the district remains on track with educational, facility upgrade and spending goals.

### **Tehama County Local Hazard Mitigation Plan**

The hazard mitigation plan provides an explanation of prevalent hazards within the County, including Red Bluff, and how hazards may affect population and property differently across the County. The plan also contains information on natural hazard threats within Tehama County which identifies risks to vulnerable assets (people and property). Most importantly the mitigation strategy presented in this plan responds to the particular vulnerabilities and provides prescriptions or actions to achieve the greatest reduction of vulnerability, which results in saved lives, reduced injuries, reduced property damage, and protection for the environment in the event of a natural hazard.

### 3.13.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on public services and recreation if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire Protection;
  - Police Protection;
  - Schools;
  - Parks; and
  - Other public facilities.
- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- If it includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

#### IMPACTS AND MITIGATION MEASURES

**Impact 3.13-1: General Plan implementation could result in adverse physical impacts on the environment associated with the need for new governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts (Less than Significant)**

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As described in Chapter 2.0, the General Plan is expected to accommodate up to 1,267 new residential dwelling units and up to 767,853 square feet of non-residential building space within the city limits by 2045.

This new growth within the City limits would increase the City's population by up to 3,092 residents and would include approximately 1,396 new jobs. The full development of the new non-residential uses shown in Chapter 2.0 (Project Description), Table 2.0-2.

Development and growth facilitated by the General Plan would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. The General Plan includes policies and actions to ensure that public services are provided at acceptable levels and that the City will maintain and implement

### 3.13 PUBLIC SERVICES AND RECREATION

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public facility master plans, in collaboration with appropriate outside service providers and other agencies, to ensure compliance with appropriate regional, state, and federal laws and to provide efficient public facilities and services to Red Bluff.

As the demand for services increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., office, maintenance, and administrative buildings and facilities, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth in the city.

Existing facilities may be expanded at their current location. New facilities may also be constructed. The Public Facility, Open Space, and Open Space/Recreation land use designations would accommodate the majority of new public facilities necessary to provide community services. There would likely be environmental impacts associated with the construction or expansion of the facilities needed to provide public services.

The General Plan does not propose or approve actual development projects, or the physical expansion of public facilities. As future development and infrastructure projects (including new governmental facilities) are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Such development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Any future expansion of public facilities required by growth in the City would be required to be reviewed for site-specific impacts.

As previously stated, new facilities will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the public services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific projects for new or expanded public facilities. However, new and expanded facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. As discussed in Chapters 3.1 through 3.16 and 4.0, the proposed General Plan includes policies and actions that are specifically designed to reduce or avoid environmental impacts of construction and development, which includes public facilities. There are no additional significant impacts related to construction of governmental and public facilities, consistent with the General Plan land use designation and Land Use Map, beyond the impacts that are analyzed throughout this EIR. Any future development, including new and expanded governmental facilities, under the General Plan would be subject to project-level review, would be required to comply with regulations, policies, and standards included in the General Plan, and as required, would be reviewed for compliance with CEQA. The General Plan includes a range of policies and actions (listed below) to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between

the City and appropriate service agency, and that new development funds its fair share of services. Therefore, impacts related to the provisions and need for public facilities are ***less than significant***.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **LAND USE ELEMENT POLICIES**

LU 2.2: Ensure that public facilities and services needed to support development are available concurrent with the impacts of such development.

LU 2.5: Require new development to contribute its fair share of costs for providing public services in accordance with the City's Municipal Code and encourage the provision of open space, parks, or recreation facilities within reasonable walking distance (one-half mile) of all residences.

LU 6-1: Provide and maintain high quality services, facilities, utilities, and infrastructure that meet the needs of existing and future development.

LU 6-2: Maintain and implement public facility master plans, in collaboration with appropriate outside service providers and agencies, to ensure compliance with appropriate regional, State, and federal laws and to identify infrastructure needs, funding sources, and implement improvements for public facilities and services in Red Bluff.

LU 6-3: Require that new development and major redevelopment projects provide for and fund its proportional share of costs for expansion of public infrastructure and services, recreational amenities and facilities, and other public facilities.

LU 6-4: Maintain and finance the capital improvement program to ensure the timely implementation of the General Plan and the adequate and timely provision of public facility and municipal improvements.

##### **LAND USE ELEMENT ACTIONS**

*LU-6b: Maintain records regarding the quality and status of public facilities and critical infrastructure and use this information to inform the capital improvement planning process.*

*LU-6c: When community-desired facilities and services are beyond the City's financial resources to provide, support community-driven efforts to establish special funding and financing districts, such as assessment districts, landscape and lighting maintenance districts, business improvement districts, or community facilities districts, whether citywide or limited to a defined neighborhood, district, or corridor.*

**Impact 3.13-2: General Plan implementation may result in adverse physical impacts associated with the deterioration of existing parks and recreation facilities or the construction of new parks and recreation facilities (Less than Significant)**

Growth accommodated under the General Plan would include a range of uses that would increase the population of the City and also attract additional workers and tourists to the City. Such growth would result in increased demand for parks and recreation facilities. It is anticipated that over the life of the General Plan, use of parks, trails, and recreation facilities would increase, due to new residents and businesses. The additional demand on existing parks and recreational facilities would increase the need for maintenance and improvements. These improvements could have environmental impacts, although the exact impacts cannot be determined since the potential improvements are unknown.

The provision of new parks and recreation facilities would reduce the potential for adverse impacts and physical deterioration of existing parks and recreation facilities, by providing additional facilities or capacity increased to existing facilities to accommodate the demand for parks and recreation needs. These new facilities would be provided at a pace and in locations appropriate to serve new development. Development under the General Plan could therefore indirectly lead to the construction of new parks and recreation facilities to serve new growth and to meet existing parks and recreation needs. The General Plan supports the creation of new parks and recreation facilities, including new parks and trails, to accommodate a wide range of activities for all age groups. These new parks and recreation facilities would be spread throughout areas proximate to new development in and around existing neighborhoods. Neighborhood and community parks and trails would generally be accommodated in the Public Facility, Open Space, and Open Space/Recreation land use designations.

The City currently provides approximately 5.6 acres of parkland for every 1,000 people in addition to other nearby regional parks. According to the General Plan, additional parks and playgrounds will be needed as urbanization continues in the City. The Proposed General Plan includes policies COS 2.2 and COS 2.3, which require impact fees or dedications to assist in providing new or improved facilities. Land area or in-lieu fees shall be provided with the original improvements for park areas also being provided by the developers of new residential neighborhoods. The maintenance and operation of the local parks and playgrounds should be provided by a homeowners association or by an assessment district.

As shown in Table 2.0-2, the projected total buildout population (which includes existing plus projected population growth) is 17,531. At a ratio of five acres of parkland per 1,000 residents, buildout of the General Plan within the City limits would result in a demand for approximately 87.7 acres of developed parklands, if the City's population levels were to reach the buildout population potential of the proposed General Plan.

The projected additional population (which excludes existing population) as a result of buildout of the General Plan land use map (as detailed in Chapter 2.0) is 3,092 residents. At a ratio of five acres of parkland per 1,000 residents, buildout of the General Plan within the City limits would



result in a demand for approximately 15.5 acres of additional developed parkland. It should be noted that new development would be required to fund its fair share for required parkland, but would not make up for any existing system deficiencies.

The General Plan does not specifically propose any development projects, including parks. As a result, site-specific physical impacts of future park development and construction cannot be determined until future projects are brought forward for review. As future parks and recreation projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Parks and recreation projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

In addition to ensuring that new and expanded parks and recreation facilities are provided to accommodate new growth, the General Plan includes policies and actions to ensure that parks and recreation facilities are adequately maintained and improved to serve both existing and planned growth.

The General Plan does not propose or approve any development nor does it designate specific projects for new or expanded parks and recreational facilities. The General Plan includes a range of policies and actions (listed below) to ensure that parks and recreational facilities are adequately funded, and that new development funds its fair share of services needed to meet General Plan objectives. New development is required to participate in the provision and expansion of public services, recreational amenities, and facilities, and is also required to demonstrate that the City's public services and facilities can accommodate the increased demand for said services and facilities associated with future projects during the entitlement process.

The General Plan does not propose or approve the construction or expansion of parks or recreational facilities. Any new or expanded parks or recreational facilities that may be constructed in the future would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the parks and recreational facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. As discussed in Chapters 3.1 through 3.16 and 4.0, the proposed General Plan includes policies and actions that are specifically designed to reduce or avoid environmental impacts of construction and development, which includes parks and recreational facilities. There are no additional significant impacts related to construction of parks and recreational facilities, consistent with the General Plan land use designation and Land Use Map, beyond the impacts that are analyzed throughout this EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be reviewed for compliance with CEQA, and project-level impacts. Therefore, impacts related to the provisions and need for park and recreational facilities are **less than significant**.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### LAND USE ELEMENT POLICIES

LU 2.5: Require new development to contribute its fair share of costs for providing public services in accordance with the City's Municipal Code and encourage the provision of open space, parks, or recreation facilities within reasonable walking distance (one-half mile) of all residences.

#### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 2.1: Ensure the provision of sufficient land that is well distributed and interconnected throughout the community for parks, trails, and recreation facilities.

COS 2.2: Encourage the provision and dedication of parkland within future development projects in order to ensure that the City maintains an extensive network of neighborhood parks that serve all areas of the community.

COS 2.3: Require new residential development to pay park impact fees to use for the acquisition and development of parks and recreation facilities, and update the fees periodically to ensure they reflect current costs of land acquisition.

COS 2.4: Actively pursue financing for parkland acquisition and maintenance, and allocate sufficient funding to park development to support the community's recreational needs.

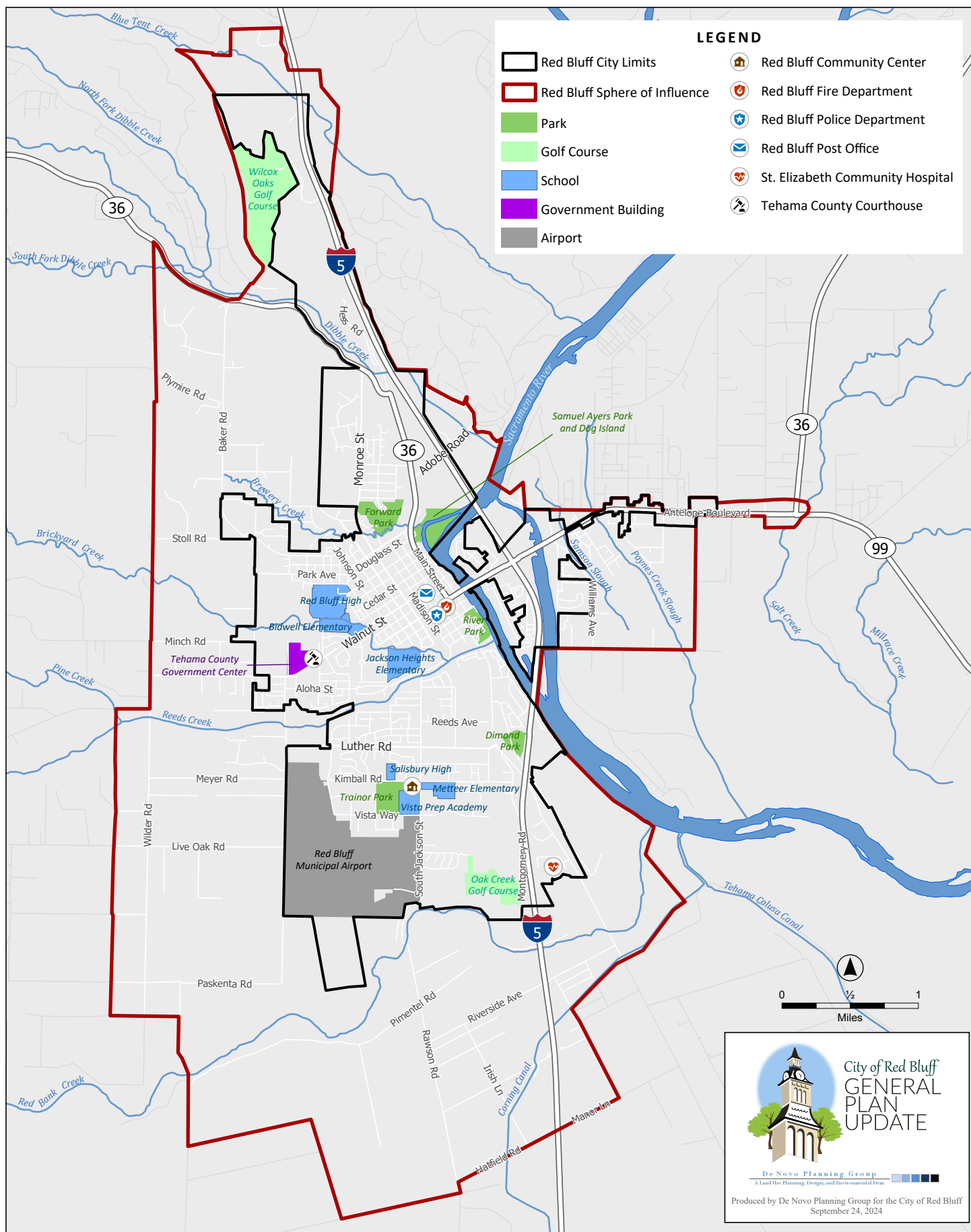
#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-2a: Prepare a Parks Master Plan to serve as the working document for the comprehensive planning, enhancement, and development of Red Bluff's parks, programs, and recreation facilities.*

*COS-2b: Periodically evaluate open space, parkland, and recreation facility acquisition opportunities.*

*COS-2c: Pursue all forms of possible funding, including federal, State, county, private contributions, gifts and endowments, bond measures, and special districts, to assist in the acquisition, development, and programming of parks and recreation facilities.*

### Figure 3.13-1. Community Facilities



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This chapter describes the potential impacts to the roadway, transit, bicycle, and pedestrian components of the City's transportation system as well as roadway safety. To provide context for the impact analysis, this chapter begins with a discussion of the environmental setting, which is a description of the existing physical and operational conditions for the transportation system. Following the setting is the regulatory framework influencing the transportation system and providing the basis for impact significance thresholds used in the impact analysis. The chapter concludes with the impact analysis findings and recommended mitigation measures.

In compliance with the CEQA Guidelines, the analysis of each mode is based on applicable technical guidance and City of Red Bluff decisions regarding methodology, impact thresholds, and feasible mitigation. Vehicle-related impacts are based on the plan's changes to vehicle miles traveled (VMT), a measure of the total distance traveled by vehicles that have a trip starting or ending in Red Bluff. Separate VMT analyses are presented for residential versus non-residential land uses based on VMT generation rates, which are also called efficiency metrics because they express VMT on per dwelling unit or per worker basis. For transit, bicycle, and pedestrian system components, impacts are based on whether the plan will disrupt existing, or interfere with planned, facilities or services. Finally, for safety impacts, the plan's proposed transportation network changes are evaluated for consistency with applicable design standards. These standards are created to provide users with common expectations when using the transportation system to help minimize potential conflicts between modes that could cause collisions.

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

### 3.14.1 ENVIRONMENTAL SETTING

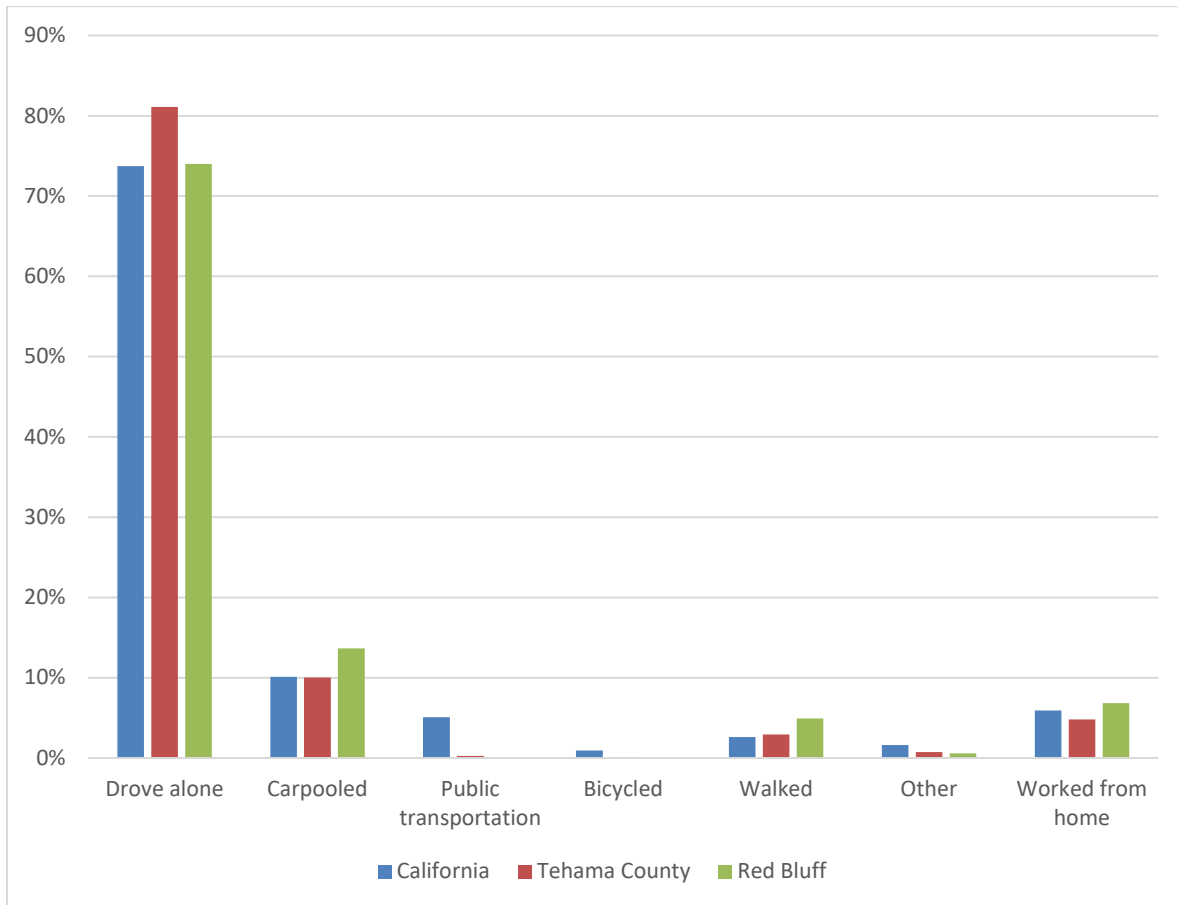
This section provides a contextual background to the City of Red Bluff's existing transportation system, representing conditions prior to the onset of the COVID-19 pandemic. The pandemic caused substantial disruption to travel patterns and behavior, some of which has dissipated with the lifting of activity restrictions. However, some changes are expected to remain longer such as considering health risk when using modes that involve sharing of seats (e.g., transit or carpooling). The General Plan addresses the overall planning and development of the circulation system for moving people and goods in a multi-modal framework. Transportation system components include the roadway network, public transportation system, bicycle and pedestrian system, and goods movement.

According to the US Census Bureau, 2015-2019 American Community Survey, most residents of Red Bluff commute by automobile (drive alone or in carpool) to get to work, including 74 percent who drove alone and 14 percent who carpooled. **Chart 3.14-1** compares the mode shares of residents and workers for the five years ending in 2019. The share of commuters driving to work is higher in the City of Red Bluff (about 88 percent) and Tehama County (91 percent) compared to California as a whole (about 84 percent). However, more Red Bluff commuters carpool. In Red Bluff, few to no residents use public transportation to get to work (estimated 0 percent), but they are more likely to walk (5 percent) to get to work than the state as a whole (3 percent). Trips to school, shopping trips, and social and recreational trips tend to be shorter than trips to work and are more likely to be made

### 3.14 TRANSPORTATION AND CIRCULATION

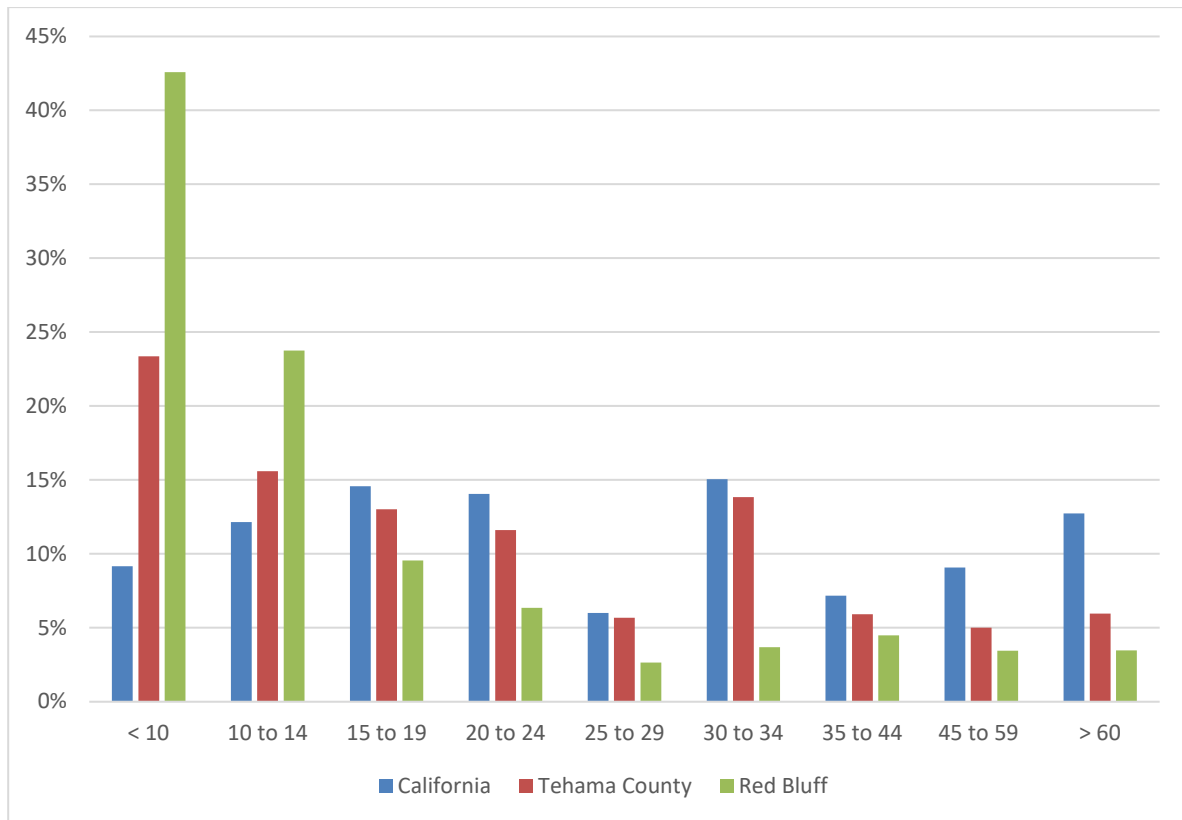
by walking or bicycling. It is therefore likely that Red Bluff residents make more walking and bicycling trips than Census data indicates, especially for those that live near commercial, recreational, and other destinations. Almost seven percent of Red Bluff residents work at home, slightly above the state average.

**CHART 3.14-1: METHOD OF TRANSPORTATION TO WORK**



Source: American Community Survey, Census Bureau, 2015-2019.

According to the US Census Bureau, 2015-2019 American Community Survey, about 76 percent of Red Bluff residents traveled less than 20 minutes to work, with a median travel time of 16 minutes. Residents of Tehama County had longer commutes, with 52 percent traveling less than 20 minutes to work and a median travel time of 23 minutes. By comparison, across California as a whole, only 36 percent of commuters travel less than 20 minutes to work, with a median travel time of about 30 minutes. Chart 3.14-2 compares the mode shares of residents and workers for the five years ending in 2019.

**CHART 3.14-2: TRAVEL TIME TO WORK (IN MINUTES)**

Source: American Community Survey, Census Bureau, 2015-2019.

## ROADWAY SYSTEM

This section describes the physical characteristics of Red Bluff's existing roadway network. **Figure 3.14-1** shows the roadway classification system in Red Bluff. Roadways within the Red Bluff Planning area are broadly classified either as state highways or local routes, with local routes being further distinguished as either principal arterials, minor arterials, and major or minor collectors.

### State Highways

Three state highways operated and maintained by Caltrans pass through the Red Bluff area, Interstate-5, State Route 36, and State Route 99. Each facility is described below:

- Interstate 5 (I-5)** - is a major four-lane freeway that extends 41 miles through Tehama County from north to south which bisects Red Bluff. I-5 is a critical transportation facility for California's economy, running from the northern to southern state borders through major cities such as San Diego, Los Angeles, Stockton, Sacramento, and Redding. Daily traffic volumes on I-5 on the 6.5 mile stretch within Red Bluff city limits average approximately 36,000 vehicle trips per day. I-5 Business loop branches out from the main highway and becomes coincidental with State Route 36 and Main Street cutting through Red Bluff downtown.
- State Route 36 (SR 36)** - is a west-east two-lane conventional highway (Classified as a Minor Arterial in west Red Bluff and as a Principal Arterial in east Red Bluff). Within the City, SR 36 is

named Main Street on a small north-south stretch and becomes Antelope Boulevard on a west-east section. Beginning at US Route 101 in Humboldt County and ending at SR 395 in Lassen County, SR 36 provides a primary connection between the California coast and eastern border. Daily traffic volumes on SR 36 in Red Bluff range from approximately 10,000 vehicles per day up to 20,000.

- **State Route 99 (SR 99)** - is a north-south two-lane conventional highway (classified as a Principal Arterial) beginning in Kern County and ending east of Red Bluff at a junction with SR 36. Daily traffic volumes on SR 99 in Red Bluff are approximately 10,500 vehicles per day.

### Local Routes

The arterials within the City of Red Bluff include Baker Road, Beegum Road, Main Street, Walnut Street, Paskenta Road, and Jackson Street. Descriptions of each facility are provided below:

- **Baker Road** is a two-lane roadway that extends from Beegum Road/SR 36 to Walnut Street. It is designated a Minor Arterial between Estel Lane and Walnut Street.
- **Beegum Road** is a two-lane roadway that shared alignment with SR 36 begins at Beegum Creek at the Shasta/Tehama County Line and reaches its terminus at Main Street in Red Bluff. Beegum Road is designated as a Minor Arterial Between the Red Bluff city limit and Main Street and has an at-grade crossing of the Union Pacific Railroad.
- **Main Street** is a north-south roadway that begins at Hess Road and becomes County Route A8/State Route 99W. Between Hess Road and Grant Street, Main Street is a two-lane roadway with center turn lanes. South of Cedar Street, Main Street is four lanes, serving central Red Bluff. Main Street transforms into South Main Street just north of Peterson Parkway. South Main Street has grade-separated undercrossing of the Union Pacific Railroad. South of the undercrossing to the I-5 Interchange, South Main Street has a raised median. South of the I-5 interchange, South Main Street has two lanes. Main Street is designated as a Principal Arterial between Beegum Road and Oak Street/Antelope Boulevard.
- **Walnut Street** is a two-lane roadway that extends from Wilder Road to provide access to downtown Red Bluff. North of the at-grade railway crossing, parking spot designation becomes clear and remains until its terminus at Rio Street. Walnut Street shares alignment with County Route A7 and is designated a Minor Arterial between Baker Road and Main Street. Walnut Street has an at-grade crossing of the Union Pacific Railroad.
- **Paskenta Road** is a two-lane roadway that begins in the census-designated place Paskenta in Tehama County and extends north to Walnut Street. Paskenta Road is designated a Minor Arterial for only a short two-lane segment between Walnut Street and Red Bluff city limit. South of Red Bluff city limit, Paskenta Road is designated a Major Collector.
- **Jackson Street** is a two-lane roadway that extends from Derby Road to Rawson Road. Jackson Street is broken into a North portion by Brewery Creek and South portion starting at Lay Avenue. Jackson Street is designated a Minor Arterial between Walnut Street and Luther Road, where it



is a two-lane roadway with Class II bicycle lane. South of Luther Road, it is designated a Major Collector.

- **Antelope Boulevard** is a four-lane roadway that shares alignment with State Route 36, extending from Main Street to the State Route 36 Junction, where it has the designation of Principal Arterial.

Collectors within the Red Bluff city limits include Monroe Street, Walton Avenue, Park Avenue, Breckenridge Street, Johnson Street, Aloha Street, Willow Street, Luther Road, Diamond Avenue, Airport Boulevard, Vista Way, Kimbal Road.

### Vehicle Miles Traveled

By definition, one vehicle mile traveled (VMT) occurs when one vehicle (regardless of number of occupants) is driven on a roadway for one mile. For the purposes of this EIR, VMT is estimated for an average weekday. Many factors affect VMT, including the average distance residents commute to work, school, and shopping, as well as the proportion of trips that are made by non-automobile modes. Areas that have a diverse land use mix and ample facilities for non-automobile travel, including transit, tend to generate lower VMT than auto-oriented rural areas where residents travel long distances to/from work, school, and other amenities.

VMT is used to measure performance of the transportation network and to evaluate potential transportation impacts. VMT can be reported and analyzed as an absolute amount using a metric like total weekday VMT or an efficiency metric (also called a generation rate) such as VMT per capita or worker. Efficiency metrics allow the VMT performance of different-sized projects or plans to be compared. Such metrics provide a measure of travel efficiency and help depict whether different planning scenarios require more or less vehicle travel. The City of Red Bluff and Tehama County do not maintain a travel demand model, so Fehr & Peers' VMT+ tool was used to determine the statewide, countywide, and citywide average home-based VMT per capita.

VMT+ utilizes a custom data set from StreetLight Data based on anonymized locational records collected from smart phones. The tool provides home-based VMT per capita (or resident) and home-based work VMT per employee in California, down to the census block group. Home-based VMT per capita data from 2022 was used for this analysis.

The Red Bluff sphere of influence contains 19 census block groups, with 12 block groups within the City and the rest in unincorporated Tehama County. Based on the 2022 VMT+ data, the countywide average VMT per capita is 28.9, and the citywide average VMT per capita is 20.6. Unincorporated Tehama County has an average VMT per capita of 30.4.

14 of the 19 block groups that are within the Red Bluff Sphere of Influence include areas that within the City of Red Bluff and unincorporated Tehama County. VMT+ data indicates that unincorporated Tehama County has a higher VMT per capita than the City of Red Bluff. Because block groups overlap between the City and County boundary, it is possible that homes located in the County generate higher home-based VMT per capita than those in the city, because they have different trip making characteristics than traditional single-family homes in a more suburban setting. County homes in these block groups may be positively skewing the Citywide average home-based VMT per capita.

## 3.14 TRANSPORTATION AND CIRCULATION

However, due to limitations in the data set and block group boundaries, these homes are included nonetheless and may be resulting in a higher Citywide average home-based VMT per capita than would be reported if homes exclusively within the city of Red Bluff were being used for the analysis. Table 3.14-2 below summarizes average home based VMT per capita data the Red Bluff Sphere of Influence.

**TABLE 3.14-1: HOME-BASED VMT PER CAPITA**

<i>GEOGRAPHY</i>	<i>Home-based VMT per Capita</i>
<b>California</b>	<b>21.08</b>
<b>Tehama County (Total)</b>	<b>28.9</b>
<b>Red Bluff</b>	<b>20.6</b>
<b>Unincorporated Tehama County</b>	<b>30.43</b>

Notes:

Home-based VMT per capita derived from 2022 Streetlight Data.

Source: Fehr & Peers, 2024

### PUBLIC TRANSPORTATION SYSTEM

The primary transit service within Red Bluff is the Tehama Rural Area Express (TRAX), which provides two intracity bus routes in Red Bluff that run hourly 7 AM to 6 PM on weekdays and 9 AM to 3 PM on Saturdays. TRAX also runs one intercity bus route in clockwise and counterclockwise directions with service to Red Bluff, Los Molinos, and Gerber nine times daily between 6:20 AM and 6:40 PM on weekdays and six times daily between 8:20 AM and 3:40 PM on weekends. TRAX buses run on fixed schedules and are accessible at any designated bus stop. Special discounted fares are available for seniors, students, and persons with disabilities.

Other regional public bus routes that serve Red Bluff include:

- Glenn-Tehama Connection – runs from Red Bluff through Corning to Orland, three times in the AM and three times in the PM every weekday
- Rancho Tehama Express – runs from Red Bluff to the Rancho Tehama Reserve, once in the AM and once in the PM every Wednesday and Friday

Greyhound Bus also operates in Red Bluff, making two to four trips daily to and from major destinations such as Redding, Chico, Sacramento, and beyond.

Additional transportation assistance is provided to eligible residents through ParaTRAX, a dial-a-ride transit service in the greater Red Bluff area for seniors 55 and older and persons with disabilities. ParaTRAX is a “rideshare” program in which multiple trips are routed as efficiently as possible. For this purpose, reservations are required and an additional charge for same-day service.

While passenger trains do run through the city daily, the nearest Amtrak train boarding facilities are at Redding and Chico. However, Amtrak has a bus station on Main Street/Rio Street used for the Amtrak Motor Coach connections linking buses to Amtrak’s San Joaquins in Stockton and Capitol Corridor Trains in Sacramento.

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## BICYCLE AND PEDESTRIAN SYSTEM

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This section describes the bicycle and pedestrian network in Red Bluff.

### Bicycle Facilities

There is limited bicycle-specific infrastructure in Red Bluff. There is currently only one roadway segment with bicycle lanes in Red Bluff, as shown in **Figure 3.14-2**, though more facilities are planned.

Bike facility classifications, descriptions, and existing examples in Red Bluff are provided below.

- **Class I Shared Use Paths** provide a completely separated right-of-way for the exclusive use of bicycles, pedestrians, and other non-motorized modes. There are currently no designated Class I paths in Red Bluff, though some paths in recreational areas may be classified as such.
- **Class II Bike Lanes** are dedicated on-street lanes for bicyclists. Some may have painted buffers to provide space between bicyclists and moving traffic or parking cars. Currently, there are bicycle lanes on a continuous segment of Jackson Avenue and Aloha Street, though delineating lines and markings have faded and are missing in some locations. There are also three other minor bicycle routes through neighborhoods and parks.
- **Class III Bike Routes** are routes where the travel lane is shared by drivers and bicyclists. They are most suited for roadways with low traffic speeds and volumes, such as quiet residential streets. Some routes, called bicycle boulevards, may be enhanced with curb extensions, neighborhood traffic circles, or other traffic calming treatments to improve comfort for bicycling. There are currently no designated bike routes in Red Bluff.
- **Class IV Separated Bikeways** on-street bicycle facilities that include physical protection from vehicle traffic. This separation might include a curb, on-street parking, flexible bollards, or concrete planters. Class IV bikeways may provide for one-way or two-way travel on each side of the roadway. There are currently no Class IV bikeways in Red Bluff.

The Tehama County Active Transportation Plan (2019) proposes bicycle facility additions to Walnut Street Diamond Avenue, Vista Way, Sale Lane, Johnson Street, Washington Street, and Adobe Road.

### Pedestrian Facilities

Pedestrian facilities include multi-use off-street paths, sidewalks, crosswalks, curb ramps, and streetscape amenities. While the network of sidewalks in central Red Bluff is relatively consistent, there are gaps near the periphery of the City. As observed in the Tehama County Active Transportation Plan, some main corridors and school zones lack continuous sidewalks. Notably, Main Street lacks sidewalks between Duncan Road and Crittenden Street.

Marked crosswalks are present at several intersections in central Red Bluff, including along Main Street, Walnut Street, and Jackson Street. Some intersections have only one marked crosswalk, while others are marked on all legs.

An issue noticeable throughout the city is the lack of curb ramps. Curb Ramps are necessary for people who use wheelchairs or other mobility devices, as they allow access to sidewalks and crosswalks. Ramps are also helpful to people pushing strollers, or who may have difficulty stepping onto a raised curb. The Americans with Disabilities Act (ADA) requires the installation of curb ramps with all sidewalk projects, whether new construction or retrofits. Curb ramps are provided at some intersections in central Red Bluff, most of which are diagonal to the sidewalks. Still, most intersections in the city lack curb ramps, including many marked crosswalks. Unpaved alleyways and Railroad crossings create a gap in sidewalk access mid-block.

The Tehama County Active Transportation Plan (2019) proposes sidewalk gap closures and curb ramps, curb extensions, high visibility crosswalks, and other pedestrian infrastructure improvements throughout Red Bluff.

### GOODS MOVEMENT

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Union Pacific (UP) provides freight service through Tehama County. The UP Mainline tracks traverse north-south, running parallel to Hess Road/Main Street until it reaches central Red Bluff where it runs between Monroe Street and Madison Street. South of central Red Bluff, the railway runs parallel to South Main Street/County Route A8/Old Highway 99. According to Federal Railroad Administration records, there are 9 locations where the CFNR lines cross public and private roads at-grade and 3 grade-separated in the city. Most at-grade crossings in the City, primarily in central Red Bluff, are marked, with seven of nine having railroad crossing advance warning signs. Crossings at Aloha Street, S. Main Street and I-5 are grade-separated.

Trucking is also a major means of transportation for goods produced in the County. Truck traffic accounts for a considerable portion of traffic on highways in Red Bluff. On Interstate-5 truck traffic may account for as much as 20 percent of Average Annual Daily Traffic (AADT). For SR 36, truck traffic accounts for approximately 4 percent of total AADT in Red Bluff. Maintaining safe and efficient roadways for the movement of goods is vital to Red Bluff's local economy, where agriculture and industrial services are large sectors.

### AVIATION

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The City of Red Bluff owns and operates the Red Bluff Municipal Airport, a public use general aviation airport. The Airport is located two miles south of Red Bluff and a mile and a half west of Interstate 5, in a rural area with agricultural and industrial land uses surrounding it. There is currently no commercial air service to Red Bluff Municipal Airport.

Red Bluff Municipal Airport has one 5430' x 100' asphalt-concrete runway, with a pavement strength of 30,000 pounds for single-wheel and 65,000 pounds for double-wheel aircraft. A full-length parallel taxiway connects the primary runway to the airport's building area. Runways 15 and 33 provide non-precision markings, though the airfield has medium intensity runway lights for night operations.

While many flight operations out of the Airport are agricultural-related, other flight activities also include recreational, emergency, and flight training. The FAA 5010 Master Record reports over 26,000 annual operations and 87 based aircraft.

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## WATERWAYS

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The Sacramento River bisects Red Bluff, running in a roughly southwest direction north of the city and bending to the southeast direction near downtown. While the river is navigable, no commercial transport exists in the area. Still, there is extensive recreational use at an access point at River Park/Riverside Park and at the south end of Sale Lane.

### 3.14.2 REGULATORY SETTING

The General Plan, along with a variety of city, regional, state, and federal plans, legislation, and policy directives provide guidelines for the safe operation of streets and transportation facilities in Red Bluff. While the City has primary responsibility for the maintenance and operation of local transportation facilities in its jurisdiction, Red Bluff staff works on a continual basis with responsible regional, state, and federal agencies including County of Tehama, the California Department of Transportation (Caltrans), the Federal Highway Administration, and others to maintain, improve, and balance the competing transportation needs of the community and the region. Federal, state, regional, and local laws or regulations applicable to analyzing transportation impacts of the general plan are described below.

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## FEDERAL

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### **Americans With Disabilities Act**

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency. To implement this goal, the United States Access Board has created accessibility guidelines for public rights-of-way. The guidelines address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

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## STATE

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### **Senate Bill 743**

SB 743, passed in 2013, resulted in several statewide CEQA changes. It required the California Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metrics beyond TPAs. OPR selected VMT as the preferred transportation impact metric and applied their discretion to require its use statewide. This legislation also established that aesthetic and parking effects of a residential, mixed-use residential, or employment center projects on an infill site within a TPA are not significant impacts on the environment. The revised CEQA Guidelines that implement this legislation became effective in December 2018, and state that vehicle LOS and similar measures related to delay shall not be used as the sole basis for determining the significance of transportation impacts for land use projects and have applied statewide since 2020. The OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) includes

specifications for VMT methodology and recommendations for significance thresholds, screening of project that may be presumed to have less than significant impacts, and mitigation. Other key guidance includes:

- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- Lead agencies ultimately have the discretion to set or apply their own significance thresholds, provided they are based on significant evidence.

Cities and counties can still use measures of delay such as LOS for other plans, studies, or network monitoring. However, according to CEQA section 15064.3, Determining the Significance of Transportation Impacts, “effect on automobile delay shall not constitute a significant environmental impact.” VMT is used to identify the proposed project’s potentially significant transportation impacts for the purposes of this EIR.

### **California Air Resources Board Plans and Progress Reports**

**2019 SCOPING PLAN-IDENTIFIED VMT REDUCTIONS AND RELATIONSHIP TO STATE CLIMATE GOALS**  
The California Air Resources Board (CARB) provides specific guidance for VMT thresholds in “Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals” (2019). This document provides recommendations for VMT reduction thresholds that would be necessary to achieve the state’s GHG reduction goals and acknowledges that the sustainable community strategy (SCS) targets alone are not sufficient to meet climate goals. ARB concluded that a 14.3% reduction in total VMT per capita and a 16.8% reduction in light-duty VMT per capita (over conditions in 2015-2018) was needed to meet these goals. Additionally, the OPR *Technical Advisory* cites this document as support for the 15% reduction threshold.

### **FINAL 2022 SCOPING PLAN FOR ACHIEVING CARBON NEUTRALITY (CARB, NOVEMBER 2022)**

The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas (GHG) emissions by 85% below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The plan includes a number of noteworthy passages including:

- VMT reductions will play an indispensable role in reducing overall transportation energy demand and achieving the state’s climate, air quality, and equity goals.
- Achieve a per capita VMT reduction of at least 25% percent below 2019 levels by 2030 and 30% below 2019 levels by 2045.
- While CARB has included VMT reduction targets and strategies in the Scoping Plan and appendices, these targets are not regulatory requirements, but would inform future planning processes. CARB is not setting regulatory limits on VMT in the 2022 Scoping Plan; the authority to reduce VMT largely lies with state, regional, and local transportation, land use, and housing agencies, along with the Legislature and its budgeting choices.

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## California Department of Transportation Guides

### INTERIM LAND DEVELOPMENT AND INTERGOVERNMENTAL REVIEW (LDIGR) SAFETY REVIEW PRACTITIONERS GUIDANCE

The *Interim LDIGR Safety Review Practitioners Guidance* (Caltrans, 2020) was developed to provide immediate direction about the safety review of the state highway system while final guidance is being developed. This interim guidance does not establish thresholds of significance for determining safety impacts under CEQA. The guidance notes that the significance of impacts should be determined with careful judgment on the part of a public agency and based, to the greatest extent possible, on scientific and factual data consistent with Caltrans' CEQA guidance contained in Caltrans' Standard Environmental Reference. The guidance notes that District traffic safety staff will use available data to determine if the proposed project may influence or contribute to locations identified by traffic safety investigations generated by network screening or initiated by the district.

## REGIONAL

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### Tehama County Regional Transportation Plan

The 2019 Tehama County Regional Transportation Plan (RTP) is a long-range planning document identifying and programming roadway improvements throughout Tehama County. The RTP discusses regional issues and provides guidance on making transportation investments in the County over a twenty-year horizon. Projects listed in the plan are eligible to receive local, state, and federal funding, with project cost estimates provided in a transportation investment strategy. The project lists are separated in two; a "constrained" list of programmed projects planned for the 2019-2029 timeframe and an "unconstrained" list of projects for the 2030-2039 timeframe that do not have specific funding.

### Tehama County Active Transportation Plan

Aiming to improve the health and quality of life in Tehama County, the Tehama County Active Transportation Plan (2019) seeks to enhance walking, biking, and multimodal mobility throughout Tehama County. This approach to countywide bicycle and pedestrian planning identifies project needs, program recommendations, and priority infrastructure improvements. The Plan builds on previous planning efforts while ensuring that all future active transportation projects comply with state and federal goals.

The rural geography in Tehama County presents a unique challenge to creating efficient connections over long distances. Due to this physical isolation, the Plan focuses on improving walking and bicycling within the cities of Red Bluff and Corning, as they represent the highest concentrations of people and destinations. The Plan asserts that improving connections to these public destinations will not only enhance health, but spawn economic activity and development.

## LOCAL

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### City of Red Bluff General Plan Circulation Element

The Circulation Element of the 1992 Red Bluff General Plan contains goals and policies related to the City's roadway network. Goals in the three-decade old Circulation Element include "problem-free"

circulation throughout Red Bluff, improving the safety of all modes, increasing the use of alternative modes, and adopting land use policies that promote a compatible circulation system.

### **Red Bluff Land Division and Engineering Design Standards**

The City of Red Bluff Land Division and Engineering Design Standards (Revised 2016) provide minimum specifications for the development, design, construction and operation of public and private facilities. “These Standards establish minimum requirements and serve as mandatory guidance, ensuring equitable application of ordinances, rules and regulations as they impact city-wide infrastructure.” (City of Red Bluff Website, 2024).



### 3.14.3 IMPACTS AND MITIGATION MEASURES

#### METHODS OF ANALYSIS

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The transportation impact analysis assesses how implementation of the proposed General Plan would change the baseline conditions for the transportation system and whether those changes would constitute a significant impact under CEQA. The transportation impact analysis methodology includes a combination of quantitative and qualitative evaluations of the roadway, bicycle, pedestrian, and transit components of the transportation system. All analysis presumes that future background travel options and behaviors remain similar to current conditions and do not explicitly account for potential changes associated with disruptive trends, emerging technologies, and changes in travel choices.

#### THRESHOLDS OF SIGNIFICANCE

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For the purposes of this EIR, adoption and/or implementation of the proposed General Plan would result in significant impacts under CEQA, if any of the following would occur:

- Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)
- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access

#### Vehicle Miles Traveled

Based on Appendix G of the CEQA Guidelines, the General Plan would result in a significant transportation impact if it would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b), relevant portions of which are copied below.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects.

Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects.

Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis.

If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles

traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc.

#### (4) Methodology.

A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure.

The City of Red Bluff has not adopted a quantitative VMT threshold, in part, because the city does not have a method or model to estimate and forecast VMT. For purposes of this impact analysis, the city has opted to rely on a qualitative evaluation method and threshold as allowed in CEQA Guidelines § 15064.3, subdivision (b)(3). In addition to the specific factors listed above, assessing potential VMT impact significance considered the following guidance.

- *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), California Governor's Office of Planning and Research (OPR) (December 2018).
- *Scoping Plan Identified VMT Reductions and Relationship to State Climate Goals*, California Air Resources Board (2017)

This guidance sets a general expectation that land use projects should generate automobile VMT per capita at a rate less than existing development. How much less ranges from 15-16.8 percent below existing or baseline levels. The OPR guidance does recognize that thresholds may vary based on land use context especially in rural counties. The specific recommendation for rural areas of non-MPO counties is to determine thresholds on a case-by-case basis and to recognize that the small towns in these counties tend to have lower VMT generation rates that isolate rural development.

### **Transit, Bicycles, and Pedestrians**

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project conflicts with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The proposed general plan would have a significant impact on transit, bicycles, or pedestrians if it disrupts an existing transit, bicycle, or pedestrian facility/service or would interfere with planned improvements to these transportation system components contained in adopted policies, plans, or programs regarding these systems.

### **Hazards**

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The proposed general plan would have a significant impact on hazards if it would cause any inconsistencies with applicable transportation design standards.

### **Emergency Access**

Impacts may also be significant if a project results in inadequate emergency access. The proposed general plan would have a significant impact on emergency access if it would cause any inconsistencies with applicable transportation design standards or emergency response plans.

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IMPACTS AND MITIGATION MEASURES

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**Impact 3.14-1: General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Significant and Unavoidable).**

The City (and sphere of influence) is projected to add approximately 3,092 new residents and 1,396 jobs, with demand for approximately 1,267 new housing units and 767,853 additional square feet of job-generating development in the next 20 years, as described in Chapter 2.0, Project Description. Planned growth in the City is mostly on the periphery, specifically along state routes and interstate highways.

Based on the planned Land Use Map (Figure 2.0-2), the proposed General Plan would result in a similar or increased VMT per capita when compared to the existing (baseline) condition. This can be concluded based on the General Plan land use designations for new job centers, such as industrial and commercial facilities planned on the periphery of town. The newly designated growth areas for low and medium density residential uses are similarly far from the central city and in the western portion of the City but close to several job centers. As growth occurs on the periphery of the city, total VMT will increase, and vehicle trip lengths may lengthen causing higher VMT per capita levels than that of existing development.

Furthermore, while planned bike facilities and potential future transit improvements could improve safety and mobility, they are unlikely to decrease VMT given the general layout of Red Bluff. Residents of Red Bluff in the future will likely engage in similar travel patterns to existing residents based on planned land use, roadways, and alternative modes of transportation in the City, resulting in the absolute VMT of the City and increasing and the VMT per capita in Red Bluff remaining similar to baseline in the planning horizon.

While the proposed General Plan land use pattern is likely to produce similar VMT per capita levels as under existing conditions, the proposed general plan includes the following policies designed to reduce vehicle travel and VMT.

**GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS****LAND USE ELEMENT POLICIES**

LU-1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU-2.1: Promote logical City boundaries and engage in proactive land use planning and policy formation with Tehama County to ensure the development of complementary and compatible uses adjacent to Red Bluff. Consider expansion of the Sphere of Influence where appropriate to reflect realistic growth frontiers.

LU-2.3: Encourage infill development and logical development patterns to preserve open space land, support community connectivity, and increase efficiency of infrastructure and service delivery.

## 3.14 TRANSPORTATION AND CIRCULATION

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LU-3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

### LAND USE ELEMENT ACTIONS

*LU-1b: Review the standards and zoning districts provided in the Zoning Ordinance (Chapter 25 of the Red Bluff Municipal Code) and update as appropriate to reflect Land Use designations and Land Use goals, policies, and actions included in this Plan.*

*LU-3a: Ensure all applicable projects are reviewed and processed per the California Environmental Quality Act (CEQA) Guidelines.*

### CIRCULATION ELEMENT POLICIES

CIRC 2.1: Implement best practices to improve and expand the pedestrian and bicycle environment and network.

CIRC 2.2: Consider walking and bicycling access to schools as a priority over vehicular movements when any such conflicts occur.

CIRC 2.3: Encourage connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance.

CIRC 2.4: Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible.

CIRC 2.5: Support convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2.6: Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC 4.1: Support land use with increased densities and mixed uses, consistent with the Land Use Element, to reduce vehicle miles traveled and promote the use of walking, biking, and transit.

CIRC 4.2: Encourage employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home.

CIRC 4.3: Monitor the deployment of new transportation technologies and services and develop policies that implement best practices to ensure these technologies and services benefit the public and the multimodal transportation system.

CIRC 4.4: Support the creation of electric vehicle charging stations at commercial, government, and other employment and community destinations.

## CIRCULATION ELEMENT ACTIONS

*CIRC-2a: Implement and build on recommendations for pedestrian and bicycle improvements included in the Tehama County Active Transportation Plan.*

*CIRC-2b: Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Tehama County.*

*CIRC-2c: Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.*

*CIRC-2d: Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.*

*CIRC-2e: Increase walking and bicycling to local destinations and regional transportation services by developing wayfinding signage for pedestrians and bicyclists*

*CIRC-2f: Partner with Tehama Rural Area Express and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.*

*CIRC-2g: Encourage transit providers to enhance transit stops with high quality, well-maintained shelters, and transit timetables.*

*CIRC-2h: Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.*

*CIRC-4a: Adopt VMT thresholds and screening criteria for environmental impact analysis. Review and update those guidelines on a regular basis using updated data.*

*CIRC-4b: Explore the feasibility of a VMT impact fee program to fund transportation demand management strategies that are proven to reduce VMT.*

*CIRC-4c: Require development projects to consider reasonable and feasible project modifications and other measures during the projects design and environmental review stage that would reduce VMT in a manner consistent with State guidance on VMT reduction.*

*CIRC-4d: Encourage carpooling by providing additional carpool pickup and park-and-ride locations near transit centers and at freeway interchanges.*

*CIRC-4e: Consider requiring new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet. Encourage installation of electric vehicle charging stations at existing developments.*

While these policies are supportive of actions that could dampen VMT growth, they do not contain sufficient changes to the built environment, the cost of using vehicles, or the convenience of using vehicles such that VMT per dwelling unit or employee would be reduced below existing levels. When

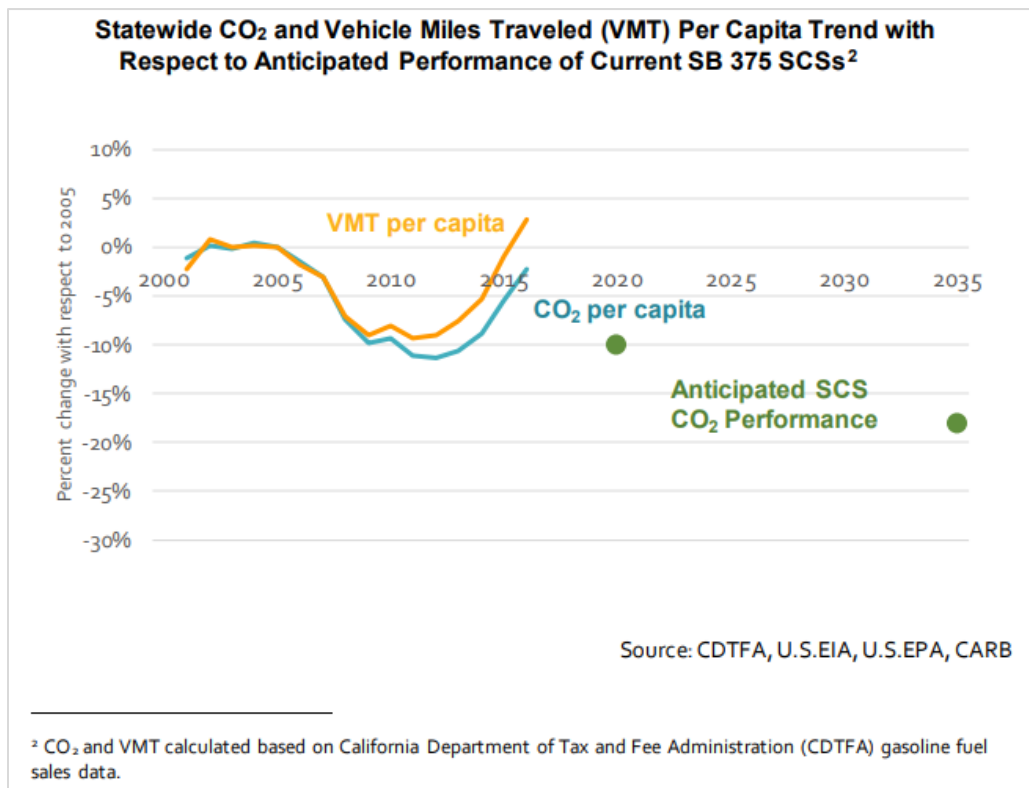
### 3.14 TRANSPORTATION AND CIRCULATION

making a final VMT impact determination, other available evidence related to VMT trends should be also be considered. This impact analysis identified the following two relevant studies.

- *2018 Progress Report, California's Sustainable Communities and Climate Protection Act*, California Air Resources Board, November 2018 (referred to as the Progress Report in the remainder of this document).
- *California Air Resources Board Improved Program Measurement Would Help California Work More Strategically to Meet Its Climate Change Goals*, Auditor of the State of California, February 2021 (referred to as the Audit Report in the remainder of this document).

The Progress Report measures the effect of SB 375 revealing that VMT and GHG per capita increased in California between 2010 and 2016 and are trending upward (see Chart 3.14-1 below).

**CHART 3.14-1: VMT/CAPITA TRENDS**



The Audit Report is a more recent assessment of ARB's GHG reduction programs, which also found that VMT and its associated GHG emissions were trending upward through 2018. Per the audit, the state is not on track to achieve 2030 GHG reduction goals, and emissions from transportation have not been declining. This finding is reaffirmed by the 2022 Scoping Plan.

The evidence suggests greater action on the part of the state may be needed to achieve the state's GHG (and VMT) reduction goals. Without further action by the state to discourage vehicle travel (i.e., increasing the cost of driving) while reducing the barriers or constraints that prevent more efficient use of vehicles and greater use of transit, walking, and bicycling, VMT trends are unlikely to reverse.

Therefore, this impact is considered **significant**.

Potential VMT reduction strategies contained in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (California Air Pollution Control Officers Association, 2021) were reviewed for potential application to the updated General Plan given their use in a rural/suburban setting. These strategies include (but are not limited to):

- Provide pedestrian network improvements
- Expand bike network
- Construct or improve bike facility/low-stress boulevard
- Provide end of trip bicycle facilities (e.g. secure bicycle parking, lockers, and showers)
- Provide employer-sponsored ridesharing or vanpool program
- Integrate affordable and below market rate housing
- Implement conventional or electric car-sharing program

Action CIRC-4c requires the city to potentially condition projects to implement feasible strategies from CAPCOA on a project-by-project basis. This would help lessen VMT growth but not to a level sufficient to reduce this impact to less than significant. The land use element is reflective of the City's desired land use pattern to accomplish other objectives of the General Plan and to reflect the market realities of land use development demand in the City.

#### CONCLUSION

The implementation of the proposed General Plan would likely contribute to land use development that generates VMT per capita in excess of the levels necessary to meet State GHG reduction goals. Consistent with Action CIRC-4c, the city will require new land use development projects to reduce VMT through feasible CAPCOA on-site VMT reduction strategies. Although larger changes in the proposed General Plan land use element could potentially reduce VMT further, those changes would also affect the achievement of other goals the City seeks to achieve with the General Plan. VMT reduction also depends on factors such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute routes that are not under the City's jurisdiction. Therefore, this impact is considered **significant and unavoidable**.

### **Impact 3.14-2: General Plan implementation may conflict with a program, plan, policy, or ordinance addressing the circulation system, including transit, bicycle, and pedestrian facilities (Less than Significant).**

Implementation of the proposed general plan will not result in modifications to the transit, bicycle, or pedestrian network that would disrupt existing facilities/services or interfere with the implementation of planned facilities/services contained in adopted programs, plans, policies, or ordinances.

Several policies, including LU-5.5 “Support pedestrian-friendly and pedestrian-scaled development within the downtown area to reduce vehicle trips and parking demand”, CIRC-2.1 “Implement best practices to improve the pedestrian and bicycle environment” and CIRC-2.6 “Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.” will help facilitate the development of improved facilities for walking and bicycling. Implementation of the proposed General Plan would enable the City to improve bicycle and pedestrian programs and infrastructure consistent with the Tehama County Active Transportation Plan (2019). The proposed General Plan also contains policies and actions that support accessibility (applicable policies and implementing actions are listed below).

Several different policies, including Policy 2.5 and 2.6 and Actions 2f, 2g, and 2h are geared toward improving the quality of transit service and facilities.

#### CONCLUSION

Implementation of the proposed general plan will not disrupt existing transit, bicycle, or pedestrian facilities/services and its policies and actions listed above will help facilitate planned improvements such as those in the Tehama County Active Transportation Plan. Therefore, this impact is ***less than significant***.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### LAND USE ELEMENT POLICIES

LU-1.1: Provide for an appropriate land use pattern that enhances community livability, promotes economic development, achieves regional transportation objectives, and ensures compatibility between uses consistent with the land use designations identified in this Element and Land Use Map (Figure LU-1).

LU-1.6: Maintain safe, attractive, pedestrian-friendly residential neighborhoods and districts with identifiable centers, consistent development patterns, and a range of public and private services.

LU-5.5: Support pedestrian-friendly and pedestrian-scaled development within the downtown area to reduce vehicle trips and parking demand.

LU-5.6: Encourage projects to provide on-site amenities that enhance the pedestrian environment, such as tree plantings, pedestrian-scaled signs and lighting, street furniture, public art, and sidewalk improvements throughout the Downtown.

LU-6.5: Maintain and improve streets, sidewalks, and other public rights-of-way to provide a



reliable network for circulation through a proactive preventive maintenance program.

#### LAND USE ELEMENT ACTIONS

*LU-1b: Review the standards and zoning districts provided in the Zoning Ordinance (Chapter 25 of the Red Bluff Municipal Code) and update as appropriate to reflect Land Use designations and Land Use goals, policies, and actions included in this Plan.*

*LU-2a: Pursue federal, State, and Tehama County Transportation Commission grants and other funding opportunities for infrastructure improvements, such as sidewalks, street trees, and highway beautification.*

*LU-2b: Pursue a cooperative collaborative relationship with local and regional agencies, including Tehama County, the Local Agency Formation Commission (LAFCo), and the City of Red Bluff during development of long-range plans and review of development proposals that may impact the City. Coordinate with these agencies to achieve mutually agreeable outcomes and ensure that local and regional planning and development decisions do not result in adverse impacts to Red Bluff.*

*LU-5a: Encourage land use decisions and design features for development or redevelopment in the downtown that:*

- Enhance and restore historical resources;*
- Are compatible with and complementary to the historic feel of the downtown;*
- Provide thoughtful solutions to the existing lack of parking;*
- Provide pedestrian-oriented amenities such as sidewalks, street furniture, parklets, and plazas; and*
- Increase landscaping for shading, beautification, and screening.*

*LU-6d: Work with State and regional partners, including Tehama County and the California Department of Transportation (Caltrans), to assess roadway infrastructure improvements to improve regional connectivity within the southeastern portion of the City and SOI, such as:*

- A new freeway interchange connecting Interstate 5 (I-5) to Riverside Avenue;*
- Roadway improvements providing enhanced connectivity along Diamond Avenue.*

#### CIRCULATION ELEMENT POLICIES

**CIRC 1.3:** Provide a roadway network that is consistent with the functional roadway classifications in the Circulation Element Map (Figure CIRC-1).

**CIRC 1.4:** Build roadways based on the classifications standards defined by the Federal Highway Administration (FHWA) and Caltrans.

**CIRC 1.5:** Ensure all City roads are maintained and repaired in a timely fashion.

## 3.14 TRANSPORTATION AND CIRCULATION

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CIRC 2.1: Implement best practices to improve and expand the pedestrian and bicycle environment and network.

CIRC 2.2: Consider walking and bicycling access to schools as a priority over vehicular movements when any such conflicts occur.

CIRC 2.3: Encourage connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance.

CIRC 2.4: Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible.

CIRC 2.5: Support convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2.6: Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC 3.1: Develop a truck network connecting Surface Transportation Accountability Act (STAA) and California legal trucks to industrial areas.

CIRC 3.2: Consider implementing vehicle weight limit restrictions on roadways near sensitive uses like schools and residential neighborhoods to discourage cut-through truck traffic.

CIRC 3.3: Require new industrial developments to pay a share of costs toward improvements required to accommodate heavy vehicles that increase pavement wear.

CIRC 3.4: Minimize potential conflicts between trucks and pedestrians, bicycle, transit, and vehicle access and circulation on streets with truck travel.

CIRC 3.5: Support the provision of freight rail service into industrial developments on rail spurs.

CIRC 3.6: Support safety improvements at current at-grade rail crossings.

CIRC 3.7: Promote the expansion and improvement of existing airport facilities and service at the Red Bluff Municipal Airport.

### CIRCULATION ELEMENT ACTIONS

*CIRC-1a: Pursue available sources of funding and protect existing sources for the development, improvement, and maintenance of the existing roadway system.*

*CIRC-1b: Review and revise roadway standards to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.*

*CIRC-1c: Routinely consider and coordinate pedestrian and bicycle facility additions or improvements with roadway construction and maintenance activities so that they can be implemented in a cost-effective manner, when feasible.*

*CIRC-1d: Install traffic calming devices, such as signage, curb extensions, pedestrian islands and speed humps, as needed and appropriate in existing neighborhoods.*

*CIRC-1e: Conduct a Local Roadway Safety Plan with the goal of reducing traffic fatalities and serious injuries on public roads and supporting funding for safety improvements. The plan may consider collision history, vehicle, bicycle, and pedestrian volumes, vehicle speeds, and other improvements.*

*CIRC-1f: Design roadway infrastructure that protects human life by lowering speeds and heightening driver awareness.*

*CIRC-1g: Incorporate Americans with Disabilities Act (ADA) requirements throughout the City, but especially in high-volume pedestrian areas.*

*CIRC-1h: Develop a Pavement Management System that documents all roads needing pavement improvements and prioritizes roads for renovation based on a pavement condition index.*

*CIRC-1i: Seek opportunities to fund maintenance of the circulation network, including the active pursuit by the Public Works Department of a wide range of grant sources administered by Caltrans and other agencies.*

*CIRC-1j: Conduct a review of existing evacuation routes and update routes as needed.*

*CIRC-1k Work with Tehama County to create a funding plan to implement improvements for emergency access, evacuation, fire protection, public safety, and work with appropriate agencies to identify and prioritize projects.*

*CIRC-2a: Implement and build on recommendations for pedestrian and bicycle improvements included in the Tehama County Active Transportation Plan.*

*CIRC-2b: Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Tehama County.*

*CIRC-2c: Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.*

*CIRC-2d: Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.*

*CIRC-2e: Increase walking and bicycling to local destinations and regional transportation services by developing wayfinding signage for pedestrians and bicyclists*

*CIRC-2f: Partner with Tehama Rural Area Express and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and*

### 3.14 TRANSPORTATION AND CIRCULATION

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*City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.*

*CIRC-2g: Encourage transit providers to enhance transit stops with high quality, well-maintained shelters, and transit timetables.*

*CIRC-2h: Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.*

*CIRC-3a: Adopt, maintain, and enforce a truck route map that identifies key goods movement corridors and ensures goods movement needs are adequately served while reducing impacts to other uses.*

*CIRC-3b: Prominently sign all truck routes in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD).*

*CIRC-3c: Participate in intergovernmental activities related to regional and sub-regional transportation planning to advance travel efficiency of goods entering the region.*

*CIRC-3d: Ensure railroad crossings of State and County roads are marked, signalized, and gated where warranted by traffic volumes and required by the California Public Utility Commission (PUC).*

*CIRC-3e: Pursue funding for improved gates at current at-grade rail crossings.*

*CIRC-3f: Maintain a working relationship between the City and the local management of the Union Pacific Railroad (UP), and Amtrak regarding the expansion of personnel movement, freight rail service, and economic development opportunities in the region.*

*CIRC-3g: Pursue State and federal aeronautics funds to support improvements to airport facilities and service.*

**Impact 3.14-3: General Plan implementation may increase hazards due to a design feature or incompatible uses (Less than Significant).**

The proposed General Plan would not require any modifications to the existing transportation system to comply with applicable design standards. These design standards are created to provide users common expectations when using the network and to minimize the potential for collisions. Namely, the *City of Red Bluff Engineering Design Standards* address vertical curvature, site access, intersection curb radii, signing and striping, and other factors that may influence roadway safety. As part of general engineering practice, all roadway facilities would also be designed to meet applicable industry standards from the *Caltrans Highway Design Manual* (HDM), the *California Manual on Uniform Traffic Control Devices* (CAMUTCD), and the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*. Each development application would be subject to review and approval by the City.

Further, the proposed land use map and policies below (including Policies like CIRC-1.1 “Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities” and CIRC-1.3 “Provide a roadway network that is consistent with the functional roadway classifications in the Circulation Element Map”) emphasize land use compatibility and prioritize road safety, which would serve to reduce potential conflicts between users of the transportation system. Therefore, the proposed General Plan would not substantially increase hazards due to a design feature or incompatible uses.

**CONCLUSION**

Any transportation network modifications associated with the General Plan will comply with applicable design standards and the proposed General Plan’s policies and actions related to land use, circulation, and safety. The combination of these standards, policies, and actions could reduce the likelihood of collisions and decrease potential harm to people when traveling. While the proposed project would also increase the volume of traffic on study area roadways, the mix and speed of traffic is expected to remain similar to baseline conditions, although speeds may decline and delay may increase during peak periods. Therefore, this impact is considered ***less than significant***.

**GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS****LAND USE ELEMENT POLICIES**

LU 1.2: Ensure consistency between the Land Use Map and implementing plans, ordinances, and regulations.

LU 3.1: Consider as part of the development review process the compatibility of new development with surrounding uses and the ability of new development to enhance the character of the surrounding area.

LU-3.2: Require that new residential development be designed to protect residents from potential conflicts with adjacent land uses and other features, including rail corridors and high-volume roadways, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU-3.4: Require that residential and nonresidential portions of mixed-use buildings and sites be integrated through site and building design to ensure compatibility among uses.

LU-3.6: In considering land use change requests, consider factors such as compatibility with surrounding uses in terms of privacy, noise, and changes in traffic levels.

LU-4.3: Promote high-quality design and site planning that is compatible with surrounding development, public spaces, and natural and historical resources.

LU-4.4: Require that development is located and designed to ensure compatibility among land uses, addressing such elements as building orientation and setbacks; buffering; visibility and privacy; automobile and truck access; impacts of noise, lighting, and glare; landscape quality; and aesthetics.

LU-4.7: Encourage new development projects to incorporate public safety measures into project designs. Such measures may include, but are not limited to: crosswalks, exterior lighting, windows oriented towards the street, and other measures to prevent crime and promote safety through Environmental Design approaches.

### LAND USE ELEMENT ACTIONS

*LU-1a: Update the City's Zoning Map as appropriate to ensure consistency with the land use designations shown on Figure LU-1.*

*LU-1b: Review the standards and zoning districts provided in the Zoning Ordinance (Chapter 25 of the Red Bluff Municipal Code) and update as appropriate to reflect Land Use designations and Land Use goals, policies, and actions included in this Plan.*

*LU-2b: Pursue a cooperative collaborative relationship with local and regional agencies, including Tehama County, the Local Agency Formation Commission (LAFCo), and the City of Red Bluff during development of long-range plans and review of development proposals that may impact the City. Coordinate with these agencies to achieve mutually agreeable outcomes and ensure that local and regional planning and development decisions do not result in adverse impacts to Red Bluff.*

*LU-3b: Screen development proposals through the development review process for land use and transportation network compatibility with existing surrounding or abutting development or neighborhoods.*

*LU-3c: Analyze land use compatibility through the development review process to require adequate buffers and/or architectural enhancements to protect sensitive receptors from intrusion of development activities that may cause unwanted nuisances and health risks.*

*LU-3d: Require the provision and maintenance of buffers (e.g., open space, landscaped berms, non-residential land uses, trees) between major roadways and sensitive land uses. Ensure buffers are adequate to mitigate noise to the acceptable levels identified in the Noise Element. Also ensure that buffers are designed to meet engineering and visibility standards, while providing aesthetic appeal.*

*LU-4a: Conduct design review of all applicable projects and ensure consistency with the City's design guidelines; balance design considerations with surrounding development, public spaces, and natural and historical resources.*

*LU-4b: Review and revise, as necessary, design review standards and guidelines to help make the process more efficient and ensure that specific design outcomes are being achieved.*

*LU-6d: Cooperate with LAFCo and the County to direct growth outside the City Limits on lands that are served or are planned to be served, with a full range of urban services, such as public water and sewer, an extensive road network, public transit, safety and emergency response services, parks, trails, and open space.*

#### SAFETY ELEMENT POLICIES

SA-3.1: Ensure that new critical facilities are located in areas that minimize exposure to potential natural hazards.

SA-3.3: Support local and regional disaster planning and emergency response planning efforts, and look for opportunities to collaborate and share resources with other municipalities in the region.

SA-4.2: Require all new development to be constructed in accordance with fire safety standards contained in the locally-adopted California Fire Code and California Building Code.

SA-4.4: Require new development to construct and fund fire suppression infrastructure and equipment needed to provide adequate fire protection services.

SA-4.5: Require all new development, including single-family dwellings on existing parcels of record, to provide adequate access for fire protection and emergency vehicle access.

SA-9.7: Prior to allowing redevelopment in an area devastated by wildfire, the City shall review safety conditions and require any redevelopment to meet all applicable State and local fire safe development standards.

SA-9.8: Ensure adequate evacuation routes for new and existing development. Ensure new residential developments located in High and Very High Fire Hazard Zones have at least two emergency evacuation routes, and Identify existing residential developments in these areas that do not have at least two emergency evacuation routes.

SA-9.9: Discourage new development within Very High Fire Hazard Severity Zones (VHFHSZ) and on the periphery of urban areas where wildfire risks are high due to natural factors or provide adequate mitigation measures to address the elevated fire threat.

SA-9.10: Locate new essential public facilities, such as fire stations, police substations, and emergency evacuation centers outside of High and Very High Fire Hazard Severity Zones.

#### SAFETY ELEMENT ACTIONS

*SA-3a: Coordinate with the Tehama County Sheriff's Office of Emergency Services (O.E.S.) and other local agencies, as necessary, to participate in and implement the Tehama County Multi-Jurisdictional Hazard Mitigation Plan.*

*SA-3b: Conduct periodic emergency response training exercises and/or participate in regional exercises to ensure that key community members, local leaders, and emergency response personnel*

## 3.14 TRANSPORTATION AND CIRCULATION

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*are adequately trained and prepared for emergency situations. Critical facilities within Red Bluff should also be assessed annually to ensure they are properly equipped and supplied.*

*SA-3c: Provide emergency preparedness information on the City's website and encourage residents and community leaders to participate in disaster training programs.*

*SA-3d: Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.*

*SA-3e: As part of the development review process, consult with the Fire Department in order to ensure that the project provides adequate emergency access.*

*SA-3f: Seek funding from State, federal, and other sources to assist in emergency management planning, including community education about defensible space and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster, with a focus on reaching at-risk populations.*

*SA-3h: Coordinate with the Tehama County to periodically to update the Multi-Jurisdiction Hazard Mitigation Plan (LHMP), as needed to meet existing and projected future emergency services needs throughout Red Bluff.*

*SA-3i: Continue to implement the Local Hazard Mitigation Plan Mitigation Actions for Red Bluff.*

*SA-4b: Continue to require all new development to be reviewed for consistency with the relevant State and local Fire Safe Regulations, and the most recently adopted fire code standards.*

*SA-4f: Review and require all projects to adhere to Municipal Code requirements to ensure adequate safety services. These include, but are not limited to, Chapter 8 (Fire Department) which describes the duties of the Fire Department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers associated with such a determination, and Chapter 20 (Subdivisions) which describes the requirements of a subdivider to supply water and provide fire protection within the subdivision.*

*SA-9e: Participate in regional efforts to periodically review and update key emergency and fire protection plans, including but not limited to the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) and the Tehama County Community Wildfire Protection Plan (CWPP). Future updates to these plans shall consider new growth and policy direction facilitated by this General Plan, and shall meet all applicable State requirements and incorporate industry best practices for fuel reduction and management, fuel breaks, fire safety, emergency evacuation, and post-fire recovery.*

*SA-9f: Identify areas within the city that are not adequately served by multiple evacuation routes which can be used during a fire or other natural disaster. Develop specific plans to address SB 99 Evacuation-Constrained Parcels, and improve the capacity, safety, and viability of evacuation routes to serve high-risk areas of the city, including areas located within High and Very High Fire Hazard Zones.*



*SA-9g: Consistent with Policy SA 9-4, require new development projects to prepare and implement wildland fire protection plans that meet all applicable State requirements.*

#### CIRCULATION ELEMENT POLICIES

CIRC 1.1: Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities.

CIRC 1.2: Implement a Safe Systems approach to designing roadways for all users. A Safe Systems approach recognizes that humans make mistakes on the road and focuses on vehicle or roadway design and operational changes rather than behavioral changes to create safe streets. The Safe Systems approach integrates the needs of all roadway users into a transportation system.

CIRC 1.3: Provide a roadway network that is consistent with the functional roadway classifications in the Circulation Element Map (Figure CIRC-1).

CIRC 1.4: Build roadways based on the classifications standards defined by the Federal Highway Administration (FHWA) and Caltrans.

CIRC 1.5: Ensure all City roads are maintained and repaired in a timely fashion.

CIRC 1.6: Consider all transportation improvements as opportunities to improve safety, access, and mobility for all roadway users.

CIRC 2.1: Implement best practices to improve and expand the pedestrian and bicycle environment and network.

CIRC 2.2: Consider walking and bicycling access to schools as a priority over vehicular movements when any such conflicts occur.

CIRC 2.4: Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible.

CIRC 2.5: Support convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC 2.6: Support bicycle, pedestrian, and transit usage; provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC 3.2: Consider implementing vehicle weight limit restrictions on roadways near sensitive uses like schools and residential neighborhoods to discourage cut-through truck traffic.

CIRC 3.3: Require new industrial developments to pay a share of costs toward improvements required to accommodate heavy vehicles that increase pavement wear.

CIRC 3.4: Minimize potential conflicts between trucks and pedestrians, bicycle, transit, and vehicle access and circulation on streets with truck travel.

CIRC 3.6: Support safety improvements at current at-grade rail crossings.

### CIRCULATION ELEMENT ACTIONS

*CIRC-1a: Pursue all available sources of funding and protect existing sources for the development, improvement, and maintenance of the existing roadway system.*

*CIRC-1b: Review and revise roadway standards to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.*

*CIRC-1d: Install traffic calming devices, such as signage, curb extensions, pedestrian islands and speed humps, as needed and appropriate in existing neighborhoods.*

*CIRC-1e: Conduct a Local Roadway Safety Plan with the goal of reducing traffic fatalities and serious injuries on public roads, and supporting funding for safety improvements. The plan may consider collision history, vehicle, bicycle, and pedestrian volumes, vehicle speeds, and other improvements.*

*CIRC-1f: Design roadway infrastructure that protects human life by lowering speeds and heightening driver awareness.*

*CIRC-1g: Incorporate Americans with Disabilities Act (ADA) requirements throughout the City, but especially in high-volume pedestrian areas.*

*CIRC-1h: Develop a Pavement Management System that documents all roads needing pavement improvements and prioritizes roads for renovation based on a pavement condition index.*

*CIRC-1i: Seek opportunities to fund maintenance of the circulation network, including the active pursuit by the Public Works Department of a wide range of grant sources administered by Caltrans and other agencies.*

*CIRC-1k: Conduct a review of existing evacuation routes and update routes as needed.*

*CIRC-1l: Work with Tehama County to create a funding plan to implement improvements for emergency access, evacuation, fire protection, public safety, and work with appropriate agencies to identify and prioritize projects.*

*CIRC-2a: Implement and build on recommendations for pedestrian and bicycle improvements included in the Tehama County Active Transportation Plan.*

*CIRC-2c: Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.*

*CIRC-2d: Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.*

*CIRC-3a: Adopt, maintain, and enforce a truck route map that identifies key goods movement corridors and ensures goods movement needs are adequately served while reducing impacts to other uses.*

*CIRC-3b: Prominently sign all truck routes in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD).*

*CIRC-3d: Ensure railroad crossings of State and County roads are marked, signalized, and gated where warranted by traffic volumes and required by the California Public Utility Commission (PUC).*

*CIRC-3e: Pursue funding for improved gates at current at-grade rail crossings.*

#### **Impact 3.14-4: General Plan implementation may cause inadequate emergency access (Less than Significant).**

Emergency access to individual land use parcels is typically assessed at the project level and the proposed General Plan contains policies and actions (listed below) that address the needs of emergency responders and requires consultation with the fire and police departments during development review. Red Bluff is served by Red Bluff Fire and Tehama County Fire Station 1 located in downtown and eastern limits of the city, respectively. Dignity Health, which includes urgent care services, is located on South Main Street south of the central city. For larger area responses, the proposed General Plan relies on close coordination and support with local and regional agencies. Tehama County maintains an Emergency Operations Plan (EOP) and it provides the overall emergency response framework for an integrated response within the County and the incorporated cities. The proposed General Plan would not interfere or create inconsistencies with this plan, but the plan's population and employment growth could require updates or modifications to this plan over time.

Neither the City of Red Bluff or Tehama County has a travel demand model capable of forecasting travel time changes associated with new growth, which presents some uncertainty about how the effect that new growth will have on emergency access, response times, and evacuation times. While it is possible that increased development under the General Plan would increase traffic and delays that could affect emergency response and evacuation times, following the plan policies and actions listed below should provide for adequate service. The proposed general plan policies and actions should not result in a change or deterioration of emergency access and response times given the population and employment growth projected in the City of Red Bluff. Therefore, this impact is considered ***less than significant***.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **SAFETY ELEMENT POLICIES**

SA 3.2: Ensure that critical facilities are properly supplied and equipped to provide emergency services.

SA 3.3: Support local and regional disaster planning and emergency response planning efforts, and look for opportunities to collaborate and share resources with other municipalities in the region.

SA 4.2: Require all new development to be constructed in accordance with fire safety standards contained in the locally-adopted California Fire Code and California Building Code.

SA 4.5: Require all new development, including single-family dwellings on existing parcels of record, to provide adequate access for fire protection and emergency vehicle access.

SA 9-4: New development projects within and adjacent to wildland, forest, or areas or that are included within a Very High Fire Hazard Severity Zone (VHFHSZ) shall prepare and implement wildland fire protection plans that include the following components:

1. *Risk Analysis*
2. *Fire Response Capabilities*
3. *Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance*
4. *Measures and Design Considerations for Non-Conforming Fuel Modification*
5. *Wildfire Education, Maintenance, and Limitations*
6. *Evacuation Planning.*

SA 9-8: Ensure adequate evacuation routes for new and existing development. Ensure new residential developments located in High and Very High Fire Hazard Zones have at least two emergency evacuation routes, and identify existing residential developments in these areas that do not have at least two emergency evacuation routes.

SA 9-10: Locate new essential public facilities, such as fire stations, police substations, and emergency evacuation centers outside of High and Very High Fire Hazard Severity Zones.

### SAFETY ELEMENT ACTIONS

*SA-3a: Coordinate with the Tehama County Sheriff's Office of Emergency Services (O.E.S.) and other local agencies, as necessary, to participate in and implement the Tehama County Multi-Jurisdictional Hazard Mitigation Plan.*

*SA-3b: Conduct periodic emergency response training exercises and/or participate in regional exercises to ensure that key community members, local leaders, and emergency response personnel are adequately trained and prepared for emergency situations. Critical facilities within Red Bluff should also be assessed annually to ensure they are properly equipped and supplied.*

*SA-3c: Provide emergency preparedness information on the City's website and encourage residents and community leaders to participate in disaster training programs.*

*SA-3d: Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.*

*SA-3e: As part of the development review process, consult with the Fire Department in order to ensure that the project provides adequate emergency access.*

*SA-3f: Seek funding from State, federal, and other sources to assist in emergency management planning, including community education about defensible space and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster, with a focus on reaching at-risk populations.*

*SA-4f: Review and require all projects to adhere to Municipal Code requirements to ensure adequate safety services. These include, but are not limited to, Chapter 8 (Fire Department) which describes the duties of the Fire Department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers associated with such a determination, and Chapter 20 (Subdivisions) which describes the requirements of a subdivider to supply water and provide fire protection within the subdivision.*

*SA-9b: Consult with CAL FIRE during the review of development applications for projects within high and very high Fire Hazard Severity Zones in areas adjacent to SRAs.*

*SA-9f: Identify areas within the city that are not adequately served by multiple evacuation routes which can be used during a fire or other natural disaster. Develop specific plans to address SB 99 Evacuation-Constrained Parcels, and improve the capacity, safety, and viability of evacuation routes to serve high-risk areas of the city, including areas located within High and Very High Fire Hazard Zones.*

*SA-9g: Consistent with Policy SA 9-4, require new development projects to prepare and implement wildland fire protection plans that meets all applicable State requirements.*

#### CIRCULATION ELEMENT POLICIES

**CIRC 1.6:** Consider all transportation improvements as opportunities to improve safety, access, and mobility for all roadway users.

**CIRC 1.7:** Maintain hazard and emergency responsiveness by identifying transportation planning measures to address vulnerabilities, respond to emergencies, and mitigate hazards.

#### CIRCULATION ELEMENT ACTIONS

*CIRC-1b: Review and revise roadway standards to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.*

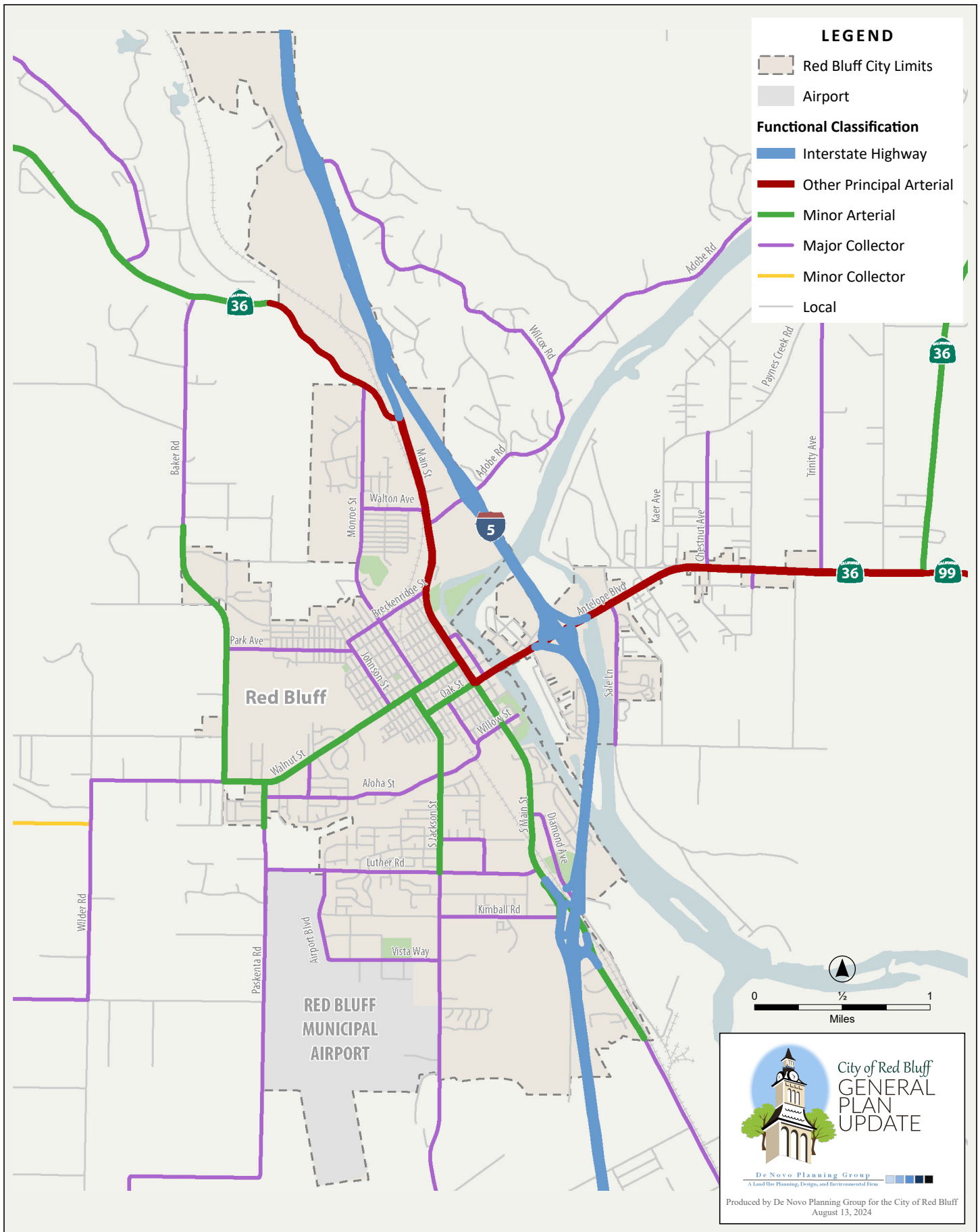
*CIRC-1j: Conduct a climate change vulnerability assessment that identifies measures to address vulnerabilities, comprehensive hazard mitigation, and emergency response strategies.*

*CIRC-1k: Conduct a review of existing evacuation routes and update routes as needed.*

*CIRC-1l: Work with Tehama County to create a funding plan to implement improvements for emergency access, evacuation, fire protection, public safety, and work with appropriate agencies to identify and prioritize projects.*

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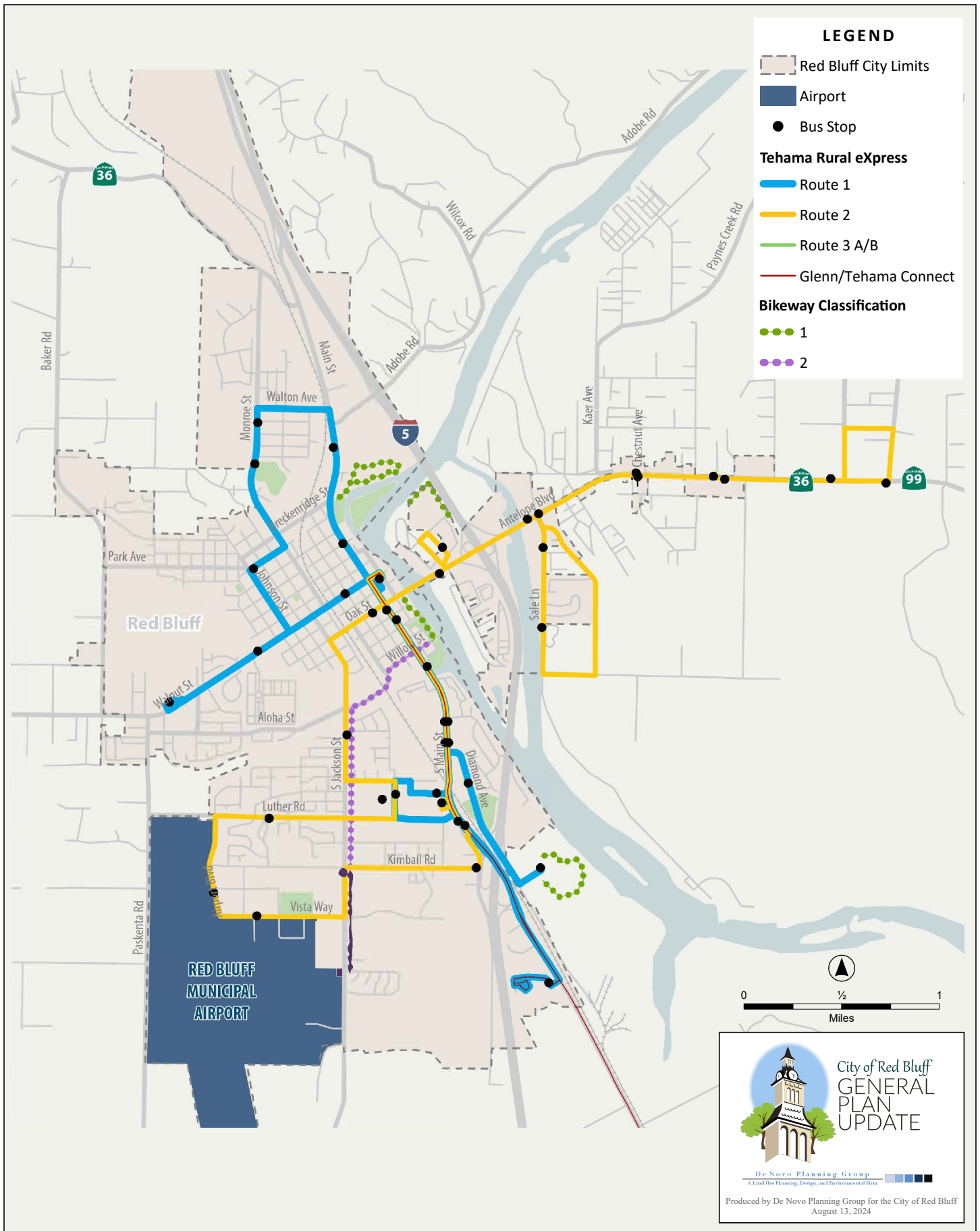
### Figure 3.14-1. Roadway Classification



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Figure 3.14-2. Bikeways, Transit Service, Airports



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Utilities and service systems are critical to providing safe drinking water, disposal and treatment of wastewater, stormwater drainage, and solid waste disposal. This section provides a background discussion of the utility systems in Red Bluff including water supplies, wastewater, storm drainage, and solid waste. This section is organized with an existing setting, regulatory setting, and impact analysis.

No comments were received during the NOP comment period regarding this environmental topic.

### 3.15.1 WATER SUPPLIES

#### KEY TERMS

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**Acre feet:** The volume of one acre of water to a depth of one foot. Each acre-foot of water is equal to approximately 325,851.4 gallons.

**BGS:** Below ground surface.

**GPD:** Gallons per day.

**GPM:** Gallons per minute.

**Groundwater:** Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

**MG:** Million gallons

**MGD:** Million gallons per day

**Surface water:** Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is replenished naturally through precipitation, but is lost naturally through evaporation and seepage into soil.

#### DOMESTIC WATER SYSTEM

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The City's service area provides retail water services to the City and portions of Tehama County outside the City limits, including the water main extension along Antelope Boulevard to the east of the City limits and Shasta College - Tehama Campus. the Red Bluff Water Service area is shown on Figure 3.15-1.

The City of operates a public water system under a permit issued by the California Division of Drinking Water (DDW) (formerly the California Department of Public Health). The permit was first

## 3.15 UTILITIES AND SERVICE SYSTEMS

issued in 1971 and is amended as improvements are added to the system. DDW makes routine inspections of the water system and is the recipient of all test results.

Specifically, the City of Red Bluff provides water service to approximately 4,865 residential, commercial, agricultural and industrial service connections from water supplies and 3,166 acre-feet of water volume. The City of Red Bluff owns, maintains, and operates water supply wells, storage tanks, and water lines throughout the city. The water supplied by the City of Red Bluff is not altered or treated prior to distribution. The City has two portable chlorination units that could be used to treat water on an emergency basis. The City manages and maintains over 80 miles of water lines spanning 4 to 24 inches in diameter, 11 active groundwater wells, and two 3 million gallon (MG) water storage facilities. The City of Red Bluff pumps and delivers water to its residential (including single-family residential and multi-family residential), commercial, industrial, and institutional customers within the service area.

Water demands served by the City of Red Bluff are primarily residential (includes single-family residential and multi-family residential), commercial, industrial, and institutional, and landscape irrigation. All connections in the city are metered, with the exception of eight unmetered commercial/institutional connections.

### Water Demands

Water demands served by the City are primarily residential. All connections in the City are metered, with the exception of 8 unmetered commercial/institutional connections.

Table 3.15-1 contains the projected potable and raw water demands from 2025 through 2045. The demand projections are based on the City's 2020 target water use (includes conservation) and the projected populations. To project the number of connections per customer sector, it was assumed that the number of connections will grow consistently with the projected water demands; this is based on the relative distribution of customer types, accounts, and water use reported for 2020.

**TABLE 3.15-1: DEMANDS FOR POTABLE AND NON-POTABLE WATER – PROJECTED (AF)**

USE TYPE	ADDITIONAL DESCRIPTION (AS NEEDED)	PROJECTED WATER USE (AF) REPORT TO THE EXTENT THAT RECORDS ARE AVAILABLE				
		2025	2030	2035	2040	2045 (OPT)
Single Family		1,744	1,780	1,816	1,852	1,889
Multi-Family		675	689	702	717	731
Commercial	Includes Industrial	1,564	1,596	1,628	1,661	1,694
Institutional/Governmental		0	0	0	0	0
Other	Irrigation	16	17	17	17	18
Other	Unbilled Authorized Consumption	7	8	8	8	8
Losses		498	508	519	529	540
<b>Total</b>		<b>4,506</b>	<b>4,597</b>	<b>4,689</b>	<b>4,784</b>	<b>4,880</b>

*SOURCE: RED BLUFF 2020 URBAN WATER MANAGEMENT PLAN TABLE 4-2*

## **Water Supplies**

The City is located within the geomorphic province known as the Central Valley, which is divided into the Sacramento Valley and the San Joaquin Valley. The groundwater underlying the City is part of the larger Sacramento Valley Groundwater Basin within the Sacramento River Hydrologic Region. The City relies upon groundwater from the Red Bluff Subbasin (California DWR Groundwater Basin Number 5-21.50) of the Sacramento Valley Groundwater Basin as its sole source of domestic potable water. The Red Bluff Subbasin is an un-adjudicated basin that supports both municipal and agricultural users. DWR Bulletin 118, "California's Groundwater," contains a detailed description of the Red Bluff Subbasin and its characteristics and conditions.

The City's water supplies are entirely obtained from the Sacramento Valley Groundwater Basin, Red Bluff Subbasin. However, the City limits and SOI also overly the Antelope Subbasin of the Sacramento Valley Groundwater Basin (DWR Groundwater Basin Number 5-21.54). The Antelope Subbasin is an un-adjudicated basin that supports both municipal/industrial and agricultural users. DWR Bulletin 118 contains a detailed description of the Antelope Subbasin and its characteristics and conditions. Figure 3.15-2 shows Sub-Basins within the Sacramento Valley Groundwater Basin underlying the planning area.

### **SURFACE WATER SUPPLIES**

The City does not have any surface water sources as part of its water supply.

### **GROUNDWATER SUPPLIES**

The City currently utilizes local groundwater as its sole water supply source. The City extracts its water supply from the underlying Sacramento Valley Groundwater Basin, Red Bluff Subbasin via 11 active groundwater wells scattered throughout the water service area. The pumping capacities of the City's active wells currently range from approximately 600 to 2,500 gallons per minute (gpm).

### **STORMWATER SUPPLIES**

The City has not identified any opportunities related to stormwater recapture to offset potable water use.

### **WASTEWATER AND RECYCLED WATER**

The City owns the Wastewater Reclamation Plant (WRP) that collects and treats all wastewater within the service area. Therefore, the City coordinates recycled water use within the service area and does not rely on an outside facility or agency.

The City owns and maintains gravity sewer pipelines and force mains, sewer lift stations, and pump stations. The City collects wastewater from residential, and CII customers within the service area. The City contributed 1,260 AFY of wastewater flow into the WRP in 2020.

The City owns and maintains the WRP, which is operated by Operations Management International, Inc. (a subsidiary of Jacobs). The WRP is located east of I-5 and north of Shasta College - Tehama Campus. The WRP is permitted to treat 2.5 million gallons per day (mgd) and

currently operates at approximately 1.0 mgd. Treatment consists of screening for removal of large solids, aerated grit removal, primary sedimentation, activated sludge treatment with secondary clarification, filtration, and chlorination/dechlorination. Primary and waste activated sludge are treated by aerobic digestion and stored in sludge storage basins, until dewatered and dried in sludge drying beds.

Advanced secondary treated effluent, where median concentration of total coliform is not to exceed 23 most probable number (MPN) per 100 milliliter (mL), is used for irrigation purposes and/or is discharged to the Sacramento River. The discharge is regulated under National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirements (WDR) Order No. R5-2018-0041.

The City provides recycled water to Caltrans for irrigation along the southeastern I-5 corridor in the City limits. Projected recycled water uses include expanded irrigation by Caltrans north to the Adobe Road overcrossing, including servicing of off-ramp islands as well as medians.

The City supports use of recycled water and has taken steps to promote the use of recycled water and increase awareness among City stakeholders. Expansion of recycled water usage in the City, for uses such as golf course and park irrigation, would require increased treatment (advanced secondary treated effluent where median concentration of total coliform is not to exceed 2.2 MPN/100 mL) and construction of recycled water infrastructure. The City does not plan to expand recycled water use at this time.

### **Water Service Reliability**

This section examines the reliability of the water supply available to the City. There are two aspects of supply reliability that can be considered. The first relates to immediate service needs and is primarily a function of the availability and adequacy of the supply facilities. The second aspect is climate-related and involves the availability of water during mild or severe drought periods. There are a variety of factors that can affect water supply reliability. The factors that might result in supply reliability issues include water quality and climatic changes.

In general, groundwater quality in the Red Bluff Subbasin is very good, and as such has a limited effect on the City's ability to provide its service area with a reliable source of high quality drinking water. Nor does it have a significant effect on water management strategies or supply reliability. California DWR Bulletin 118 contains a detailed description of the Red Bluff Subbasin impairments. Impairments include high magnesium, total dissolved solids (TDS), calcium, adjusted sodium adsorption ratio (ASAR), and phosphorus. The groundwater is not altered or treated prior to distribution. The City's drinking water meets all applicable water quality regulations.

Climate change is likely to add uncertainties to supply planning and future supply availability. The severe and prolonged drought that began in 2012 has been a test of the City's ability to prepare for, and adapt to, the effects of climate change. Considering reductions in per capita use and projected demands, the City continues to balance a cautious optimism with a long-term strategy for sustainable sources of supply.

Table 3.15-2 provides an estimate of the projected three-consecutive-year drought supply and demand totals. Demand reductions due to water shortage stage rationing measures are not included in the five-consecutive-year drought demand estimates. As shown in Table 3.15-2, the City expects to have adequate supplies to fully meet demand for future multiple-dry years.

**TABLE 3.15-2 MULTIPLE DRY YEARS SUPPLY AND DEMAND COMPARISON**

USE TYPE		PROJECTED WATER SUPPLY & USE (AF)				
		2025	2030	2035	2040	2045
First year	Supply totals	4,574	4,665	4,757	4,852	4,948
	Demand Totals	4,574	4,665	4,757	4,852	4,948
	Difference	0	0	0	0	0
Second Year	Supply totals	4,574	4,665	4,757	4,852	4,948
	Demand Totals	4,574	4,665	4,757	4,852	4,948
	Difference	0	0	0	0	0
Third Year	Supply totals	4,574	4,665	4,757	4,852	4,948
	Demand Totals	4,574	4,665	4,757	4,852	4,948
	Difference	0	0	0	0	0

NOTES: UNITS OF MEASURE IN THIS UWMP ARE ACRE-FEET (AF)

SOURCE: RED BLUFF 2020 URBAN WATER MANAGEMENT PLAN TABLE 7-4

## REGULATORY SETTING - WATER SUPPLIES

### State

#### CALIFORNIA STATE WATER RESOURCE CONTROL BOARD

The State Water Resource Control Board, Division of Drinking Water, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund ("SRF") and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

#### CALIFORNIA CODE OF REGULATIONS

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

### CONSUMER CONFIDENCE REPORT REQUIREMENTS

CCR Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

### URBAN WATER MANAGEMENT PLANNING ACT

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt an urban water management plan. An “urban water supplier” is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The plan must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier’s water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Department of Water Resources must receive a copy of an adopted urban water management plan.

### SENATE BILL (SB) 610 AND ASSEMBLY BILL (AB) 901

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.



**SENATE BILL (SB) 221**

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a “sufficient water supply” exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

**EXECUTIVE ORDER B-37-16**

In May 2016, Governor Edmund G. Brown, Junior, signed Executive Order B-37-16 (Executive Order), Making Water Conservation a California Way of Life. The Executive Order directed DWR to work with the State Water Resources Control Board (State Water Board) to develop new water use targets as part of a permanent conservation framework for urban water agencies. The targets will build upon requirements established in the 2009 Water Conservation Act, but will strengthen standards for indoor residential per capita water use, outdoor irrigation, commercial, industrial and institutional (CII) water use, and water lost through leaks. DWR will be establishing interim water use targets by 2018, with final standards to be published by 2021. Agencies will need to demonstrate progress towards achieving final compliance in 2025 (DWR, 2017).

**Local****WATER REGULATIONS RED BLUFF MUNICIPAL CODE CHAPTER 24**

The City of Red Bluff Municipal Code has ordinances related to wastewater and sewer. These include Chapter 24 - Water which describes the duties and standards of the municipal Water Department for managing and operating the municipal waterworks of the City. Chapter 24 of the Red Bluff Municipal Code include the following requirements for the use of public water:

- (1) Application for Service. Any person desiring to be supplied with water shall make application in writing on the prescribed form and shall sign the same and state the location, the purpose and use of the water requested.
- (2) Connection and Service Charges. Connection charges to the City water system and charges for water service within or without the corporate limits of the City and all other charges related to water service, shall be fixed and may be amended by resolution of the City Council.

**CITY OF RED BLUFF URBAN WATER MANAGEMENT PLAN**

The City of Red Bluff 2020 Urban Water Management Plan (UWMP) is utilized by the City for the management of City’s water supplies and water demands covering a range of normal and drought conditions. The UWMP provides information and projections regarding water supply availability and future water demands.

### THRESHOLDS OF SIGNIFICANCE

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Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact on the environment associated with Utilities and Service Systems if it will:

- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; and/or
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

### IMPACTS AND MITIGATION MEASURES

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#### **Impact 3.15-1: General Plan implementation would result in sufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry and multiple dry years (Less than Significant)**

Implementation of the General Plan would result in increased population and employment growth within the Planning Area, and a corresponding increase in the demand for additional water supplies.

The UWMP assumed that average water use per connection will remain the same over time, while population in the Agency service area will continue to grow. Thus, the existing average demand per connection by use type was multiplied by the projected number of connections to result in a total projected demand by use type for 2025 through 2045. The resulting projected water use by type is presented in Table 3.15-1. As described in the UWMP the projected supply and demand totals match. The reasonably available volume of water supply is anticipated to match demands through 2045 in each water year. Water supply and demand patterns change during normal, single dry, and multi dry years. As described in the UWMP, it is assumed that the water supply for the City of Red Bluff will be able to serve those demands.

As described in the UWMP the population is anticipated to increase to 15,901 by the year 2045, based on the existing average annual growth rate. As described in the Project Description (Chapter 2.0 DEIR Table 2.0-2), the range of growth, including residential units, that may be anticipated to occur under cumulative 2045 conditions would be anticipated to result in up to 1,267 dwelling units accommodating an additional 3,092 residents with a total buildout population of 17,531. This growth would exceed the range of growth assumed under the existing UWMP with an additional 1,630 in total population. As described in Chapter 2.0 growth projections should not be considered a precise prediction for growth, as the actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City's control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors.

While the 2020 UWMP water use projections are the best available currently, water use projections would need to be re-evaluated in future UWMP updates, to accommodate and plan for

additional growth that may occur based on the updated Land Use Map as well as based on the new regulations.

The current City policy is to accommodate potable water demands through groundwater pumping. The City's General Plan requires development to demonstrate adequacy of facilities and water supplies through action COS-7h. Therefore, development facilitated under the General Plan to serve housing needs would not be expected to result in insufficient water supplies and no new or expanded water treatment facilities are proposed as part of the Project. The City's existing water system can meet the additional 2045 growth however, the UWMP would need to be periodically updated to accommodate new and projected population growth, and Red Bluff intends to update the plan to reflect the proposed General Plan updates and to ensure sufficient water supplies and infrastructure to support development. The proposed General Plan includes a range of policies designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. The policies and actions listed below would assist in ensuring that adequate water supplies are available to serve new growth projected under the proposed General Plan. Therefore, this impact is considered **less than significant**.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 7.1: Protect and enhance surface and groundwater resources, including groundwater recharge areas such as the Sacramento River, Red Bank, and Reed's Creek. For example, minimize the use of impervious surfaces in recharge areas, both on private lands and in public lands (including rights of way and utility easements).

COS 7.5: Encourage all existing and new development to incorporate water conservation methods into plan design so that water waste, use, and runoff can be minimized.

##### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-7b: Whenever feasible, incorporate improved open space and preservation areas and quasi-active recreation facilities in areas used for groundwater recharge and/or drainage detention.*

*COS-7d: Explore partnerships and/or funding options for expansion of the Wastewater Reclamation Plant and construction of recycled water infrastructure within Red Bluff to support the expansion of recycled water usage in the City.*

*COS-7e: Encourage water conservation in the following ways:*

- *Implementing aquifer and groundwater recharge programs;*
- *Establishing water conservation education programs;*
- *Implementing the City's water shortage contingency plan, when necessary;*

- *Requiring water efficient landscaping in accordance with the City's Landscape Regulations (Chapter 27 of the Municipal Code); and*
- *Requiring the incorporation of water conservation devices, including low flush toilets, flow restriction devices, and water conserving appliances in both new public and private development projects and rehabilitation projects.*

*COS-7h: Through the development review process, require that sufficient water supply and water infrastructure capacity is available to serve the development prior to approval of the project, pursuant to Water Code Section 10910 and Government Code Section 66473.7*

### **Impact 3.15-2: General Plan implementation would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)**

Development and growth in the City under the proposed General Plan would result in increased demand for water supplies, including water conveyance and infrastructure. The proposed General Plan includes policies and actions to ensure that water supplies are provided at acceptable levels and to ensure that development and growth does not outpace the provision of available water supplies.

As described under Impact 3.15-1, the projected water supplies are expected to be adequate to meet demand, however future updates to the UWMP would be required to identify specific system needs and capacities. The General Plan does not propose and would not approve any development of infrastructure improvements as part of the General Plan update. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

Future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the existing water infrastructure network. The specific impacts of providing new and expanded water distribution infrastructure cannot be determined at this time, as the General Plan does not propose or authorize any specific development projects or include details on any future development projects. The Public Facility (PF) designation is intended for the development of public-serving facilities to meet public needs. Examples of uses which are considered appropriate under this designation include, but are not limited to, institutional, utility, educational, airport, cemetery, and other community services. Any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for Public Facilities and urbanized land uses, and the environmental impacts of constructing and operating water distribution infrastructure would be similar to those

associated with new development, redevelopment, and infrastructure projects under the proposed General Plan and impacts related to individual issue areas are describe in Chapters 3.1 through 3.16 and 4.0 of this DEIR. The proposed General Plan includes a range of policies (listed below) to ensure that future supply levels meet demands. Specifically, General Plan action COS-7h requires development to demonstrate adequacy of facilities and water supplies. All development projects would be required to demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services. Therefore, this impact is considered **less than significant**.

#### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

##### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 7.1: Protect and enhance surface and groundwater resources, including groundwater recharge areas such as the Sacramento River, Red Bank, and Reed's Creek. For example, minimize the use of impervious surfaces in recharge areas, both on private lands and in public lands (including rights of way and utility easements).

COS 7.5: Encourage all existing and new development to incorporate water conservation methods into plan design so that water waste, use, and runoff can be minimized.

##### LAND USE ELEMENT POLICES

LU 6-1: Provide and maintain high quality services, facilities, utilities, and infrastructure that meet the needs of existing and future development.

LU 6-2: Maintain and implement public facility master plans, in collaboration with appropriate outside service providers and agencies, to ensure compliance with appropriate regional, State, and federal laws and to identify infrastructure needs, funding sources, and implement improvements for public facilities and services in Red Bluff.

LU 6-3: Require that new development and major redevelopment projects provide for and fund its proportional share of costs for expansion of public infrastructure and services, recreational amenities and facilities, and other public facilities.

LU 6-4: Maintain and finance the capital improvement program to ensure the timely implementation of the General Plan and the adequate and timely provision of public facility and municipal improvements.

LU 6-5: Prioritize the placement of new infrastructure in areas targeted for near-term development through the orderly extension of infrastructure.

LU 6-5: Maintain and improve streets, sidewalks, and other public rights-of-way to provide a reliable network for circulation through a proactive preventive maintenance program.

LU 6-7: Encourage service providers to make available the highest level of telecommunications infrastructure, along with a wide range of modern telecommunications services for Red Bluff's residences, businesses, and institutions.

LU-6.8 Review new development applications in order to ensure that new growth does not exceed the availability of water supply, treatment, and sewage treatment capacity or predate the presence of necessary infrastructure.

### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-7b: Whenever feasible, incorporate improved open space and preservation areas and quasi-active recreation facilities in areas used for groundwater recharge and/or drainage detention.*

*COS-7d: Explore partnerships and/or funding options for expansion of the Wastewater Reclamation Plant and construction of recycled water infrastructure within Red Bluff to support the expansion of recycled water usage in the City.*

*COS-7e: Encourage water conservation in the following ways:*

- *Implementing aquifer and groundwater recharge programs;*
- *Establishing water conservation education programs;*
- *Implementing the City's water shortage contingency plan, when necessary;*
- *Requiring water efficient landscaping in accordance with the City's Landscape Regulations (Chapter 27 of the Municipal Code); and*
- *Requiring the incorporation of water conservation devices, including low flush toilets, flow restriction devices, and water conserving appliances in both new public and private development projects and rehabilitation projects.*

*COS-7h: Through the development review process, require that sufficient water supply and water infrastructure capacity is available to serve the development prior to approval of the project, pursuant to Water Code Section 10910 and Government Code Section 66473.7*

### LAND USE ELEMENT ACTIONS

*LU-6a: As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.*

*LU-6b: Maintain records regarding the quality and status of public facilities and critical infrastructure and use this information to inform the capital improvement planning process.*

*LU-6d: Cooperate with LAFCo and the County to direct growth outside the City Limits on lands that are served or are planned to be served, with a full range of urban services, such as public water and sewer, an extensive road network, public transit, safety and emergency response services, parks, trails, and open space.*

### 3.15.2 WASTEWATER

The City owns the Red Bluff Wastewater Reclamation Plant (WRP) that collects and treats all wastewater within the service area via a network of conveyance infrastructure located throughout the City's service area.

#### KEY TERMS

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**Effluent:** Effluent is an outflowing of water from a natural body of water, or from a man-made structure. Effluent in the man-made sense is generally considered to be water pollution, such as the outflow from a sewage treatment facility or the wastewater discharge from industrial facilities. In the context of waste water treatment plants, effluent that has been treated is sometimes called secondary effluent, or treated effluent.

**NPDES:** Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

**WWTP:** Wastewater treatment plant. Treatment of wastewater may include the following processes: screening to remove large waste items; grit removal to allow sand, gravel, and sediment to settle out; primary sedimentation where sludge can settle out of the wastewater; secondary treatment to substantially degrade the biological content of the sewage; tertiary treatment to raise the quality of the effluent before it is discharged; and, discharge.

#### WASTEWATER SYSTEM

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##### City of Red Bluff Wastewater Collection, Treatment, and Disposal

The City of Red Bluff owns the Red Bluff Wastewater Reclamation Plant (WRP) that collects and treats all wastewater within the service area. The Wastewater Division at the City of Red Bluff is responsible for treating all the wastewater collected in the city along with maintaining the infrastructure necessary to collect and transport sewage to the WWTP. The division is divided into two departments:

1. WWTP
2. Sewer Collections Department

The collections staff is responsible for maintenance and repair of over 60 miles of sewer. The staff participates in the voluntary certification program offered by the California Water Environment



Association. The types of work performed consist of rodding and flushing sewer lines along with TV inspection of lines to locate areas that need repair or to precisely locate underground connections.

The sewer system is managed and maintained by the Red Bluff Public Works Department, which consists of 9 budgeted, full time positions, including the Public Works Director (DPW), Supervisor, and two Lead positions. Four (4) additional Jacobs contract WWTP personnel operate the WWTP, but do not typically assist with the sewer collection system operations. In addition to the sewer collection system, the Public Works Department also operates and maintains other City infrastructure systems including the water distribution system, storm drain system, streets, facilities, buildings and grounds maintenance.

The City of Red Bluff provides wastewater collection, treatment and disposal services to 4,142 sewer connections to the sanitary sewer collection system. These service connections are further categorized as 3,672 residential connections, and 470 commercial/Industrial connections. The sewer collection system contains approximately 1,050 manholes and 60 miles of gravity piping ranging in size from 4 inches to 30 inches. The City does not own, maintain, repair or replace any portion of the sewer laterals. The collection system also includes 19 lift stations and 6.39 miles of force mains. The City also provides extra territorial services to sixty-six (66) individual private parcels in the Lakeside area. The City has entered into separate Utility Services Agreements with these private sewer systems.

### **Red Bluff Wastewater Reclamation Plant**

The WRP provides sewerage service for the community of Red Bluff and serves a population of approximately 14,710. The WWTP a design capacity of 2,500,000 gallons per day but currently treats about 1,400,000 gallons per day in dry weather. The facility consists of domestic wastewater treatment facilities and solids handling facilities. The liquid stream process at the Facility includes influent screening via a mechanical bar screen, aerated grit tank for grit removal, primary sedimentation, activated sludge treatment (with four aeration basins), secondary clarification, filtration via a traveling bridge filter, chlorine (gas) disinfection, and dechlorination with sodium bisulfite. Treated effluent is discharged to the Sacramento River through a 30-inch diameter concrete coated steel pipe. The outfall does not contain a diffuser.

The WRP also provides approximately 6.5 million gallons of treated effluent per year for reclamation purposes. Reclaimed water is used intermittently for landscape irrigation on State of California, Department of Transportation (Caltrans) property near the Facility along the Interstate Highway 5 corridor (approximately 52 acres). The intermittent average daily volume applied is 61,131 gallons per day. Recycled water use is currently regulated by Wastewater Reclamation Permit Order No. 5-01-262, which was issued to Caltrans and adopted by the Central Valley Water Board on 7 December 2001.

Advanced secondary treated effluent, where median concentration of total coliform is not to exceed 23 most probable number (MPN) per 100 milliliters (mL), is used for irrigation purposes and/or is discharged to the Sacramento River. The discharge is regulated under National Pollutant

Discharge Elimination System (NPDES) Waste Discharge Requirements (WDR) Order No. R5-2013-0044. The WRP operates under the current NPDES Permit CA-0078051.

The Public Works Department has developed, and is constantly updating, a Sewer System Management Plan (SSMP) to reduce the number of sanitary sewer overflows in the wastewater collection system. The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent Sewer System Overflow (SSO), as well as mitigate any SSOs that do occur.

### **Other Community Systems**

On-site systems, commonly referred to as septic systems, are useful for handling the wastewater disposal needs of individual dwellings or commercial establishments for which connection to community facilities is not feasible. An on-site system consists of a septic tank that receives wastewater, allows the heavier solids to settle in the tank, and releases the remainder to an attached leach field. The leach field consists of underground perforated parallel lines through which water can seep into the surrounding soil. The solids which settled out of the wastewater in the septic tank must be periodically removed.

Septic tanks work well in areas of low density development where there is sufficient room to separate leach lines from potable water wells and lines. On-site systems are relatively inexpensive, easy to maintain, and contribute to water recharge in the area. However, on-site systems require certain soil conditions, topography, and water table conditions in order to work. If the proper conditions are not present, the leach field can become saturated and groundwater may become contaminated.

Chapter 18.3 of the Red Bluff Municipal Code requires new develop to connect to the municipal wastewater system. However, septic systems are located throughout the City's SOI and in portions of the City where connections to the municipal system are not available.

## **REGULATORY SETTING - WASTEWATER**

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### **Federal**

#### **CLEAN WATER ACT (CWA) / NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS**

The CWA is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters

of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

## State

### STATE WATER RESOURCES CONTROL BOARD/REGIONAL WATER QUALITY CONTROL BOARD

In California, all wastewater treatment and disposal systems fall under the overall regulatory authority of the State Water Resources Control Board (SWRCB) and the nine California Regional Water Quality Control Boards (RWQCBs), who are charged with the responsibility of protecting beneficial uses of State waters (ground and surface) from a variety of waste discharges, including wastewater from individual and municipal systems. The City of Red Bluff falls within the jurisdiction of the Central Valley Regional Water Quality Control Board.

The RWQCB's regulatory role often involves the formation and implementation of basic water protection policies. These are reflected in the individual RWQCB's Basin Plan, generally in the form of guidelines, criteria and/or prohibitions related to the siting, design, construction, and maintenance of on-site sewage disposal systems. The RWQCB's role has historically been one of providing overall direction, organizational and technical assistance, and a communications link to the State legislature.

The RWQCBs may waive or delegate regulatory authority for on-site sewage disposal systems to counties, cities or special districts. Although not mandatory, it is commonly done and has proven to be administratively efficient. In some cases, this is accomplished through a Memorandum of Understanding (MOU), whereby the local agency commits to enforcing the Basin Plan requirements or other specified standards that may be more restrictive. The RWQCBs generally elect to retain permitting authority over large and/or commercial or industrial on-site sewage disposal systems, depending on the volume and character of the wastewater.

### PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the State Water Resources Control Board (SWRCB) has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the Central Valley Regional Water Quality Control Board (CVRWQCB) NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

### Local

#### CITY OF RED BLUFF SEWER SYSTEM MANAGEMENT PLAN

The goal of the Sewer System Management Plan (SSMP) is to provide a plan and schedule to properly manage, operate and maintain all parts of the sanitary sewer system. The plan helps the City to determine where maintenance is needed in the collection system to prevent and mitigate future sewer overflows. In addition, the SSMP shall include elements that will help the City develop a routine preventive operation and maintenance program, a rehabilitation and replacement plan, a regular training program for staff and an inventory of replacement parts.

#### SEWAGE REGULATIONS RED BLUFF MUNICIPAL CODE CHAPTER 18

The City of Red Bluff Municipal Code has ordinances related to wastewater and sewer. These include Chapter 18 - Sewer which describes the duties and standards of the municipal Wastewater Department for managing and operating the municipal wastewater collection system and the wastewater recycling plant of the City. Chapter 18 of the Red Bluff Municipal Code include the following requirements for the use of public sewers:

- (1) Requirement to Connect with City Sewer System. No person within the corporate limits of the city whose property is located where a city sewer line, available to serve the property, is within 250 feet of the place of origin of sewage on the premises, shall install any septic tank or use any means of disposing of sewage other than through a connection with the city sewer system. Each person shall be required to connect the premises with the city sewer system pursuant to this chapter and to pay in advance all connection charges provided for under this chapter.
- (2) Screening and Pretreatment of Sewage Entering System. The Director of Public Works may require screening at its source of any flow of commercial or industrial or other sewage as is required to protect the usefulness of the sewer system and maintain proper operation of the equipment and treatment plant of the city. In such cases, the screen shall be of a size and type approved by the Director of Public Works. The Director of Public Works may require

pretreatment of industrial waste discharge into the sewer system and reduction to a household equivalent or impose an additional charge for treatment.

(3) Discharge of Harmful Matter into Sewer System. It shall be unlawful for any person to discharge any hazardous material detrimental to the environment, or cause to be introduced into the city wastewater collection and processing system, any deleterious substances, whether liquid, solid, gas or combination thereof, and including storm or irrigation water drainage of any type. Discharges of unpolluted or any other extraneous waters into the sewer system are prohibited unless authorized in writing by the Director of Public Works. Sewer service may be discontinued or may result in other appropriate action for violation of this section.

(4) Connection and Service Charges. Connection charges to the city wastewater system and charges for sewer service or discharging sewage into the city sewer system within or without the corporate limits of the city, and all other charges related to sewer service, shall be as set forth in an applicable resolution of the City Council.

## THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities and Service Systems if it would:

- Require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects; and/or
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the providers existing commitments.

## IMPACTS AND MITIGATION MEASURES

**Impact 3.15-3: General Plan implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (Less than Significant)**

As Red Bluff continues to develop in the future, there will be an increased need for wastewater services. These needs have been addressed in the Sanitary Sewer Management Plan and will require that the city continue to implement phased improvements when triggered by growth.

The City owns and maintains gravity sewer pipelines and forcemains, sewer lift stations, and pump stations. The City collects wastewater from residential, and commercial, industrial, and institutional (CII) customers within the service area. The City contributed 1,260 AFY of wastewater flow into the Wastewater Reclamation Plant (WRP) in 2020. The City owns and maintains the WRP, which is operated by Operations Management International, Inc. (a subsidiary of Jacobs). The WRP is located east of I-5 and north of Shasta College - Tehama Campus. As described in the 2020

UWMP, The WRP is permitted to treat 2.5 million gallons per day (mgd) and currently operates at approximately 1.0 mgd.

As discussed above, the City's WWTP current treatment capacity is 2.5 mgd but currently treats just over 1.0 mgd. Buildout of the proposed General Plan would generate additional treatment demands, but will not exceed the current 2.5 mgd treatment capacity of the facility.

Full buildout of the development contemplated in the proposed General Plan would increase the existing treatment demand at the treatment plant. As described above, the City must also periodically review and update their applicable master plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development.

The Public Works Department has developed and regularly updates a Sewer System Management Plan (SSMP) to reduce the number of sanitary sewer overflows in the wastewater collection system. The City is continuing to develop programs to improve the maintenance of the collection system and reduce the likelihood of overflows in the future.

The proposed General Plan includes goals, policies, and actions to ensure an adequate and reliable wastewater collection and treatment system. The policies and actions listed below would further assist in ensuring that adequate wastewater treatment and conveyance infrastructure is available to serve new growth projected under the proposed General Plan. Therefore, this impact is considered **less than significant**.

### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

#### **LAND USE ELEMENT POLICES**

LU 6-1: Provide and maintain high quality services, facilities, utilities, and infrastructure that meet the needs of existing and future development.

LU 6-2: Maintain and implement public facility master plans, in collaboration with appropriate outside service providers and agencies, to ensure compliance with appropriate regional, State, and federal laws and to identify infrastructure needs, funding sources, and implement improvements for public facilities and services in Red Bluff.

LU 6-3: Require that new development and major redevelopment projects provide for and fund its proportional share of costs for expansion of public infrastructure and services, recreational amenities and facilities, and other public facilities.

LU 6-4: Maintain and finance the capital improvement program to ensure the timely implementation of the General Plan and the adequate and timely provision of public facility and municipal improvements.

LU 6-5: Prioritize the placement of new infrastructure in areas targeted for near-term development through the orderly extension of infrastructure.

LU-6.8 Review new development applications in order to ensure that new growth does not exceed the availability of water supply and treatment, and sewage treatment capacity or predate the presence of necessary infrastructure.

#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-7c: Continue to update and implement the City's Sewer System Management Plan (SSMP) to properly manage, operate, and maintain all parts of the sanitary sewer system, as well as minimize frequency and/or mitigate impacts of Sanitary Sewer Overflows (SSOs).*

*COS-7d: Explore partnerships and/or funding options for expansion of the Wastewater Reclamation Plant and construction of recycled water infrastructure within Red Bluff to support the expansion of recycled water usage in the City.*

*COS-7g: Continue to require tie in to the City's sewer system for properties within the city limits per the requirements of Municipal Code Chapter 18 (Sewers), and work with the Tehama County Department of Environmental Health to encourage properties within the Sphere of Influence (SOI) to tie into available sewer lines.*

#### LAND USE ELEMENT ACTIONS

*LU-6a: As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.*

*LU-6b: Maintain records regarding the quality and status of public facilities and critical infrastructure and use this information to inform the capital improvement planning process.*

*LU-6d: Cooperate with LAFCo and the County to direct growth outside the City Limits on lands that are served or are planned to be served, with a full range of urban services, such as public water and sewer, an extensive road network, public transit, safety and emergency response services, parks, trails, and open space.*

### **Impact 3.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects (Less than Significant)**

As mentioned above, implementation of the proposed General Plan and future development would require additional treatment, however buildout of the proposed General Plan will not exceed the current 2.5 mgd treatment capacity of the facility.

As described in Impact 3.15-3, the projected flows of the proposed General Plan are not expected to exceed the treatment capacity available for treatment, under the General Plan Update. Moreover, if full buildout of the proposed General Plan Update increases the existing treatment demand at the City's treatment plants compared with the demand anticipated under the existing General Plan, the proposed General Plan Update includes a range of policies designed to ensure an

adequate wastewater treatment capacity for development. For example, Policy LU-6.8 requires that the City review new development applications in order to ensure that new growth does not exceed the availability of adequate sewage treatment capacity or predate the presence of necessary infrastructure. Additionally, Policy LU 6-2 requires the City to update the wastewater collection and treatment plans.

The City's sewer treatment plant has the capacity to treat the increased flow per the proposed growth, however the collections system is very location dependent. Some areas within the city include undersized and aging infrastructure including collection piping and lift stations, and as such would need site specific infrastructure improvements as development and growth occurs over the planning horizon.

As described above, the City must periodically review and update their applicable master plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development. The policies and actions listed below would further assist in ensuring that adequate wastewater treatment and conveyance infrastructure is available to serve new growth projected under the proposed General Plan. Given that projected wastewater generation volumes associated with General Plan buildout is not anticipated to exceed the capacity of the wastewater treatment provider to have adequate capacity, this impact would be **less than significant**.

### ***GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS***

#### **LAND USE ELEMENT POLICES**

LU 6-1: Provide and maintain high quality services, facilities, utilities, and infrastructure that meet the needs of existing and future development.

LU 6-2: Maintain and implement public facility master plans, in collaboration with appropriate outside service providers and agencies, to ensure compliance with appropriate regional, State, and federal laws and to identify infrastructure needs, funding sources, and implement improvements for public facilities and services in Red Bluff.

LU 6-3: Require that new development and major redevelopment projects provide for and fund its proportional share of costs for expansion of public infrastructure and services, recreational amenities and facilities, and other public facilities.

LU 6-4: Maintain and finance the capital improvement program to ensure the timely implementation of the General Plan and the adequate and timely provision of public facility and municipal improvements.

LU 6-5: Prioritize the placement of new infrastructure in areas targeted for near-term development through the orderly extension of infrastructure.

LU-6.8 Review new development applications in order to ensure that new growth does not exceed the availability of water supply and treatment, and sewage treatment capacity or predate the presence of necessary infrastructure.



#### CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

*COS-7c: Continue to update and implement the City's Sewer System Management Plan (SSMP) to properly manage, operate, and maintain all parts of the sanitary sewer system, as well as minimize frequency and/or mitigate impacts of Sanitary Sewer Overflows (SSOs).*

*COS-7d: Explore partnerships and/or funding options for expansion of the Wastewater Reclamation Plant and construction of recycled water infrastructure within Red Bluff to support the expansion of recycled water usage in the City.*

*COS-7g: Continue to require tie in to the City's sewer system for properties within the city limits per the requirements of Municipal Code Chapter 18 (Sewers), and work with the Tehama County Department of Environmental Health to encourage properties within the Sphere of Influence (SOI) to tie into available sewer lines.*

#### LAND USE ELEMENT ACTIONS

*LU-6a: As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.*

*LU-6b: Maintain records regarding the quality and status of public facilities and critical infrastructure and use this information to inform the capital improvement planning process.*

*LU-6d: Cooperate with LAFCo and the County to direct growth outside the City Limits on lands that are served or are planned to be served, with a full range of urban services, such as public water and sewer, an extensive road network, public transit, safety and emergency response services, parks, trails, and open space.*

### 3.15.3 STORMWATER DRAINAGE

The City of Red Public Works Department is responsible for operating, maintaining, and improving the City's drainage and stormwater infrastructure, and facilities. Key areas of responsibility include the maintenance and improvements to streets, sewer, and storm drains. The City currently does not have an adopted storm drain master plan. Section 3.10 (Hydrology) includes an expanded analysis of water quality, flooding, and other stormwater related issues.

### STORMWATER AND FLOOD CONTROL

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The City of Red Bluff Public Works Department is responsible for operating, maintaining, and improving the City's drainage and stormwater infrastructure, and facilities. Key areas of responsibility include the maintaining and improvements to streets, sewer, and storm drains.

#### **Stormwater Drainage**

The topography of the City of Red Bluff is gently rolling with little general relief except along stream courses. Slopes within the city are generally below ten percent; however, slopes of thirty to seventy percent can occur along stream banks. Slopes atop riverine terraces and in valley floors are generally less than five percent.

The city is crossed from west to east by a sequence of active streams flowing as tributaries to the Sacramento River. From north to south these are Blue Tent Creek, Dibble Creek, Brewery Creek, Brickyard Creek, Reeds Creek, Grasshopper Creek and Red Bank Creek. All of these streams show active alluvial processes, which include high discharges in the winter-early spring period, and annual deposition of sand, gravel and silt as they join the Sacramento River. The following information was derived primarily from the Tehama County 2018 Multi-Jurisdictional Hazard Mitigation Plan.

Except for small areas that drain to Black Butte Reservoir and Stony Creek on the west side and Pine Creek on the east side, all water originating in Tehama County drains to the Sacramento River within the county or on the county's boundary. Cottonwood Creek and Battle Creek form the boundary between Tehama and Shasta Counties. The Sacramento River at the Red Bluff Diversion Dam drains 9,150 square miles. Shasta Dam, an important flood control structure on the Sacramento River, is 69 miles upstream of Red Bluff and controls runoff from approximately 6,670 square miles, or 73 percent of the Sacramento River watershed upstream of Red Bluff.

Seasonal flooding is a concern within the City of Red Bluff. The construction of Shasta Dam was part of the Central Valley Project, a flood control system which involves twenty dams and reservoirs, as well as canals, power plants, and other facilities. Shasta Dam was intended by the U.S. Bureau of Reclamation to be a major flooding control storage facility, thus lessening the threat of natural winter-spring flooding to communities downstream, such as Red Bluff.

Runoff from watersheds on the west side is mostly influenced by precipitation as rain and, as a consequence, tends to be more "flashy" than runoff from streams on the east side, which are influenced to a greater extent by snowmelt (rain and snow events on the east side can cause flood

events). Storm runoff frequently exceeds the capacity of the stream channels. The result is widespread overland/sheet flow that floods roads and mobile home parks, requiring the evacuation of people and moving mobile homes. The flooding resulting from high tributary flow is exacerbated when it is coincident with high stages in the Sacramento River.

Since 1950, the State of California has proclaimed nine states of emergencies due to flooding that included Tehama County. Major floods occurred in December 1937, December 1955, December 1963, February 1986, January 1995, January 1997, December 2014 and February 2017 ranging from a 20-year flood to more than a 100-YR event causing millions of dollars in property damage. Numerous road closures occur during these events, isolating people and restricting access by emergency vehicles. Damage has been reported in the City of Red Bluff from Flood Events. During January, March, and December 1983 Reeds Creek overflowed its banks along the lower mile of its course through Red Bluff. These flood events flooded 65 homes and involved considerable emergency efforts by local agencies. Floodwaters were estimated to be between 3 – 4 feet deep inside homes in the affected areas. In February of 2017, storms brought additional rain and widespread flooding and debris flows, as well as mountain snow. Flash Flooding caused by heavy rain was also reported in December of 2014.

The Sacramento River causes the major flood problems in Red Bluff. As the water level rises, Paynes Creek Slough, Samson Slough, and East Sand Slough start flowing, causing flooding to residential areas along their lengths. Several roads that cross through these sloughs become closed during flooding. Also, homes built on the banks of the river and sloughs are subject to flooding when the Sacramento River reaches approximately 138,000 cubic feet per second.

Flooding threat in the City of Red Bluff is most notable along Red Bank, Grasshopper, Reeds, Brickyard, Brewery, Dibble, and Blue Tent Creeks. The main stream flowing into Lake Red Bluff causes flooding of the east-side lowland areas and the City of Red Bluff parks on the western side, along with erosion of the high bluffs. Local flooding problems occur in the following areas:

- Most homes on Musick Avenue and along Aloha Street from South Jackson Street to Aloha Court are located in the 100-YR plain.
- Vista School at Vista Way and South Jackson Street suffer from drainage problems.
- An area east of Airport Boulevard and north of Kimball Road suffers from runoff backup.
- A potential exists for some inundation of Forward Park.
- Mobile Home Park on Gilmore Road.

Population counts of those living in the floodplain were generated by analyzing County assessor and parcel data that intersect with the 100-YR and 500-YR floodplains identified on FIRMs within the City of Red Bluff in 2018. Using GIS, U.S. Census Bureau information was used to intersect the FEMA identified floodplains within the City limits. An estimate of population was calculated by weighting the population within each census block. The exposure results indicate the percentage of total population living within a flood risk area. Using this approach, it was estimated that the total exposed population is 1,497 within the 100-YR floodplain (10.8% of total population) and

2,442 within the 500-YR floodplain (17.6% of total population). GIS models determined that there are 489 parcels within the 100-YR floodplain, 142 parcels within the 100-YR floodway and 282 parcels within the 500-YR floodplain. This methodology also estimated \$154,135,468 worth of building and contents exposure to the 100-YR flood, representing 12.4 percent of the total assessed value within the City of Red Bluff and \$8,092,164 worth of building and content exposure to the 100-YR floodway representing .7% of the total assessed value within the City. An estimated \$78,054,573 worth of building-and-contents are exposed to the 500-YR flood, representing 6.3 percent of the total assessed value within the City of Red Bluff.

The HAZUS-MH software calculates losses to structures from flooding by analyzing the depth of flooding and type of structure. Using historical flood insurance claim data, HAZUS-MH estimates the percentage of damage to structures and their contents by applying established damage functions to an inventory. For this analysis, all non-vacant parcels with current market values were used instead of the default inventory data provided with HAZUS-MH software. It is estimated that there “could” be up to \$33,760,727 of flood loss from a 100-YR flood event in the planning area and \$38,097,138 of flood loss from a 500-YR flood event. This modeled loss is assuming all tributaries in the area collect 100-YR event precipitation levels in the watershed. The estimated loss represents 20.1% of the total value exposed to the 100-YR flood and 15.9% of the total value exposed to the 500-YR event.

The City of Red Bluff has participated in the NFIP since 1982. The City of Red Bluff is currently in good standing with the provisions of the NFIP. Compliance is monitored by FEMA regional staff and by the California Department of Water Resources under a contract with FEMA. Maintaining compliance under the NFIP is an important component of flood risk reduction. Properties that fall within a Flood Plain are required to obtain pre- and post-construction elevation certificates and to maintain flood insurance policies and any other requirements contained in Chapter 26 “Flood Damage Prevention” of the Red Bluff City Code.

### **Stormwater Infrastructure**

At the present time, Red Bluff relies on the natural drainage channels for its surface runoffs. A study conducted in 1962 resulted in the identification of potential flood hazard areas, and drainage facilities were constructed by the city to relieve these. However, some “missing flood control improvements” are yet to be constructed primarily because the financial sponsorship is lacking and the infill nature of urbanization in Red Bluff has allowed some development to avoid mitigation of drainage impacts from their isolated projects. The City Master Plan study for infrastructure systems identifies local flood hazard areas and suggests remedies. Similar recommendations were made by the Department of Water Resources in the 1987 study of the Reeds Creek flood of 1983. The 1991 infrastructure plan concludes:

*“Red Bluff relies for runoff primarily on the natural drainage courses, which bisect its sphere of influence. Current design philosophy permits overland flow in street gutters as a means of balancing flood protection needs with local financial resources. However, as development approaches buildout in the core area, it may be desirable to convey the peak runoff quantity from a*

*100-year storm event (design capacity) to the receiving stream in some type of physical facility, e.g., storm drain pipes, concrete-lined channels, detention basins, etc.”*

It is important to determine who may be at risk if infrastructure is damaged by flooding. Roads or railroads that are blocked or damaged can isolate residents and can prevent access throughout the city and county, including for emergency service providers needing to get to vulnerable populations or to make repairs. Bridges washed out or blocked by floods or debris also can cause isolation. Water and sewer systems can be flooded or backed up, causing health problems. Underground utilities can be damaged. Levees can fail or be overtopped, inundating the land that they protect.

Limiting land uses in the floodplain to those that can sustain periodic flooding will have the greatest long-term benefits. Appropriate uses would be open space and recreation. Developments already occurring in the floodplain should be encouraged to undertake appropriate development to mitigate potential impacts, upstream and especially downstream. No development should be allowed, which would raise the level of the 100-YR flood. Surface runoff from areas that drain into streams should be controlled by measures, which prevent erosion, and soil erosion during construction should likewise be carefully monitored and controlled. Since localized flooding may occur where immediate access to stream channels is not feasible for runoff, or, if runoff is blocked by existing development project, storm drainage improvements will be required.

## REGULATORY SETTING - STORMWATER DRAINAGE

### Federal

#### CLEAN WATER ACT (CWA)

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for “any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters.” Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e); Issue permits “for the discharge of dredged or fill material into the navigable waters at specified disposal sites”: subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if “the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas”: subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);

## 3.15 UTILITIES AND SERVICE SYSTEMS

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- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The California State Water Resources Control Board and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters including the Sacramento River, and other waters in the Planning Area. In the Planning Area, the RWQCB is responsible for protecting surface and groundwater from both point and non-point sources of pollution. Water quality objectives for all of the water bodies within the Planning Area were established by the RWQCB and are listed in its Basin Plan.

### FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

Red Bluff is a participant in the National Flood Insurance Program (NFIP), a Federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.).

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges.

NPDES permits are issued for five years or less, and therefore must be updated regularly. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from construction sites statewide. Stormwater discharges from industrial and construction activities can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

## State

### DEPARTMENT OF WATER RESOURCES

The Department of Water Resources' (DWR) major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

### CALIFORNIA WATER CODE

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

### WATER QUALITY CONTROL PLAN (BASIN PLAN) FOR THE CENTRAL VALLEY REGION

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

### STATE WATER RESOURCE CONTROL BOARD (STATE WATER BOARD) STORM WATER STRATEGY

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board’s role in storm water resources management and evolve the Storm Water Program by a) developing guiding principles to serve as the foundation of the storm water program, b) identifying issues that support or inhibit the program from aligning with the guiding principles, and c) proposing and prioritizing projects that the Water Boards could implement to address those issues. The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS



includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board's Storm Water Program.

## Local

### RED BLUFF FLOODWAY OVERLAY ZONE

The Red Bluff General Plan establishes a Floodway Overlay Zone to protect life and property from hazards associated with flooding. No use, development or alteration of the Floodway (FW) overlay zone is allowed without prior City approval. Prior to granting approval to use, develop or alter land within an FW overlay area, the City shall make findings that the proposed use, development or alteration of the floodway conforms to the City's Flood Damage Prevention Regulations and applicable Federal (FEMA) regulations.

Chapter 25.110 of the Red Bluff Municipal Code includes the Floodplain Combining District (FP). This combining district is intended to be applied to those properties or portions thereof that appear within a "special flood hazard area inundated by 100-year flood," but outside the "floodway" on the flood insurance rate maps prepared by the Federal Emergency Management Agency. This combining district implements the floodplain overlay district recommended in the land use element of the General Plan.

Chapter 25.111 of the Red Bluff Municipal Code includes the Floodway Combining District (FW). This combining district is intended to be applied to those properties or portions thereof that appear within a "floodway" on the flood insurance rate maps prepared by the Federal Emergency Management Agency. This combining district implements the floodway overlay district recommended in the safety element of the City's General Plan.

### TEHAMA COUNTY MULTI-HAZARD MITIGATION PLAN

This hazard mitigation plan provides an explanation of prevalent hazards within the County and how hazards may affect population and property differently across the County. The plan also contains information on natural hazard threats within Tehama County which identifies risks to vulnerable assets (people and property). Most importantly the mitigation strategy presented in this plan responds to the particular vulnerabilities and provides prescriptions or actions to achieve the greatest reduction of vulnerability, which results in saved lives, reduced injuries, reduced property damage, and protection for the environment in the event of a natural hazard. Red Bluff is a participating agency in the County's hazard mitigation plan.

## THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects.

### IMPACTS AND MITIGATION MEASURES

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#### **Impact 3.15-5: General Plan implementation would not require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects (Less than Significant)**

Development under the proposed General Plan would result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded drainage facilities cannot be determined at this time, as the General Plan does not propose or approve any specific development project nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan as discussed throughout this Draft EIR, including in Chapters 3.1 through 3.16 through 4.0.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The policies and actions listed below would further ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts. As such, this is a **less than significant** impact and no additional mitigation is required.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 7.2: Encourage development that avoids impacts to watershed areas, wetlands, natural drainage channels, riparian areas, and creeks, retaining these resources in their natural condition if feasible.

COS 7.3: Require new development and redevelopment projects to control stormwater runoff through implementation of Best Management Practices (BMPs) and protect or mimic natural features to the greatest extent feasible, while ensuring that these features adequately convey and control stormwater to protect human health, safety, and welfare.

**CONSERVATION AND OPEN SPACE ELEMENT ACTIONS**

*COS-7a: To reduce soil erosion and pollutants in urban runoff, require new development and redevelopment projects control stormwater runoff through implementation of Best Management Practices (BMPs) to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. Existing development shall control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. As specific development projects are implemented, project proponents will be required to consult with relevant agencies such as the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Game (CDFG). Also, ensure that construction projects of one acre or more complete a Stormwater Pollution Prevention Plan (SWPPP) pursuant to the California Regional Water Quality Control Board (RWQCB) Construction General Permit (Order 2022-0057-DWQ).*

*COS-7b: Whenever feasible, incorporate improved open space and preservation areas and quasi-active recreation facilities in areas used for groundwater recharge and/or drainage detention.*

*COS-8b: Maintain and revise, as necessary, a grading ordinance which protects the natural topography and directs that all roads and structures be designed, built, and landscaped to control erosion and other pollutants during and after construction. This shall include the use of Best Management Practices (BMPs) that demonstrate the ability to treat stormwater drainage consistent with Regional Water Quality Control Board (RWQCB), State, and federal requirements.*

*COS-8c: Require site-specific land management and development practices for proposed development projects, including appropriate measures for drainage control and avoiding or reducing erosion.*

### 3.15.4 SOLID WASTE

Green Waste of Tehama County provides waste removal services for the City of Red Bluff and the unincorporated portions of Tehama County.

#### KEY TERMS

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**Class I landfill:** A landfill that accepts for disposal 20 tons or more of municipal solid waste daily (based on an annual average); or one that does not qualify as a Class II or Class III municipal solid waste landfill.

**Class II landfill:** A landfill that (1) accepts less than 20 tons daily of municipal solid waste (based on an annual average); (2) is located on a site where there is no evidence of groundwater pollution caused or contributed by the landfill; (3) is not connected by road to a Class I municipal solid waste landfill, or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and (4) serves a community that experiences (for at least three months each year) an interruption in access to surface transportation, preventing access to a Class I landfill, or a community with no practicable waste management alternative.

**Class III landfill:** A landfill that is not connected by road to a Class I landfill or a landfill that is located at least 50 miles from a Class I landfill. Class III landfills can accept no more than an average of one ton daily of ash from incinerated municipal solid waste or less than five tons daily of municipal solid waste.

**Transfer station:** A facility for the temporary deposition of some wastes. Transfer stations are often used as places where local waste collection vehicles will deposit their waste cargo prior to loading into larger vehicles. These larger vehicles will transport the waste to the end point of disposal or treatment.

**Waste Management Plan:** A Waste Management Plan (WMP) is a completed WMP form, approved by the City for the purpose of compliance with Tehama County Integrated Solid Waste management Agency A completed WMP contains actual weight or volume of the material disposed recycled receipts.

#### WASTE COLLECTION SERVICES

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Green Waste of Tehama provides waste collection services of solid waste and recyclable materials and operates at the Tehama County/Red Bluff Landfill (as a subsidiary of Waste Connections). The Tehama County/Red Bluff Landfill is a modern municipal solid waste disposal facility permitted by the State of California and is in full compliance with California rules and regulations. The site accepts municipal solid wastes, construction/demolition wastes and special wastes with proper approval.

The Tehama County/Red Bluff Landfill provides transportation and disposal services for municipal solid waste, industrial waste, and special wastes including asbestos, and non-hazardous contaminated soils. As well as transportation and disposal services for construction and demolition

wastes including transportation of large demolition projects using walking floor trailers. They also provide scrap tire hauling and processing.

## WASTE DISPOSAL FACILITIES

All solid waste generated in Red Bluff is collected and transported to the Tehama County/Red Bluff Landfill. The Tehama County/Red Bluff Landfill is a solid waste disposal site permitted to accept municipal and industrial solid wastes. The Landfill is classified as a Class III (non-hazardous) disposal facility as defined by California Code of Regulations (CCR), Title 27, §20260. The Landfill is located at 19995 Plymire Road, approximately three miles northwest of the City of Red Bluff. Current operations at the Landfill include solid-waste disposal, operation of a Material Recovery Facility (MRF), wood waste and green waste processing, and various landfill and recycling activities.

The maximum tons per day throughput allowed at the Tehama County/red Bluff Landfill is 700 tpd. As shown in Table 3.15-3. The landfill has a total capacity of 6,360,973 million cubic yards and a remaining capacity of 3,023,000 million cubic yards.

**TABLE 3.15-3: LANDFILLS EXISTING DAILY CAPACITY AND ESTIMATES CLOSURE DATE**

LANDFILL	LOCATION	MAXIMUM DAILY THROUGHPUT (TONS/DAY)	REMAINING CAPACITY (CUBIC YARDS)	ANTICIPATED CLOSURE DATE
Tehama County/Red Bluff Landfill (52-AA-0001)	Tehama County	700	3,023,000	2046

SOURCE: CAL RECYCLE. ACCESSED JULY 2024.

## SOLID WASTE GENERATION RATES AND VOLUMES

The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. Per capita solid waste generation rates and total annual solid waste disposal volumes for the Tehama County between 2018 and 2022 are shown in Table 3.15-4 below.

**TABLE 3.15-4: SOLID WASTE GENERATION RATES IN TEHAMA COUNTY**

YEAR	WASTE GENERATION RATES (POUNDS/PERSON/DAY)		TOTAL DISPOSAL TONNAGE (TONS/YEAR)
	PER RESIDENT	PER EMPLOYEE	
2018	5.0	16.9	59,132.46
2019	5.6	19.2	66,278.44
2020	5.4	18.4	63,594.86
2021	4.8	16.9	57,842.60
2022	5.3	17.7	63,191.17

SOURCE: [HTTPS://WWW2.CALRECYCLE.CA.GOV/LGCENTRAL/ANNUALREPORTING/DIVERSIONDISPOSAL](https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DiversionDisposal). ACCESSED JULY 2024.

As shown in the Table 3.15-4 above, the per capita per resident waste generation rate increased from 5.0 to 5.3 pounds/person/day (PPD) over the 5-year (2018-2022) period and the total annual disposal tonnage in Tehama County increased from 59,132.46 in 2018 to 63,191.17 in 2022. With the passage of SB 1016, per capita disposal rate is used to determine the diversion progress of a county and not the jurisdictional diversion rates. Therefore, a population increase resulting in the generation of more overall county waste does not affect the jurisdiction's ability to meet its waste goals. The County's waste disposal rate targets are shown in Table 3.15-4.

As shown in the above table, for the years 2018 through 2022 (the latest year of data available), the per capita waste generation rate in Tehama County was at the lowest level in 2021; and the total annual disposal tonnage in Tehama County was at their lowest level (during this period) in 2021.

### REGULATORY SETTING – SOLID WASTE

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#### **Federal**

##### RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the current Act governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA was an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

#### **State**

##### CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT (AB 939 AND SB 1322)

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25% by 1995 and 50% by 2000. The purpose of AB 939 and SB 1322 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

##### CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD MODEL ORDINANCE

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and

Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include “adequate, accessible, and convenient areas for collecting and loading recyclable materials.” For subdivisions of single family detached homes, recycling areas are required to serve only the needs of the homes within that subdivision.

#### CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects.

#### CALIFORNIA MANDATORY COMMERCIAL RECYCLING LAW (AB 341)

Assembly Bill (AB) 341 directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. The purpose of AB 341 is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California.

Beginning on July 1, 2012, businesses have been required to recycle, and each jurisdiction has implemented programs that include education, outreach, and monitoring. Jurisdictions were required to start reporting on their 2012 Electronic Annual Report (due August 1, 2013) on their initial education, outreach, and monitoring efforts, and, if applicable, on any enforcement activities or exemptions implemented by the jurisdiction.

In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020. This is not written as a 75 percent diversion mandate for each jurisdiction. The 50 percent disposal reduction mandate still stands for cities, counties, and State agencies (including community colleges) under AB 939. CalRecycle continues to evaluate program implementation as it has in the past through the Annual Report review process for entities subject to either AB 939.

#### ASSEMBLY BILL 1826 MANDATORY COMMERCIAL ORGANICS RECYCLING

In October 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units (please note, however, that multi-family dwellings are not required to have a food waste diversion program). Organic waste (also referred to as organics) means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time, while also offering an

exemption process for rural counties. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Since January 1, 2019, businesses that generate 4 cubic yards or more of commercial solid waste per week shall arrange for organic waste recycling services. If CalRecycle determines that the statewide disposal of organic waste has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses will expand to cover businesses that generate 2 cubic yards or more of commercial solid waste per week. Additionally, certain exemptions may no longer be available if this target is not met.

### AB 2176 (MONTANEZ, CHAPTER 879, STATUTES OF 2004)

This law requires the largest venue facilities and events (as defined) in each city and county to plan and implement solid waste diversion programs, and annually report the progress of those upon the request of their local government. In turn, local jurisdictions must report to the CIWMB waste diversion information for the top 10 percent of venues and events by waste generation.

A large event is defined as:

1. Serves an average of more than 2,000 individuals per day of operation (both people attending the event and those working at it—including volunteers—are included in this number); and
2. Charges an admission price or is run by a local agency.

The bill specifically includes public, nonprofit, or privately owned parks, parking lots, golf courses, street systems, or other open space when being used for an event, including, but not limited to, a sporting event or a flea market in addition to events that meet both of the above.

A large venue is defined as:

- A permanent facility that annually seats or serves an average of more than 2,000 individuals within the grounds of the facility per day of operation (both people attending the event and those working at it—including volunteers too—are included in this number).

Venues include, but are not limited to airports, amphitheaters, amusement parks, aquariums, arenas, conference or civic centers, fairgrounds, museums, halls, horse tracks, performing arts centers, racetracks, stadiums, theaters, zoos, and other public attraction facilities.

### SENATE BILL 1383 SHORT-LIVED CLIMATE POLLUTANTS: ORGANIC WASTE METHANE EMISSIONS REDUCTIONS

In September 2016, Governor Brown signed SB 1383, establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP) in various sectors of California's economy. The bill codifies the California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy, established pursuant to SB 605, in order to achieve reductions in the statewide emissions of short-lived climate pollutants. Actions to reduce short-



lived climate pollutants are essential to address the many impacts of climate change on human health, especially in California's most at-risk communities, and on the environment.

As it pertains to solid waste, SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

## Local

### TEHAMA COUNTY SOLID WASTE MANAGEMENT AGENCY

The Tehama County Solid Waste Management Agency strives to provide information related to Tehama County's solid waste programs, plans, elements and progress towards reducing the amount of waste entering the landfill, and conserving natural resources while protecting human health and the environment.

## THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and/or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

## IMPACTS AND MITIGATION MEASURES

**Impact 3.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure (Less than Significant)**

The development of future land uses under the proposed General Plan would increase solid waste disposal needs. Future development of projects as contemplated under the proposed General Plan may increase the population within the Planning Area by an additional 3,092 persons. The City of Red Bluff has achieved a disposal rate of 5.3 PPD per resident in 2022. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 16,387.6 pounds per day of solid waste. New potential growth plus existing residents could expect to generate a total of 46.5 tons per day or 16956.9 tons of solid waste per year.

The permitted maximum tons per day allowed at the Tehama County/Red Bluff Landfill is 700-TPD. The landfill has a total capacity of 6,361,000 cubic yards. The remaining capacity of these landfills include 3,023,000 cubic yards of solid waste at the Kiefer Landfill, with an estimated cease operation date of 2046. The addition of solid waste associated with the proposed project to the Kiefer Landfill would not exceed the landfills' remaining capacity. While there are no plans for landfill construction or expansion associated with the proposed General Plan, development of new solid waste disposal facilities could result in environmental effects in areas such as traffic, hydrology, biology, air quality, greenhouse gases, and noise. Any future construction projects in would be required to conduct environmental review pursuant to CEQA prior to approval. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations associated with solid waste. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

In addition, the proposed General Plan includes policies and actions to further reduce the project's impact on solid waste services, as identified below. With the implementation of the following policies and payment of a solid waste connection fees for project within the Planning Area, potential solid waste impacts would remain a *less than significant* impact.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### **CONSERVATION AND OPEN SPACE ELEMENT POLICIES**

COS 6.1: Provide adequate waste disposal, recycling, and reuse services for present and future residents and businesses, including programs that improve public access to solid waste collection and recycling facilities.

COS 6.2: Participate in source reduction and recycling techniques to reduce the amount of solid waste sent to landfills and ensure adequate landfill capacity in the region.

COS 6.3: Comply with Assembly Bill 939 source reduction and recycling requirements of 50 percent diversion of solid waste from landfills. Continue to strengthen local recycling efforts in order to assist the State in meeting the statewide source reduction, recycling, and composting requirements established by AB 341.

COS 6.4: Increase the City's role in the source reduction and recycling components of waste management through recycling programs at City facilities to reduce the quantity of City-generated waste.

COS 6.5: Require that special waste – including hazardous materials, tires, medications, infectious waste, asbestos waste, construction waste, and electronic waste – are recycled and disposed of in a manner that is safe for the environment, residents, and employees.

COS 6.6: Educate the public on ways to divert household waste from the landfill, including education programs on reducing, reusing, and recycling material.

COS 6.7: Consistent with SB 1383, conduct education and outreach on organics recycling for all residents, businesses (including those that generate edible food that can be donated), haulers, solid waste facilities, and local food banks and other food recovery organizations.

**CONSERVATION AND OPEN SPACE ELEMENT ACTIONS**

*COS-6a: Continue existing, and develop new, diversion strategies (including source reduction, recycling, composting, and yard waste programs) to reduce solid waste disposal volume to meet the State-mandated level.*

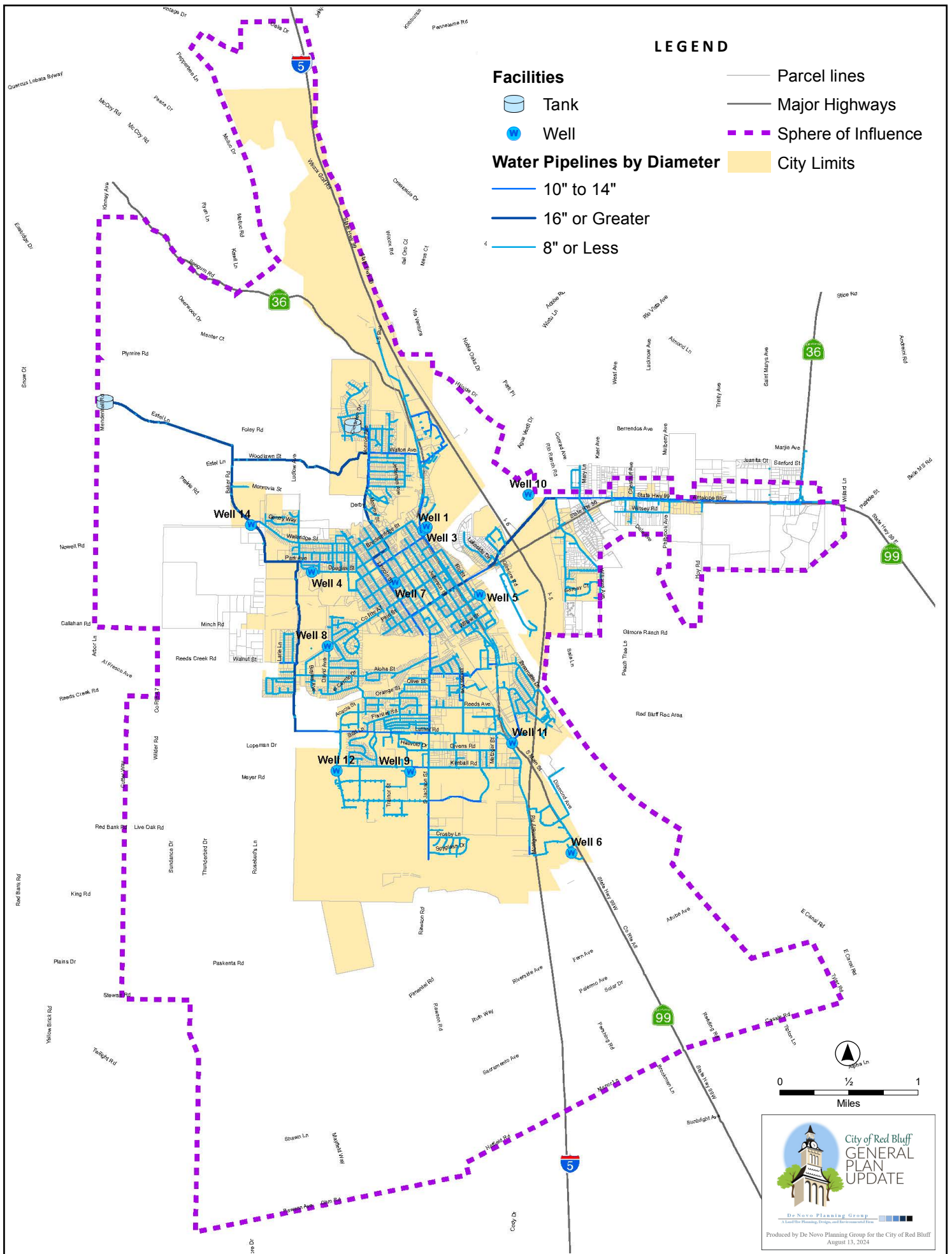
*COS-6b: Pursue public funding sources, such as grants, to reduce fiscal impacts of continued implementation of recycling programs.*

*COS-6c: Continue to implement, and update as necessary, the City's Municipal Code to regulate issues related to solid waste including, but not limited to, Chapter 18A (Solid Waste Disposal).*

*COS-6d: Develop and promote citywide reuse events such as a community-wide garage sale, and encourage community groups and organizations to pursue reuse events and activities to prevent reusable items from going into the landfill, in conjunction with the Tehama County Solid Waste Management Agency.*

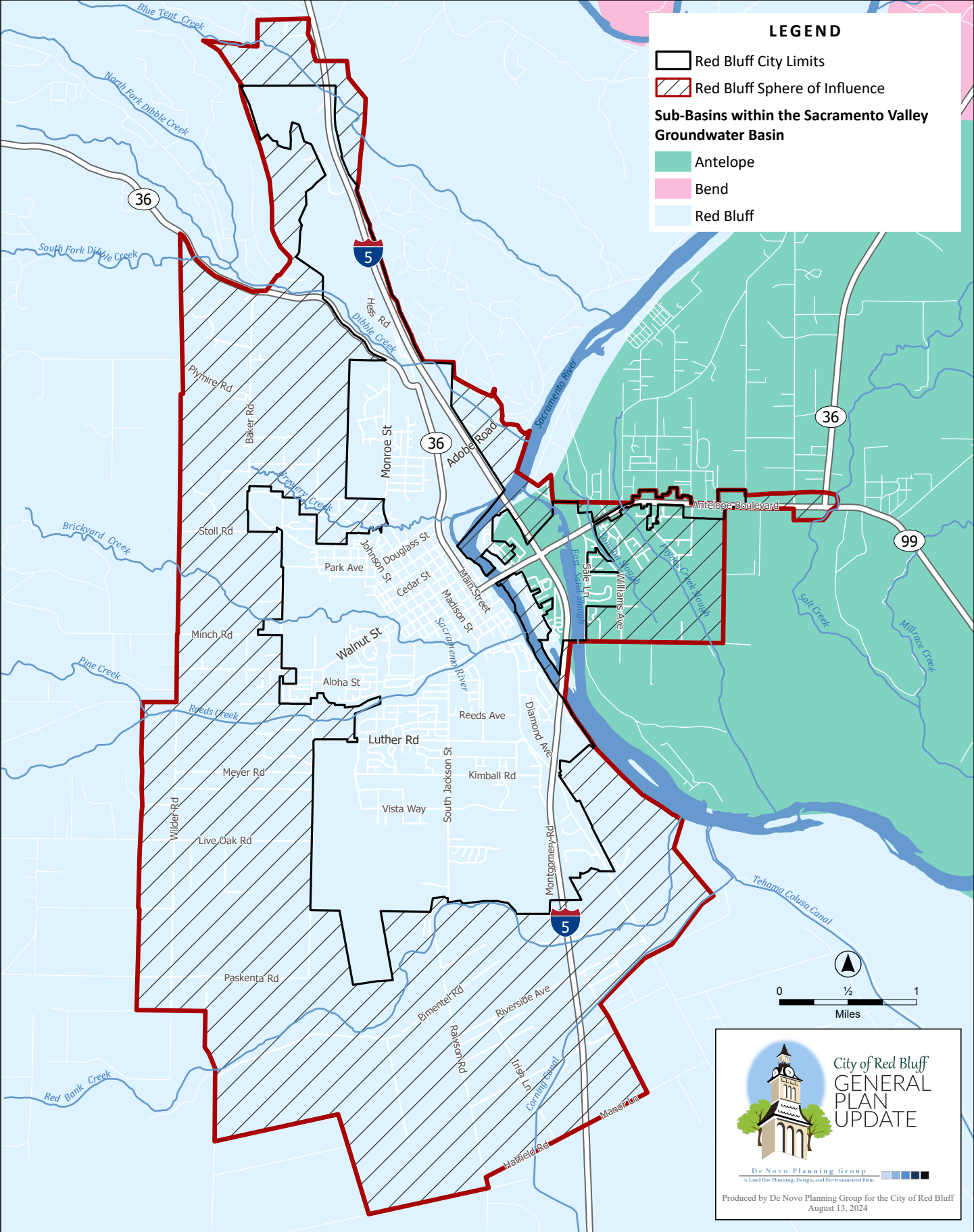
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Figure 3.15-1. Water Service Area



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Figure 3.15-2. Groundwater Basins



Sources: California State University, Chico Geographical Information Center; DWR i08\_B118.

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This section provides a background discussion of the hazards associated with wildfires in the Planning Area. The discussion of fire suppression resources is located within Chapter 3.13, Public Services and Recreation, of this report, while impacts related to exposure fire are included in Chapter 3.8 (Hazards and Hazardous Materials).

No comments were received during the NOP comment period regarding this environmental topic.

### 3.16.1 ENVIRONMENTAL SETTING

#### FIRE HAZARD SEVERITY ZONES

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The state has charged the California Department of Forestry and Fire Protection (CAL FIRE) with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas (SRAs). In addition, CAL FIRE must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRAs). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards. Figure 3.8-1 and Figure 3.8-2 show the corresponding Fire Hazard Severity Zones for Local, State, and Federal Responsibility Areas.

##### **Local Responsibility Areas**

The Red Bluff Planning Area is located within a Local Responsibility Area (LRA). CalFire has determined that the City of Red Bluff contains Very High Fire Hazard Severity Zones (VHFHSZ) within Local Responsibility Areas within the northern portion of the City along I-5 and the Wilcox Oaks Golf Club. Figure 3.8-1 shows Fire Hazard Severity Zones for Local, State, and Federal Responsibility Areas.

##### **State Responsibility Areas**

There are State Responsibility Areas within the Red Bluff Planning Area. Specifically, there are High Fire Hazard Severity Zones in State Responsibility Areas along the western boundary of the City along Luther Road, along the eastern boundary of the City along I-5, and within the City's Sphere of Influence (SOI). In addition, there are Moderate Fire Hazard Severity Zones in State Responsibility Areas along the western boundary of the City along Brewery Creek and within the City's SOI west of I-5. The Planning Area also contains Very High Fire Hazard Severity Zones in State Responsibility Areas in the Northern portion of the City's SOI along Dibble Creek. Figure 3.8-2 shows Fire Hazard Severity Zones for State Responsibility Areas within Tehama County.

##### **Federal Responsibility Areas**

There are Federal Responsibility Areas within the Red Bluff Planning Area (included within the SOI), primarily along the Sacramento River at the Lake Red Bluff Recreation Area.

## IDENTIFYING FIRE HAZARDS

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### **Fuel Rank**

Fuel rank is a ranking system developed by CAL FIRE that incorporates four wildfire factors: fuel model, slope, ladder index, and crown index.

The U.S. Forest Service has developed a series of fuel models, which categorize fuels based on burn characteristics. These fuel models help predict fire behavior. In addition to fuel characteristics, slope is an important contributor to fire hazard levels. A surface ranking system has been developed by CAL FIRE, which incorporates the applicable fuel models and slope data. The model categorizes slope into six ranges: 0-10%, 11-25%, 26-40%, 41-55%, 56-75% and >75%. The combined fuel model and slope data are organized into three categories, referred to as surface rank. Thus, surface rank is a reflection of the quantity and burn characteristics of the fuels and the topography in a given area.

The ladder index reflects the distance from the ground to the lowest leafy vegetation for tree and plant species. The crown index reflects the quantity of leafy vegetation present within individual specimens of a given species.

The surface rank, ladder index, and crown index for a given area are combined in order to establish a fuel rank of medium, high, or very high. Fuel rank is used by CAL FIRE to identify areas in the California Fire Plan where large, catastrophic fires are most likely.

Tehama County contains areas with “moderate” “High” “Very High” and “non-wildland fuel” ranks. Generally, the more developed areas within the city center are considered non-wildland with the fuel rank increasing in the northern and eastern foothill areas of the city. The areas warranting “moderate” to “Very High” fuel ranks possess combustible material in sufficient quantities combined with topographic characteristics that pose a wildfire risk.

### **Fire Threat to People**

As shown in Figures 3.8-1 and 3.8-2, there are areas within the City and Planning Area classified as “High” and “Very High Fire Hazard Severity” zones, however, a majority of the planning area within the city limits is not included within an Identified hazard area. Additionally, most lands outside the city limits within the SOI in designated as having a “moderate” fire hazard threat.

## 3.16.2 REGULATORY SETTING

### FEDERAL

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#### **FY 2001 Appropriations Act**

Title IV of the Appropriations Act required the identification of “Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire” by the U.S. Departments of the Interior and Agriculture.

#### **Disaster Mitigation Act (2000)**

Section 104 of the Disaster Mitigation Act of 2000 (Public Law 106-390) enacted Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, which created incentives for state and local entities to coordinate hazard mitigation planning and implementation efforts, and is an important source of funding for fuels mitigation efforts through hazard mitigation grants.

#### **National Fire Plan (NFP) 2000**

The summer of 2000 marked a historic milestone in wildland fire records for the United States. Dry conditions (across the western United States), led to destructive wildfire events on an estimated 7.2 million acres, nearly double the 10-year average. Costs in damages including fire suppression activities were approximately 2.1 billion dollars. Congressional direction called for substantial new appropriations for wildland fire management. This resulted in action plans, interagency strategies, and the Western Governor’s Association’s “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment - A 10-Year Comprehensive Strategy - Implementation Plan”, which collectively became known as the National Fire Plan. This plan places a priority on collaborative work within communities to reduce their risk from large-scale wildfires.

#### **Healthy Forest Initiative (HFI) 2002/Healthy Forest Restoration ACT (HFRA) 2003**

In August 2002, the Healthy Forests Initiative (HFI) was launched with the intent to reduce the severe wildfires risks that threaten people, communities, and the environment. Congress then passed the Healthy Forests Restoration Act (HFRA) on December 3, 2003 to provide the additional administrative tools needed to implement the HFI. The HFRA strengthened efforts to restore healthy forest conditions near communities by authorizing measures such as expedited environmental assessments for hazardous fuels projects on federal land. This Act emphasized the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects and places priority on fuel treatments identified by communities themselves in their Community Wildfire Protection Plans.

**Department of the Interior Department Manual Part 620**

Wildland Fire Management. Part 620 of the Department of the Interior Departmental Manual pertains to wildland fire management policies, with the goal of providing an integrated approach to wildland fire management. The guiding principles of the plan emphasize the need for public health and safety considerations, risk management protocols, inter-agency collaboration, and economic feasibility of wildfire management practices, as well as the ecological role of wildfires.

**STATE**

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**California Strategic Fire Plan**

This statewide plan is a strategic document, which guides fire policy for much of California. The plan is aimed at reducing wildfire risk through pre-fire mitigation efforts tailored to local areas through assessments of fuels, hazards, and risks.

**Unit Strategic Fire Plan Tehama Glenn Unit:** The goal of the TGU Strategic Fire Plan is to reduce losses and fire suppression costs from wildland fires within the Unit by protecting at risk assets. Focused pre-fire management prescriptions will increase initial attack success. The CAL FIRE (TGU) encompasses approximately 2,675,837 acres. CAL FIRE provides direct protection for 1,476,293 of those acres, except for four incorporated cities: Red Bluff, Corning, Orland, Willows, and small areas within the Local Responsibility Area (LRA) lands of Tehama and Glenn Counties. The plan is available at: <https://cdnverify.osfm.fire.ca.gov/media/mqnbwpt4/2023-tehama-glenn-unit-strategic-fire-plan.pdf>

**California State Multi-Hazard Mitigation Plan**

The purpose of the State Multi-Hazard Mitigation Plan (SHMP) is to significantly reduce deaths, injuries, and other losses attributed to natural- and human-caused hazards in California. The SHMP provides guidance for hazard mitigation activities emphasizing partnerships among local, state, and federal agencies as well as the private sector.

**California Government Code**

California Government Code Section 65302.5 requires the State Board of Forestry and Fire Protection (CAL FIRE) to provide recommendations for a local jurisdiction's General Plan fire safety element when the jurisdiction amends its general plan. While not a direct and binding fire prevention requirement for individuals, general plans that adopt the Board's recommendations will include goals and policies that provide for contemporary fire prevention standards for the jurisdiction. While the State Board of Forestry and Fire Protection has not specifically commented on the Proposed General Plan at the time that this EIR was written, the Proposed General Plan has been developed to include best practices to ensure contemporary fire prevention standards, as described in greater detail under the impact discussions below.

California Government Code Section 51175 defines Very High Fire Hazard Severity Zones and designates lands considered by the State to be a very high fire hazard.

California Government Code Section 51189 directs the Office of the State Fire Marshal to create building standards for wildland fire resistance. The code includes measures that increase the likelihood of a structure withstanding intrusion by fire (such as building design and construction requirements that use fire-resistant building materials) and provides protection of structure projections (such as porches, decks, balconies and eaves), and structure openings (such as attics, eave vents, and windows).

### **California Public Resource Code**

The State's Fire Safe Regulations are set forth in Public Resources Code Section 4290, which include the establishment of SRAs.

Public Resources Code Section 4291 sets forth defensible space requirements, which are applicable to anyone that ...owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material (§4291(a)).

Public Resources Code Sections 4292-4296 and 14 CCR 1256, Fire Prevention for Electrical Utilities, address the vegetation clearance standards for electrical utilities. They include the standards for clearing around energy lines and conductors such as power-line hardware and power poles. These regulations are critical to wildland fire safety because of the substantial number of power lines in wildlands, the historic source of fire ignitions associated with power lines, and the extensive damage that results from power line caused wildfires in severe wind conditions.

### **Assembly Bill 337**

Per Assembly Bill 337, local fire prevention authorities and CAL FIRE are required to identify VHFHSZs in LRAs. Standards related to brush clearance and the use of fire resistant materials in fire hazard severity zones are also established.

### **CA Fire Code**

The CA Fire Code (CFC) establishes standards related to the design, construction, and maintenance of buildings. The standards set forth in the CFC range from designing for access by firefighters and equipment and minimum requirements for automatic sprinklers and fire hydrants to the appropriate storage and use of combustible materials.

### **CA Code of Regulations Title 8**

In accordance with CCR, Title 8, §1270 and §6773 (Fire Prevention and Fire Protection and Fire Equipment), the Occupational Safety and Health Administration (Cal OSHA) establishes fire suppression service standards. The standards range from fire hose size requirements to the design of emergency access roads.

### **CA Code of Regulations Title 14 (Natural Resources)**

Division 1.5 (Department of Forestry and Fire Protection), Title 14 of the CCR establishes a variety of wildfire preparedness, prevention, and response regulations.

**CA Code of Regulations Title 19 (Public Safety)**

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

**CA Code of Regulations Title 24 (CA Building Standards Code)**

The California Fire Code is set forth in Part 9 of the Building Standards Code. The CA Fire Code contains fire-safety building standards referenced in other parts of Title 24.

**California Health and Safety Code §1300 et seq., CA Building Codes**

State fire regulations are set forth in §13000 et seq. of the California Health and Safety Code, which is divided into “Fires and Fire Protection” and “Buildings Used by the Public.” The regulations provide for the enforcement of the CA Building Codes and mandate the abatement of fire hazards.

The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

**CA Health and Safety Code Division 11 (Explosives)**

Division 11 of the Health and Safety Code establishes regulations related to a variety of explosive substances and devices, including high explosives and fireworks. Section 12000 et seq. establishes regulations related to explosives and explosive devices, including permitting, handling, storage, and transport (in quantities greater than 1,000 pounds).

**CA Health and Safety Code Division 12.5 (Buildings Used by the Public)**

This Division establishes requirements for buildings used by the public, including essential services buildings, earthquake hazard mitigation technologies, school buildings, and postsecondary buildings.

**California Senate Bill No. 1241.**

California Senate Bill No. 1241 requires that the Safety Element component of city or county general plans to incorporate fire risk related to SRAs and Very High Fire Hazard Severity Zones.

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## LOCAL

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### **City of Red Bluff Municipal Code**

#### **Chapter 8 Section 8.15 Fire Apparatus Access Roads**

Chapter 8 Section 8.15 establishes requirements for fire apparatus access roads. These standards include:

- Fire apparatus access roads in residential areas, public or private, shall have an unobstructed minimum width of 40', curb-to-curb.
- Fire apparatus access roads within multi-family developments shall have an unobstructed minimum width of 30 feet.
- Cul-de-sac turning radius shall be 50', or 100' curb-to-curb minimum.

#### **Chapter 8 Section 8.14 Open Burning, Recreational Fires, and Portable Outdoor Fireplaces**

This section establishes regulations on burning, including open burning/residential, land clearing, and special events.

#### **Chapter 8 Article III Weed Abatement**

This article sets standards for weed abatement in the city. It states “Persons owning, leasing, renting, in legal control of the property; and operating or maintaining buildings or structures in, upon or adjoining hazardous fire areas; and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times maintain an effective firebreak, as stipulated in this code. When property lines are adjacent to roadways, the hazard shall be cleared to the center of the roadway.”

### 3.16.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

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Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact related to wildfires if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the project would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Note: impacts related to the exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires is included in Chapter 3.8 (Hazards and Hazardous Materials) of this DEIR.

#### IMPACTS AND MITIGATION MEASURES

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##### **Impact 3.16-1: General Plan implementation could substantially impair an adopted emergency response plan or emergency evacuation plan (Less than Significant)**

The General Plan would allow a variety of new development, including residential, commercial, industrial, and public service projects, which would result in increased jobs and population in Red Bluff. Local road and infrastructure improvements would occur to accommodate the new growth as further discussed in Chapter 3.14 (Transportation). Future projects are not anticipated to remove or impede evacuation routes, and the General Plan does not include land uses, policies, or other components that conflict with adopted emergency response or evacuation plans. The Tehama County Sheriff's office integrates with Cal OES and response agencies within the City/County.

The proposed General Plan is a policy document that does not include any site specific designs or proposals and does not propose any entitlements for development that would have the potential to impair or conflict with an adopted emergency response or evacuation plan. Any future development projects that would implement the General Plan, including buildout of uses contemplated under the proposed Land Use Map, would be subject to all applicable City



regulations, reviews, and requirements pertaining to emergency response, emergency access, and maintaining emergency evacuation routes, as well as further analysis of project-specific impacts.

The General Plan ensures that the City maintains adequate emergency access as well as staffing, training, station locations, emergency response. Important new critical facilities would also be located to ensure resiliency and functionality in the event of a natural disaster. Implementation of the General Plan would have a **less than significant** impact with regard to this issue.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### **SAFETY ELEMENT POLICIES**

SA 3.1: Ensure that new critical facilities are located in areas that minimize exposure to potential natural hazards.

SA 3.2: Ensure that critical facilities are properly supplied and equipped to provide emergency services.

SA 3.3: Support local and regional disaster planning and emergency response planning efforts, and look for opportunities to collaborate and share resources with other municipalities in the region.

SA 3.4: Develop programs in cooperation with other public agencies to increase public awareness of hazards in Red Bluff and to educate residents on actions that can help to minimize injury and property loss before, during, and after an emergency.

SA 3.5: Maintain effective mutual aid agreements for police, fire, medical response, and other functions as appropriate.

#### **CIRCULATION ELEMENT POLICIES**

CIRC 1.7: Maintain hazard and emergency responsiveness by identifying transportation planning measures to address vulnerabilities, respond to emergencies, and mitigate hazards.

#### **SAFETY ELEMENT ACTIONS**

*SA-3a: Coordinate with the Tehama County Sheriff's Office of Emergency Services (O.E.S.) and other local agencies, as necessary, to participate in and implement the Tehama County Multi-Jurisdictional Hazard Mitigation Plan.*

*SA-3b: Conduct periodic emergency response training exercises and/or participate in regional exercises to ensure that key community members, local leaders, and emergency response personnel are adequately trained and prepared for emergency situations. Critical facilities within Red Bluff should also be assessed annually to ensure they are properly equipped and supplied.*

*SA-3c: Provide emergency preparedness information on the City's website and encourage residents and community leaders to participate in disaster training programs.*

*SA-3d: Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.*

*SA-3e: As part of the development review process, consult with the Fire Department in order to ensure that the project provides adequate emergency access.*

*SA-3f: Seek funding from State, federal, and other sources to assist in emergency management planning, including community education about defensible space and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster, with a focus on reaching at-risk populations.*

*SA-3g: Review procedures for local implementation of the Tehama County Emergency Operations Plan and help to educate the community on the need for emergency preparedness.*

*SA-3h: Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.*

*SA-3i: Coordinate with the Tehama County to periodically to update the Multi-Jurisdiction Hazard Mitigation Plan (LHMP), as needed to meet existing and projected future emergency services needs throughout Red Bluff.*

*SA-3j: Continue to implement the Local Hazard Mitigation Plan Mitigation Actions for Red Bluff.*

#### CIRCULATION ELEMENT ACTIONS

*CIRC-1b: Review and revise roadway standards to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.*

*CIRC-kl: Work with Tehama County to create a funding plan to implement improvements for emergency access, evacuation, fire protection, public safety, and work with appropriate agencies to identify and prioritize projects.*

**Impact 3.16-2: General Plan implementation would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, or thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire (Less than Significant)**

Wildfires generally ignite structures in several ways: burning embers landing on the structure or flammable material next to the structure; direct flame contact; and radiant heat from fire close to the structure (IBHS 2018). Embers are the most important cause of home ignition. Embers ignite structures by entering through attic vents, igniting flammable materials around the home (litter in the roof gutter, wood stacks, or wood fencing), or finding their way under roofing materials (California Chaparral Institute 2018).

A wildland urban interface (WUI) is any area where structures and other human developments meet or intermingle with wildland vegetative fuels—the shrubs, trees and grasses. These plants and wildland areas have evolved over time to burn. Developments in the wildland-urban interface exacerbate fire occurrence and fire spread in several ways:

- Increased numbers of human-caused wildfires.
- Wildfires become harder to fight.
- Firefighting resources are diverted from containing the wildfire to protecting lives and homes.
- Letting natural fires burn becomes impossible, leading to build-up of fuel and increasing wildfire hazard further. (Radeloff, Volker, et al., 2018)
- Increased fire frequency tends to eliminate native shrubs, which are replaced by weedy, highly flammable annual grasslands. (USGS 2012)

Air Pollution from Wildfire Smoke is made up of a complex mixture of gases and fine particles produced when wood and other organic materials burn. The biggest health threat from smoke is from fine particles. These microscopic particles can penetrate deep into the lungs. They can cause a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases. Some populations are more sensitive than others to smoke—for instance, people with heart or lung diseases, the elderly, children, people with diabetes, and pregnant women (CARB 2005, and Airnow 2018).

The rate of wildfire spread due to slope and wind is generally proportional to the grade upslope and wind speed and associated location downwind.

Fire threat determination is a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined to create four threat classes ranging from moderate to extreme. Fire threat can be used to estimate the potential for impacts on various assets and values susceptible to fire. Impacts are more likely to occur and/or be of increased severity for the higher threat classes. As shown on Figure 3.8-1, the majority of the developed portions of the Planning Area are located within a Local Responsibility Area (LRA). CalFire has determined that Red Bluff does have Very High Fire Hazard

Severity Zones (VHFHSZ) within Local Responsibility Areas in the northern portion of the city as well as areas of High and Very High Fire Hazard in SRAs.

Any future projects contemplated under the General Plan would be required to comply with the provisions of Federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements as part of the project's approval process. As future development and infrastructure projects are considered, each project would be evaluated for potential impacts, specific to that project, associated with wildland fire hazards.

The General Plan is a policy document that does not include site specific designs or proposals and does not propose any entitlements for development that would have the potential to directly expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Any future development projects that would implement the General Plan including buildout of uses allowed under the proposed Land Use Map would be subject to all applicable City regulations, reviews, and requirements pertaining to emergency response, emergency access, and maintaining emergency evacuation routes, as well as being subject to all applicable building code and fire code requirements as well as further analysis of project-specific impacts for individual development projects as required by CEQA.

Nothing in the General Plan will alter the slope, prevailing winds, or other factors that would increase exposure to residents, employees or visitors to increased pollutant concentrations from wildfire or directly result in the uncontrollable spread of a wildfire.

General Plan implementation would not exacerbate wildfire due to slope, prevailing winds, and other factors, which would exacerbate wildfire risks; therefore, these impacts would be **less than significant**. The General Plan includes Policies and Actions related to minimizing wildfire risk and are included below.

#### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

##### **SAFETY ELEMENT POLICIES**

SA 9-1: Require development to reduce risks to life and property associated with wildfire events through adherence to the relevant fire safe standards established in the Red Bluff Municipal Code, City Ordinances, and other applicable regulations that meet or exceed title 14, CCR, division 1.5, chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). New development, which does not meet the applicable State requirements, shall not be permitted.

SA 9-2: Support management of forested lands including fuel management strategies in wildland areas to reduce wildfire hazards.

SA 9-3: Require adequate water source and supply systems, including adequate fire flows, and location of anticipated water supply prior to development approvals in areas that include very high or high Fire Hazard Severity Zones (FHSZs), as defined by CAL FIRE.

SA 9-4: New development projects within and adjacent to wildland, forest, or areas or that are included within a Very High Fire Hazard Severity Zone (VHFHSZ) shall prepare and implement wildland fire protection plans that include the following components:

1. Risk Analysis
2. Fire Response Capabilities
3. Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
4. Measures and Design Considerations for Non-Conforming Fuel Modification
5. Wildfire Education, Maintenance, and Limitations
6. Evacuation Planning.

SA 9-5: Continue to implement the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) to reduce risks associated with wildfire, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the MJHMP.

SA 9-6 Continue to support wildfire planning efforts and programs including the Tehama County Community Wildfire Protection Plan (CWPP) to reduce risks associated with wildfire throughout the Planning Area, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the CWPP.

SA 9-7 Prior to allowing redevelopment in an area devastated by wildfire, the City shall review safety conditions and require any redevelopment to meet all applicable State and local fire safe development standards.

SA 9-8 Ensure adequate evacuation routes for new and existing development. Ensure new residential developments located in High and Very High Fire Hazard Zones have at least two emergency evacuation routes, and Identify existing residential developments in these areas that do not have at least two emergency evacuation routes.

SA 9-9 Discourage new development within Very High Fire Hazard Severity Zones (VHFHSZ) and on the periphery of urban areas where wildfire risks are high due to natural factors or provide adequate mitigation measures to address the elevated fire threat.

SA 9-10 Locate new essential public facilities, such as fire stations, police substations, and emergency evacuation centers outside of High and Very High Fire Hazard Severity Zones.

SA 9-11 Support management and conservation activities to reduce fire hazards, including fire hazard reduction, fuel management, and long-term maintenance strategies, establishment and maintenance of community fuel breaks, public and private road maintenance and vegetation clearance that meet or exceed Public Resources Code Section 4291 requirements, home

hardening, and coordinate with the fire department and property owners to implement management and conservation activities on an on-going basis.

#### SAFETY ELEMENT ACTIONS

*SA-9a Review, and revise if necessary, the City's Development Standards to require fire protection methods, including fuels management, adequate water supply, and road and driveway standards for new development and expansion projects in areas of high and very high Fire Hazard Severity Zones that meet or exceed the requirements established by the State Fire Safe Regulations. Fire protection methods may consist of the establishment of "defensible space" around structures, using fire resistant ground cover, building with fire-resistant roofing materials, fuel load reductions, visible home and street addressing and signage, and other appropriate measures.*

*SA-9b Consult with CAL FIRE during the review of development applications for projects within high and very high Fire Hazard Severity Zones in areas adjacent to SRAs.*

*SA-9c Implement State recommendations for fire prevention in Fire Hazard Severity Zones.*

*SA-9d Create public outreach and awareness programs to reach at-risk populations, promote the development and awareness of evacuation routes, and to promote the development of "defensible space" around structures using areas free of fuel loads, fire resistant landscaping and fire-resistant building materials. Any new development within VHFHSZs shall be required to implement fuel modification efforts to reduce flammable materials around structures, homes, and subdivisions consistent with California Code, Public Resources Code - PRC § 4291.*

*SA-9e Participate in regional efforts to periodically review and update key emergency and fire protection plans, including but not limited to the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) and the Tehama County Community Wildfire Protection Plan (CWPP). Future updates to these plans shall consider new growth and policy direction facilitated by this General Plan, and shall meet all applicable State requirements and incorporate industry best practices for fuel reduction and management, fuel breaks, fire safety, emergency evacuation, and post-fire recovery.*

*SA-9f Identify areas within the city that are not adequately served by multiple evacuation routes which can be used during a fire or other natural disaster. Develop specific plans to address SB 99 Evacuation-Constrained Parcels, and improve the capacity, safety, and viability of evacuation routes to serve high-risk areas of the city, including areas located within High and Very High Fire Hazard Zones.*

*SA-9g Consistent with Policy SA 9-4, require new development projects to prepare and implement wildland fire protection plans that meets all applicable State requirements.*

*SA-9h Utilize the most current adopted Fire Hazard Severity Zone (FHSZ) maps from the Office of the State Fire Marshal (OSFM). Available at: <https://osfm.fire.ca.gov>.*

*SA-9i As part of the development review process, for all new development projects within fire hazard areas consult with the fire department in order to ensure that the project has adequate fire*

*protection including: the ability to service new development, emergency access (ingress, egress), evacuation routes, fire flow, water supply, defensible space pursuant to Public Resources Code Section 4291 and other regulations if applicable, fuel modification, fire-safe measures, and vegetation clearance including for public and private roads. All residential development projects within fire hazard areas shall be evaluated at that time to see if they have at least two emergency evacuation routes.*

*SA-9j As part of the next update to the MJHMP, participate in the update process and ensure that the MJHMP update identifies evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Improvements should be included on City improvements plans and RTP project lists as appropriate.*

*SA-9k Coordinate with Caltrans to implement vegetation clearance maintenance along State transportation corridors.*

*SA-9l Implement the policies and actions included Under Goal SA-4 that support the review of projects to maintain adequate and efficient fire protection service levels throughout the community.*

**Impact 3.16-3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment (Less than Significant)**

New development would require the construction and installation of local infrastructure, including roads water and sewer and power lines. Development of such infrastructure may increase wildfire risks in the affected areas. Infrastructure required to serve development allowed under the General Plan would generally be located in and along established city ROW within established areas within the city, and along local roadways and would be located in areas that are already served by nearby infrastructure. As such, implementation of the General Plan would not exacerbate wildfire risks from associated infrastructure.

General Order (GO) 95 of the California Public Utilities Commission (CPUC) regulates all aspects of design, construction, and O&M of overhead electrical power lines and fire safety hazards for utilities subject to its jurisdiction. GO 165 imposes inspection requirements for transmission and distribution lines, and GO 166 requires emergency response procedures to respond to electric system failures, major outages, or hazards posed by damage to electric utility facilities. Rule 11 enables electric utilities to suspend customer service when minimum vegetation clearance requirements are not met. On February 5, 2014, the CPUC adopted its Decision Adopting Regulations to Reduce the Fire Hazards Associated with Overhead Electric Utility Facilities and Aerial Communications Facilities. (Decision 14-02-015.) In addition to updating various GO 95 requirements and ordering further study, the decision called for creation by the CPUC of a High Fire-Threat District (HFTD) map identifying zones of high hazard, elevated risk and extreme risk for destructive utility-associated wildfires.

On December 21, 2017, the CPUC issued its Decision Adopting Regulations to Enhance Fire Safety in the High Fire Threat District, adding statewide HFTD map requirements to GO 95 and enhancing GO 95's fire safety regulations within HFTD areas. (Decision 17-12-024.) As described in the CPUC's High Fire-Threat District (HFTD) maps Red Bluff is not within a Tier 3 – Extreme risk for destructive utility-associated wildfires area. Portions of the Planning Area in the northern portions of the city and SOI are within the CPUC's Tier 2 – Elevated district.

Development allowed under the General Plan would be required to comply with the applicable provisions of the California Building Code (CBC), and CA Fire Code (CFC). Future developments utility infrastructure would also be subject to the requirements established in the additional Public Resources Code including: Public Resources Code Section 4292, which requires clearing of flammable fuels for a minimum 10-foot radius from the outer circumference of poles and towers; and Public Resources Code Section 4293, which sets basic requirements for clearances around electrical conductors. Furthermore, the future projects would be required to meet vegetation clearance requirements outlined in Title 14, Section 1104.1(d) of the California Code of Regulations for single overhead facilities, and in CPUC General Order 95 requirements for overhead utility lines in high-fire-threat areas.

The General Plan includes requirements to ensure adequate water supply and water flow availability, emergency access, fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety. Additionally, all future development projects would be required to be consistent with the Municipal Code standards related to the California Fire Code and would also be subject to CCR and PUC standard outlined above.

As described previously, the General Plan is a long range policy document that does not include site specific designs or proposals, and does not propose or approve any entitlements for development. The majority of all future development would occur within existing developed areas.

The potential for future projects to impact environmental resources to meet compliance with fire development standards such (as fuel breaks and clearance requirements) would require site specific reviews to identify any site-specific impacts. As demonstrated throughout this EIR, implementation of the various policies and actions contained in the General Plan would reduce potential impacts associated with the construction and expansion of infrastructure. Implementation of local and state requirements would ensure that potential wildland fire hazards would not be exacerbated by local infrastructure, and this impact would be considered **less than significant**.

## **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

### **SAFETY ELEMENT POLICIES**

SA 9-1: Require development to reduce risks to life and property associated with wildfire events through adherence to the relevant fire safe standards established in the Red Bluff Municipal Code, City Ordinances, and other applicable regulations that meet or exceed title 14, CCR, division 1.5,



chapter 7, subchapter 2, articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and title 14, CCR, division 1.5, chapter 7, subchapter 3, article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). New development, which does not meet the applicable State requirements, shall not be permitted.

SA 9-2: Support management of forested lands including fuel management strategies in wildland areas to reduce wildfire hazards.

SA 9-3: Require adequate water source and supply systems, including adequate fire flows, and location of anticipated water supply prior to development approvals in areas that include very high or high Fire Hazard Severity Zones (FHSZs), as defined by CAL FIRE.

SA 9-4: New development projects within and adjacent to wildland, forest, or areas or that are included within a Very High Fire Hazard Zone (VHFHSZ) shall prepare and implement wildland fire protection plans that include the following components:

1. Risk Analysis
2. Fire Response Capabilities
3. Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
4. Measures and Design Considerations for Non-Conforming Fuel Modification
5. Wildfire Education, Maintenance, and Limitations
6. Evacuation Planning.

SA 9-5: Continue to implement the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) to reduce risks associated with wildfire, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the MJHMP.

SA 9-6 Continue to support wildfire planning efforts and programs including the Tehama County Community Wildfire Protection Plan (CWPP) to reduce risks associated with wildfire throughout the Planning Area, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the CWPP.

SA 9-7 Prior to allowing redevelopment in an area devastated by wildfire, the City shall review safety conditions and require any redevelopment to meet all applicable State and local fire safe development standards.

SA 9-8 Ensure adequate evacuation routes for new and existing development. Ensure new residential developments located in High and Very High Fire Hazard Zones have at least two emergency evacuation routes, and Identify existing residential developments in these areas that do not have at least two emergency evacuation routes.

SA 9-9 Discourage new development within Very High Fire Hazard Severity Zones (VHFHSZ) and on the periphery of urban areas where wildfire risks are high due to natural factors or provide adequate mitigation measures to address the elevated fire threat.

SA 9-10 Locate new essential public facilities, such as fire stations, police substations, and emergency evacuation centers outside of High and Very High Fire Hazard Severity Zones.

SA 9-11 Support management and conservation activities to reduce fire hazards, including fire hazard reduction, fuel management, and long-term maintenance strategies, establishment and maintenance of community fuel breaks, public and private road maintenance and vegetation clearance that meet or exceed Public Resources Code Section 4291 requirements, home hardening, and coordinate with the fire department and property owners to implement management and conservation activities on an on-going basis.

#### SAFETY ELEMENT ACTIONS

*SA-9a Review, and revise if necessary, the City's Development Standards to require fire protection methods, including fuels management, adequate water supply, and road and driveway standards for new development and expansion projects in areas of high and very high Fire Hazard Severity Zones that meet or exceed the requirements established by the State Fire Safe Regulations. Fire protection methods may consist of the establishment of "defensible space" around structures, using fire resistant ground cover, building with fire-resistant roofing materials, fuel load reductions, visible home and street addressing and signage, and other appropriate measures.*

*SA-9b Consult with CAL FIRE during the review of development applications for projects within high and very high Fire Hazard Severity Zones in areas adjacent to SRAs.*

*SA-9c Implement State recommendations for fire prevention in Fire Hazard Severity Zones.*

*SA-9d Create public outreach and awareness programs to reach at-risk populations, promote the development and awareness of evacuation routes, and to promote the development of "defensible space" around structures using areas free of fuel loads, fire resistant landscaping and fire-resistant building materials. Any new development within VHFHSZs shall be required to implement fuel modification efforts to reduce flammable materials around structures, homes, and subdivisions consistent with California Code, Public Resources Code - PRC § 4291.*

*SA-9e Participate in regional efforts to periodically review and update key emergency and fire protection plans, including but not limited to the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) and the Tehama County Community Wildfire Protection Plan (CWPP). Future updates to these plans shall consider new growth and policy direction facilitated by this General Plan, and shall meet all applicable State requirements and incorporate industry best practices for fuel reduction and management, fuel breaks, fire safety, emergency evacuation, and post-fire recovery.*

*SA-9f Identify areas within the city that are not adequately served by multiple evacuation routes which can be used during a fire or other natural disaster. Develop specific plans to address SB 99*

*Evacuation-Constrained Parcels, and improve the capacity, safety, and viability of evacuation routes to serve high-risk areas of the city, including areas located within High and Very High Fire Hazard Zones.*

*SA-9g Consistent with Policy SA 9-4, require new development projects to prepare and implement wildland fire protection plans that meets all applicable State requirements.*

*SA-9h Utilize the most current adopted Fire Hazard Severity Zone (FHSZ) maps from the Office of the State Fire Marshal (OSFM). Available at: <https://osfm.fire.ca.gov>.*

*SA-9i As part of the development review process, for all new development projects within fire hazard areas consult with the fire department in order to ensure that the project has adequate fire protection including: the ability to service new development, emergency access (ingress, egress), evacuation routes, fire flow, water supply, defensible space pursuant to Public Resources Code Section 4291 and other regulations if applicable, fuel modification, fire-safe measures, and vegetation clearance including for public and private roads. All residential development projects within fire hazard areas shall be evaluated at that time to see if they have at least two emergency evacuation routes.*

*SA-9j As part of the next update to the MJHMP, participate in the update process and ensure that the MJHMP update identifies evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Improvements should be included on City improvements plans and RTP project lists as appropriate.*

*SA-9k Coordinate with Caltrans to implement vegetation clearance maintenance along State transportation corridors.*

*SA-9l Implement the policies and actions included Under Goal SA-4 that support the review of projects to maintain adequate and efficient fire protection service levels throughout the community.*

**Impact 3.16-4: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes (Less than Significant)**

Debris flows and post-fire earthflow hazards include fast-moving, highly destructive debris flows that can occur in the years immediately after wildfires in response to high intensity rainfall events, and flows that are generated over longer time periods that are accompanied by root decay and loss of soil strength. Post-fire debris flows are particularly hazardous because they can occur with little warning, exert great impulsive loads on objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. Debris flows differ from mudflows in that debris flows are composed of larger particles. Fires increase the potential for debris flows in two ways:

1. Fires may bake soil into a hard crust that repels water.
2. Fires destroy vegetation that would slow and absorb rainfall and whose roots would help stabilize soil. (USGS 2018)

Post-fire debris flows are most common in the two years after a fire. It takes much less rainfall to trigger debris flows from burned basins than from unburned areas. In portions of California, as little as 0.3 inch of rainfall in 30 minutes has triggered debris flows, and any storm that has intensities greater than about 0.4 inch per hour can produce debris flows (USGS 2017). The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses (CGS 2018a).

Expansion of man-made developments into fire-prone wildlands has created situations where fast-moving, highly destructive debris flows triggered by intense rainfall are one of the most dangerous post-fire hazards. Such debris flows are particularly dangerous because they tend to occur with little warning.

After fire events, local creeks, steep slopes and seasonal drainages may become susceptible to increased runoff, landslides and debris flows as a result of cover changes as a result of wildfire. Landslide and slope stability is influenced by physical factors, such as slope, soil, vegetation, and precipitation. Landslides require a slope, and can occur naturally from seismic activity, excessive saturation, and wildfires, or from human-made conditions such as construction disturbance, vegetation removal, wildfires, etc. The Planning Area is generally flat and includes some rolling hills in the northern portions of the Planning Area. Therefore, the potential for landslides is generally low. The areas of highest apparent landslide potential in the generally correlate with relief. Those areas having the highest potential occur in the hilly northern portion of the city.

FEMA mapping provides important guidance for the City in planning for flooding events and regulating development within identified flood hazard areas. FEMA's National Flood Insurance Program (NFIP) is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The

FEMA FIRM for the Planning Area is shown on Figure 3.9-2 (located in the Hydrology and Water Quality Chapter of this DEIR). As shown on Figure 3.9-2, a large areas within the eastern portions of the city (Generally along Sacramento River) and along local drainages running east/west is located within a mapped portion of the 100- year and 500- year FEMA flood zones. Risks of flooding along this area exists and flooding within this area would be likely to affect a large area of existing development. Additionally, as shown in Figure 3.8-1, a significant portion of these areas are located in High to Very High Fire Hazard Severity Zones in Local and State Responsibility Areas. Generally the majority of the planning areas does not include areas of steep slopes and the majority of the areas within the city would not generally be subject to substantial erosion and debris flows as a result of post fire impacts. However, some areas in the steeper regions within the norther, sand western-most portions of the Planning Area especial along creek corridors could experience increased erosion and debris flows from post wildfire effects. The General Plan Safety Element includes policies and action related to erosion and flood management. In addition, the General Plan policy SA 9-7 would require the City to review safety conditions and require any redevelopment to meet all applicable State and local fire safe development standards in an area devastated by wildfire.

The General Plan would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. The majority of intensified development would occur in areas of the that are currently developed with or adjacent to urban uses and are generally not subject to severe flooding or erosion.

As future development and infrastructure projects are considered by the, each project will be evaluated for conformance with the CBC, Zoning Ordinance, and other regulations. In addition to compliance with City standards and policies, the Regional Water Quality Control Board will require a project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each project that disturbs an area of one acre or larger. As required by the Clean Water Act, each subsequent development project or improvement project will require an approved Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices for grading and preservation of topsoil. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

The General Plan requires the City to review all development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is does not impact nearby development and would not exceed the design capacity of the drainage facility (See Policy SA 2.2). Additionally, policies under the proposed General Plan require that all new developments and redevelopments in areas susceptible to flooding incorporate mitigation measures designed to reduce flood hazards and ensures the City maintains adequate infrastructure and regularly assesses the status of local storm drainage infrastructure to ensure that the system can adequately reduce flood hazards. Further, all future development allowed under the General Plan would be subject to all existing building codes, FEMA flood requirements, and development standards described above to control for runoff, instability, and drainage issues.

The topography in the majority of the developed portions of the Planning Area is considered relatively flat and would generally not be subject to debris flows. In the event that a significant wildfire was to burn in the hilly northern portions of the Planning Area, these areas may be exposed to potential risks associated with landslides, debris flows, and flooding in the weeks, months following the fire as a result in changes to the vegetative cover of the land and the rain absorption capacity of the soil. Adoption of the proposed General Plan would not increase or exacerbate these risks, however, specific areas would still remain at risk in the event of a significant wildfire occurs in the Planning Area.

While the City cannot state with certainty that future increased risks associated with post-fire runoff and debris flows would not occur in the Planning Area, for the reasons explained above, implementation of the General Plan would not exacerbate this risk beyond the existing environmental conditions and this impact would be considered **less than significant**.

### **GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**

#### **SAFETY ELEMENT POLICIES**

SA 2.1: Support and participate in planning efforts undertaken at the local, regional, State, and federal levels to improve flood management facilities and dam safety.

SA 2.2: Require all new development projects to demonstrate how stormwater runoff will be detained or retained on-site, treated, and/or conveyed to the nearest drainage facility as part of the development review process. Project applicants shall demonstrate that project implementation would not result in increases in the peak flow runoff to adjacent lands or drainage facilities that would exceed the design capacity of the drainage facility or result in an increased potential for off-site flooding.

SA 2.3: Ensure that construction activities and new development do not serve to aggravate the flooding potential of the streams and creeks that flow through Red Bluff, especially at times of peak flow.

SA 2.4: Ensure that construction activities and new development projects will not result in adverse impacts to existing properties and flood control and drainage structures.

SA 2.5: Regulate land uses in flood-prone areas and allow development in those areas only with appropriate mitigation.

SA 2.6: Promote community awareness regarding the severity and extent of potential local flooding.

SA 2.7: Maintain and periodically update City flood safety plans, floodplain management ordinances, zoning ordinance, building codes, and other related sections of the Municipal Code to reflect Safety Element goals, policies and standards, applicable federal and State law, and National Flood Insurance Program requirements.

SA 2.8: Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.

SA 2.9: Update flood hazard maps as necessary to reflect impacts from climate change in terms of long-term flood safety and long-term flood event probabilities.

SA 9-5: Continue to implement the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) to reduce risks associated with wildfire, and review new development proposals with High and Very High Fire Hazard Zones for consistency with the MJHMP.

SA 9-7 Prior to allowing redevelopment in an area devastated by wildfire, the City shall review safety conditions and require any redevelopment to meet all applicable State and local fire safe development standards.

*SA 9-9 Discourage new development within Very High Fire Hazard Severity Zones (VHFHSZ) and on the periphery of urban areas where wildfire risks are high due to natural factors or provide adequate mitigation measures to address the elevated fire threat.*

#### SAFETY ELEMENT ACTIONS

*SA-2a: Use the FEMA 100-year flood profile for all streams and creeks as a basis for evaluating future land use in floodplain areas.*

*SA-2b: Continue to review projects in flood hazard areas to ensure compliance with Municipal Code Chapter 26 (Flood Damage Prevention).*

*SA-2c: Monitor changes in federal and State laws and regulations related to local flood protection, including the National Flood Insurance Program, and incorporate necessary changes into the Municipal Code and building codes as required, and ensure that the City's regulations continue to require that new development within flood hazard areas is consistent with this Safety Element and is required to meet the flood protection requirements of State law, including but not limited to, Government Code Sections 65007, 65865.5, 65962 and 66474.5.*

*SA-2d: As part of the development review process require new development projects to prepare hydraulic and storm drainage studies as necessary to define the net increase in stormwater run-off resulting from construction, and require mitigation to reduce impacts. Drainage and grading plans shall identify BMP protections and include standards established and recommended by the City that shall be incorporated into development.*

*SA-2e: Periodically review the conditions of bridges, culverts, canals, and other flood control and stormwater conveyance infrastructure, and when feasible include necessary improvements within the capital improvement plan to increase safety and the adequate conveyance of stormwater.*

*SA-2f: Maintain culverts and other drainage facilities on public roads, and eliminate obstructions from existing drainage ways.*

*SA-9a Review, and revise if necessary, the City's Development Standards to require fire protection methods, including fuels management, adequate water supply, and road and driveway standards for new development and expansion projects in areas of high and very high Fire Hazard Severity Zones that meet or exceed the requirements established by the State Fire Safe Regulations. Fire protection methods may consist of the establishment of "defensible space" around structures, using fire resistant ground cover, building with fire-resistant roofing materials, fuel load reductions, visible home and street addressing and signage, and other appropriate measures.*

*SA-9c Implement State recommendations for fire prevention in Fire Hazard Severity Zones.*

*SA-9e Participate in regional efforts to periodically review and update key emergency and fire protection plans, including but not limited to the Tehama County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) and the Tehama County Community Wildfire Protection Plan (CWPP). Future updates to these plans shall consider new growth and policy direction facilitated by this General Plan, and shall meet all applicable State requirements and incorporate industry best practices for fuel reduction and management, fuel breaks, fire safety, emergency evacuation, and post-fire recovery.*

*SA-9g Consistent with Policy SA 9-4, require new development projects to prepare and implement wildland fire protection plans that meets all applicable State requirements.*

*SA-9h Utilize the most current adopted Fire Hazard Severity Zone (FHSZ) maps from the Office of the State Fire Marshal (OSFM). Available at: <https://osfm.fire.ca.gov>.*

*SA-9i As part of the development review process, for all new development projects within fire hazard areas consult with the fire department in order to ensure that the project has adequate fire protection including: the ability to service new development, emergency access (ingress, egress), evacuation routes, fire flow, water supply, defensible space pursuant to Public Resources Code Section 4291 and other regulations if applicable, fuel modification, fire-safe measures, and vegetation clearance including for public and private roads. All residential development projects within fire hazard areas shall be evaluated at that time to see if they have at least two emergency evacuation routes.*

*SA-9j As part of the next update to the MJHMP, participate in the update process and ensure that the MJHMP update identifies evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Improvements should be included on City improvements plans and RTP project lists as appropriate.*

*SA-9k Coordinate with Caltrans to implement vegetation clearance maintenance along State transportation corridors.*



CEQA requires an EIR to evaluate a project's effects in relationship to broader changes that are occurring or that may foreseeably occur, in the surrounding environment. Accordingly, this chapter presents discussion of CEQA-mandated analysis for cumulative impacts, irreversible impacts, and growth inducement associated with the proposed General Plan.

## 4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

### INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the General Plan. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable," as defined in section 15065(a)(3), means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

*...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

- 2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and
- 3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

### CUMULATIVE SETTING

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Under CEQA, the discussion of cumulative impacts should focus on the severity of the impacts and the likelihood of their occurrence. The geographic scope for the cumulative analysis covers the entire Red Bluff Planning Area, which for the purposes of the General Plan includes the geographic area for which the General Plan provides a framework for long-term plans for growth, resource conservation, and continued agricultural activity. State law requires the General Plan to include all territory within Red Bluff's incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Planning Area for the General Plan includes the entire City Limits and the City's SOI, as shown on Figure 2.0-2 (see Chapter 2.0: Project Description). It should be noted that, for some environmental topics, the geographic scope for the cumulative analysis also covers the boundaries of Tehama County, and/or other jurisdictional boundaries that are relevant to the particular environmental topic.

The buildout analysis utilizes a 20-year horizon, and 2045 is assumed to be the buildout year of the General Plan, however it should be noted that buildout of the General Plan may be beyond 2045. The year 2045 is used as the benchmark year for the cumulative analysis contained in this EIR. This year was chosen based on the fact that the General Plan was developed as an approximate 20-year plan for Red Bluff, and the General Plan is scheduled for adoption in late 2024 or early 2025.

### Land Use/Growth Projections

Planned land uses within the city include single and multiple family residential, office, commercial, industrial, public facilities, and conservation lands which are included within specific designations identified by the City's Land Use Map. Table 4.0-1 summarizes the City's General Plan land use designations, by number of parcels and acreage.

**TABLE 4.0-1: ACREAGE BY LAND USE DESIGNATION IN THE PROPOSED LAND USE MAP – CITY LIMITS AND SOI**

Land Use	City Limits	SOI	Total
Commercial (C)	698	781	1,479
Industrial (I)	364	1,417	1,781
Open Space (OS)	--	57	57
Open Space/Recreation OS-R	86	141	226
Public Facility (PF)	1,056	37	1,093
Residential – Low Density (R-L)	1,504	4,336	5,839
Residential – Medium Density (R-M)	451	918	1,370
Valley Floor Agriculture (VFA) <sup>1</sup>			
(County Designation)	--	699	699
Undesignated /Right-of-Way (ROW) <sup>1</sup>	--	44	44
<b>Grand Total</b>	<b>4,159</b>	<b>8,429</b>	<b>12,588</b>

1: PORTIONS OF THE CITY'S SOI HAVE NOT BEEN ASSIGNED A LAND USE DESIGNATION ON THE EXISTING GENERAL PLAN LAND USE MAP.

SOURCES: CALIFORNIA STATE UNIVERSITY, CHICO GIC; TEHAMA COUNTY. GIS LAND USE DATA FILE; DE NOVO PLANNING GROUP, 2024.

Table 4.0-2 below summarizes the range of growth, including residential units, and non-residential square footage that may be anticipated to occur under cumulative 2045 conditions. As shown in Table 2.0-2, the General Plan by 2045 would be anticipated to result in up to 1,267 dwelling units accommodating an additional 3,092 residents, and an additional 1,396 jobs. See Chapter 2.0 for a detailed description of land uses projected for the Planning Area at buildout.

**TABLE 4.0-2: GROWTH PROJECTIONS - PROPOSED GENERAL PLAN LAND USE MAP**

	POPULATION	DWELLING UNITS	NONRESIDENTIAL SQUARE FOOTAGE	JOBS	JOBS PER HOUSING UNIT
<b>EXISTING CONDITIONS</b>					
	14,439	6,126	3,585,356	6,542	1.068
<b>NEW GROWTH POTENTIAL</b>					
General Plan – city limits and SOI	3,092	1,267	767,853	1,396	1.102
<b>TOTAL GROWTH: EXISTING PLUS NEW GROWTH POTENTIAL</b>					
General Plan – Cumulative (2045 )	17,531	7,393	4,353,209	7,938.10	1.074

SOURCES: COUNTY ASSESSOR 2023; CALIFORNIA DEPARTMENT OF FINANCE 2023; U.S CENSUS ONTheMAP; ESRI 2023, DE NOVO PLANNING GROUP 2024.

## CUMULATIVE EFFECTS OF THE PROJECT

### Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. Section 15130 of the CEQA Guidelines requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in

the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines 15130[b]).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects (referred to as the “list approach”) or a summary of projections contained in an adopted general plan or related planning document (referred to as the “projection method”). Because of the programmatic nature of the Red Bluff General Plan, this Draft EIR uses the projection method for the cumulative analysis and considers buildout of the proposed General Plan in addition to buildout countywide as summarized and addressed in the 2019 Tehama County Regional Transportation Plan (RTP). Development of the 2019 RTP utilized the California DOF estimates that the predicted Tehama County 2019 population of 64,804 will increase to approximately 72,485 by the horizon year of the RTP, 2039 (see RTP Figure 2.3). This represents a projected average annual increase of 0.59% between 2019 and 2039.

The Projection Method serves as a guide to determine if the General Plan Update is consistent with the long-term population, employment, and household projections of the region. If the proposed General Plan Update is generally consistent with regional projections, then it would also generally be consistent with regional efforts to address environmental problems such as air quality and traffic.

### **Cumulative Impacts**

Cumulative impacts for most issue areas are not quantifiable and are therefore discussed in general qualitative terms as they pertain to development patterns in the surrounding region. An exception to this is a topic like traffic, which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In consideration of the cumulative scenario described above, the proposed project may result in the following cumulative impacts.

#### **AESTHETICS AND VISUAL RESOURCES**

##### ***Impact 4.1: Cumulative degradation of the existing visual character of the region (Less than Cumulatively Considerable)***

While the Planning Area contains areas and viewsheds with scenic characteristics, such as views of open space, there are no officially designated scenic vista points in the Planning Area. Visual resources in the Planning Area generally consist of foothill views, and views of agricultural lands, and historic districts.

Additionally, there are no officially designated scenic highways located in the vicinity of Red Bluff. No highway sections in Tehama County are listed as an officially Designated Scenic Highway by the Caltrans Scenic Highway Mapping System. The segment of State Route 89 in the eastern portion of the county is listed as “eligible” but is not currently officially designated. However, this officially

designated scenic highway does not provide views of Red Bluff or the immediate surrounding areas.

As noted in greater detail in the Project Description chapter (Chapter 2.0), implementation of the proposed General Plan could lead to new and expanded urban and suburban development throughout the City and Planning Area, particularly in areas designated for residential, commercial, industrial, mixed uses, and public/quasi-public uses by the Land Use Map. This new development may result in changes to the visual environment throughout the Planning Area, which may obstruct or interfere with views of visual features surrounding the Planning Area.

While growth is anticipated to occur in the Planning Area, the majority of growth is anticipated to occur in and around existing urban development. Development of land uses and associated infrastructure is planned to occur in the future to accommodate growth envisioned in the general plans that are effective within the cumulative analysis area, including Tehama County.

Regional growth has and will continue to result in a cumulative aesthetic effect by converting undeveloped land into developed and occupied areas and increasing overall levels of nighttime lighting. Cumulative development entails grading/landform alteration, the development of structures, and the installation of roadways and other infrastructure that has altered and will continue to permanently alter the region's existing visual character. Subsequent projects implemented under the proposed General Plan would be required to be consistent with the policies and actions of the proposed General Plan and adopted regulations pertaining to aesthetics and lighting. With implementation of adopted policies and regulations provided in Section 3.1 (Aesthetics and Visual Resources), the proposed General Plan would not considerably contribute to permanent changes in visual character, such as obstruction of scenic views, conversion of existing visual character, and increased lighting. The policies and actions included within the General Plan would ensure the cumulative effect of the General Plan on visual character, and would result in a less-than-significant contribution. Therefore, the proposed General Plan's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

#### AGRICULTURAL AND FOREST RESOURCES

##### ***Impact 4.2: Cumulative impact to agricultural lands and resources (Cumulatively Considerable and Significant and Unavoidable)***

As shown on in Chapter 3.2, Figure 3.2-1, the Planning Area is designated as having Urban and Built-Up, Grazing Land, Farmland of Local Importance, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Water, and Other Land. The proposed General Plan Land Use Map designates a range of planned development, residential, commercial, industrial, public/quasi-public, and other uses that could convert farmland to urban and built-up land. Therefore, the proposed Red Bluff General Plan has the potential to convert farmland to non-agricultural uses. However, the proposed General Plan emphasizes logical growth extending outward from existing development.

The proposed General Plan includes policies, identified below, that are intended to reduce the impacts to farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. These include policies that encourage the development of vacant lands within City boundaries prior to the conversion of agricultural lands and ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations. Overall, the policies included in the proposed General Plan are intended to support and preserve the agricultural heritage of Red Bluff as development continues to occur within the Planning Area.

The Red Bluff General Plan has taken a proactive approach towards policy solutions that limit impacts to agricultural land and operations throughout the Planning Area. The applicable policies that provide protection of agricultural lands and operation, and promote logical development patterns and are identified below. The policies listed below would minimize this impact, however, as lands within the Planning Area may eventually be converted from agriculture uses to developed uses this impact would remain a significant and unavoidable impact. However, as described in greater detail under Impacts 3.3-1 through 3.2-4, there is no feasible policies available to reduce the potential for future ag-land conversion to a less than significant level. Other conversions of farmland within the City's SOI, and Tehama County over the buildout period is also likely to occur. The policies and actions identified in Section 3.2 would minimize this impact to the greatest extent feasible, and other General Plans in Tehama County have also minimized potential impacts to agricultural resources. Nevertheless, this is considered a **cumulatively considerable and significant and unavoidable** impact.

### AIR QUALITY

#### ***Impact 4.3: Cumulative impact on the region's air quality (Cumulatively Considerable and Significant and Unavoidable)***

As described previously in Chapter 3.3, Tehama County has a State designation of nonattainment for O<sub>3</sub> and PM<sub>10</sub>, and is either Unclassified or Attainment for all other criteria pollutants. The County has a national designation of Unclassified or Unclassified/Attainment Nonattainment for the remaining national standards. The Tehama County Air Pollution Control District does not provide criteria pollutant thresholds for General Plans (such as the proposed Project). As such, there is no programmatic threshold of significance established for criteria pollutants for which to compare the proposed General Plan.

This EIR acknowledges that the proposed General Plan will allow new residential and non-residential growth, as described in detail in Chapter 2.0 (Project Description). This new growth will undoubtedly result in increases in the emissions of criteria pollutants, most notably from mobile-source and area-source emissions increases associated with increased growth and development in Red Bluff. Additionally, the implementation of individual projects within the General Plan would have the potential to conflict with the Tehama County Air Pollution Control District's requirements for criteria pollutants at the project-level.

The proposed General Plan includes policies and actions that are specifically aimed at improving

air quality throughout the City and region. These policies and actions (provided below) limit impacts to air quality by reducing the number and length of vehicle trips, encourage non-automobile travel modes, support green and sustainable building development, promote the use of renewable energy, and encourage the conservation of resources.

Implementation of the proposed General Plan, which is consistent with all federal and state guidelines, and would be consistent with the applicable air quality plans, but would still be anticipated to lead to overall increases in emissions of criteria pollutants, given the total growth in vehicle trips projected upon full buildout of the proposed General Plan. Moreover, as described in Chapter 3.14 (Transportation and Circulation) of this DEIR, under Impact 3.14-1, the proposed General Plan would result in similar or increased per capita VMT in the City of Red Bluff, compared to the existing (baseline) condition.

As described previously, the policies and actions included throughout the proposed General Plan cover the full breadth of air quality issues and promote air quality and vehicle trip reductions throughout the city. With implementation of the General Plan policies and actions that would reduce criteria pollutant emissions, air quality impact would be limited. However, the proposed General Plan would create new development that would increase overall criteria air pollutant emissions within the City of Red Bluff, due to an increase in vehicle trips in the City in the cumulative year 2045 buildout scenario, compared to the existing condition. Therefore, this impact is considered **significant and unavoidable**, and **cumulatively considerable**.

#### BIOLOGICAL RESOURCES

***Impact 4.4: Cumulative loss of biological resources, including habitats and special status species (Less than Cumulatively Considerable)***

Cumulative development anticipated throughout the greater Tehama County and region will result in impacts to biological resources, including the permanent loss of habitat for special status species, corridor fragmentation, direct and indirect impacts to special status species, and reduction and degradation of sensitive habitat. Biological resources are a limited resource and the cumulative loss is considered significant.

Subsequent projects implemented under the proposed General Plan would be required to be consistent with the policies and actions of the proposed General Plan. The implementation of an individual project would require a detailed and site-specific review of the site to determine the presence or absence of movement corridors, special-status species, and sensitive habitat on a given project site. If movement corridors, special-status species, or sensitive habitat are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process. However, as provided under Section 3.4 (Biological Resources), with implementation of the policies and actions included within the General Plan, implementation of the General Plan would not generate a significant impact on biological resources.

Therefore, the proposed General Plan's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

### CULTURAL AND TRIBAL RESOURCES

#### ***Impact 4.5: Cumulative impacts on known and undiscovered cultural resources (Less than Cumulatively Considerable)***

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may result in the discovery and removal of cultural resources, including archaeological, paleontological, historical, and Native American resources and human remains. The proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the risk to resources in the region. As discussed in Section 3.5 (Cultural and Tribal Cultural Resources), each project would require specific surveys for potential resources and the evaluation of any resources discovered during construction activities. Other policies and actions designed to reduce impacts to cultural and tribal cultural resources within the Planning Area and the the region as a whole are also provided in Section 3.5 (Cultural and Tribal Cultural Resources). Adherence to these policies, actions, and regulations will avoid and/or minimize a cumulative loss of these important resources if they are found during project-specific surveys or construction. Therefore, the proposed General Plan's incremental contribution to cumulative cultural resource impacts would be **less than cumulatively considerable**.



## GEOLOGY AND SOILS

***Impact 4.6: Cumulative impacts related to geology and soils (Less than Cumulatively Considerable)***

Construction of future individual development projects allowed under the land use designations of the proposed General Plan will result in risks associated with geology and soils. For example, there is an ongoing possibility that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. Additionally, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Other geologic risks such as soil expansion are also geologic risks that are present.

Geologic impacts are site-specific and not additive in character. However, cumulative geologic impacts associated with erosion and sedimentation could occur in the County as each individual city and community continues to develop over the next 20 years. While some cumulative erosion-related impacts will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the project's contribution to the risk to people in the region. Considering the protection granted by local, State, and Federal agencies and their requirements for seismic design, as discussed in Section 3.6 (Geology and Soils), the overall cumulative impact would not be significant. As a result, the proposed General Plan's incremental contribution to cumulative geologic and soil impacts would be **less than cumulatively considerable**.

## GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

***Impact 4.7: Cumulative impacts related to greenhouse gases, climate change, and energy (Cumulatively Considerable and Significant and Unavoidable)***

Implementation of the General Plan would not directly result in the creation of GHG emissions. However, subsequent future development allowed under the General Plan would result in new projects that would increase GHG emissions in the Planning Area.

As described in Chapter 3.7, future development projects will result in continuous GHG emissions from mobile, area, and operational sources. Mobile sources, including vehicle trips to and from development projects, will result primarily in emissions of CO<sub>2</sub>, with minor emissions of CH<sub>4</sub> and N<sub>2</sub>O. Other significant GHG emission come from natural gas usage and methane. Electricity usage by future development and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the decomposition of waste at landfills coupled with CO<sub>2</sub> emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas inventory for typical development projects.

The effectiveness of efforts by the Tehama County Regional Transportation Plan (RTP) to provide transportation alternatives and to implement policies and strategies consistent with State and national goals of reducing GHG emissions can be measured in terms of reductions in vehicle miles traveled (VMT) or expected growth in VMT. VMT reductions correlate directly with reductions in

GHG emissions. Caltrans reports VMT by County on an annual basis. Tehama County has experienced modest growth in population and employment over the past two decades and is forecast to continue this trend into the future. As described in greater detail in the 2020 Tehama County RTP, although the daily vehicle mileages for the Cities of Red Bluff, Corning, and Tehama have decreased between 5%-25% between 2010 and 2016, the county-wide daily vehicle mileage has increased by 7.5% during the same time period. This indicates that in-town driving has decreased but commuting has increased between communities within and outside of Tehama County. The County will continue to monitor population and employment and VMT growth consistent with the RTP, RTP performance measures, and the County's General Plan policies to track changes in travel demand.

According to the CARB's 2022 Climate Change Scoping Plan, the transportation sector remains the largest source of GHG emissions in the State, accounting for approximately 40% of the inventory (CARB, 2022). A typical passenger vehicle emits approximately 4.6 metric tons of CO<sub>2</sub> per year (U.S. EPA, 2018). This number can vary based on a vehicle's fuel, fuel economy, and the number of miles driven per year.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. GHG emissions are cumulative by nature, given that they spread throughout the atmosphere on a global scale. In determining the significance of a project's contribution to anticipated adverse future conditions, a lead agency should generally undertake a two-step analysis. The first question is whether the *combined* effects from *both* the proposed project *and* other projects would be cumulatively significant. If the agency answers this inquiry in the affirmative, the second question is whether "the project's *incremental* effects are cumulatively considerable" and thus significant in and of themselves. The cumulative project list for this issue (climate change) comprises anthropogenic (i.e., human-made) GHG emissions sources across the globe and no project alone would reasonably be expected to contribute to a noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California have established a statewide context and process for developing an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies consider evaluating the cumulative impacts of GHGs. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and, therefore, significant.

In order to reduce community-wide GHG emissions, the proposed General Plan includes policies and programs that would limit increases to greenhouse gas emissions within the city. These policies and actions are included within various elements of the General Plan as listed at the end of this section.

As described in Chapter 3.7, the General Plan includes policies and actions aimed at reducing GHG throughout the Planning Area and region through promoting energy efficiency, encouraging infill development, encouraging connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance, increasing the accessibility of walking and bicycling,

supporting the creation of electric vehicle charging stations, encouraging employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home, and implementing various strategies to reduce VMT. For example, Policy CIRC-2.3 encourages connectivity and accessibility to a mix of land uses that meet residents' daily needs within walking distance. Separately, Action CIRC 4e requires the City to consider that new developments to incorporate electric vehicle charging in accordance with the California Green Building Standards Code and/or commit to using electric vehicles for a certain percentage of its vehicle fleet.

Overall, General Plan policies and implementing actions would minimize potential impacts associated with GHG emissions in the Planning Area through the promotion of VMT reduction strategies, multimodal support and transportation improvements, and the support of green building practices, among other policies and actions, and would support requirements under AB 32, SB 375 and SB 32. Subsequent development projects will be required to comply with the General Plan and adopted federal, state, and local regulations for the reduction of GHG emissions. The City of has prepared the General Plan to include numerous goals, policies and implementing actions intended to reduce GHG emissions associated with future development and improvement projects. GHG emissions would be minimized through the implementation of the goals, policies, and actions. However, even with implementation of the goals, policies, and actions contained in the proposed General Plan, there is no guarantee that the General Plan alone would be sufficient to limit GHGs to the extent required by AB 32, SB 375, and SB 32 and other federal and state regulations, and a quantitative GHG at the program levels is not feasible. Therefore, out of an abundance of caution, General Plan implementation is considered to have the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact is considered **significant and unavoidable**, and **cumulatively considerable**.

#### HAZARDS AND HAZARDOUS MATERIALS

***Impact 4.8: Cumulative impacts related to hazardous materials and human health risks. (Less than Cumulatively Considerable)***

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may involve the transportation, use, and/or disposal of hazardous materials, which may involve the use of equipment that contains hazardous materials (e.g., solvents and fuels or diesel-fueled equipment), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated. Furthermore, because of the regional nature of the General Plan, some future land uses will inevitably transport or use hazardous materials within ¼ mile of a school, or other sensitive receptors such as hospitals and residences.

New development would inevitably increase the use of some hazardous materials within the region, resulting in potential health and safety effects related to hazardous materials use. Any use

of hazardous materials must be managed in accordance with federal, State, and local (including Tehama County) regulations to minimize any risk.

Hazardous materials incidents, if any, are typically site-specific and involve accidental spills or inadvertent releases. Associated health and safety risks generally are limited to those individuals using the materials or to persons in the immediate vicinity of the materials. Hazard-related impacts tend to be site-specific and project-specific. While some cumulative impacts, such as those associated with increases in the use of hazardous materials in the City associated with additional development, will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the project's contribution to risks to people in the region. Considering the protection granted by local, State, and Federal agencies and their requirements for the use of hazardous materials in the region, as discussed in Section 3.8 (Hazards and Hazardous Materials), the overall cumulative impact for most hazard impacts would not be significant. Therefore, this impact is considered **less than cumulatively considerable**.

### HYDROLOGY AND WATER QUALITY

#### ***Impact 4.9: Cumulative impacts related to hydrology and water quality. (Less than Cumulatively Considerable)***

Construction of the individual development projects allowed under the land use designations of the proposed General Plan has the potential to result in construction-related water quality impacts, impacts to groundwater recharge, and cause flooding, erosion, or siltation from the alteration of drainage patterns. Further, impacts resulting from buildout of the General Plan and potential development of the Planning Area would include substantial grading, site preparation, and an increase in urbanized development. Increased development in the County, including the Planning Area, could contribute to cumulative water quality impacts.

While some cumulative impacts will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will substantially reduce the project's contribution to impacts. Considering the protection granted by local, State, and Federal agencies and their permit and monitoring requirements, as discussed in Section 3.9 (Hydrology and Water Quality), and with implementation of the policies and actions included within the General Plan, the overall cumulative impact would not be significant. As a result, the General Plan's incremental contribution to cumulative hydrology impacts would be **less than cumulatively considerable**.

### LAND USE, POPULATION, AND HOUSING

#### ***Impact 4.10: Cumulative impacts related to local land use, population, and housing (Less than Cumulatively Considerable)***

Cumulative land use and planning impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site and project-specific. It may be determined in the project-specific design phase of a development project that an individual project may require removal of homes and result in the displacement of people and

housing; however, these effects are not cumulatively considerable because there is adequate replacement housing available under the proposed General Plan. Additionally, any removal of homes would require adequate compensation to the homeowner in accordance with Federal and State laws.

The land uses allowed under the proposed General Plan provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas, as well as limited new growth within the Planning Area, but would not create physical division within existing communities. New development and redevelopment projects would be designed to complement the character of existing neighborhoods and provide connectivity between existing development and new development within the cumulative analysis area. The proposed General Plan does not include any new roadways, infrastructure, or other features that would divide existing communities. Moreover, with implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds, or anticipated regional growth. Lastly, General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the proposed General Plan's incremental contribution to cumulative land use and population impacts would be **less than cumulatively considerable**.

#### MINERAL RESOURCES

##### ***Impact 4.11: Cumulative impacts related to mineral resources (Less than Cumulatively Considerable)***

The Planning Area is designated as: MRZ-2a “areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present,” MRZ-2b “areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present,” MRZ-3a “areas containing known mineral occurrences of undetermined mineral resource significance,” MRZ-3b “areas containing inferred mineral occurrences of undetermined mineral resource significance,” and MRZ-4 “areas of no known mineral occurrences where geologic information does not rule out either a presence or absence of significant mineral resources.”

As shown on Figure 3.11-1, mineral resources are present in many areas throughout the Planning Area, with concentrations within historical flood/wash areas, and in areas near the Sacramento River as well as creek tributaries which generally extend north/south along the eastern portion of the Planning Area. Currently many areas within the city are developed with urban uses and are no longer available for mining and extraction activities.

The General Plan update would not directly result in development or approve any development that would lead to the loss of known resource sites. Future development may be included within areas that have identified resources but generally development within the city would be within areas that have been identified and planning for urban type uses, and activities, and as such would

generally not be available for heavy mining and extraction activated due to the proximity to existing sensitive uses. As such, implementation of the proposed General Plan would have a less than significant impact on this environmental topic. Separately, the Planning Area does not contain a locally-important mineral resource recovery sites delineated on a local general plan, specific plan or other land use plan. As a result, the General Plan's incremental contribution to cumulative mineral resource impacts would be **less than cumulatively considerable**.

### NOISE

#### ***Impact 4.12: Cumulative impacts related to noise (Less than Cumulatively Considerable)***

As shown in Tables 3.12-11, the traffic noise increases associated with the proposed General Plan do not exceed the applicable noise exposure criteria. Therefore, the proposed General Plan would have a less than significant, and less than cumulative considerable impact relative to traffic noise.

While the General Plan does not specifically propose any new noise generating uses, the Land Use Map includes land use designations which may result in new noise sources. New projects which may include stationary noise sources such as automotive and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields have the potential to create noise in excess of the City's standards. The General Plan includes policies and actions that are intended to reduce noise associated with stationary sources. Specifically, Policies N 1.3, N 1.6, N 1.10, and N 1.11 would reduce noise associated with stationary sources. Implementation of the proposed policies and actions of the General Plan will reduce noise impacts from stationary noise sources to a less than significant level.

New development, maintenance of roadways, and installation of public utilities and infrastructure generally require construction activities. These activities include the use of heavy equipment and impact tools. Chapter 3.12, Table 3.12-12 provides a list of the types of equipment which may be associated with construction activities, and their associated noise levels. Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction could result in periods of significant ambient noise level increases and the potential for annoyance. However, the proposed General Plan includes policies and actions that are intended to reduce noise associated with construction noise (listed below). Specifically, Policy N 1.3 and Action N-1b would reduce noise associated with construction noise. Implementation of the proposed policies and actions of the General Plan will ensure noise impacts from construction are less than significant.

Therefore, this is considered a **less than cumulatively considerable** impact.

### PUBLIC SERVICES AND RECREATION

#### ***Impact 4.13: Cumulative impacts to public services and recreation (Less than Cumulatively Considerable)***

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As

described in Chapter 2.0, the General Plan is expected to accommodate up to 1,267 new residential dwelling units and up to 767,853 square feet of non-residential building space within the city limits by 2045.

This new growth within the City limits would increase the City's population by up to 3,092 residents and would include approximately 1,396 new jobs. The full development of the new non-residential uses shown in Chapter 2.0 (Project Description), Table 2.0-2.

Development and growth facilitated by the General Plan would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. The General Plan includes policies and actions to ensure that public services are provided at acceptable levels and to ensure that development and growth does not outpace the provision of public services.

Cumulative growth that may occur within Tehama County and other cities within the County over the life of the proposed General Plan will result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. As the demand for public services and recreation increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., offices, maintenance and administrative buildings, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth within the cumulative analysis area.

New public services and recreation facilities will be needed to serve growth contemplated in the General Plan. The environmental effect of providing public services and recreation is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded public facilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate. The General Plan includes a range of policies and actions to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, that new development funds its fair share of services, and that the effects of new development of parks, schools, and other public service facilities are appropriately considered. Payment of applicable impact fees, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the future projects, would ensure that the City maintains acceptable service ratios and that the expansion of public service facilities are adequately funded. The proposed General Plan's incremental contribution to cumulative public services and recreation impacts would be **less than cumulatively considerable**.

### TRANSPORTATION

#### ***Impact 4.14: Cumulative impacts on the transportation network (Significant and Unavoidable and Cumulatively Considerable)***

As discussed in Section 3.14, the implementation of the proposed General Plan would likely contribute to land use development that generates VMT per capita in excess of the levels necessary to meet State GHG reduction goals. Consistent with Action CIRC-4c, the city will require new land use development projects to reduce VMT through feasible CAPCOA on-site VMT reduction strategies. Although larger changes in the proposed General Plan land use element could potentially reduce VMT further, those changes would also affect the achievement of other goals the City seeks to achieve with the General Plan. VMT reduction also depends on factors such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute routes that are not under the City's jurisdiction. Therefore, as described in Chapter 3.14 this impact is considered significant and unavoidable. The feasibility and effectiveness of a local or regional VMT reduction measures is unknown at this time. Therefore, this is considered a **cumulatively considerable and significant and unavoidable impact**.

### UTILITIES

#### ***Impact 4.15: Cumulative impacts related to utilities (Less than Cumulatively Considerable)***

Cumulative growth that would occur within the service areas and will result in increased demand for utility services including water service, sewer service, storm water, and solid waste disposal services.

In general, expanded and new utility infrastructure will be needed to serve growth contemplated in the General Plan. The environmental effect of providing utility services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded facilities and infrastructure associated with utilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

**Water:** The proposed General Plan includes a range of policies and actions designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. Given that projected water demands associated with General Plan buildout would not exceed the projected available water, and that the proposed General Plan includes a comprehensive set of goals, policies and actions to ensure an adequate and reliable source of



clean potable water, to implement water efficiency measures to reduce demand, and to ensure that adequate facilities are available to serve future development.t.

Future projects would be review for adequate service levels and projected water demands associated with General Plan buildout would be included within future master planning documents, and that the proposed General Plan includes a comprehensive set of goals, policies, and actions to ensure an adequate and reliable source of clean potable water. The proposed General Plan's incremental contribution to cumulative solid waste impacts would be **less than cumulatively considerable**.

**Wastewater:** As Red Bluff continues to develop in the future, there will be an increased need for wastewater services. as described in Chapter 3.15 (Utilities) of this DEIR It is anticipated that buildout of the General Plan would result in an increase in total demand for wastewater treatment and service. While full buildout of the proposed General Plan would increase the treatment demand, the proposed General Plan includes a range of policies and actions designed to ensure an adequate wastewater treatment capacity for development. Additionally, the City must also periodically review and update their Master Plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development.

As discussed above, the City's WWTP current treatment capacity is 2.5 mgd but currently treats just over 1.0 mgd. Buildout of the proposed General Plan would generate additional treatment demands, but will not exceed the current 2.5 mgd treatment capacity of the facility.

As described above, the City must also periodically review and update their applicable master plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development.

The proposed General Plan includes goals, policies, and actions to ensure an adequate and reliable wastewater collection and treatment system. The policies and actions listed below would further assist in ensuring that adequate wastewater treatment and conveyance infrastructure is available to serve new growth projected under the proposed General Plan. The proposed General Plan's incremental contribution to cumulative solid waste impacts would be **less than cumulatively considerable**.

**Stormwater:** Development under the proposed General Plan would result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily

provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

With the policies and actions listed in Section 3.15 (Utilities) would ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts. The proposed General Plan's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

**Solid Waste:** The development of future land uses under the proposed General Plan would increase solid waste disposal needs. Future development of projects as contemplated under the proposed General Plan may increase the population within the Planning Area by an additional 3,092 persons. The City of Red Bluff has achieved a disposal rate of 5.3 PPD per resident in 2022. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 16,387.6 pounds per day of solid waste. New potential growth plus existing residents could expect to generate a total of 46.5 tons per day or 16956.9 tons of solid waste per year.

The permitted maximum tons per day allowed at the Tehama County/Red Bluff Landfill is 700-TPD. The landfill has a total capacity of 6,361,000 cubic yards. The remaining capacity of these landfills include 3,023,000 cubic yards of solid waste at the Kiefer Landfill, with an estimated cease operation date of 2046. The addition of solid waste associated with the proposed project to the Kiefer Landfill would not exceed the landfills' remaining capacity. While there are no plans for landfill construction or expansion associated with the proposed General Plan, development of new solid waste disposal facilities could result in environmental effects in areas such as traffic, hydrology, biology, air quality, greenhouse gases, and noise. Any future construction projects in would be required to conduct environmental review pursuant to CEQA prior to approval. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations associated with solid waste. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. In addition, the proposed General Plan includes policies and actions to further reduce the project's impact on solid waste services. The General Plan would not exceed the permitted capacity of the landfill serving the City, and the General Plan complies with regulations related to solid waste. The proposed General Plan's incremental contribution to cumulative solid waste impacts would be **less than cumulatively considerable**.

## WILDFIRE

***Impact 4.16: Cumulative impact related to wildfire (Less than Cumulatively Considerable)***

The proposed General Plan is a policy document that does not include any site specific designs or proposals and does not propose any entitlements for development that would have the potential to impair or conflict with an adopted emergency response or evacuation plan. Any future development projects that would implement the General Plan, including buildout of uses contemplated under the proposed Land Use Map, would be subject to all applicable City regulations, reviews, and requirements pertaining to emergency response, emergency access, and maintaining emergency evacuation routes, as well as further analysis of project-specific impacts.

The General Plan ensures that the City maintains adequate emergency access as well as staffing, training, station locations, emergency response. Important new critical facilities would also be located to ensure resiliency and functionality in the event of a natural disaster. Implementation of the General Plan would have a less than significant impact with regard to this issue.

The General Plan is a policy document that does not include site specific designs or proposals and does not propose any entitlements for development that would have the potential to directly expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Any future development projects that would implement the General Plan including buildout of uses allowed under the proposed Land Use Map would be subject to all applicable City regulations, reviews, and requirements pertaining to emergency response, emergency access, and maintaining emergency evacuation routes, as well as being subject to all applicable building code and fire code requirements as well as further analysis of project-specific impacts for individual development projects as required by CEQA.

Nothing in the General Plan will alter the slope, prevailing winds, or other factors that would increase exposure to residents, employees or visitors to increased pollutant concentrations from wildfire or directly result in the uncontrollable spread of a wildfire.

General Plan implementation would not exacerbate wildfire in due to slope, prevailing winds, and other factors, which would exacerbate wildfire risks; therefore, these impacts would be less than significant. The General Plan includes Policies and Actions related to minimizing wildfire risk and are included below.

The potential for future projects to impact environmental resources to meet compliance with fire development standards such (as fuel breaks and clearance requirements) would require site specific reviews to identify any site-specific impacts. As demonstrated throughout this EIR, implementation of the various policies and actions contained in the General Plan would reduce potential impacts associated with the construction and expansion of infrastructure. Implementation of local and state requirements would ensure that potential wildland fire hazards would not be exacerbated by local infrastructure, and this impact would be considered less than significant.

Development allowed under the General Plan would be required to comply with the applicable provisions of the California Building Code (CBC), and CA Fire Code (CFC). Future developments utility infrastructure would also be subject to the requirements established in the additional Public Resources Code including: Public Resources Code Section 4292, which requires clearing of flammable fuels for a minimum 10-foot radius from the outer circumference of poles and towers; and Public Resources Code Section 4293, which sets basic requirements for clearances around electrical conductors. Furthermore, the future projects would be required to meet vegetation clearance requirements outlined in Title 14, Section 1104.1(d) of the California Code of Regulations for single overhead facilities, and in CPUC General Order 95 requirements for overhead utility lines in high-fire-threat areas. The General Plan includes requirements for adequate water supply and water flow availability, emergency access, fire protection services, fire safe design site standards, and ensuring public awareness regarding safety. All future development projects would be required to be consistent with the standards related to the California Fire Code and would also be subject to CCR and PUC standard outlined above. Furthermore, future projects are not anticipated to remove or impede evacuation routes, and the General Plan does not include land uses, policies, or other components that conflict with adopted emergency response or evacuation plans.

The General Plan is a long-range policy document that does not include site specific designs or proposals, and does not propose any entitlements for development. The majority of all future development would occur within and adjacent to existing developed areas. Implementation of the General Plan policies and actions combined with local and state requirements, as discussed previously, would ensure that potential wildland fire hazards would not be exacerbated by local infrastructure, and this impact would be considered less than significant. Therefore, the proposed General Plan's incremental contribution to cumulative wildfire impacts would be **less than cumulatively considerable**.

## 4.2 GROWTH-INDUCING EFFECTS

### INTRODUCTION

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

*The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.*

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand (*Napa Citizens for Honest Government v. Napa County Board of Supervisors*). Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

The General Plan is a long-term plan intended to accommodate projected population, housing, and employment growth, including the appropriate balance among these factors with the necessary public services and infrastructure. The proposed General Plan would serve as a comprehensive, long-term plan for the physical development of Red Bluff. Projected growth is described in Section

3.10 (Land Use, Population, and Housing), and the environmental consequences related to the potential growth are fully assessed in each relevant topical section (Chapters 3.1 through 3.16) of this DEIR. By definition, the proposed General Plan is intended to provide for and address future growth in the City.

Because the proposed General Plan provides a framework for development through its Land Use Map, land use designations, goals, policies, and actions, it would directly induce population and employment growth in the Planning Area by designating land for development that is more intense, in some instances, than current designations allow. The analysis of the indirect growth-inducing impacts for the proposed General Plan focuses on the following factors: inducement of unanticipated population growth; encouragement of economic growth that leads to jobs and housing growth; elimination of obstacles to population growth; and resulting service, facility, or infrastructure demands in excess of existing and planned growth.

The proposed General Plan accommodates future growth in Red Bluff, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to accommodate future growth. The General Plan would encourage development of a broader array of businesses, increasing local employment opportunities, and providing residential development as necessary to serve economic growth. The cumulative development scenario addressed in this Draft EIR is the projected development that could occur within the existing city limits and the Planning Area over a 20 year planning horizon.

As shown in Table 2.0-2, the General Plan by 2045 would be anticipated to result in up to 1,267 dwelling units accommodating an additional 3,092 residents, and an additional 1,396 jobs. Depending on growth rates, the actual growth during the life of the General Plan could vary, but would not be expected to exceed the theoretical buildout described in Chapter 2.0.

Given the historical and current population, housing, and employment trends, growth in the City, as well as the entire state, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth during the planning period of the proposed General Plan, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan, new roads, infrastructure, and services would be necessary to serve the development and this infrastructure would accommodate planned growth. However, growth under the proposed General Plan would remain within the general growth levels projected statewide and would not be anticipated to exceed any applicable growth projections or limitations that have been adopted to avoid an environmental effect. The proposed General Plan is intended to accommodate the City's fair share of statewide housing needs, based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every five to eight years).

The proposed General Plan includes policies and actions that minimize environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality. Additionally, this Draft EIR identifies General Plan policies and actions, where appropriate, that would serve to reduce or eliminate potentially significant impacts associated with specific environmental issues associated with growth. Chapters 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan.

With implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact.

### 4.3 SIGNIFICANT IRREVERSIBLE AND ADVERSE EFFECTS

#### LEGAL CONSIDERATIONS

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CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), requires that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

#### **Consumption of Nonrenewable Resources**

Consumption of nonrenewable resources refers to the loss of physical features within the natural environment, including the conversion of agricultural lands, loss of access to mining reserves, and nonrenewable energy use. The Planning Area has nonrenewable resources, including biological resources, water resources, and agricultural resources.

One of the objectives of the proposed General Plan is to establish a long-term plan for conservation of resources and future growth and development. Many of the policies and actions aimed at conserving resources are contained within the Resource Conservation Element, and have been identified throughout this EIR. As a result, the proposed General Plan will minimize the potential for impacts to the nonrenewable resources in the Planning Area, including biological resources, water resources, and agricultural resources, to the greatest extent feasible. More detailed and focused discussions of potential impacts to these nonrenewable resources are contained throughout this Draft EIR.

#### **Irretrievable Commitments/Irreversible Physical Changes**

Implementation of the proposed General Plan would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with the General Plan would result in irretrievable commitments by introducing development onto sites that are presently undeveloped.



The conversion of undeveloped lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for development and infrastructure installation associated with uses envisioned by the proposed General Plan. Buildout of the proposed General Plan would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing operation and life of the uses accommodated by the proposed General Plan. The introduction of new residential, commercial, industrial, recreational, and other uses to the Planning Area will result in an increase energy demand associated with building operations, vehicle travel, equipment operation, and other activities. Fossil fuels are the principal source of energy and the Project will increase consumption of available supplies, including gasoline and diesel fuel, and natural gas. These energy resource demands relate to initial construction, operation, maintenance and the transport of people and goods to and from the Planning Area that would occur with implementation of the proposed General Plan.

Additionally, development will physically change the environment in terms of aesthetics, air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, the proposed General Plan would result in changes in land use within the Planning Area that would commit future generations to these uses.

### **Irreversible Damage**

The General Plan does not involve uses in which irreversible damage could result from any potential environmental accidents associated with future buildout of the Planning Area. Future development, infrastructure, and other projects allowed under the General Plan may involve the transportation, use, and/or disposal of hazardous materials. However, potential environmental accidents would not result in irreversible damage because the future uses in the Planning Area would be subject to applicable requirements of Federal, State, and local regulations and policies. Additionally, hazardous materials are typically used in industrial, and commercial uses, as well as residential uses. Future uses may involve the transport and disposal of such materials from time to time. Future activities may involve equipment or construction activities that use hazardous materials (e.g., coatings, solvents and fuels, and diesel-fueled equipment), cleanup of sites with known hazardous materials, the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated, or disposal of contaminated materials at an approved disposal site. While hazardous materials may be associated with industrial activities, hazardous materials may also be associated with the regular cleaning and maintenance of residential and other less intense uses.

The General Plan does not propose or approve any uses that are would cause irreversible damage.

### **Phased Consumption of Resources**

Buildout of the General Plan would use energy resources for the operation of buildings (electricity and natural gas), for on-road vehicle trips (e.g., gasoline and diesel fuel), and from off-road construction activities (e.g., diesel fuel) associated with buildout of the General Plan. Each of these activities would require the use of energy resources. Buildout would also require commitment of other resources, as discussed above. Developers of individual projects within the Planning Area would be responsible for conserving energy, to the extent feasible, and would rely heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures. Additionally, developers would have to comply with proposed General Plan policies and implementing actions that reduce energy usage, promote renewable and/or alternative energy sources, and encourage pedestrian/bicycle modes of transportation.

Buildout of the General Plan would be in compliance with all applicable federal, state, and local regulations regulating energy usage. For example, PG&E and other utility providers are responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide RPS to increase the proportion of renewable energy (e.g., solar and wind) within its energy portfolio. PG&E is expected to achieve at least 60% renewables by 2030, and 100 percent zero-carbon electricity by 2045 (in compliance with SB 100). Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards (“part 6”), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Furthermore, additional project-specific sustainability features individual development projects could further energy consumption of individual projects.

PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the Planning Area. The City of Red Bluff would comply with all existing energy standards in implementing the General Plan project, and would not result in significant adverse impacts on energy resources.

### **MANDATORY FINDINGS OF SIGNIFICANCE**

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CEQA Guidelines Section 15065 states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” Cumulative impacts are addressed previously in Section 4.1 for each of the environmental topics.

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the

potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. These impacts are discussed below.

Additionally, as required by CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. These impacts are discussed below.

### **Substantial Adverse Effects on Fish, Wildlife, and Plant Species**

Section 3.4 (Biological Resources) of this Draft EIR fully addresses any impacts that might relate to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species as a result of project implementation. As described throughout the analysis in this Draft EIR, the proposed General Plan would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment. As described in greater detail in Section 3.4 (Biological Resources) General Plan impacts related to plant and animal species would be minimized through implementation of policies and implementation actions provided in the City's General Plan as well as through adherence to state and federal regulations. Therefore, this is considered a **less than significant** impact.

### **Substantial Adverse Effects on Human Beings**

While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services and recreation, transportation, utilities, and climate change, which are addressed in Section 3.3 (Air Quality), Section 3.6 (Geology and Soils), Section 3.8 (Hazards and Hazardous Materials), Section 3.9 (Hydrology and Water Quality), Section 3.12 (Noise), Section 3.10 (Land Use, Population and Housing), Section 3.13 (Public Service and Recreation), Section 3.14 (Transportation and Circulation), Section 3.15 (Utilities), and Section 3.7 (Greenhouse Gases, Climate Change and Energy). As described throughout the analysis of this Draft EIR, the proposed General Plan reduces environmental effects including effects that directly and indirectly impact humans through implementation of goals, policies and implementation actions provided in the City's General Plan. However, several environmental impacts would still be considered significant and unavoidable (listed below in Section 4.6). However, the proposed General Plan would create new development that would increase overall criteria air pollutant emissions within the City of Red Bluff, due to an increase in vehicle trips in the City in the cumulative year 2045 buildout scenario. These impacts to air quality may cause substantial adverse effects on humans and the way humans interact with their environment. Therefore, this is considered a **significant and unavoidable** impact.

### ***Impact 4.17: Irreversible and adverse effects (Significant and Unavoidable)***

In summary, the proposed General Plan includes an extensive policy framework that is designed to address land use and environmental issues to the greatest extent feasible, while allowing growth and economic prosperity for the City. However, even with the policies and actions that will serve to reduce potential significant impacts, the proposed General Plan will result in significant irreversible changes and has the potential to result in adverse effects as described above. This impact is considered a ***significant and unavoidable*** impact under CEQA.

## 4.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the General Plan are discussed in Sections 3.2, 3.3, 3.7, 3.14, and previously in this chapter (cumulative-level). Refer to those discussions for further details and analysis of the significant and unavoidable impacts identified below:

- **Impact 3.2-1:** General Plan Implementation would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use
- **Impact 3.2-2:** General Plan Implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract
- **Impact 3.3-1:** General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants
- **Impact 3.7-1:** General Plan implementation has the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases
- **Impact 3.14-1:** General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
- **Impact 4.2:** Cumulative impact to agricultural lands and resources
- **Impact 4.3:** Cumulative impact on the region's air quality
- **Impact 4.7:** Cumulative impacts related to greenhouse gases, climate change, and energy
- **Impact 4.14:** Cumulative impacts on the transportation network
- **Impact 4.17:** Irreversible and adverse effects

## 5.1 CEQA REQUIREMENTS

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all of the project objectives while potentially reducing or avoiding one or more environmental effects of the project. The range of alternatives required in an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6(f)). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must “set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a “range of reasonable alternatives” and, thus limit the number and type of alternatives that need to be evaluated in an EIR. An EIR need not include any action alternatives inconsistent with the lead agency’s fundamental underlying purpose in proposing a project. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1166.)

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, “feasible” is defined as:

*... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.* (CEQA Guidelines 15364)

## 5.2 ALTERNATIVES CONSIDERED IN THIS EIR

### FACTORS GUIDING SELECTION OF ALTERNATIVES

A Notice of Preparation was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed project. During the NOP comment period the CDFW recommends the DEIR provide alternatives that would not result in conversion of, or encroachment upon, sensitive habitats and/or open space lands. No other specific alternatives were recommended by commenting agencies or the general public during the NOP public review and comment period.

The alternatives to the General Plan Update selected for analysis in the EIR were developed to minimize significant environmental impacts while fulfilling the basic objectives of the project, and address public and elected officials’ input with respect to potential land use and growth scenarios that may be appropriate for consideration as part of the General Plan Update. Significant impacts are summarized in Chapter 4.0 and described in greater detail in Sections 3.1 through 3.16.

As described in Chapter 2.0 (Project Description), the following objectives have been identified for the proposed project:

- Foster a sense of community unique to Red Bluff that celebrates the area's history, neighborhood connections, and family-friendly atmosphere;
- Support local businesses and provide opportunities for economic advancement;
- Attract and retain businesses and industries that provide high-quality jobs;
- Provide a range of high-quality housing options;
- Protect the City's natural and cultural resources;
- Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
- Address new requirements of State law; and
- Address emerging transportation, housing, and employment trends.

### SIGNIFICANT AND UNAVOIDABLE IMPACTS

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The proposed General Plan Update would result in the following significant and unavoidable impacts, which are described in Sections 3.2, 3.3, 3.7, 3.14, and Chapter 4.0:

- **Impact 3.2-1:** General Plan Implementation would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use
- **Impact 3.2-2:** General Plan Implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract
- **Impact 3.3-1:** General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants
- **Impact 3.7-1:** General Plan implementation has the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases
- **Impact 3.14-1:** General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
- **Impact 4.2:** Cumulative impact to agricultural lands and resources
- **Impact 4.3:** Cumulative impact on the region's air quality
- **Impact 4.7:** Cumulative impacts related to greenhouse gases, climate change, and energy
- **Impact 4.14:** Cumulative impacts on the transportation network
- **Impact 4.17:** Irreversible and adverse effects

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## ALTERNATIVES TO THE GENERAL PLAN UPDATE

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Three alternatives to the General Plan Update were considered based on the analysis performed to identify the environmental effects of the proposed project. Since the General Plan Update was prepared with the intent to be a self-mitigating document, project alternatives focused on amending land uses and standards to potentially address impacts. The alternatives analyzed in this EIR include the following:

- **Alternative 1: No Project Alternative.** Under Alternative 1, the City would not adopt the General Plan Update. The existing Red Bluff General Plan would continue to be implemented and no changes to the General Plan, including the Land Use Map, Circulation Diagram, goals, policies, or actions would occur. Subsequent projects, such as amending the Municipal Code (including the zoning map) would not occur. The Existing General Plan Land Use Map is shown on Figure 5.0-1.
- **Alternative 2: Modified Project Alternative.** Under Alternative 2, the City would adopt the updated General Plan policy document, but would retain the existing land use map. This alternative would result in the same growth as the existing General Plan (Alternative 1), but would implement the updated goals, policies, and actions found in the General Plan Update. This alternative would carry forward the county designations within the SOI and for the purposes of analysis it is assumed that this alternative would result in a reduction in development would result due to project implementation, and that existing growth rates would continue. The Existing General Plan Land Use Map is shown on Figure 5.0-1. This Alternative would result in less residential and non-residential growth when compared to the proposed Project. This alternative was developed to potentially reduce the severity of significant impacts associated with overall VMT, as well as the potential further reduction in less than significant impacts related to aesthetics.
- **Alternative 3: Agriculture Protection Alternative.** Alternative 3 provides for development focused within areas of the city and SOI that are not identified as important agricultural lands. Under this alternative, the proposed Project would be developed in such a way as to protect lands currently identified as prime farmland, farmland of statewide importance, and unique farmland generally located in the eastern and southern portions of the SOI. For the purposes of this analysis it is assumed that future development buildout would exclude development on lands identified by the Department of Conservation as important farmlands (these lands are identified in Chapter 3.2 (Agricultural) of this report. This alternative was developed to reduce the severity of significant impacts associated with agricultural resources identified in Chapter 3.2. This alternative was developed to reduce impacts to agricultural resources and also to promote open spaces and conserve foraging habitat for local species.

A summary of the growth projections, including population growth, housing units, jobs, and the job/housing balance for the Project and each Alternative is shown in Table 5.0-1. As shown in Table 5.0-1, the proposed General Plan by 2045 would be anticipated to result in up to 1,267 dwelling units accommodating an additional 3,092 residents, and an additional 1,396 jobs.

## 5.0 ALTERNATIVES

**TABLE 5.0-1: GROWTH PROJECTIONS BY ALTERNATIVE**

ALTERNATIVE	POPULATION	DWELLING UNITS	NON-RESIDENTIAL SQUARE FEET OF DEVELOPMENT	JOBS	JOBS PER HOUSING UNIT
<i>EXISTING CONDITIONS</i>					
	14,439	6,126	3,585,356	6,542	1.068
<i>NEW GROWTH</i>					
Proposed General Plan	3,092	1,267	767,853	1,396	1.10
Alternative 1: Existing General Plan/No Project	968	397	240,385	437	1.10
Alternative 2: Modified Project Alternative	968	397	240,385	437	1.10
Alternative 3: Agriculture Protection Alternative	1,998	819	496,031	902	1.101
<i>TOTAL BUILDOUT GROWTH: EXISTING PLUS NEW GROWTH</i>					
Proposed General Plan	17,531	7,393	4,353,209	7,938	1.07
Alternative 1: Existing General Plan/No Project	15,407	6,523	3,825,741	6,979	1.07
Alternative 2: Modified Project Alternative	15,407	6,523	3,825,741	6,979	1.07
Alternative 3: Agriculture Protection Alternative	16,437	6,945	4,081,387	7,443	1.072

SOURCES: COUNTY ASSESSOR 2023; CALIFORNIA DEPARTMENT OF FINANCE 2023; U.S CENSUS ONTheMAP; ESRI 2023, DE NOVO PLANNING GROUP 2024.

Growth projections should not be considered a precise prediction for growth, as the actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City's control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors. Additionally, it should be noted that historic growth rates have been much lower than the total growth allowed under the General Plan. Furthermore, it should be noted that the California Department of Finance (DoF), and Caltrans projections see a long term reduction in population countywide through 2050.

The primary difference between the proposed General Plan and Alternative 2 is the Land Use Maps associated with each of these alternatives while the primary difference between the proposed General Plan and Alternative 3 is the assumption of an infill development focus to protect agricultural lands within the eastern portions of the SOI. The goals, policies, and actions contained in the proposed General Plan would also apply and be implemented under Alternatives 2 and 3. Therefore, changes to the Land Use Map and growth focus are the only variables that may increase or decrease the severity of one or more of the significant environmental impacts identified in this Draft EIR.



Throughout the preparation of the General Plan Update, the City, and community all expressed a desire and commitment to ensuring that the General Plan not only reflect the community's values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To further this goal of crafting a self-mitigating General Plan, the environmental analysis contained in this Draft EIR was completed concurrently with the development of the General Plan elements and Land Use Map in order to foster informed decision making regarding the Land Use Map and the General Plan goals, policies, and actions as they were being developed. As the Land Use Map was crafted, refined, and revised throughout the course of the General Plan Update, changes were made on a continuous basis in order to incrementally and substantially reduce potentially significant environmental impacts that were identified. The result of this approach and this process is a proposed General Plan Land Use Map that has reduced potentially significant impacts to the environment, while still meeting the project objectives identified.

### ALTERNATIVE 1 - NO PROJECT

Under Alternative 1, the City would continue to implement the existing General Plan and no changes would be made to address updated General Plan Guidelines, or the requirements of State law. Since adoption of the existing General Plan, State legislation has been passed requiring the City to address new safety and circulation requirements in the General Plan and to further address greenhouse gas emissions. The General Plan goals, policies, and actions, as well as the Land Use Map, would not be updated to address the vision and concerns of the City's residents, decision-makers, and other stakeholders that participated in the visioning and goal and policy development process.

Alternative 1 would result in the continuation of existing conditions and development levels. New growth would be allowed as envisioned under the existing General Plan, with land uses required to be consistent with the existing General Plan Land Use Map. Table 5.0-2 shows the acreages of each land use designation for the existing General Plan Land Use Map. Planned land uses within the city include single and multiple family residential, commercial, industrial, public service, and undesignated land uses identified by the City's Land Use Map.

**Table 5.0-2: Alternative 1 (Existing General Plan Land Use Designations)**

Land Use	Total Planning Area Acreage	Percent of Planning Area
<b>Red Bluff City Limits</b>		
C: Commercial	611.61	4.9%
I: Industrial	570.58	4.5%
Undesignated	5.01	0.0%
PS: Public Service	916.28	7.3%
R-L: Residential - Low Density	1,590.23	12.6%
R-M: Residential - Medium Density	447.07	4.9%
<b>Total City Limits</b>	<b>4,140.79</b>	<b>32.9%</b>
<b>Red Bluff SOI*</b>		
Undesignated	8,447.26	100%
Total	8,447.26	100%
<b>Total SOI</b>	<b>8,447.26</b>	<b>67.1%</b>
<b>Grand Total - City Limits and SOI</b>	<b>12,588.05</b>	<b>100%</b>

\*NOTE: THE RED BLUFF SOI INCLUDES TEHAMA COUNTY'S LAND USE DESIGNATIONS. THE CITY OF RED BLUFF HAS NOT ASSIGNED LAND USE DESIGNATIONS TO ITS SOI.

SOURCES: TEHAMA COUNTY, 2021; GIS LAND USE DATA FILE; DE NOVO PLANNING GROUP, 2021.

This alternative would carry forward the County designations within the SOI, and for the purposed of analysis it is assumes that existing growth levels would continue and would result in a reduction in development due to project implementation.

As shown in Table 5.0-2, Alternative 1 would provide for reduced acres of residential land uses and would not include new land uses such as mixed-uses used included in the proposed General Plan's land use map (See Chapter 2.0 Project Description).

As shown in Table 5.0-1, Alternative 1 would result in increased housing and job growth within the city limits when compared to existing conditions, but less overall growth than the proposed Project.

Under Alternative 1 at full buildout, there would be an increase over existing conditions in residential growth (approximately 968 residents) and jobs (approximately 437 jobs) within the Planning Area. Under cumulative conditions, development in Planning Area combined under Alternative 1 would result in a population of 15,407 and 6,979 jobs. Under Alternative 1, the existing General Plan policy framework would still be in effect, which would constitute a status quo approach to land use regulation in the City. The Proposed Land Use Map, along with the policy framework proposed by the General Plan Update, encourages and aims to achieve a community with a balanced land use pattern that meets the City's long-term housing, employment, and civic needs. The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection.

Alternative 1 would not include updated policies, particularly those related to additional housing opportunities, greenhouse gases, community health, environmental justice, and mobility for all roadway users, as required by State law. This alternative would not include various policies proposed in the General Plan update to ensure protection of environmental resources, both at a project level and under cumulative conditions, consistent with the objectives of CEQA.

Alternative 1 fails to meet several of the basic General Plan objectives, including: Establishing a greater connection between the General Plan and current planning issues; and addressing new requirements of State law.

Therefore, Alternative 1 (No Project) is rejected from further consideration as a CEQA alternative, as it fails to meet several of the Project objectives. However, for reference, the environmental effects associated with Alternative 1 are discussed and summarized in Table 5.0-3 to provide a general comparison between the adopted General Plan (Alternative 1 – No Project), the proposed project, and Alternatives 2 and 3.

### ALTERNATIVE 2 – MODIFIED PROJECT ALTERNATIVE

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Under Alternative 2, the City would adopt the updated General Plan policy document, including the revised goals, policies, and actions; however, the City would retain the existing land use map and land use standards. Alternative 2 would result in less residential and nonresidential growth than the proposed General Plan, and Alternative 3, but it would result in the same growth as Alternative 1 as they would retain the same land use map. Land use designations for the existing land use map are summarized in Table 5.0-2.

This alternative would carry forward the County designations within the SOI and for the purposed of analysis it is assumed that this would also result in a reduction in development due to project implementation, and growth would be consistent with 20-year historic rates of growth.

The goals, policies, and actions of the General Plan Update would apply to subsequent development, planning, and infrastructure projects under this alternative.

As shown previously in Table 5.0-1, Alternative 2 would result in fewer housing units and fewer residents within the city when compared to the proposed General Plan Land Use Map, and Alternative 3. Employment opportunities would also be decreased under this alternative when compared to the proposed Project.

### ALTERNATIVE 3 – AGRICULTURE PROTECTION ALTERNATIVE

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Alternative 3 - Agriculture Protection Alternative provides jobs-creating and residential development land uses. However, under this alternative, the land use map would be developed in a way to protect lands currently identified as important farmlands including prime farmland and farmland of statewide importance, and unique farmlands, by reducing the overall footprint of the developable areas within the SOI, and focus development on infill development. For the purposed of this analysis it is assumed that future development would exclude land areas within the SOI that are identified as important farmlands as identified in Chapter 3.2 (Agricultural Resources Figure 3.2-1: Important Farmlands). This Alternative would result in less overall developable area when compared to the proposed Project, and would result in a reduced rate of housing and jobs within the city (as shown in Table 5.0-1).

### 5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-3 summarizes the comparative effects of each alternative.

#### **Aesthetics**

As described in Chapter 3.1 (Aesthetics and Visual Resources) impacts related to Aesthetics were found be less than significant. Project Alternatives 1 and 2 would result in similar development types and patterns when compared to the Proposed Project; however, Alternatives 1 and 2 would result in less overall development. Alternative 3 would result in increased land conservation when compared to the proposed project which could provide for additional areas of visual relive depending on vantage points, although Alternative 3 would result in an overall increase in development when compared to Alternative 1 and 2 as those alternatives retain the existing land use maps. The reduced development potential under Alternative 3 as compared to the Proposed General plan would likely result in decreased building intensities in the Planning Areas SOI. Red Bluff has prepared the proposed General Plan to include numerous policies and actions related to land use compatibility and community design to maintain and enhance the Planning Area's appearance and function. Specifically, the policies and actions are intended to protect and preserve visual resources, including ensuring appropriate transitions between land uses to preserve the community's harmonious character within the Planning Area.

Maximum densities, building intensities and developable areas under Alternative 1 and 2 would be the same and would result in reduced visual impacts when compared to the proposed Project. Aesthetic impacts would generally be the same under these alternatives, however visual impacts would also be slightly reduced under Alternative 3 when compared to the Proposed General Plan due to additional conservation of lands outside the city limits. Additionally, Alternative 2 includes adoption of the updated policy document, which includes numerous policies and actions to preserve and protect visual resources. Therefore, Alternative 2 would be superior to the No Project Alternative (Alternative 1).

#### **Agriculture and Forest Resources**

As described in Chapter 3.2, impacts related to Agricultural Resources were found be significant. There are agricultural lands identified by the CA Department Conservation's Farmland Mapping and Monitoring Program within the Planning Area. Furthermore, there are lands within the Planning Area that are currently under a Williamson Act contract.

There are no forest lands or timber lands located within the Planning Area.

Other than Alternative 3, this impact would remain significant under all other Alternatives. All Project Alternatives would result in general plan land use designations that would result in development patterns that impact agricultural resources. However, the reduced footprint of development and its impact to agricultural resources, and through the protection of important farmlands under Alternative 3 impacts to agricultural resources would be reduced when

compared to all other alternatives. The impact level under all other alternative scenarios would remain roughly similar, however the additional lands and intensities designated for development under the Proposed General Plan would be greater than under the existing General Plan's Land Use Map. Therefore Alternatives 1 and 2 would have slightly reduced impacts to agricultural resources when compared to the proposed Project.

### **Air Quality**

As described in Chapter 3.3 (Air Quality) Impact 3.3-1, the proposed General Plan implementation would result in significant impact to air quality.

As further described in Chapter 3.3, policies and actions included in the proposed General Plan would further the fundamental goals of reducing emissions of criteria pollutants associated with reducing building energy usage, and would increase opportunities for alternative transit in the city and the surrounding areas. The General Plan policies and actions that would work to further criteria pollutant emissions reductions, including reviewing projects for conformance with applicable air quality plans and regulations, reducing energy demands, and implementing methods to reduce vehicle miles traveled. However, even with implementation of the General Plan policies and actions that would reduce criteria pollutant emissions, the proposed General Plan would increase VMT.

Under Alternative 2, the Planning Area would be developed with the existing General Plan Land Use Map, but would be required to adhere to the same policy guidance and local, state, and regional air quality measures as the Proposed General Plan. Buildout of the Existing General Plan and Alternative 2 would result in fewer housing units, fewer residents, and fewer jobs within Red Bluff when compared to the proposed General Plan Land Use Map. Additionally Alternative 3 would result in the less overall development footprint when compared to the proposed Project but would result in slightly more overall development when compared to Alternative 2. Additionally, a decrease in total residential unit count, population, and jobs may also decrease the total air quality emissions and overall VMT. As such, the air quality impact is increased slightly under the Proposed General Plan when compared to all other alternatives. However, the Proposed General Plan's updated policy document, includes a range of goals and policies that would reduce air quality and toxic air contaminant emissions. As such, the air quality impacts may increase slightly under Alternative 1 and decrease slightly under Alternative 2 when compared to the proposed General Plan. Moreover, when compared to the proposed Project, Alternative 3 impacts would be roughly similar when compared to the proposed General Plan.

### **Biological Resources**

There are various biological resources, including habitat, that occurs throughout the region. As described in Chapter 3.4 (Biological Resources) General Plan implementation would result in less than significant impacts to biological resources. Approval of the General Plan would not directly approve or entitle any development or infrastructure projects. However, implementation of the General Plan and existing Land Use Map would allow and facilitate future development in Red Bluff, which could result in adverse impacts to special-status plant and wildlife species, as well as sensitive natural habitat or wildlife movement corridors. Subsequent development projects will

be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of special status plants and animals, including habitat. The City of Red Bluff has prepared the proposed General Plan to include numerous policies and actions (as described in Chapter 3.4 of this DEIR) intended to protect special status plants and animals, including habitat, from adverse effects associated with future development and improvement projects.

Alternatives 1 and 2 would result in similar development patterns, while Alternative 3 would result in the most agriculture land conserved for agricultural uses which may provide additional habitat and foraging opportunities within the Planning Area. The proposed General Plan and Alternatives 2 and 3 would also include updated biological policies and actions aimed at protecting biological resources (as described in detail in Chapter 3.4). Therefore, impacts to biological resources under Alternatives 2 and 3 would be slightly reduced when compared to the proposed General Plan and Alternative 1. Additionally, because Alternative 2 result in the least development potential, and would update the biological resource policies consistent with the Proposed General Plan, impacts to biological resources would be slightly reduced when compared to the Alternative 3 and the No Project Alternative, which does not include an updated policy document.

### **Cultural and Tribal Cultural Resources**

As described in Chapter 3.5 (Cultural and Tribal Cultural Resources) General Plan implementation would result in less than significant impacts to cultural and tribal cultural resources.

The proposed Project and Alternatives 1, 2, and 3 would result in similar development patterns and a similar development footprint. However, Alternatives 1 and 2 result in less overall development capacity, and Alternative 3 would include additional preservation of agricultural lands within the SOI.

Because Alternatives 2 and 3 would update cultural resource policies to include new policies and actions related to agency coordination, consultation, and monitoring consistent with the proposed General Plan Policy Document, impacts to cultural resources would be slightly reduced when compared to the No Project Alternative which does not include additional and updated policies related to cultural resources.

### **Greenhouse Gas Emissions and Energy**

As described in Chapter 3.7 (Greenhouse Gas Emissions and Energy) Impact 3.7-1, the proposed General Plan would result in significant impacts to Greenhouse Gases.

As further described in Chapter 3.7, even with implementation of the General Plan policies and actions that would reduce emissions, the proposed General Plan would increase overall VMT.

As stated in Chapter 3.7, the proposed General Plan includes a range of goals and policies that would reduce GHG emissions associated with future development and improvement projects. Under Alternative 2, the Planning Area would be developed with the existing General Plan Land Use Map, but would be required to adhere to the same policy guidance and local, state, and regional greenhouse gas measures as the Proposed General Plan. Buildout of Alternatives 1 and

2 would result in fewer housing units, residents, and jobs within the city when compared to the proposed General Plan Land Use Map, while Alternative 3 would result in the least overall levels of development. The decrease in total residential unit count and population may decrease the total greenhouse gas emissions and energy use. As such, the greenhouse gas emissions impact is increased slightly under the proposed General Plan when compared to Alternatives 2 and 3. Moreover, when compared to Alternative 1 (No Project), the Proposed General Plan, Alternative 2 and Alternative 3 all include a range of goals and policies that would reduce GHG emissions, including policies to encourage mixed-use development, complete streets and multi modal improvements that would further reduce per capita GHG impacts. Therefore, when compared to Alternative 1 (No Project), Alternatives 2 and 3 and the proposed General Plan would be slightly superior.

### **Geology**

As described in Chapter 3.6 (Geology), the proposed General Plan would result in less than significant impacts to Geology and Soils. All alternatives would result in similar development patterns. The proposed General Plan and Alternatives 2 and 3 would also include updated policies related to geologic hazards, including requirements for project reviews and standards for construction and building practices (as described in detail in Chapter 3.6).

All future projects within the Planning Area will be required to comply with state laws including the preparation of stormwater plans, and compliance with the provisions of the California Building Standards Code (CBSC), which requires development projects to perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues, and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. However, impacts related to Geology and Soils would generally similar the same under all alternatives, although the reduced development footprint under Alternative 2 may slightly reduce these impacts. Additionally, the updated policy document provides for additional policies and action related to geologic hazards and safety when compared to the existing General Plan, therefore the proposed General Plan and Alternatives 2 and 3 would be considered to be slightly superior to the Alternative 1.

### **Hazards and Hazardous Materials**

As described in Chapter 3.8 (Hazards and Hazardous Materials), all impacts related to hazards and hazardous materials were found to be less than significant. The proposed General Plan and Alternative 2 and 3 would include updated policies and actions aimed at protecting the public from hazardous materials. These policies and actions in the General Plan would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. The proposed General Plan also includes policies and actions to ensure that the City has adequate emergency response plans and measures



to respond in the event of an accidental release of a hazardous substance. (as described in detail in Chapter 3.8).

All Project Alternatives would result in additional developed uses including commercial, industrial, residential, and mixed-use and public facility development. The impacts under all scenarios would remain similar, however, impacts to hazards and hazardous materials would be slightly reduced under Alternative 2 when compared to the proposed project due to reduced development and growth. Additionally, Alternative 3 would result in some land conservation that may have the potential for additional exposure to agrochemicals when compared to the proposed Project due to adjacent agricultural lands. Because Alternative 1 does not include the adoption of the updated General Plan policy document which included additional policies and actions related to hazardous materials safety and review requirements, and emergency response this alternative is considered inferior to all other alternatives.

### **Hydrology and Water Quality**

As described in Chapter 3.9 (Hydrology and Water Quality), under all impact areas, implementation of the proposed General Plan would result in less than significant impacts related to Hydrology and Water Quality.

All of the alternatives generally would allow development to occur in a manner similar to the proposed General Plan, where flood control and water quality protection measures are well established and enforced. This variation in intensity and land use designation changes would not substantially alter impacts from or to flooding, water quality, or on groundwater supplies because existing federal, State, and local regulations would apply to guard against flood hazards, water quality contamination, or impact on groundwater supplies. Impact for each alternative, like the proposed project, would be less than significant.

Alternative 2 and Alternative 1 (No Project) would result in development of the existing General Plan Land Use Map, which results in the least number of housing units and non-residential square feet when compared to the proposed General Plan and Alternative 3. Compared to the proposed General Plan, the potential water quality impacts related to construction and operation would be similar. As described in Chapter 3.9, General Plan implementation would not result in construction, or long-term impacts to surface water quality from urban stormwater runoff. All alternatives would also be required to submit a SWPPP with BMPs to the RWQCB and comply with all storm water sewer system (MS4) requirements. It would be expected that impacts related to water quality would be similar under Alternative 3 as compared to the Proposed General Plan. The implementation of the General Plan policies and actions which includes policies aimed to enhance stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure off-site runoff is not increased as a beyond pre-development levels would not be updated and included under Alternative 1 as this alternative does not include an update to the General Plan Policy Document to include updated policies related to permeable surfaces onsite detention, and infiltration. Therefore, this impact under the No-Project Alternative may be slightly increased when compared to all other alternatives. Additionally, Because Alternative 2 would

result in the least land disturbance and the most permeable lands Alternative 2 would be superior to all other alternatives.

### **Land Use Planning and Population/Housing**

The proposed General Plan is a long-range land use plan. As described in Chapter 3.10 (Land Use, Population, and Housing) all impacts related to land use, population, and housing were found to be less than significant under the Proposed General Plan. As described previously, the proposed General Plan and Alternatives 2 and 3 would include adoption of the updated policy document consistent with the Proposed General Plan. Therefore, Alternatives 2 and 3 would also result in the same impact level as the proposed General Plan. Additionally, the amount and typology of allowable development under the Proposed General Plan, has been crafted to help assist Red Bluff to meet the City's Regional Housing Needs Allocation (RHNA) and future housing needs, and comply with State law. Because the No Project Alternative retains the existing General Plan Land Use Map, and policy document it would result in less consistency with pertinent state and regional plans relative to the proposed General Plan and Alternative 3 in terms of the Plan's ability to meet housing needs. All alternatives would provide greater consistency with applicable state and regional plans than the No Project Alternative, due to the proposed Project and Alternatives 2 and 3 adopting the updated General Plan policy document.

### **Mineral Resources**

As described in Chapter 3.11, the proposed General Plan would result in less than significant impacts relating mineral resources. All of the alternatives, like the Proposed General Plan, accommodate development generally in the same areas, and these areas are, for the most part, are either already urbanized or are planned for additional development. Given that mineral resources would not be impacted by the proposed Project, impacts associated with each of the alternatives would be similar under all alternatives and all would remain less than significant. However as described previously the reduced development capacities under Alternatives 1 and 2 would provide the least additional housing units and job development within the city and particularly in the SOI which results in less amounts of overall land committed to developed uses when compared to the proposed Project and Alternative 3.

### **Noise**

As described in Chapter 3.12, and 4.0 the proposed General Plan would result in less than significant noise impacts. The proposed General Plan and Alternatives 2 and 3 include General Plan Policies intended to minimize exposure to excessive noise, including noise associated with increased traffic and stationary sources. Additional policies would ensure that new development mitigates potential noise impacts to the greatest extent feasible through incorporating the noise control treatments necessary to achieve acceptable noise levels and sets criteria for evaluating future increases in traffic noise levels.

Alternative 2, and 3 would also result in fewer residential units, less non-residential square feet and fewer jobs within the city when compared to the proposed General Plan. These reductions in jobs and housing units would slightly reduce traffic and traffic related noise. As such, although

noise impacts would be considered less than significant under all alternatives, noise impacts would be reduced under Alternative 2 and slightly reduced under Alternative 3 when compared to the proposed Project.

### **Public Services and Recreation**

As described in Chapter 3.13, the proposed General Plan would result in less than significant impacts relating to public services and recreation. New development would place increased demands on public services such as law enforcement, fire, schools, parks, libraries, and other governmental services. The proposed General Plan includes policies and actions that require payment of impact fees to the City and other public agencies to ensure that additional development allowed does not have adverse impacts on these services and agencies.

Alternatives 2 and 3 would adopt the updated General Plan policy document, but Alternative 2 would retain the existing General Plan Land Use Map. Under Alternative 2 and the No Project Alternative, the development area and development types would remain similar, however, there would be the fewest, dwelling units, and reduced population when compared to the Proposed General Plan and Alternative 3 and thus, impacts to public services (the demand for police, fire and other public services) would be slightly reduced. Overall, Alternative 2 would have a slightly reduced impact to public services when compared to the proposed Project and Alternative 3, and a reduced impact when compared to Alternative 1 as Alternative 1 would not include adoption of the updated General Plan policy document.

### **Transportation**

As described in Chapter 3.14 (Transportation and Circulation) Impact 3.14-1, the proposed General Plan would result in significant and unavoidable impacts to the circulation network as the project may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

As described in Section 3.14 (Transportation and Circulation), the proposed General Plan would result in a similar or increased VMT per capita when compared to the existing (baseline) condition. This can be concluded based on the General Plan land use designations for new job centers, such as industrial and commercial facilities planned on the periphery of town. The newly designated growth areas for low and medium density residential uses are similarly far from the central city and in the western portion of the City but close to several job centers. As growth occurs on the periphery of the city, total VMT will increase, and vehicle trip lengths may lengthen causing higher VMT per capita levels than that of existing development. As a result, the VMT impacts associated with employment-based uses allowed by the proposed General Plan were considered significant and unavoidable.

Alternative 2 and Alternative 1 (No Project) would result in development of the existing General Plan Land Use Map; therefore, the overall VMT per capita would still be significant and unavoidable. However, under Alternative 2, the updated policy document would be adopted and future developments would be required to adhere to the same policy guidance and local, state, and regional air quality measures as the Proposed General Plan and Alternative 3. Therefore, when compared to Alternative 1, Alternative 2 would slightly reduce impacts to transportation and

circulation. While the proposed General Plan would result in a slightly higher overall VMT than Alternative 2 the updated policy guidance included many circulation policies and actions that may help to reduce VMT overtime and would be roughly sillier when compared to Alternative 1. The updated [policy document would also create future opportunities for trip internalization and increased opportunities for walking and bicycling due to more complete development approach, increased density ranges, as well as the updated policy document that supports VMT reduction strategies Therefore, the transportation impacts related to VMT are slight increased under the proposed Project when compared to Alternative 2, and roughly similar to Alternatives 1 and 3.

### **Utilities and Service Systems**

As described in Chapter 3.15, the proposed General Plan would result in less than significant impacts relating Utilities.

New development would place increased demands on utilities. Under Alternative 2, the Planning Area would be developed with the same development patterns and uses as the existing General Plan (Alternative 1). Alternative 2 would result in the least amount of new residential and non-residential development and the smallest increase in population and jobs compared to the proposed General Plan (and Alternative 3).

Demand for utilities would be slightly less under Alternative 3 when compared to the proposed General Plan and Alternative 2. Additionally the reduced development anticipated under Alternatives 1 and 2 would reduce the need to expanded utility services. The updated policy document include policies and actions to support adequate service levels throughout the city (as described in Chapter 3.15). Therefore Alternative 2 would be slightly superior to the No Project Alternatives due to the updated policy guidance related to public services.

### **Wildfire**

As described in Chapter 3.16 (Wildfire), the proposed General Plan would result in less than significant impacts relating to all Wildfire impacts. However as described in Chapter 3.8 (Hazards and Hazardous Materials) the proposed Project could expose people and structures to wildfire risk due to development that that could take place through buildout of the Land Use Map and the developments proximity for fire threat areas. As shown on Figure 3.8-1, the majority of the developed portions of the Planning Area are located within a Local Responsibility Area (LRA). CalFire has determined that Red Bluff does have Very High Fire Hazard Severity Zones (VHFHSZ) within Local Responsibility Areas in the northern portion of the city as well as areas of High and Very High Fire Hazard in SRAs. No land use changes are proposed within VHRHSZs with the LRA. All alternatives would result in similar development footprints. As such, the impact under all scenarios would remain similar however the updated policy document does include additional fire requirements and review standards in complacence withy State laws. As such, Alternative 1 which does not include the updated policy document would be considered inferior to all other alternatives.

## Irreversible Effects

The proposed Project would have a significant and unavoidable impact associated with irreversible environmental effects as described under Impact 4.17. Implementation of the proposed General Plan would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with the General Plan would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. Additionally, development will physically change the environment in terms of air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, the proposed General Plan would result in changes in land use within the Planning Area that would commit future generations to these uses.

During the planning horizon, development under Alternatives 1, 2, and 3 would be reduced in comparison to the proposed General Plan. Under cumulative conditions, Alternatives 1 and 2 would result in less residential and less non-residential floor area (see Table 5.0-1). All Alternatives would use nonrenewable resources, including metals, stone, and other materials related to construction, and result in on-going demand for fossil fuels and other resources associated with energy production at levels less than the proposed Project. The associated irretrievable commitment of nonrenewable resources and permanent conversion of other undeveloped lands that under all alternatives would remain a significant impact. Alternative 3 may have slightly reduced impact in comparison to the proposed General Plan due to the reduced development footprint, however the expected overall development levels are increased when compared to Alternatives 1 and 2 and as such the additional building construction, and increased in population may offset any benefits of a reduced development footprint. Alternative 1 would not include an updated policy document that included additional policies and actions related to the conservation of resources and sustainable development patterns and therefore, would be considered inferior to all other alternatives.

## ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed General Plan.

A comparative analysis of the proposed General Plan and each of the Project alternatives is provided in Table 5.0-3 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics addressed in this EIR. A score of “3” indicates that the alternative would have the same level of impact when compared to the proposed project. A score of “1” indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A Score of “2” indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the

## 5.0 ALTERNATIVES

proposed project. A score of “4” indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of “5” indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative.

As shown in Table 5.0-3, Alternative 2 is the environmentally superior alternative, as it reduced the most environmental effects. It should be noted that all of the alternatives would fail to reduce any significant and unavoidable impacts to a less than significant level however Alternative 3 would reduce impacts to important agricultural lands and resources the greatest extent. Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and community all expressed a desire and commitment to ensuring that the General Plan not only reflect the community’s values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To that end, the proposed General Plan includes the fully range of feasible and minimization policies and actions available to reduce potential impacts to the greatest extent possible.

**TABLE 5.0-3: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT**

<i>ENVIRONMENTAL ISSUE</i>	<i>PROPOSED PROJECT</i>	<i>ALTERNATIVE 1 (NO PROJECT)</i>	<i>ALTERNATIVE 2 (MODIFIED)</i>	<i>ALTERNATIVE 3 (AG PROTECTION)</i>
Aesthetics	3 – Same	2 – Slightly Better	1 – Better	2 – Slightly Better
Agricultural Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	1 – Better
Air Quality	3 – Same	4 – Slightly Worse	2 – Slightly Better	3 – Same
Biological Resources	3 – Same	3 – Same	1 – Better	2 – Slightly Better
Cultural Resources	3 – Same	4 – Slightly Worse	2 – Slightly Better	2 – Slightly Better
Greenhouse Gases, Climate Change, and Energy	3 – Same	4 – Slightly Worse	2 – Slightly Better	2 – Slightly Better
Geology and Soils	3 – Same	4 – Slightly Worse	2 – Slightly Better	3 – Same
Hazards and Hazardous Materials	3 – Same	4 – Slightly Worse	3 – Same	4 – Slightly Worse
Hydrology and Water Quality	3 – Same	4 – Slightly Worse	2 – Slightly Better	3 – Same
Land Use and Population	3 – Same	5 – Worse	4 – Slightly Worse	3 – Same
Mineral Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	3 – Same
Noise	3 – Same	3 – Same	1 – Better	2 – Slightly Better
Public Services and Recreation	3 – Same	4 – Slightly Worse	1 – Better	2 – Slightly Better
Transportation and Circulation	3 – Same	3 – Same	2 – Slightly Better	3 – Same
Utilities	3 – Same	4 – Slightly Worse	1 – Better	2 – Slightly Better
Wildfire	3 – Same	3 – Same	3 – Same	5 – Worse
Irreversible Effects	3 – Same	4 – Slightly Worse	2 – Slightly Better	2 – Slightly Better
<b>SUMMARY</b>	<b>51</b>	<b>59</b>	<b>33</b>	<b>44</b>

Overall, Alternative 2 is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives. This is due to Alternative 2 including all development policies and actions consistent with the updated General Plan. These included many additional policies and actions related to environmental protections, and project review requirements, while including the lowest levels of

actual development due to retaining the Existing Land Use Map. As such, Alternative 2 is the environmentally superior alternative for the purposes of this EIR analysis.

## SATISFACTION OF PROJECT OBJECTIVES

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### **Alternative 1**

As described previously Alternative 1 failed to meet the most basic Project Objectives including addressing current planning issues and new requirements of State law.

### **Alternative 2**

Like the Proposed Project, Alternative 2 reflects the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders; through the updated policy document, and addresses new requirements of State law, including climate change planning, environmental justice, complete streets, etc. Alternative 2 meets the basic Project Objectives. However, without the updated Land Use Map, Alternative 2 provides less opportunities for high-quality housing options, additional jobs, and development opportunities throughout the city and SOI.

Alternative 2 is the environmentally superior alternative, as it reduced as many environmental effects as possible while still meeting many of the project objectives. However, without additional opportunities for future growth within the SOI, Alternative 2 provides less options for housing and job creation throughout the planning area.

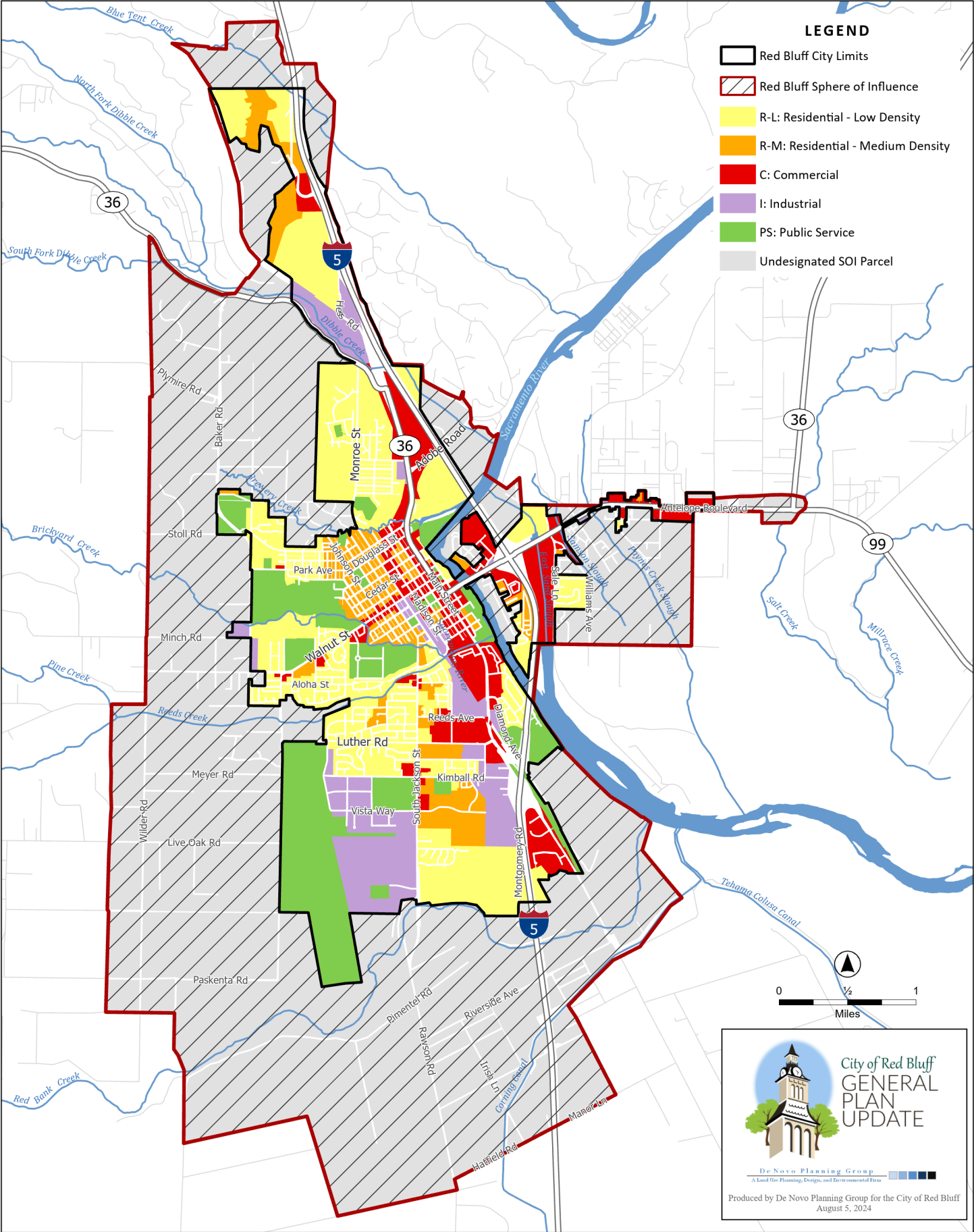
### **Alternative 3**

Like the proposed Project, Alternative 3 would satisfy many Project Objectives as it would adopt the updated policy document. This alternative would allow for less growth that would be allowed under the proposed Project. Objectives of the General Plan include establishing a greater connection between the General Plan and current planning issues, and being consistent with state law. Housing needs and the ability of support housing throughout the planning areas is locally and regionally important to supporting housing development and statewide housing goals. However, Alternative 3 provides less options for housing and job creation throughout the planning area.

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Figure 5.0-1. Existing General Plan Land Use



Sources: California State University, Chico Geographical Information Center; USGS National Hydrography Dataset; City of Red Bluff.

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CITY OF RED BLUFF

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# **Appendix A**

## **Notice of Preparation and NOP Comments**



## **Notice of Preparation and Scoping Meeting Red Bluff General Plan Update Environmental Impact Report**

**Date:** March 15, 2024

**To:** State Clearinghouse, Agencies, Organizations and Interested Parties

**Subject:** Notice of Preparation and Scoping Meeting for the Red Bluff General Plan Update Environmental Impact Report

**Scoping Meeting:** **April 3, 2024, 5:30 p.m.**

**Comment Period:** **March 15, 2024 to April 15, 2024.**

The City of Red Bluff (City) will serve as Lead Agency in the preparation of a programmatic Environmental Impact Report (EIR) for the City of Red Bluff General Plan Update (Plan).

The purpose of this notice is (1) to serve as a Notice of Preparation (NOP) of an EIR pursuant to the State CEQA Guidelines Section 15082, (2) to advise and solicit comments and suggestions regarding the scope and content of the EIR to be prepared for the proposed project, and (3) to notice the public scoping meeting. The proposed project is a long-term General Plan consisting of policies that will guide future development activities and City actions. No specific development projects are proposed as part of the Plan. Information regarding the project description, project location, and topics to be addressed in the Draft EIR is provided below. Additional project information is available at the City of Red Bluff, Community Development Department, located at 555 Washington St. Red Bluff, CA 96080, and on-line at: [redbluff.generalplan.org](http://redbluff.generalplan.org)

### **Notice of Preparation 30-Day Comment Period**

The City, as Lead Agency, requests that responsible and trustee agencies, and the Office of Planning and Research, respond in a manner consistent with Section 15082(b) of the CEQA Guidelines. Pursuant to Public Resources Code Section 21080.4, responsible agencies, trustee agencies and the Office of Planning and Research must submit any comments in response to this notice no later than 30 days after receipt. In accordance with the time limits established by CEQA, the NOP public review period will begin on March 15, 2024 and end on April 15, 2024.

In the event that the City does not receive a response from any Responsible or Trustee Agency by the end of the review period, the City may presume that the Responsible Agency or Trustee Agency has no response to make (State CEQA Guidelines Section 15082(b)(2)). All Comments in response to this notice must be submitted in writing at the address below, or via email, by the close of the 30-day NOP review period, which is 5:00 PM on April 15, 2024:

Beth Lindauer-Community Development Director  
City of Red Bluff  
555 Washington St.  
Red Bluff, CA 96080  
Email [blindauer@cityofredbluff.org](mailto:blindauer@cityofredbluff.org).

**Scoping Meeting**

The City will hold a scoping meeting to provide an opportunity for agency representatives and the public to assist the City in determining the scope and content of the EIR.

The scoping meeting will be held on April 3, 2024, 5:30 p.m. at:

City of Red Bluff  
555 Washington St.  
Red Bluff, CA 96080

For questions regarding this notice, comments before or after the meeting or additional information, please contact: Beth Lindauer-Community Development Director by email [blindauer@cityofredbluff.org](mailto:blindauer@cityofredbluff.org) or by Phone: 530-527-2605 ext. 3059.

### **Project Location and Setting**

The City of Red Bluff was incorporated in 1876 and is within the central portion of Tehama County. The City is located within the northern Central Valley along the Sacramento River and I-5 corridors. Figure-1 depicts the regional location of Red Bluff.

### **Project Description**

The City of Red Bluff is preparing a comprehensive update to its existing General Plan. The City of Red Bluff's current General Plan was adopted in 1992 and has been periodically amended, including a recent update to the Housing Element in 2020 which covers the 2019-2024 housing cycle.

The City's General Plan includes a broad goal policy framework that guides land use and planning decisions within the city. The overall purpose of the General Plan is to create a policy framework that articulates a vision for the City's long-term physical form and development, while preserving and enhancing the quality of life for residents and increasing opportunities for high-quality local job growth and housing options. The key components of the General Plan will include broad goals for the future of Red Bluff, and specific policies and actions that will help implement the stated goals.

The updated General Plan will guide the City's development and conservation through land use objectives and policy guidance. The City will implement the Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan, including subsequent project-level environmental review, as required under CEQA.

State law requires the City to adopt a comprehensive, long-term general plan for the physical development of its planning area. The Plan must include land use, circulation, housing, conservation, open space, noise, and safety elements, as specified in Government Code Section 65302, to the extent that the issues identified by State law exist in the City's planning area.

The Red Bluff General Plan includes a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map (Figure 2).

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and don't necessarily require specific action on behalf of the City.
- An **action** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy.

The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq. The General Plan is intended to reflect the desires and vision of residents, businesses, and City Council.

The following objectives are identified for the proposed update to the General Plan:

- Foster a sense of community unique to Red Bluff that celebrates the area's history, neighborhood connections, and family-friendly atmosphere;
- Support local businesses and provide opportunities for economic advancement;
- Attract and retain businesses and industries that provide high-quality jobs;
- Provide a range of high-quality housing options;
- Protect the City's natural and cultural resources;
- Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
- Address new requirements of State law; and
- Address emerging transportation, housing, and employment trends.

### **General Plan Growth**

While no specific development projects are proposed or would be approved as part of the General Plan Update, the General Plan will accommodate future growth in Red Bluff, including new businesses, expansion of existing businesses, and new residential uses. The Growth analysis assumes an approximately 20-year horizon, and 2045 is assumed to be the horizon year of the General Plan.

Table 1 below summarizes the range of growth, including residential units, and non-residential square footage that may be anticipated to occur under cumulative 2045 conditions.

As shown in Table 1, the General Plan by 2045 would be anticipated to result in up to 1,267 dwelling units accommodating an additional 3,092 residents, and an additional 1,396 jobs.

**TABLE 1: GROWTH PROJECTIONS - PROPOSED GENERAL PLAN LAND USE MAP**

	<i>POPULATION</i>	<i>DWELLING UNITS</i>	<i>NONRESIDENTIAL SQUARE FOOTAGE</i>	<i>JOBS</i>	<i>JOBS PER HOUSING UNIT</i>
<b>EXISTING CONDITIONS</b>					
	14,439	6,126	3,585,356	6,542	1.068
<b>NEW GROWTH POTENTIAL</b>					
General Plan – city limits and SOI	3,092	1,267	767,853	1,396	1.102
<b>TOTAL GROWTH: EXISTING PLUS NEW GROWTH POTENTIAL</b>					
General Plan – cumulative (2045 )	17,531	7,393	4,353,209	7,938.10	1.074

SOURCES: COUNTY ASSESSOR 2023; CALIFORNIA DEPARTMENT OF FINANCE 2023; U.S CENSUS ONThemap; ESRI 2023, DE NOVO PLANNING GROUP 2024.

Growth projections should not be considered a precise prediction for growth, as the actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City's control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors. Additionally, it should be noted that historic growth rates have been much lower than the total growth allowed under the General Plan. Furthermore, it should be noted that the California Department of Finance (DoF), and Caltrans projections see long term reduced population through 2050 countywide. As such the growth assumed in Table 1 is considered a conservative estimate.



### **Program EIR Analysis**

The City, as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare a Program EIR for the Red Bluff General Plan Update. The EIR will be prepared in accordance with CEQA, the CEQA Guidelines (Guidelines), relevant case law, and City procedures. No Initial Study will be prepared pursuant to Section 15063(a) of the CEQA Guidelines.

The EIR will analyze potentially significant impacts associated with adoption and implementation of the General Plan. In particular, the EIR will focus on areas that have development potential. The EIR will evaluate the full range of environmental issues contemplated under CEQA and the CEQA Guideline. At this time, the City anticipates that EIR sections will be organized in the following topical areas:

- Aesthetic Resources
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Geology, Soils, and Mineral Resources
- Greenhouse Gases, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities/Service Systems
- Wildfire
- Mandatory Findings of Significance/Cumulative Impacts
- Alternatives

## Figure 1. Regional Location

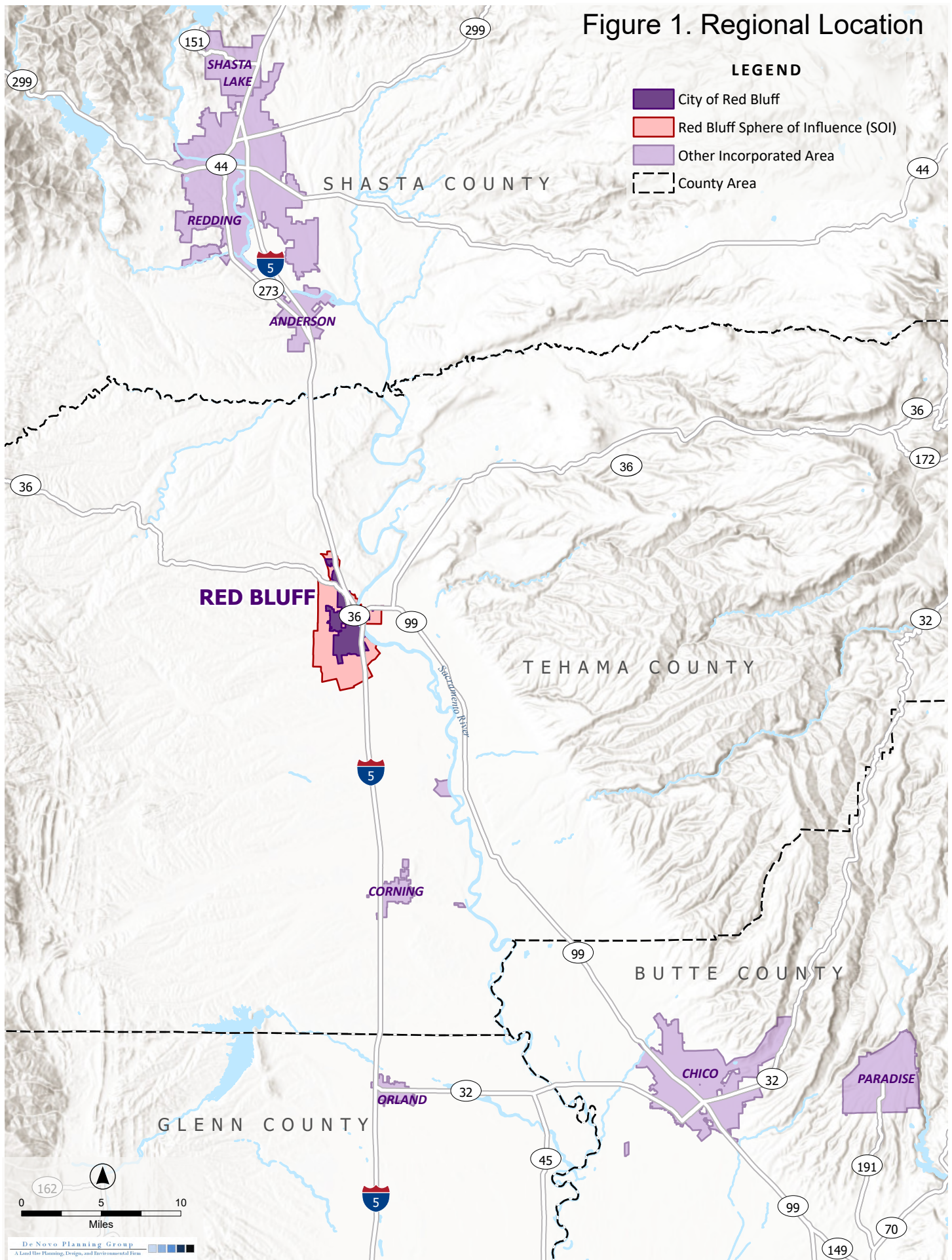
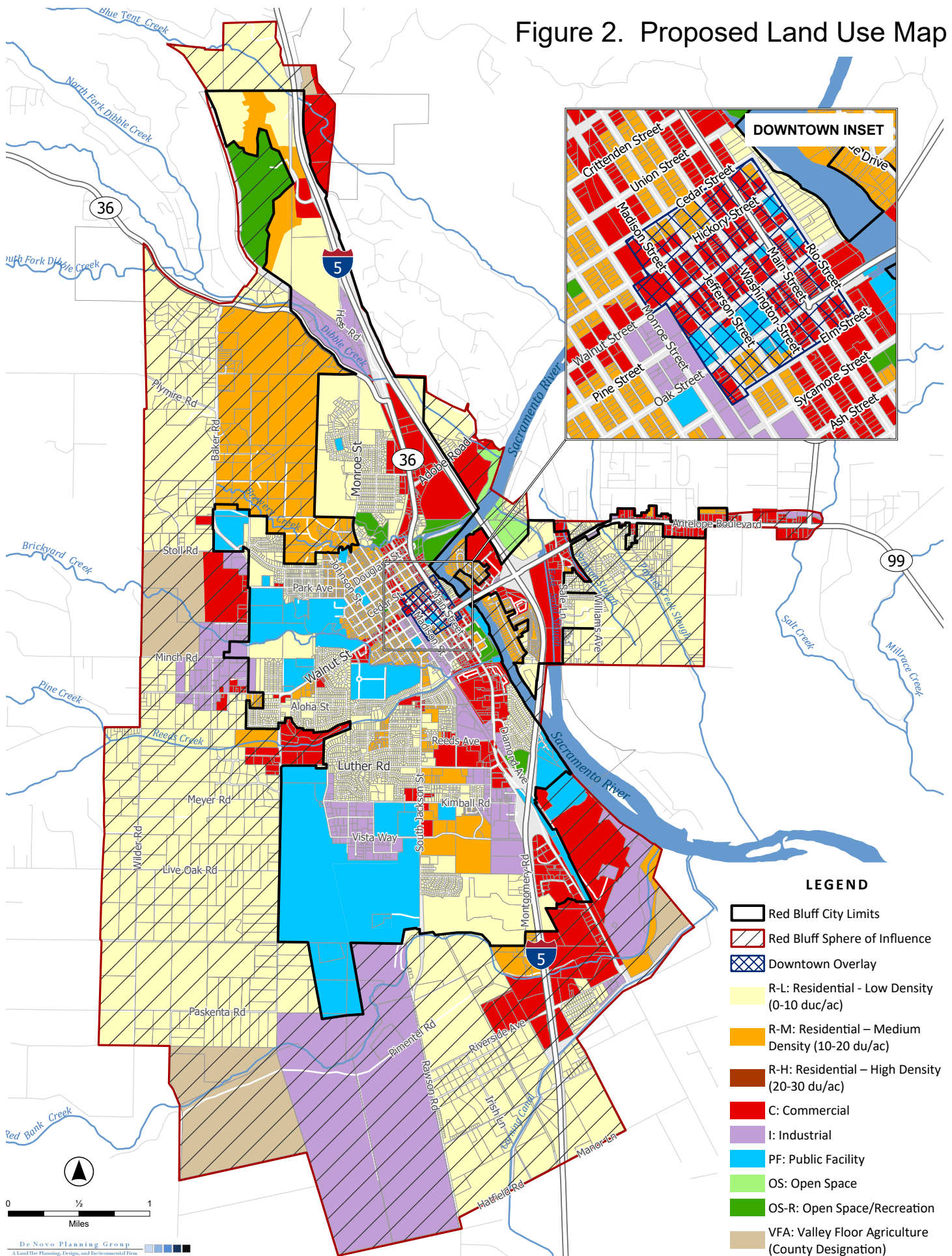




Figure 2. Proposed Land Use Map





State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Northern Region  
619 2nd Street  
Eureka, CA 95501  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



**Governor's Office of Planning & Research**

April 15, 2024

**April 15 2024**

**STATE CLEARINGHOUSE**

Beth Lindauer  
Community Development Director  
555 Washington Street  
Red Bluff, CA 96080  
[blindauer@cityofredbluff.org](mailto:blindauer@cityofredbluff.org)

**SUBJECT: CITY OF RED BLUFF GENERAL PLAN UPDATE, NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT, STATE CLEARING HOUSE NUMBER [2024030525](#)<sup>1</sup>**

Dear Beth Lindauer:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the above-referenced project (Project). CDFW appreciates this opportunity to comment on the Project, pursuant to the California Environmental Quality Act (CEQA) Guidelines<sup>2</sup>.

**CDFW's Role**

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state (Fish and G. Code, §§ 711.7, subd. (a) & 1802; Public Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its Trustee Agency capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects

<sup>1</sup> <https://ceqanet.opr.ca.gov/2024030525>

<sup>2</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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that it may need to exercise regulatory authority as provided by the Fish and Game Code. Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by state law, of any species protected under the California Endangered Species Act (CESA) (Fish and G. Code, § 2050 et seq.) or state listed rare plants pursuant to the Native Plant Protection Act (NPPA; Fish and G. Code § 1900 et seq.), authorization as provided by the applicable Fish and Game Code will be required.

## PROJECT DESCRIPTION SUMMARY

**Proponent:** City of Red Bluff

**Objective:** The City of Red Bluff (Lead Agency) is proposing to prepare a comprehensive update to its existing General Plan.

**Biological Setting:** The NOP states, "*The City of Red Bluff was incorporated in 1876 and is within the central portion of Tehama County. The City is located within the northern Central Valley along the Sacramento River and I-5 corridors.*"

The City of Red Bluff (City, Project area) is situated in the northern Sacramento Valley along the Sacramento River and is primarily comprised of riparian, oak woodland and grassland habitats. The Sacramento River fosters a rich biological mosaic, comprising of numerous diverse ecosystems. Such ecosystems host a variety of CESA-listed and other state special status aquatic and terrestrial species. Among these special status species are anadromous salmonids, including the Chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley steelhead (*Oncorhynchus mykiss irideus*), whose migrations to spawn in tributaries throughout Red Bluff epitomize the upper Sacramento River watershed. The rivers riparian habitat supports countless migrant and resident birds, including the bald eagle (*Haliaeetus leucocephalus*) and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*); while reptiles, such as the western pond turtle (*Emys Marmorata*), find refuge in the riparian corridor and nest throughout the terrestrial landscapes adjacent to the river. The grassland and oak woodland habitat throughout the City provide foraging and nesting for raptors, like the Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*); and hosts unique seasonal vernal pool wetlands which support specialized wildlife and botanical communities, including rare and endemic species adapted to this habitat, including the western spadefoot (*Spea hammondi*) and the Red Bluff dwarf rush (*Juncus bufonius* var.

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*congestus*). According to the [California Natural Diversity Database](https://wildlife.ca.gov/Data/CNDDDB)<sup>3</sup> (CNDDDB) the Project area has the potential to support over 17 state special-status species.

### **Specific Comments and Recommendations**

CDFW offers the following comments and recommendations below to assist the Lead Agency in adequately identifying, avoiding, minimizing and/or mitigating potentially significant, direct, and indirect impacts on biological resources with the implementation of the City of Red Bluff's General Plan update.

#### **1) Sensitive Habitats and Open Space Sites**

Sensitive habitats/open space are present throughout the Project area.

- a) CDFW recommends the Lead Agency analyze and discuss sensitive habitats, and other open space throughout the Project area. The Lead Agency should consider future direct and indirect impacts on sensitive habitats and other areas of open space within the Project area that may be associated with a general plan update. The DEIR should disclose the acreage of sensitive habitats and open space that would be proposed to be modified or lost as a result of any subsequent development from future proposed Projects, including all areas subject to fuel modifications and development. CDFW also recommends the analysis and discussion of the Project's potential impacts on conserved lands occurring within or adjacent to the Project area.
- b) CDFW recommends avoiding the development of and encroachment into sensitive habitats and open space areas. Encroachment creates an abrupt transition between two different land uses. Encroachment onto sensitive habitats and open space may pose significant changes in environmental and biological conditions and may increase the magnitude of edge effects on biological resources. CDFW recommends the DEIR provide alternatives that would not result in conversion of, or encroachment upon, sensitive habitats and/or open space, particularly conserved lands. Pursuant to CEQA Guidelines section 15126.6, an EIR "shall describe a range of reasonable alternatives to the project, or to the

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<sup>3</sup> <https://wildlife.ca.gov/Data/CNDDDB>



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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, even if these alternatives would impede to some degree the attainment of the project objectives." Furthermore, a DEIR "shall include sufficient information about alternatives to allow meaningful evaluation, analysis, and comparison with the proposed project."

- c) If avoidance is not feasible, CDFW recommends the DEIR provide measures to minimize and/or mitigate impacts to sensitive habitats/open space to ensure a no-net-loss of these areas. CDFW recommends the DEIR provide measures to ensure future development, facilitated by this Project, mitigates (avoids first, if feasible) for project-level impacts on sensitive habitats/open space not previously identified in the DEIR. CDFW recommends the DEIR provide a measure to establish unobstructed native-vegetated buffers and setbacks from these areas. The DEIR should provide standards for an effective buffer and setback; however, the buffer and setback distance should be increased at a project-level as needed. The DEIR should provide justifications for the effectiveness of all proposed avoidance, minimization, and mitigation measures. The DEIR should provide sufficient information and disclosure to facilitate meaningful public review and analysis.

- 2) Impacts on Wildlife Corridors and Habitat Connectivity According to the California Essential Habitat Connectivity dataset available in CDFW's [Biogeographic Information System](#)<sup>4</sup> (BIOS), the Project area bisects an Essential Connectivity Area (ECA) that spans the entire length of the Project area north to south. Similarly, the [California Fish Passage Assessment Database](#)<sup>5</sup>, available in BIOS, indicates 15 unassessed potential fish passage barriers. ECA's support native biodiversity and areas essential for ecological connectivity between them. If future Project facilitation has the potential to impact the ecological integrity and function of wildlife corridors supporting resident and transient wildlife movement, such habitat fragmentation could threaten the viability of remaining natural resources. Maintaining, evaluating, and remediating wildlife corridors and habitat connectivity is essential in evaluating longevity of species and remains increasingly

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<sup>4</sup> <https://wildlife.ca.gov/Data/BIOS>

<sup>5</sup> <https://nrm.dfg.ca.gov/PAD/>

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important with consideration to California's existing and continued habitat loss and climate change. For more information regarding the importance of habitat connectivity, framework for local analyses and implementation, the [California Essential Habitat Connectivity Project<sup>6</sup>](#) may be a useful resource:

- a) CDFW recommends an analysis of future project impacts to wildlife corridors and aquatic barriers. Impacts may include habitat loss and fragmentation, narrowing of wildlife corridors, and introduction of barriers to wildlife movement. CDFW recommends such an analysis be supported by studies to document wildlife activity and movement throughout the Project area where development is proposed. Technical detail such as data, maps, diagrams, and similar relevant information should be provided to permit full assessment of significant environmental impacts by reviewing agencies and members of the public (CEQA Guidelines, §15147).
  - b) [CDFW's Areas of Conservation Emphasis<sup>7</sup>](#) (ACE) viewer is a decision support tool used in conjunction with species-specific information and local-scale conservation prioritization analyses that can be used during DEIR preparation. The ACE maps show the relative biological value of an area compared with all other areas across the state. The ACE maps do not replace the need for site-specific evaluation of biological resources, and it is not recommended for use as the sole measure of conservation priority during planning.
- 3) California Special Status Species  
 Based species occurrence records from the CNDDDB, the Project area is known to and/or has the potential to support several state special status species. Such species should be identified, evaluated, and addressed in the DEIR, with specific regard to the potentially significant direct and indirect impacts to special-status species and their habitats.

Special status species known to occur within and adjacent to the Project area include, but are not limited to, least Bell's vireo (*Vireo bellii pusillus*, Endangered), bank swallow (*Riparia riparian*, Threatened), pallid bat

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<sup>6</sup> <https://wildlife.ca.gov/Conservation/Planning/Connectivity/CEHC>

<sup>7</sup> <https://wildlife.ca.gov/Data/Analysis/Ace>



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(*Antrozous pallidus*, Species of Special Concern), tricolored blackbird (*Agelaius tricolor*, Threatened), Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*, California Rare Plant Rank 1B.1), western spadefoot (*Spea hammondi*, Species of Special Concern), Crotch's bumble bee (*Bomus crotchii*, Candidate Endangered), Swainson's hawk (*Buteo swainsoni*, Threatened), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*, Endangered), Chinook salmon (*Oncorhynchus tshawytscha*, Threatened), adobe-lily (*Fritillaria pluriflora*, California Rare Plant Rank 1B.2), dwarf downingia (*Downingia pusilla*, California Rare Plant Rank 2B.2), burrowing owl (*Athene cunicularia*, Species of Special Concern), white-tailed kite (*Elanus leucurus*, Fully Protected) and silky cryptantha (*Cryptantha crinita*, California Rare Plant Rank 1B.2).

CDFW recommends the DEIR discuss the Project's potentially significant impacts on these species and their associated habitats and include if applicable, avoidance, minimization, and mitigation strategies for reducing impacts to less than significant.

#### 4) Bats

Several bat species are known to utilize habitat throughout the Project area. Accordingly, CDFW recommends the DEIR include measures where future development avoids potential impacts to bats.

Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code of Regs., § 251.1). Construction and activities, including ground disturbance, vegetation removal, and any activities leading to increased noise levels may have direct and/or indirect impacts on bats and roosts.

CDFW recommends a biological resources survey provide a thorough discussion and adequate disclosure of potential impacts to bats and roosts from planned future development and/or encroachment upon habitat. If applicable, avoidance and minimization measures should be included to reduce impacts to less than significant.

#### 5) Nesting Birds

CDFW recommends the DEIR include measures where future development avoids potential impacts to nesting birds. Future project activities occurring during the breeding and nesting season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.

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Migratory nongame native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.

CDFW recommends integrating avoidance and minimization measures in the DEIR to avoid potential impacts to nesting birds. Ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation/tree trimming and/or removal are recommended to occur outside of the nesting bird breeding season which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds or their eggs.

If impacts to nesting birds cannot be avoided, CDFW recommends the DEIR include minimization measures that reduce potential impacts, such as employing a qualified biologist with experience conducting nesting bird surveys, to conduct surveys prior to disturbance.

6) Jurisdictional Waters

The Sacramento River, and some of its major tributaries, occur within the Project area and have the potential to be significantly impacted by future development, mining activities, and encroachment. As a Responsible Agency under CEQA, CDFW has authority over activities in rivers, lakes, and streams or any such activities, the project proponent (or "entity") must provide written notification to CDFW pursuant to Fish and Game Code Section 1602 et seq.

- a) CDFW recommends including a delineation of all aquatic resources, and associated riparian habitat, to be included in the DEIR. In areas which may support ephemeral or episodic streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of these resources and help maintain natural sedimentation processes. Therefore, CDFW recommends implementing effective setbacks to maintain appropriately sized vegetated buffer areas adjoining ephemeral drainages. The DEIR should provide a justification for the effectiveness of the chosen distance for the setback.

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- b) CDFW recommends including future Project-related changes in upstream and downstream drainage patterns, runoff, and sedimentation should be included and evaluated in the environmental document.

### **General Comments and Recommendations**

To enable CDFW to provide adequate and meaningful CEQA review, please ensure the DEIR provides the follows:

1. Detailed disclosure about potentially significant impacts which a proposed project is likely to have on the environment so CDFW may provide comments on the adequacy and feasibility of proposed avoidance, minimization and/or mitigation measures.
2. Feasible, effective, and fully enforceable avoidance, minimization and mitigation measures imposed by the lead agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, §§ 15126.4, 15041). CDFW recommends the Lead Agency prepare mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear, in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6).
3. A complete biological resource assessment and impact analysis of the flora and fauna within the Project area, with an emphasis on identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive habitats. Impact analysis will aid in determining any direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW recommends avoiding any sensitive natural communities found on or adjacent to a project. CDFW also considers impacts to Species of Special Concern a significant direct and cumulative adverse effect without implementing appropriate avoid and/or mitigation measures. A project-level environmental document should include the following information:
  - a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. An environmental document should include measures to fully avoid and otherwise protect Sensitive Natural Communities from project-related impacts. CDFW considers these communities as threatened

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habitats having both regional and local significance. Plant communities, alliances, and associations with a state-wide ranking of S1, S2, S3 and S4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting [Vegetation Classification and Mapping Program](#)<sup>8</sup> - Natural Communities webpage.

- b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#)<sup>9</sup>. Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at a project site and within the neighboring vicinity. The [Manual of California Vegetation](#)<sup>10</sup>, should also be used to inform this mapping and assessment. Adjoining habitat areas should be included where project construction and activities could lead to direct or indirect impacts off site;
- c) A complete, recent assessment of the biological resources associated with each habitat type on site and within adjacent areas. CDFW's CNDDDB, and other public databases such as iNaturalist and eBird, should be consulted to obtain current information on any previously reported sensitive species and habitat. An assessment should include a nine-quadrangle search of the CNDDDB to determine a list of species potentially present at a project site. Please note that a lack of observation records does not mean that rare, threatened, or endangered plants and wildlife do not occur. Field verification of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];
- d) A complete, recent assessment of rare, threatened, and endangered, and other sensitive species within the Project area, including California Species of Special Concern, and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of a project site should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species- specific surveys, conducted at

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<sup>8</sup> <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>

<sup>9</sup> <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

<sup>10</sup> <https://vegetation.cnps.org/>

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the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's [Survey and Monitoring Protocols and Guidelines](#)<sup>11</sup> for established survey protocol for select species. Acceptable species-specific survey procedures may be developed in consultation with CDFW and the U.S. Fish and Wildlife Service; and,

4. CEQA requires that information developed in an environmental impact report is incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected by completing and submitting [CNDDDB Field Survey Forms](#)<sup>12</sup>. The Lead Agency should ensure data collected at a project level has been properly submitted, with all data fields applicable filled out. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred.
5. CDFW recommends providing a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. The DEIR should address the following:
  - a) A discussion regarding Project-related impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (NCCP, Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;
  - b) A discussion of both the short-term and long-term effects to species population distribution and concentration and alterations of the ecosystem supporting the species impacted [CEQA Guidelines, § 15126.2(a)];
  - c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, human-wildlife conflict, non-native/invasive species;

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<sup>11</sup> <https://wildlife.ca.gov/Conservation/Survey-Protocols>

<sup>12</sup> <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>

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- d) A discussion on future Project-related changes of drainage patterns; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and, post-Project fate of runoff from the Project sites. The discussion should also address the potential water extraction activities and the potential resulting impacts on the habitat (if any) supported by the groundwater. Mitigation measures proposed to alleviate such Project impacts should be included;
- e) An analysis of impacts from proposed future changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and
- f) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and vegetation communities. If the Lead Agency determines that the Project would not have a cumulative impact, the environmental document should indicate why the cumulative impact is not significant. The Lead Agencies conclusion should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].

Compensatory Mitigation. An environmental document should include mitigation measures for adverse Project related direct or indirect impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively



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manage and steward land, water, or natural resources on mitigation lands it approves.

Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, an environmental document should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

California Endangered Species Act. Reasonably foreseeable future projects may be subject to CDFW's regulatory authority pursuant to CESA. CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and candidate plant and animal species, pursuant to [CESA](#)<sup>13</sup>. listed species that a CESA Incidental Take Permit (ITP) be obtained if future proposed Projects have the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of state-listed species, either through construction or over the life of the project.

CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. CDFW must comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DEIR addresses all Project impacts to CESA-listed species and specify a mitigation monitoring and reporting program that will meet the requirements of CESA. Based on review of CNDDDB, the NOP and local knowledge of the Project area, CESA-listed species have the potential to occur onsite.

Fully Protected Species. Fully protected species may not be taken or possessed at any time and authorization may not be issued for their take except as follows: The take is for necessary scientific research, efforts are to recover a fully protected, endangered, or threatened species, live capture and relocation of a bird species for the protection of livestock, if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, &

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<sup>13</sup> <https://wildlife.ca.gov/Conservation/CESA>

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5515) and/or qualify for CDFW authorization pursuant to Senate Bill 147. Specified types of infrastructure Projects may be eligible for an ITP for unavoidable impacts to fully protected species if certain conditions are met pursuant to Senate Bill 147 (see Fish & G. Code §2081.15).

Lake and Streambed Alteration Program. Future project implementation associated with the General Plan update may require notification under Fish and Game Code section 1602. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a Project that would eliminate or reduce harmful impacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a discretionary action subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. Please visit [CDFW's Lake and Streambed Alteration Program](#)<sup>14</sup> for additional information.

Development and Conservation. CDFW encourages the preservation of open space and natural areas within city limits. CDFW recommends the Lead Agency consider regional and state-wide natural resource conservation strategies outlined in the following reports when updating the general plan: [Safeguarding California Plan](#); [California State Wildlife Action Plan](#); [A](#)

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<sup>14</sup> <https://wildlife.ca.gov/Conservation/Environmental-Review/LSA>



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[Conservation Legacy for Californians](#); and [California 2030 Natural and Working Lands Climate Change Implementation Plan](#). CDFW staff are available to assist the Lead Agency in identifying appropriate conservation strategies that support the implementation of General Plan policies and those that may result in improved conservation outcomes for fish and wildlife species.

CEQA Filing Fees. If the Project has an impact on fish, wildlife, or habitat, filing fees are required. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Additionally, payment of a filing fee may be required for each underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)


### **Promoting Collaboration**

CDFW is charged with preserving and protecting the state's diverse ecosystems and wildlife therefore, CDFW maintains a strong commitment to collaborate with local governments in the development and implementation of local policies and ordinances that encompass biological resources. CDFW is enthusiastic for the possibility to assist the Lead Agency in fostering a harmonious coexistence between human development and preservation of Red Bluff's unique and invaluable biological resources through local policy and ordinance. The Lead Agency is encouraged to engage with CDFW if/when collaboration is warranted.

### **Conclusion**

CDFW appreciates the opportunity to comment on the NOP to assist the Lead Agency in identifying and mitigating Project impacts on biological resources. If you have any questions, please contact Erika Iacona, Senior Environmental Scientist, Specialist by email at [R1CEQARedding@wildlife.ca.gov](mailto:R1CEQARedding@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
B5D12ECE94324AF...

Rebecca Garwood, Environmental Program Manager  
Northern Region

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cc: State Clearinghouse  
[State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

Erika Iacona  
California Department of Fish and Wildlife  
[R1CEQARedding@wildlife.ca.gov](mailto:R1CEQARedding@wildlife.ca.gov)



## NATIVE AMERICAN HERITAGE COMMISSION

March 15, 2024

Governor's Office of Planning &amp; Research

Beth Lindauer  
City of Red Bluff  
555 Washington Street  
Red Bluff CA 96080

March 18 2024

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**Re: 2024030525, Red Bluff General Plan Update Project, Tehama County**

Dear Ms. Lindauer:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines §15064.5 (b))). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1))). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

**1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:**

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

**2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

**3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

**4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

**5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

**6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

## NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([https://ohp.parks.ca.gov/?page\\_id=30331](https://ohp.parks.ca.gov/?page_id=30331)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
  - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:  
[Cameron.Vela@NAHC.ca.gov](mailto:Cameron.Vela@NAHC.ca.gov).

Sincerely,

*Cameron Vela*

Cameron Vela  
Cultural Resources Analyst

cc: State Clearinghouse



**Yana Garcia**  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Meredith Williams, Ph.D., Director  
8800 Cal Center Drive  
Sacramento, California 95826-3200



**Gavin Newsom**  
Governor

### SENT VIA ELECTRONIC MAIL

April 5, 2024

Beth Lindauer  
Community Development Director  
City of Red Bluff  
555 Washington Street  
Red Bluff, CA 96080  
[blindauer@cityofredbluff.org](mailto:blindauer@cityofredbluff.org)

RE: NOTICE OF PREPARATION (NOP) FOR A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR THE RED BLUFF GENERAL PLAN UPDATE, DATED MARCH 14, 2024 STATE CLEARINGHOUSE # [2024030525](#)

Dear Beth Lindauer,

The Department of Toxic Substances Control (DTSC) received an NOP of a DEIR for the City of Red Bluff General Plan Update. The proposed project is a programmatic EIR for the General Plan planning document consisting of a land use map, and policy document consisting of goals, policies, and actions that will guide future development activities and City actions. No specific development projects are proposed as part of the General Plan Update. Based on our project review, we request consideration of the following comments:

1. The proposed Project encompasses multiple active and nonactive mitigation and clean-up sites where DTSC has conducted oversight that may be impacted as a result of this Project. This may restrict what construction activities are permissible in the proposed Project areas in order to avoid any impacts to



human health and the environment.

2. Due to the broad scope of the Project, DTSC is unable to determine the locations of the proposed sites, whether they are listed as having documented contamination, land use restrictions, or whether there is the potential for the sites to be included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, DTSC recommends providing further information on the proposed project and areas that may fall under DTSC's oversight within the DEIR. Once received, DTSC may provide additional comments on the DEIR as further information becomes available.

Please review the project area in [Envirostor](#); DTSC's public-facing database.

DTSC believes the City of Red Bluff must address these comments to determine if any significant impacts under the California Environmental Quality Act (CEQA) will occur and, if necessary, avoid significant impacts under CEQA. DTSC recommends the department connect with our unit if any hazardous waste projects managed or overseen by DTSC are discovered. Please refer to the [City of Red Bluff EnviroStor Map](#) for additional information about the areas of potential contamination

DTSC appreciates the opportunity to comment on the City of Red Bluff General Plan Update. Thank you for your assistance in protecting California's people and environment from the harmful effects of toxic substances. If you have any questions or would like any clarification on DTSC's comments, please respond to this letter or via [email](#) for additional guidance.

Sincerely,

A handwritten signature in black ink that reads "Dave Kereazis". The script is cursive and fluid, with the first letters of each word being capitalized and prominent.

Dave Kereazis  
Associate Environmental Planner  
HWMP - Permitting Division – CEQA Unit  
Department of Toxic Substances Control  
[Dave.Kereazis@dtsc.ca.gov](mailto:Dave.Kereazis@dtsc.ca.gov)

cc: (via email)

Governor's Office of Planning and Research  
State Clearinghouse  
[State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

Ms. Tamara Purvis  
Associate Environmental Planner  
HWMP – Permitting Division - CEQA Unit  
Department of Toxic Substances Control  
[Tamara.Purvis@dtsc.ca.gov](mailto:Tamara.Purvis@dtsc.ca.gov)

Scott Wiley  
Associate Governmental Program Analyst  
HWMP – Permitting Division - CEQA Unit  
Department of Toxic Substances Control  
[Scott.Wiley@dtsc.ca.gov](mailto:Scott.Wiley@dtsc.ca.gov)

William Crenshaw  
Senior Planner  
DeNovo Planning Group  
[wcrenshaw@denovoplanning.com](mailto:wcrenshaw@denovoplanning.com)



April 2, 2024

City of Red Bluff  
555 Washington St  
Red Bluff, CA 96080

RE: City of Red Bluff General Plan Update

Dear: Beth Lindauer – Community Development Director

Thank you for your project notification letter dated March 15, 2024, regarding the opportunity to engage in formal consultation under the California Environmental Quality Act for the proposed Cultural Resources Identification Effort for the City of Red Bluff General Plan Update, Tehama County, California. We appreciate your effort to contact us and hereby request consultation.

As you know, Public Resources Code §21080.3.1 (a) states that “The legislation finds and declares that California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources.”

The Cultural Resources Department has reviewed the proposed project and concluded that it is within the Aboriginal territories of the Paskenta Band of Nomlaki Indians. Therefore, we have a cultural interest and authority in the proposed project area and would like to initiate a formal consultation with the lead agency. At the time of consultation, please provide the Cultural Resources Department with the proposed general plan amendments and EIR studies of the area.

Please contact the following individual to coordinate a date and time for the Consultation meeting:

Laverne Bill, Tribal Historic Preservation Officer  
Paskenta Band of Nomlaki Indians  
Office: (530) 781-6699  
Email: [lbill@paskenta.org](mailto:lbill@paskenta.org)

Please refer to the following number **P-03152024-01** for any correspondence concerning this project.

Thank you for providing us with the opportunity to comment.

Sincerely,

Laverne Bill  
Tribal Historic Preservation Officer





Paskenta Band of Nomlaki Indians  
22580 Olivewood Ave.  
Corning, CA 96021

SACRAMENTO CA 957

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FIRST-CLASS



US POSTAGE<sup>TM</sup> PITNEY BOWES

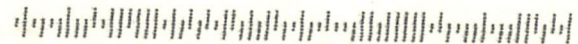


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APR 02 2024

City of Red Bluff  
555 Washington St.  
Red Bluff, CA 96080

96080-344173



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**From:** Jessica Chew <[jessica@redbluffchew.org](mailto:jessica@redbluffchew.org)>  
**Sent:** Wednesday, March 13, 2024 6:05 PM  
**To:** Tom Westbrook <[twestbrook@cityofredbluff.org](mailto:twestbrook@cityofredbluff.org)>  
**Cc:** Alden Cruz <[alden@redbluffchew.org](mailto:alden@redbluffchew.org)>  
**Subject:** EIR for the Red Bluff General Plan - Inclusion of Cultural Resources Chapter

Hi Tom, I hope this message finds you well. I am writing to respond to the City of Red Bluff's General Plan Update and the preparation of the programmatic Environmental Impact Report (EIR), as announced in the Notice of Preparation (NOP) pursuant to the State CEQA Guidelines Section 15082.

I found another example of Cultural zoning:  
<https://planning.lacity.gov/preservation-design/historic-landmark-programs>

Ref.  
Historic District - [Pleasant Hill](#)  
Cultural Resources Review - [Tacoma](#)  
Historic Property Ordinance - [Scottsdale](#)

versus - City of Red Bluff  
[Historic Commercial \(H-C\) and Historic Residential \(H-R\) zoning district](#)

Since our nonprofit worked with the City of Red Bluff on the Historic Chinatown Alley Street naming, we believe long term historical preservation for cultural resources is missing from the general plan which omits the EIR typically required for a historic community. With the proposed project for the General Plan Update aiming to guide future development activities and City actions through updated goals, policies, actions, and land use maps this missing link would be critical to include. I would like to request the inclusion of Historic Chinatown Alley and Rio Street in the scope of the EIR.

Historic Chinatown Alley and Rio Street are significant for their cultural, historical, and social values, contributing immensely to the unique character and heritage of our city. Including these areas in the EIR would ensure that their historical significance is considered and preserved amidst future developments. It would also provide an opportunity to assess potential environmental impacts on these historic sites, allowing for informed decisions that respect our community's heritage and identity. We are more than happy to provide the historical information on specific parcels.

I believe that the inclusion of Historic Chinatown Alley and Rio Street in the EIR would align with the Plan's goals of guiding development in a manner that is respectful of our city's rich history and diverse cultural background. It would also demonstrate the City's commitment to inclusive and thoughtful planning that takes into account the voices and concerns of its residents.

I kindly request that my comments and suggestions be considered for the scope and content of the EIR to be prepared for the proposed General Plan Update. I also look forward to the opportunity to further discuss this matter during the upcoming public scoping meeting.

Thank you for your attention to this request. I am eager to see how the City of Red Bluff can move forward in a way that honors our past while preparing for a sustainable future. Please do not hesitate to contact me should you require further information or wish to discuss this matter in more detail.

Sincerely,

Jessica

<https://www.redbluffchew.org/chewhistory>

[Facebook](#), [Instagram](#), [YouTube](#), [Twitter](#)



On Tue, Mar 5, 2024 at 7:47 AM Jessica Chew <[jessica@redbluffchew.org](mailto:jessica@redbluffchew.org)> wrote:

Hi Tom,

I hope this message finds you well. I am reaching out to bring to your attention an important matter concerning the City of Red Bluff's regulations for Historic Design Review and guidelines on the public domain. Upon review, it has come to my attention that these regulations have not been updated since the year 2000. This observation is particularly concerning given the recent official street designation of "Historic Chinatown Alley" within the Historic District.

It appears that the current Historic District guidelines lack a crucial component specifically related to plants in the area – the Cultural Resources chapter, which is commonly included in most general plans, planning departments, and zoning regulations. The absence of this chapter is significant because the Cultural Resources Chapter of the General Plan is designed with specific goals and targets. These aims are focused on identifying, conserving, and protecting the historic character of the city's neighborhoods, thereby enriching our community's cultural and historical heritage, one that the City of Red Bluff has much to be proud of.

Ref.

Historic District - [Pleasant Hill](#)

Cultural Resources Review - [Tacoma](#)

Historic Property Ordinance - [Scottsdale](#)

versus - City of Red Bluff

[Historic Commercial \(H-C\) and Historic Residential \(H-R\) zoning district](#)

The purpose of including the Cultural Resources Chapter in our guidelines is important to the relationship of the Historic Chinatown Alley street. First, it ensures the identification and protection of significant historical sites within this neighborhood, contributing to the overall character and appeal of the City of Red Bluff. Second, it allows for the identification and adoption of conservation overlay zones, a critical tool in forwarding the General Plan's goals and targets for historic preservation.

In light of the above, I strongly recommend that this is added to the agenda to initiate a review and subsequent update of our Historic Design Review guidelines to incorporate the Cultural Resources chapter. This inclusion will not only rectify the current omission but will also enhance our city's efforts in preserving its rich historical and cultural identity that again is much to be proud of. Additionally, establishing clear criterion and processes for identifying and adopting conservation overlay zones as part of this effort will further solidify our commitment to historic preservation in the Historic District specifically related to the official Historic Chinatown Alley street.

I believe that updating our guidelines to reflect these considerations is crucial for the ongoing preservation and potentially saving what little plants are left from the original Chinatown, along with recognition of our City's historical sites within the Historic District. Feel free to give me a call on my cell to discuss this matter further and explore how we can collaboratively ensure that the City's regulations reflect the importance of our cultural and historical resources.

Thank you for considering this important matter. I look forward to seeing this enhance the Historic Design Review guidelines and ensuring the comprehensive inclusion of the Cultural Resources chapter related to the Historic Chinatown Alley street signs.

Best regards,

Jessica & Alden

<https://www.redbluffchew.org/chewhistory>

[Facebook](#), [Instagram](#), [YouTube](#), [Twitter](#)



# **Appendix B**

## **Acoustical Terminology and Continuous and Short-Term Ambient Noise Measurement Results**



# Environmental Noise Assessment

## City of Red Bluff General Plan Update

City of Red Bluff, California

July 15, 2024

Project #210404

Prepared for:

DE NOVO PLANNING GROUP 

**De Novo Planning Group**

1020 Suncast Lane, Suite 106

El Dorado Hills, CA 95762

Prepared by:

**Saxelby Acoustics LLC**



**Luke Saxelby, INCE Bd. Cert.**

**Principal Consultant**

**Board Certified, Institute of Noise Control Engineering (INCE)**

## Appendix B: Acoustical Terminology

<b>Acoustics</b>	The science of sound.
<b>Ambient Noise</b>	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
<b>ASTC</b>	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
<b>Attenuation</b>	The reduction of an acoustic signal.
<b>A-Weighting</b>	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
<b>Decibel or dB</b>	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
<b>CNEL</b>	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
<b>DNL</b>	See definition of Ldn.
<b>IIC</b>	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
<b>Frequency</b>	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
<b>Ldn</b>	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
<b>Leq</b>	Equivalent or energy-averaged sound level.
<b>Lmax</b>	The highest root-mean-square (RMS) sound level measured over a given period of time.
<b>L(n)</b>	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
<b>Loudness</b>	A subjective term for the sensation of the magnitude of sound.
<b>NIC</b>	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
<b>NNIC</b>	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
<b>Noise</b>	Unwanted sound.
<b>NRC</b>	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
<b>RT60</b>	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
<b>Sabin</b>	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
<b>SEL</b>	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
<b>SPC</b>	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
<b>STC</b>	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
<b>Threshold of Hearing</b>	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
<b>Threshold of Pain</b>	Approximately 120 dB above the threshold of hearing.
<b>Impulsive</b>	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
<b>Simple Tone</b>	Any sound which can be judged as audible as a single pitch or set of single pitches.

## **Appendix B: Continuous and Short-Term Ambient Noise Measurement Results**



## Appendix B1: Continuous Noise Monitoring Results

Date	Time	Measured Level, dBA			
		L <sub>eq</sub>	L <sub>max</sub>	L <sub>50</sub>	L <sub>90</sub>
Tuesday, July 20, 2021	0:00	63	80	47	42
Tuesday, July 20, 2021	1:00	62	79	47	42
Tuesday, July 20, 2021	2:00	62	79	48	43
Tuesday, July 20, 2021	3:00	63	81	49	41
Tuesday, July 20, 2021	4:00	66	82	58	44
Tuesday, July 20, 2021	5:00	69	82	66	53
Tuesday, July 20, 2021	6:00	70	83	68	55
Tuesday, July 20, 2021	7:00	71	86	69	58
Tuesday, July 20, 2021	8:00	71	81	69	59
Tuesday, July 20, 2021	9:00	72	99	69	57
Tuesday, July 20, 2021	10:00	70	79	69	59
Tuesday, July 20, 2021	11:00	71	82	69	60
Tuesday, July 20, 2021	12:00	71	90	69	59
Tuesday, July 20, 2021	13:00	70	83	69	57
Tuesday, July 20, 2021	14:00	70	92	69	58
Tuesday, July 20, 2021	15:00	70	82	69	58
Tuesday, July 20, 2021	16:00	70	82	69	58
Tuesday, July 20, 2021	17:00	72	94	69	57
Tuesday, July 20, 2021	18:00	69	86	67	52
Tuesday, July 20, 2021	19:00	68	79	66	53
Tuesday, July 20, 2021	20:00	68	82	65	53
Tuesday, July 20, 2021	21:00	66	81	63	49
Tuesday, July 20, 2021	22:00	65	84	57	46
Tuesday, July 20, 2021	23:00	65	90	54	44

Statistics	Leq	Lmax	L50	L90
Day Average	70	85	68	56
Night Average	66	82	55	46
Day Low	66	79	63	49
Day High	72	99	69	60
Night Low	62	79	47	41
Night High	70	90	68	55
Ldn	73	Day %	82	
CNEL	73	Night %	18	

Site: LT-1

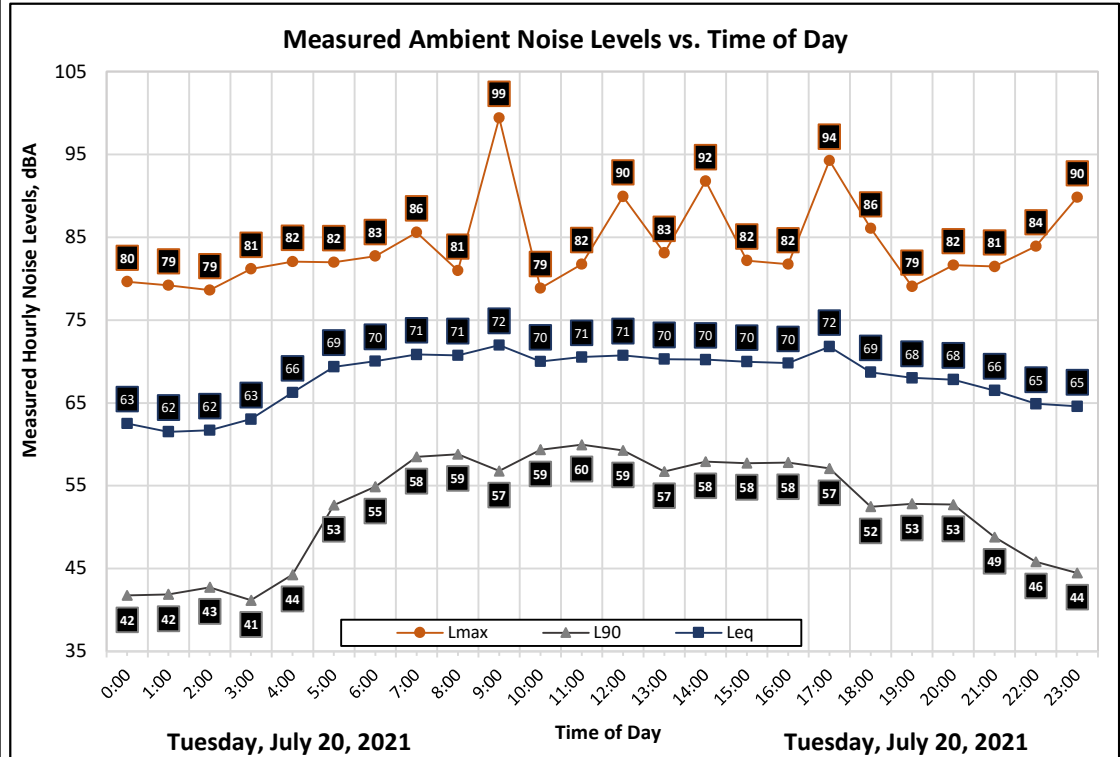
Project: Red Bluff General Plan

Location: Highway 36, East Red Bluff

Coordinates: 40.1857599°, -122.2125367°

Meter: LDL 812-2

Calibrator: CAL200





## Appendix B2: Continuous Noise Monitoring Results

Date	Time	Measured Level, dBA			
		L <sub>eq</sub>	L <sub>max</sub>	L <sub>50</sub>	L <sub>90</sub>
Tuesday, July 20, 2021	0:00	65	83	61	47
Tuesday, July 20, 2021	1:00	65	76	60	46
Tuesday, July 20, 2021	2:00	65	77	60	46
Tuesday, July 20, 2021	3:00	65	86	60	47
Tuesday, July 20, 2021	4:00	66	79	64	50
Tuesday, July 20, 2021	5:00	68	78	67	60
Tuesday, July 20, 2021	6:00	69	80	68	61
Tuesday, July 20, 2021	7:00	70	83	69	64
Tuesday, July 20, 2021	8:00	70	79	70	64
Tuesday, July 20, 2021	9:00	71	82	70	65
Tuesday, July 20, 2021	10:00	71	81	70	65
Tuesday, July 20, 2021	11:00	71	87	71	66
Tuesday, July 20, 2021	12:00	71	82	70	65
Tuesday, July 20, 2021	13:00	71	78	71	66
Tuesday, July 20, 2021	14:00	71	80	70	66
Tuesday, July 20, 2021	15:00	71	79	71	66
Tuesday, July 20, 2021	16:00	71	80	70	65
Tuesday, July 20, 2021	17:00	71	81	70	65
Tuesday, July 20, 2021	18:00	70	79	69	62
Tuesday, July 20, 2021	19:00	70	87	68	62
Tuesday, July 20, 2021	20:00	69	79	68	60
Tuesday, July 20, 2021	21:00	68	78	67	58
Tuesday, July 20, 2021	22:00	67	77	65	54
Tuesday, July 20, 2021	23:00	66	79	62	52

Statistics	Leq	Lmax	L50	L90
Day Average	71	81	70	64
Night Average	66	79	63	51
Day Low	68	78	67	58
Day High	71	87	71	66
Night Low	65	76	60	46
Night High	69	86	68	61
Ldn	73	Day %		83
CNEL	74	Night %		17

Site: LT-2

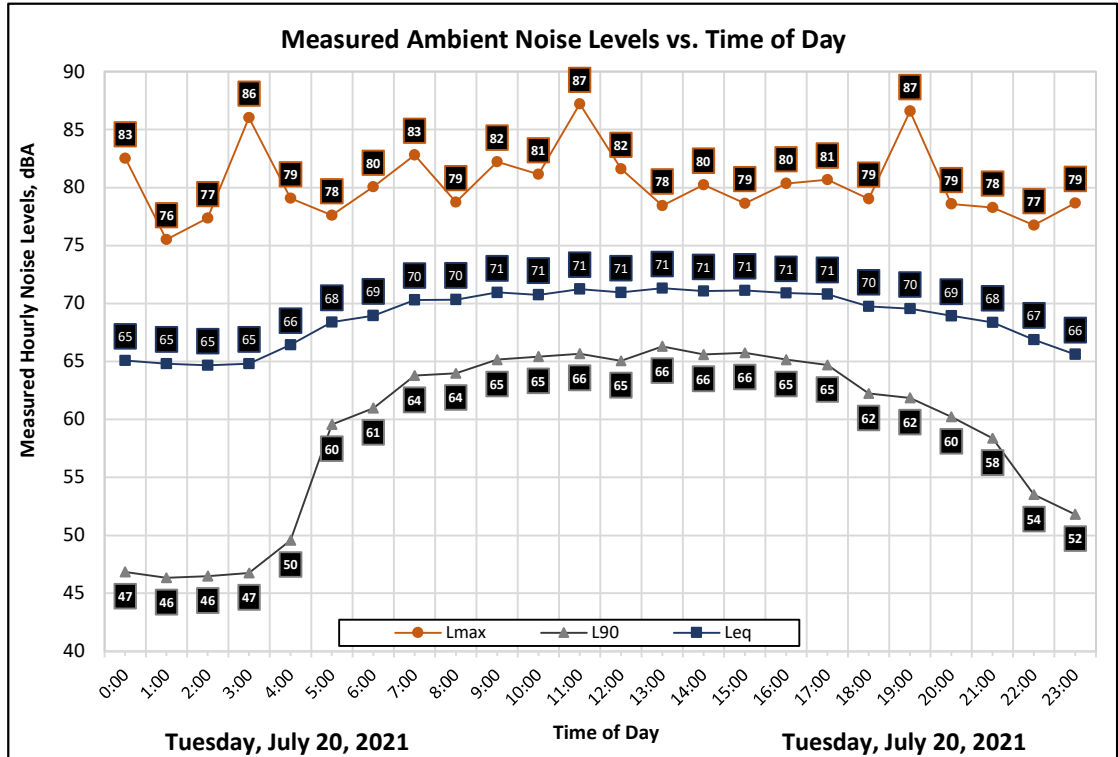
Project: Red Bluff General Plan

Meter: LDL 820-1

Location: I-5, Holiday Inn Express

Calibrator: CAL200

Coordinates: 40.1962553°, -122.2390198°



### Appendix B3: Continuous Noise Monitoring Results

Date	Time	Measured Level, dBA			
		L <sub>eq</sub>	L <sub>max</sub>	L <sub>50</sub>	L <sub>90</sub>
Tuesday, July 20, 2021	0:00	60	90	42	40
Tuesday, July 20, 2021	1:00	43	62	40	38
Tuesday, July 20, 2021	2:00	42	63	40	38
Tuesday, July 20, 2021	3:00	45	66	41	39
Tuesday, July 20, 2021	4:00	44	62	43	40
Tuesday, July 20, 2021	5:00	49	61	48	45
Tuesday, July 20, 2021	6:00	50	66	49	47
Tuesday, July 20, 2021	7:00	49	63	47	45
Tuesday, July 20, 2021	8:00	50	78	46	44
Tuesday, July 20, 2021	9:00	47	62	45	44
Tuesday, July 20, 2021	10:00	48	63	45	43
Tuesday, July 20, 2021	11:00	50	70	47	43
Tuesday, July 20, 2021	12:00	49	67	47	45
Tuesday, July 20, 2021	13:00	50	63	48	46
Tuesday, July 20, 2021	14:00	52	66	49	46
Tuesday, July 20, 2021	15:00	51	69	48	46
Tuesday, July 20, 2021	16:00	51	71	48	46
Tuesday, July 20, 2021	17:00	50	63	47	46
Tuesday, July 20, 2021	18:00	48	68	45	42
Tuesday, July 20, 2021	19:00	49	73	44	42
Tuesday, July 20, 2021	20:00	52	76	45	43
Tuesday, July 20, 2021	21:00	68	99	46	44
Tuesday, July 20, 2021	22:00	47	76	43	41
Tuesday, July 20, 2021	23:00	43	56	42	40

Statistics	Leq	Lmax	L50	L90
Day Average	57	70	46	44
Night Average	52	67	43	41
Day Low	47	62	44	42
Day High	68	99	49	46
Night Low	42	56	40	38
Night High	60	90	49	47
Ldn	59	Day %		85
CNEL	62	Night %		15

Site: LT-3

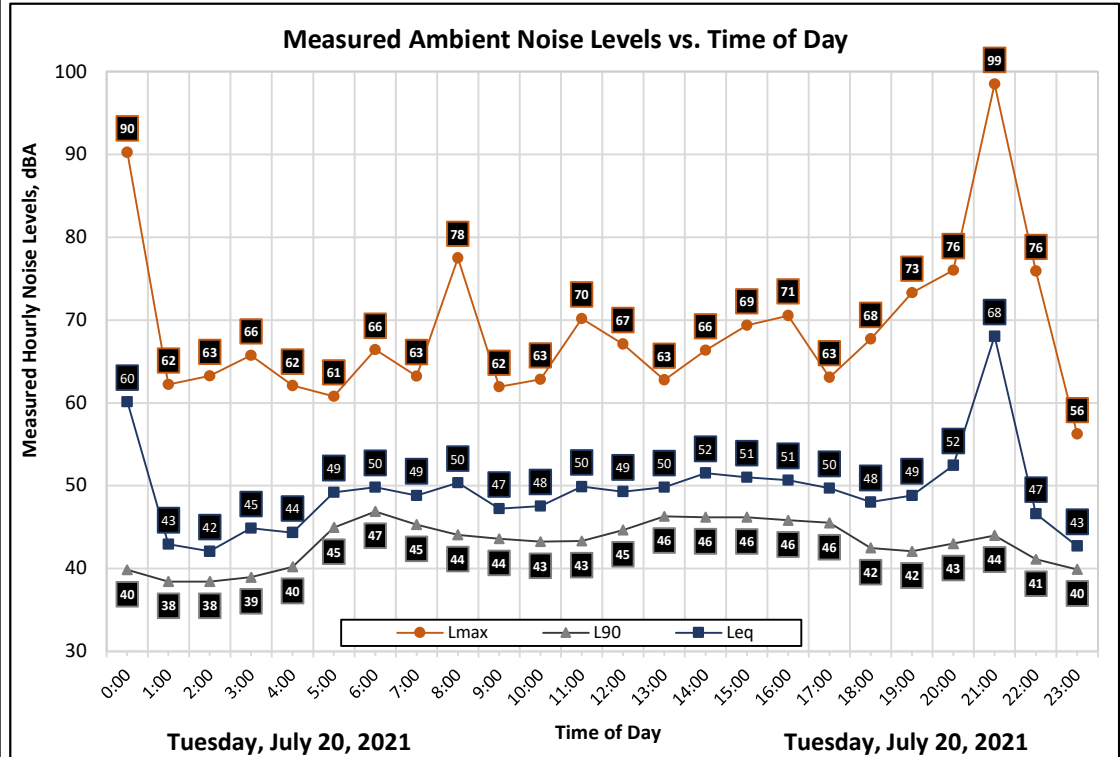
Project: Red Bluff General Plan

Meter: LDL 820-3

Location: Union Pacific Railroad

Calibrator: CAL200

Coordinates: 40.1729567°, -122.2356999°



# Appendix B4: Continuous Noise Monitoring Results

Date	Time	Measured Level, dBA			
		L <sub>eq</sub>	L <sub>max</sub>	L <sub>50</sub>	L <sub>90</sub>
Tuesday, July 20, 2021	0:00	48	75	37	35
Tuesday, July 20, 2021	1:00	39	50	37	35
Tuesday, July 20, 2021	2:00	38	50	36	34
Tuesday, July 20, 2021	3:00	39	61	36	34
Tuesday, July 20, 2021	4:00	40	59	38	34
Tuesday, July 20, 2021	5:00	43	55	42	39
Tuesday, July 20, 2021	6:00	48	61	47	44
Tuesday, July 20, 2021	7:00	49	68	44	41
Tuesday, July 20, 2021	8:00	56	76	45	39
Tuesday, July 20, 2021	9:00	53	76	44	39
Tuesday, July 20, 2021	10:00	51	72	41	37
Tuesday, July 20, 2021	11:00	44	66	39	35
Tuesday, July 20, 2021	12:00	50	71	45	40
Tuesday, July 20, 2021	13:00	51	65	48	42
Tuesday, July 20, 2021	14:00	52	69	49	42
Tuesday, July 20, 2021	15:00	50	68	47	42
Tuesday, July 20, 2021	16:00	48	59	46	41
Tuesday, July 20, 2021	17:00	47	58	46	41
Tuesday, July 20, 2021	18:00	50	75	45	39
Tuesday, July 20, 2021	19:00	45	66	42	38
Tuesday, July 20, 2021	20:00	44	60	41	38
Tuesday, July 20, 2021	21:00	41	52	39	37
Tuesday, July 20, 2021	22:00	41	60	39	36
Tuesday, July 20, 2021	23:00	42	54	40	36

Statistics	Leq	Lmax	L50	L90
Day Average	50	67	44	40
Night Average	44	58	39	36
Day Low	41	52	39	35
Day High	56	76	49	42
Night Low	38	50	36	34
Night High	48	75	47	44
Ldn	52	Day %		89
CNEL	52	Night %		11

Site: LT-4

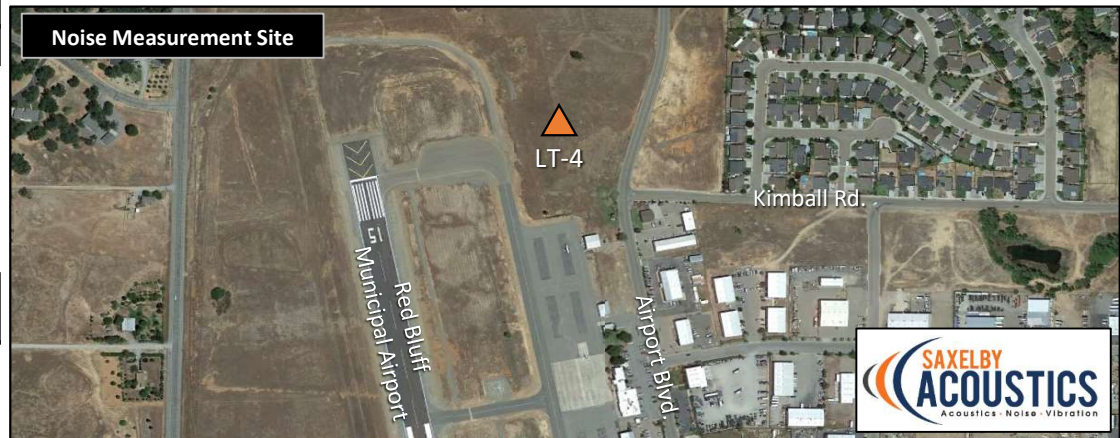
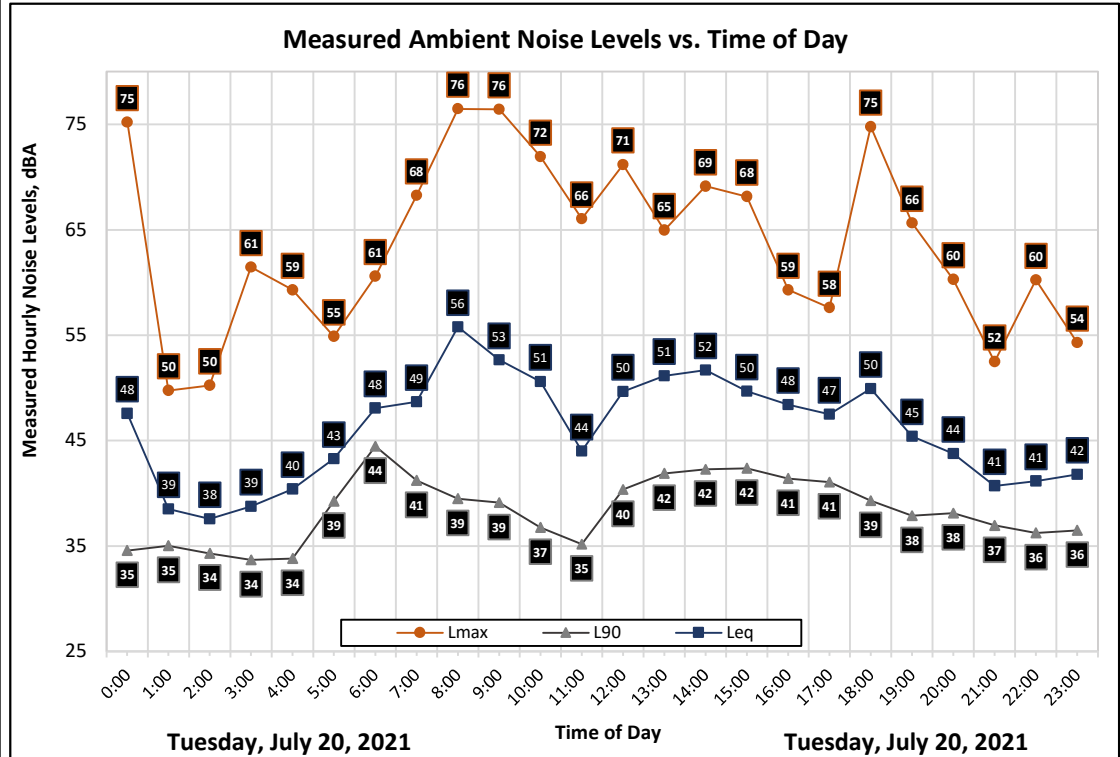
Project: Red Bluff General Plan

Location: Red Bluff Municipal Airport

Coordinates: 40.1582453°, -122.2516882°

Meter: LDL 820-2

Calibrator: CAL200





## Appendix B5 : Short Term Noise Monitoring Results

Site: ST-1

Project: Red Bluff General Plan

Location: John R. Trainor Park

Coordinates: 40.1546916°, -122.2437864°

Meter: LDL 831-3

Calibrator: CAL200

Start: 2021-07-16 13:43:24

Stop: 2021-07-16 13:53:24

SLM: Model 831

Serial: 1329

### Measurement Results, dBA

Duration: 0:10

$L_{eq}$ : 43

$L_{max}$ : 54

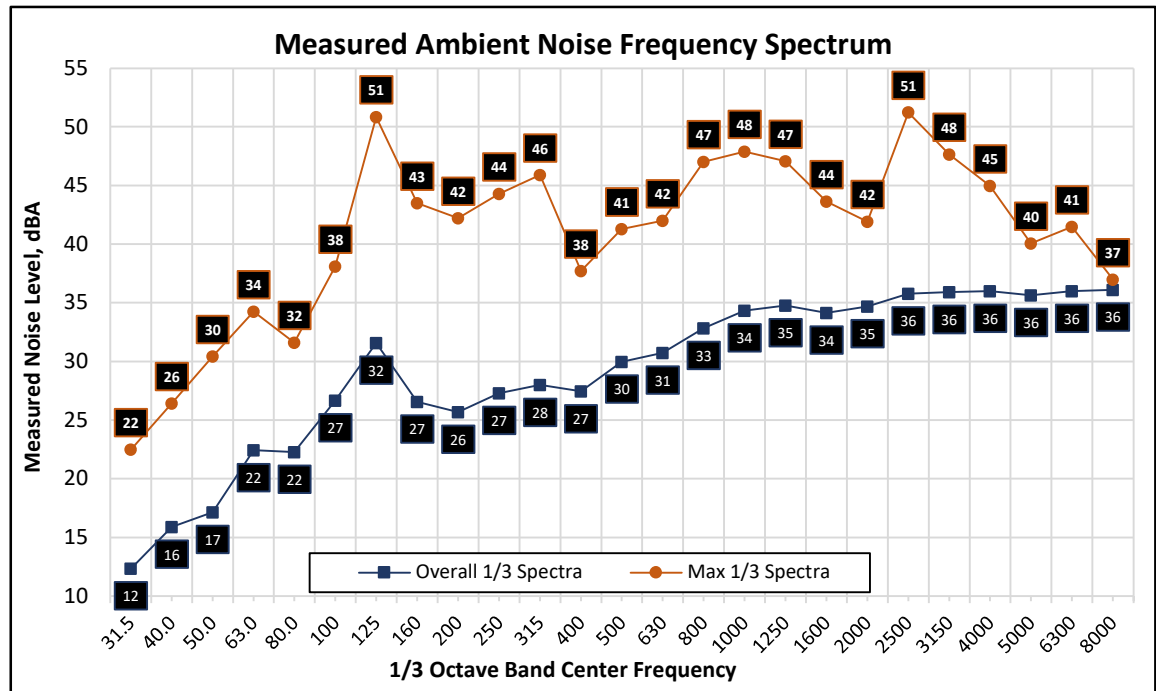
$L_{min}$ : 36

$L_{50}$ : 40

$L_{90}$ : 38

### Notes

Background noise is traffic, industrial uses, aircraft noise from airfield and helicopter pad. Some semitrucks and service load industries.





## Appendix B6 : Short Term Noise Monitoring Results

Site: ST-2

Project: Red Bluff General Plan

Location: Luther Road

Coordinates: 40.1546916°, -122.2437864°

Meter: LDL 831-3

Calibrator: CAL200

Start: 2021-07-16 14:31:06

Stop: 2021-07-16 14:41:06

SLM: Model 831

Serial: 1329

### Measurement Results, dBA

Duration: 0:10

$L_{eq}$ : 66

$L_{max}$ : 81

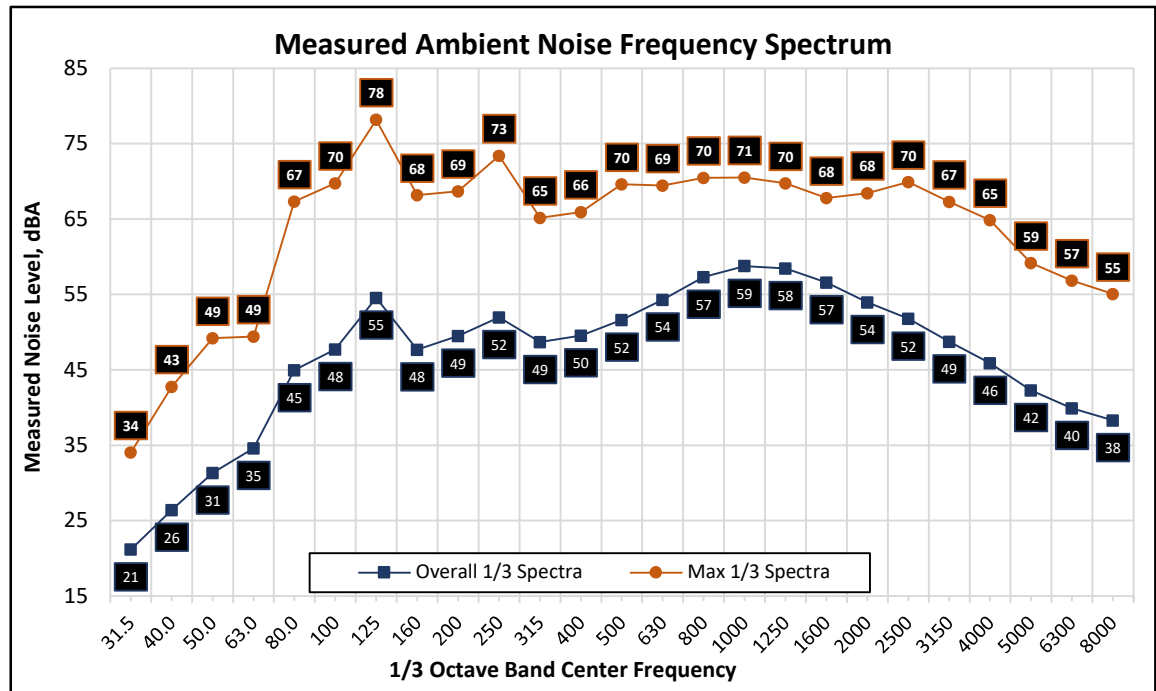
$L_{min}$ : 45

$L_{50}$ : 61

$L_{90}$ : 49

### Notes

Main noise source is from traffic on Luther Road.



## Appendix B7 : Short Term Noise Monitoring Results

Site: ST-3

Project: Red Bluff General Plan

Location: Red Bluff Elementary School

Coordinates: 40.1729344°, -122.2467389°

Meter: LDL 831-3

Calibrator: CAL200

Start: 2021-07-16 14:52:15

Stop: 2021-07-16 15:02:15

SLM: Model 831

Serial: 1329

### Measurement Results, dBA

Duration: 0:10

$L_{eq}$ : 70

$L_{max}$ : 87

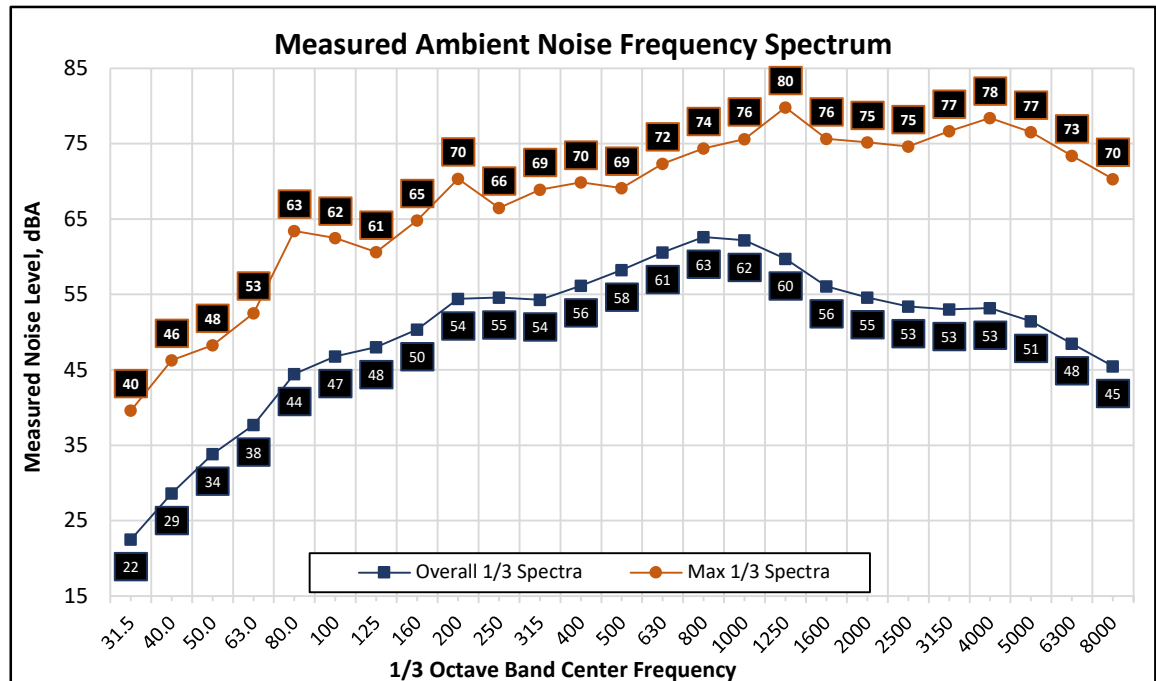
$L_{min}$ : 47

$L_{50}$ : 67

$L_{90}$ : 56

### Notes

Primary noise source is Walnut Street. Elementary school was not in session.



## Appendix B8 : Short Term Noise Monitoring Results

Site: ST-4

Project: Red Bluff General Plan

Location: Red Bluff High School

Coordinates: 40.1774004°, -122.2515256°

Meter: LDL 831-3

Calibrator: CAL200

Start: 2021-07-16 15:12:06

Stop: 2021-07-16 15:22:06

SLM: Model 831

Serial: 1329

### Measurement Results, dBA

Duration: 0:10

$L_{eq}$ : 43

$L_{max}$ : 53

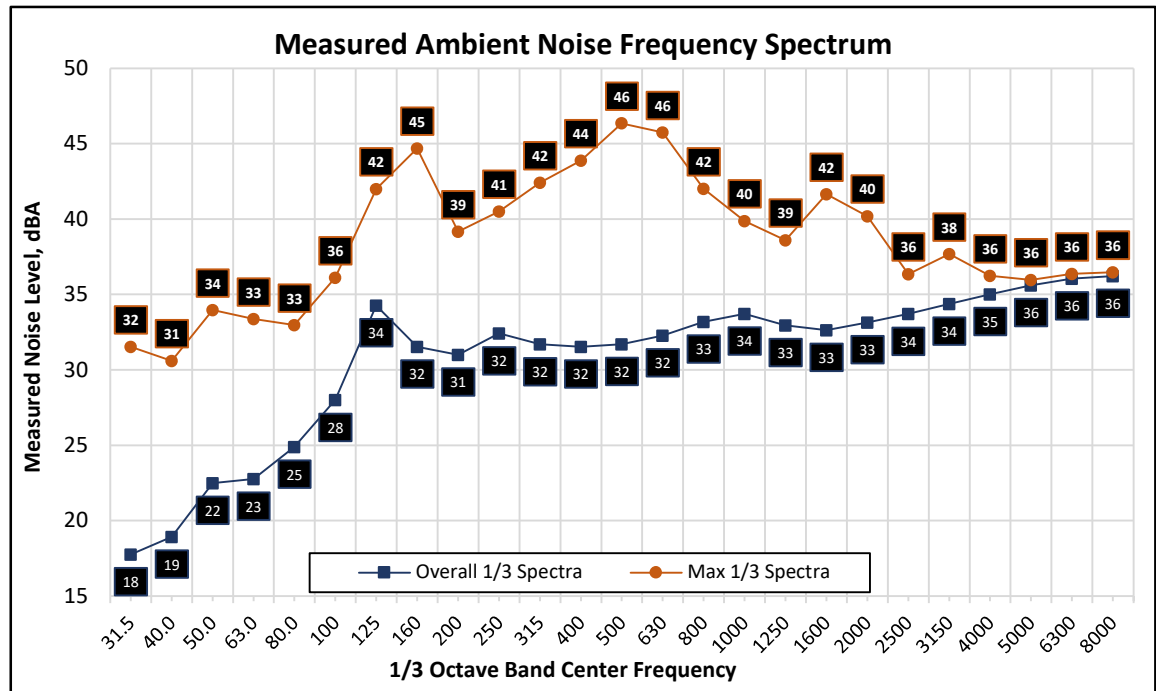
$L_{min}$ : 41

$L_{50}$ : 43

$L_{90}$ : 42

### Notes

Noise source is wind, as well as some residential and commercial HVAC. Occasional vehicle passby serves as background noise.





## Appendix B9 : Short Term Noise Monitoring Results

Site: ST-5

Project: Red Bluff General Plan

Location: Dog Island Park

Coordinates: 40.1835768°, -122.2392635°

Meter: LDL 831-3

Calibrator: CAL200

Start: 2021-07-21 11:52:31

Stop: 2021-07-21 12:02:31

SLM: Model 831

Serial: 1329

### Measurement Results, dBA

Duration: 0:10

$L_{eq}$ : 62

$L_{max}$ : 69

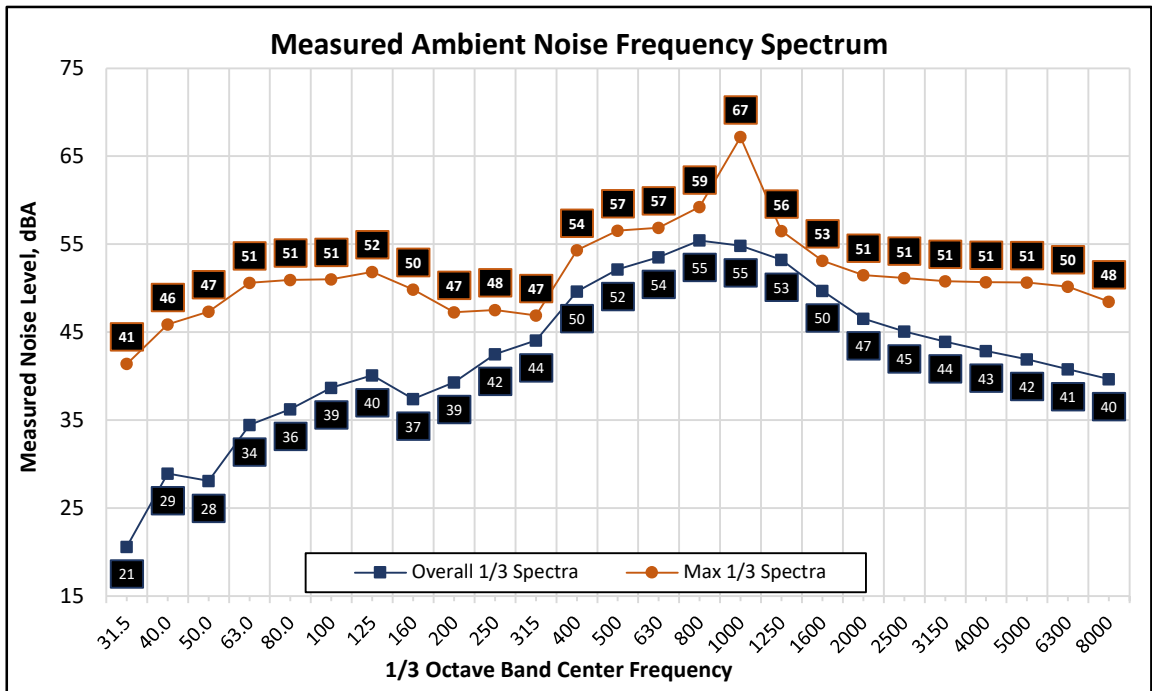
$L_{min}$ : 58

$L_{50}$ : 63

$L_{90}$ : 58

### Notes

Primary noise source is traffic on Main Street. Secondary noise source is circulation from the parking lot.



## Appendix B10 : Short Term Noise Monitoring Results

Site: ST-6

Project: Red Bluff General Plan

Location: Forward Park

Coordinates: 40.1868226°, -122.2465873°

Meter: LDL 831-3

Calibrator: CAL200

Start: 2021-07-21 12:21:11

Stop: 2021-07-21 12:31:11

SLM: Model 831

Serial: 1329

### Measurement Results, dBA

Duration: 0:10

$L_{eq}$ : 63

$L_{max}$ : 79

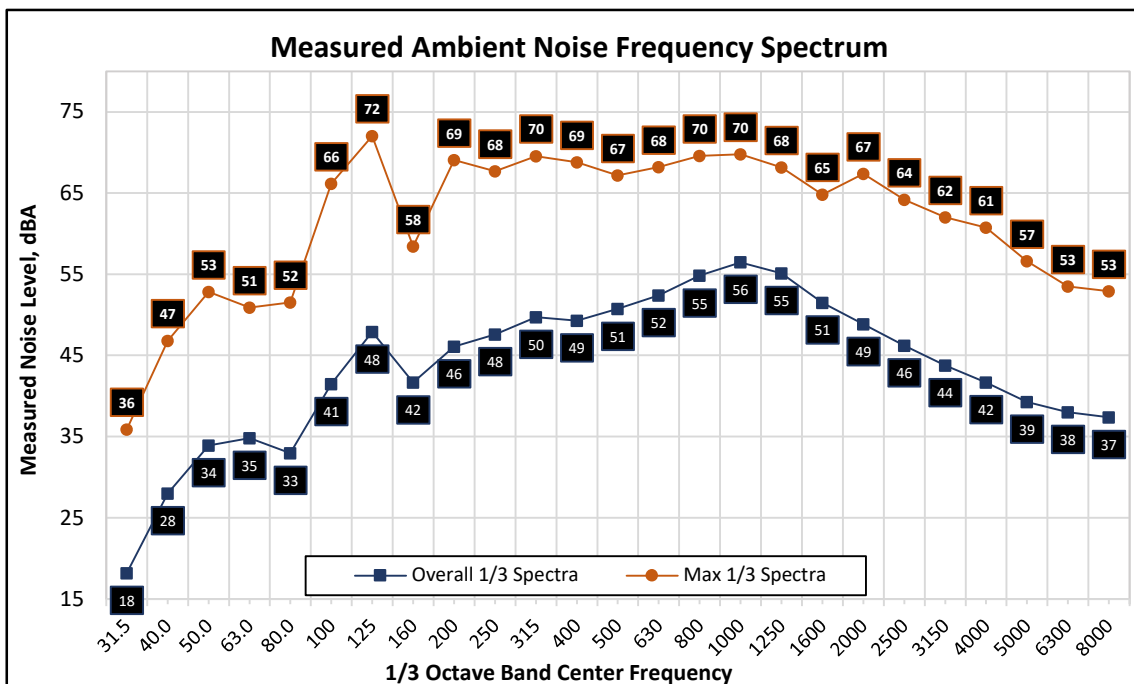
$L_{min}$ : 33

$L_{50}$ : 42

$L_{90}$ : 35

### Notes

Primary noise source is traffic on Monroe Avenue and circulation in the parking lot. Secondary noise source is activity at the park.



# **Appendix C**

## **Appendix C: Traffic Noise Calculation**

### **Inputs and Results**

## Appendix C: Traffic Noise Calculation Inputs and Results



## Appendix C-1

### FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 210404

Description Red Bluff General Plan



											Contours (ft.) - No Offset				
Segment	Roadway	Segment	ADT	Day	Night	% Med.	% Hvy.	Speed	Distance	Offset	60	65	70	Level,	
				%	%	Trucks	Trucks				dBA	dBA	dBA	dBA	
1	Baker Road	Beegum Road (SR 36) to Estel Lane	3,200	83	17	2.0%	1.0%	55	55	0	104	48	23	64.2	
2	Baker Road	Estel Lane to Walnut Street	3,200	83	17	2.0%	1.0%	45	60	0	75	35	16	61.4	
3	Jackson Street	Walnut Street to Luther Road	10,200	85	15	2.0%	1.0%	35	35	0	103	48	22	67.1	
4	Jackson Street	Luther Road to Vista Way	10,200	89	11	2.0%	1.0%	35	40	0	92	43	20	65.5	
5	Monroe Street	Beegum Road (SR 36) to Walnut Street	3,200	83	17	2.0%	1.0%	35	40	0	50	23	11	61.5	
6	Main Street (SR 36)	Beegum Road (SR 36) to Adobe Road	8,000	83	17	2.0%	1.0%	45	90	0	138	64	30	62.8	
7	Main Street (SR 36)	Adobe Road to Union Street	9,700	85	15	2.0%	1.0%	30	75	0	85	39	18	60.8	
8	Main Street (SR 36)	Union Street to Walnut Street	9,400	85	15	2.0%	1.0%	30	40	0	83	39	18	64.8	
9	Main Street (SR 36)	Walnut Street to Oak Street	11,500	85	15	2.0%	1.0%	30	40	0	95	44	20	65.6	
10	Main Street	Oak Avenue to I-5	15,800	89	11	2.0%	1.0%	35	65	0	124	57	27	64.2	
11	Diamond Avenue	S. Main Street to I-5	3,300	89	11	2.0%	1.0%	30	55	0	37	17	8	57.4	
12	Sale Lane	Antelope Boulevard to Gilmore Ranch Road	3,400	82	18	2.0%	1.0%	35	50	0	53	25	12	60.4	
13	Beegum Road	Baker Road to Main Street (SR 36)	4,100	83	17	2.0%	1.0%	55	110	0	123	57	27	60.7	
14	Adobe Road	Main Street to I-5	8,100	83	17	2.0%	1.0%	35	95	0	93	43	20	59.9	
15	Walnut Street	Main Street to Baker Road	6,900	85	15	2.0%	1.0%	25	55	0	53	25	11	59.8	
16	Oak Street	Jackson Street to Main Street	6,100	85	15	2.0%	1.0%	25	30	0	49	23	11	63.2	
17	Antelope Boulevard (SR 36)	Main Street to I-5	18,800	82	18	2.0%	1.0%	40	80	0	206	95	44	66.2	
18	Antelope Boulevard (SR 36)	I-5 to SR 99	19,600	82	18	2.0%	1.0%	45	75	0	256	119	55	68.0	
19	SR 99	East of SR 36	12,000	82	18	2.0%	1.0%	55	85	0	258	120	56	67.2	
20	Luther Road	Paskenta Road to S.Main Street	6,200	89	11	2.0%	1.0%	40	40	0	82	38	18	64.7	



## **Appendix D: Example Loading Dock Noise Barrier Reductions**

## **Appendix D: Example Loading Dock Noise Barrier Reductions**



## Appendix D-1 : Barrier Insertion Loss Calculation

### Project Information:

Project Name: Red Bluff GPU

Location(s): Example Loading Dock - 100' with 12' sound wall

### Noise Level Data:

Source Description: Loading Dock

Source Noise Level, dBA Leq: 66.0

Source Frequency (Hz): 1000

Source Height (ft): 8

### Site Geometry:

Receiver Description: Sensitive Use

Source to Barrier Distance ( $C_1$ ): 100

Barrier to Receiver Distance ( $C_2$ ): 15

Pad/Ground Elevation at Receiver: 0

Receiver Elevation<sup>1</sup>: 5

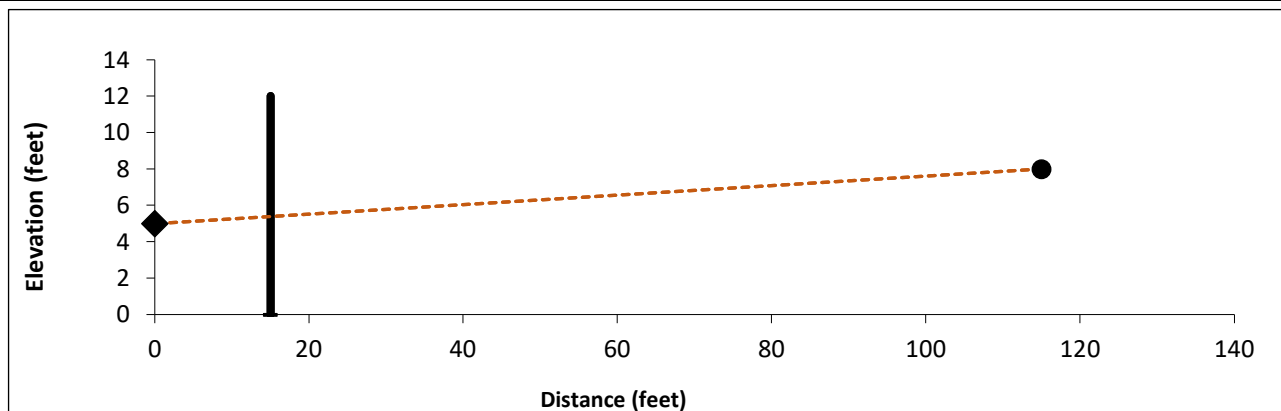
Base of Barrier Elevation: 0

Starting Barrier Height 12

### Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
12	12	-13	53	Yes
13	13	-14	52	Yes
14	14	-15	51	Yes
15	15	-15	51	Yes
16	16	-16	50	Yes
17	17	-17	49	Yes
18	18	-17	49	Yes
19	19	-17	49	Yes
20	20	-17	49	Yes
21	21	-17	49	Yes
22	22	-17	49	Yes

Notes: <sup>1</sup> Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



## Appendix D-2 : Barrier Insertion Loss Calculation

### Project Information:

Project Name: Red Bluff GPU

Location(s): Example Loading Dock - 250' with 12' sound wall

### Noise Level Data:

Source Description: Loading Dock

Source Noise Level, dBA Leq: 58.0

Source Frequency (Hz): 1000

Source Height (ft): 8

### Site Geometry:

Receiver Description: Sensitive Use

Source to Barrier Distance ( $C_1$ ): 250

Barrier to Receiver Distance ( $C_2$ ): 15

Pad/Ground Elevation at Receiver: 0

Receiver Elevation<sup>1</sup>: 5

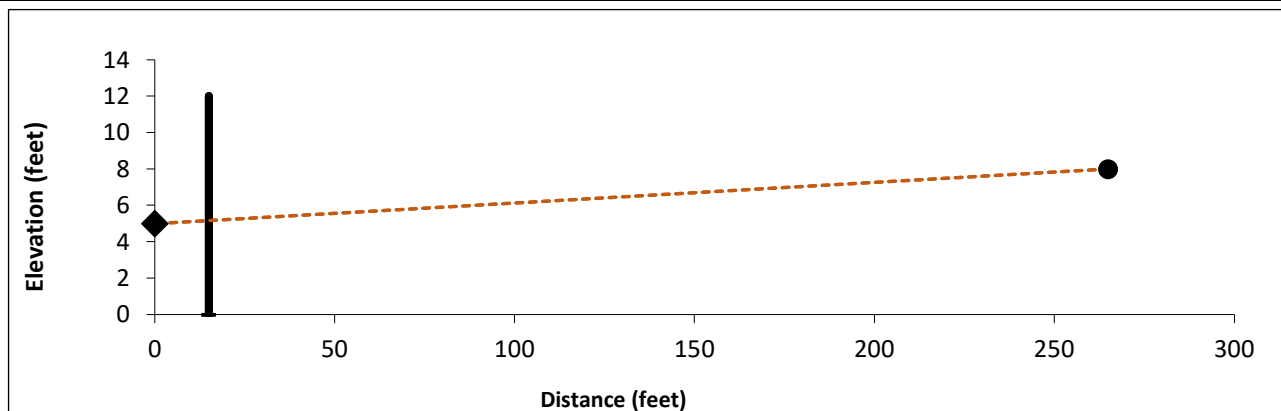
Base of Barrier Elevation: 0

Starting Barrier Height 12

### Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
12	12	-13	45	Yes
13	13	-14	44	Yes
14	14	-15	43	Yes
15	15	-15	43	Yes
16	16	-16	42	Yes
17	17	-16	42	Yes
18	18	-17	41	Yes
19	19	-17	41	Yes
20	20	-17	41	Yes
21	21	-17	41	Yes
22	22	-17	41	Yes

Notes: <sup>1</sup> Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



### Appendix D-3 : Barrier Insertion Loss Calculation

#### Project Information:

Project Name: Red Bluff GPU

Location(s): Example Loading Dock - 150' with building shielding

#### Noise Level Data:

Source Description: Loading Dock

Source Noise Level, dBA Leq: 62.5

Source Frequency (Hz): 1000

Source Height (ft): 8

#### Site Geometry:

Receiver Description: Sensitive Use

Source to Barrier Distance ( $C_1$ ): 150

Barrier to Receiver Distance ( $C_2$ ): 15

Pad/Ground Elevation at Receiver: 0

Receiver Elevation<sup>1</sup>: 5

Base of Barrier Elevation: 0

Starting Barrier Height 20

#### Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
20	20	-17	45	Yes
21	21	-17	45	Yes
22	22	-17	45	Yes
23	23	-17	45	Yes
24	24	-17	45	Yes
25	25	-17	45	Yes
26	26	-18	44	Yes
27	27	-18	44	Yes
28	28	-18	44	Yes
29	29	-18	44	Yes
30	30	-18	44	Yes

Notes: <sup>1</sup> Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)

