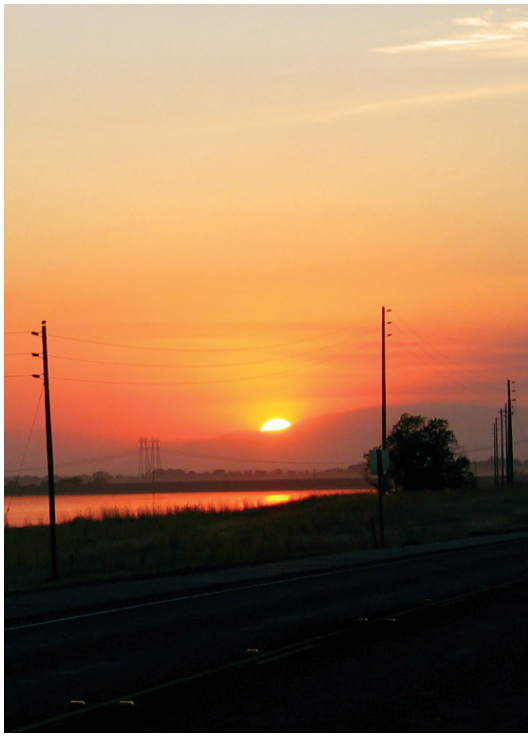
PLACEWORKS

January 30, 2015



Oroville Sustainability Updates Draft Supplemental EIR

for the City of Oroville

State Clearinghouse #2014052001

January 30, 2015

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DISCLAIMER

The statements and conclusions of this report are those of the City of Oroville and not necessarily those of the Strategic Growth Council or of the Department of Conservation, or its employees. The Strategic Growth Council and the Department of Conservation make no warranties, express or implied, and assume no liability for the information contained in the succeeding text.

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1 INTRODUCTION

The City of Oroville adopted the Oroville 2030 General Plan on June 2, 2009. Since that time, the City has been proceeding with several key steps to implement the updated General Plan, including updating the Zoning Ordinance to bring it into conformance with the 2030 General Plan, preparing other updates to the Municipal Code, adding a chapter on low-impact development and resource-efficient design to the City's Design Guidelines, preparing a Climate Action Plan (CAP), and preparing a Balanced Mode Circulation Plan. In addition, the City is preparing targeted updates to the 2030 General Plan to strengthen the environmental, community, and economic sustainability of Oroville, as discussed in more detail in Chapter 3. Collectively, these project components are referred to as the Oroville Sustainability Updates.

The adopted Oroville 2030 General Plan was reviewed according to the California Environmental Quality Act (CEQA) statute. A programmatic Draft Environmental Impact Report (2008 Draft EIR) was completed on March 31, 2008, sent to the State Clearinghouse, and reviewed by local, State, and federal agencies and the general public during the review period.[1] A Final EIR including responses to comments was published on March 31, 2009.[2] The Final EIR was certified by the City of Oroville on June 2, 2009 (2009 EIR).

The Oroville Sustainability Updates must also be reviewed according to the CEQA Guidelines. CEQA Guidelines §15162 and §15163 contain provisions regarding Supplemental EIRs, and when they may be used in place of a full EIR or Subsequent EIR. According to CEQA Guideline §15162, a Subsequent EIR shall be prepared if changes are made to a project following certification of an EIR. According to CEQA Guideline §15163, a Supplemental EIR may be prepared in lieu of a Subsequent EIR if only minor changes would be needed to make the previous EIR adequately apply to the revised project. The changes contained in the Oroville Sustainability Updates do not significantly change the analysis of the 2030 General Plan in the 2009 EIR. Therefore, this EIR has been prepared as a Supplemental EIR (SEIR).

The purpose of this SEIR is to inform the general public and decision makers of any changes to the environmental impacts of the 2030 General Plan caused by the 2030 General Plan (the "Approved Project" in this SEIR), in combination with the

[1] City of Oroville, March 31, 2008, *Oroville 2030 General Plan Draft EIR,* State Clearinghouse Number 2008022024.

[2] City of Oroville, March 31, 2009, *Oroville 2030 General Plan Final EIR,* State Clearinghouse Number 2008022024.

Oroville Sustainability Updates ("Modified Project"). This SEIR will look at the differences between the Modified Project and the Approved Project and evaluate whether the impacts would be increased or reduced, and how they would differ. Baseline conditions and regulatory information that were reported in the 2008 Draft EIR are updated as appropriate in this SEIR; the baseline also now includes the adopted 2030 General Plan. Where new impacts and mitigation measures are listed, these are numbered sequentially to the numbering in the 2009 EIR.

Some environmental regulations and guidelines have changed since the original EIR was prepared. In May 2010, new CEQA guidelines were adopted, including more specific questions for analysis of greenhouse gas (GHG) emissions and a new question regarding forestland conversion, among others. Therefore, this SEIR updates the thresholds to reflect the current CEQA Guidelines, although only the changes between the Approved and Modified Project are evaluated against these thresholds, as discussed above.

As a Program EIR, this SEIR is not project-specific. It does not evaluate the impacts of specific projects that may be proposed under the 2030 General Plan and Oroville Sustainability Updates. Such projects will require separate environmental review to secure the necessary discretionary development permits. While future environmental review may be tiered off this SEIR, this SEIR is not intended to address impacts of individual projects.

A. Report Organization

This document is organized into the following chapters:

- **Chapter 1: Introduction.** This chapter discusses the use and organization of this SEIR.
- **Chapter 2: Report Summary.** This chapter summarizes the environmental consequences that would result from adoption and implementation of the Modified Project, describes recommended mitigation, and indicates the level of significance of environmental impacts before and after mitigation. It also includes a table summarizing the impact findings of Chapter 4.
- **Chapter 3: Project Description.** This chapter describes the differences between the Approved Project and the Modified Project.

- **Chapter 4: Environmental Evaluation.** This chapter provides an analysis of the potential environmental impacts resulting from the Modified Project compared to the Approved Project.
- **Chapter 5: Alternatives to the Proposed Project.** This chapter considers three alternatives to the proposed project, including the CEQA-required "No Project Alternative."
- **Chapter 6: CEQA-Required Assessment Conclusions.** This chapter discusses growth inducement, unavoidable significant effects, significant irreversible changes as a result of the Modified Project, and cumulative impacts resulting from the Modified Project.

B. Environmental Review Process

The process for the SEIR is similar to that of the original EIR. A Notice of Preparation (NOP) was issued for the SEIR on May 6, 2014 and was sent to the State Clearinghouse.[3] This Draft SEIR was published on January 30, 2015, which marks the start of the 45-day review period. Comments should be submitted in writing, by mail, or email to:

Luis Topete, Associate Planner
City of Oroville Community Development Department
1735 Montgomery Street
Oroville, CA 95965
(530) 538-2408
topetela@cityoforoville.org

A public meeting on the Draft SEIR to receive verbal comments will be held by the Oroville Planning Commission at the Oroville City Council Chambers, 1735 Montgomery Street, Oroville. The date and time for this meeting are to be determined.

A Final SEIR with responses to comments and the Draft SEIR will comprise the final environmental document. This will be made available to the general public and decision makers prior to any public hearings for adoption of the Oroville Sustainability Updates.

[3] Notice of Preparation of a Supplemental EIR for the Oroville Sustainability Updates. State Clearinghouse # 2014052001.

2 REPORT SUMMARY

This summary presents an overview of the analysis contained in Chapter 4, Environmental Evaluation, of this SEIR. CEQA requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the project. As described in Chapter 1, Introduction, this SEIR only considers the differences between the Modified Project and the Approved Project, evaluates whether the impacts would be increased or reduced, and how they would differ. Therefore, this chapter summarizes only the new or changed impacts that would be caused by the Modified Project.

A. Project Under Review

This SEIR provides an assessment of the potential environmental consequences of adoption of the proposed Oroville Sustainability Updates. The proposed project is described in a greater level of detail in Chapter 3, Project Description, of this SEIR.

B. Areas of Controversy

The City issued an official Notice of Preparation (NOP) for the proposed Oroville Sustainability Updates on May 6, 2014 and held a scoping meeting on May 22, 2014. A follow-up scoping meeting was also held on June 19, 2014, due to low attendance at the May meeting. The official NOP for this Program EIR was issued to the Governor's Office of Planning and Research, and forwarded to federal, State, and local agencies, and interested parties. The only comments received on the NOP were at the June 19, 2014 scoping meeting, and addressed:

- Pedestrian safety
- Promoting alternative modes of transportation
- The review and adoption process for the Oroville Sustainability Updates

All of these issues are addressed in this SEIR.

C. Significant Impacts

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance.

As explained in Chapter 4 of this Draft SEIR, implementation of the proposed Oroville Sustainability Updates would not generate any new or worsen any existing significant environmental impacts beyond what was identified in the 2009 EIR for the Approved Project, with the exception of a new impact identified for both the Approved and Modified Projects due to the identification of a new special-status wildlife species, the California black rail, in the Project Area. Chapter 4.3, Biological Resources, of this Draft SEIR proposes mitigation measures that would mitigate the impact to a less-than-significant level. This new impact and the proposed mitigation measures are summarized in Table 2-1.

In addition, as described in Chapter 4.13, Transportation and Circulation, in this Draft SEIR, the Modified Project would reduce the traffic impact from the Approved Project from a significant to a less-than-significant level. Therefore, Impact CIR-1 from the 2009 EIR for the Approved Project is shown as struck out in Table 2-1.

D. Mitigation Measures

This SEIR suggests specific mitigation measures to reduce the new significant impact (Impact BIO-2) of the Modified Project, in addition to those included in the 2009 EIR for the Approved Project. The mitigation measures in this SEIR will form the basis of a Mitigation Monitoring and Reporting Program to be implemented in accordance with State law.

E. Unavoidable Significant Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. As described in Chapter 4 of this SEIR and shown in Table 2-1, no new significant unavoidable impacts were identified as a result of the Modified Project.

F. Alternatives to the Project

This SEIR analyzes alternatives to the proposed project. Three alternatives to the proposed project are considered and described in detail in Chapter 5 of this SEIR:

- No Project Alternative
- Existing General Plan Land Use Map Alternative
- Open Space Alternative

As shown in the alternatives analysis in Chapter 5 of this SEIR, the Open Space Alternative has the least environmental impact and is therefore the environmentally superior alternative. By reducing the amount of land available for development, while also adding the Modified Project components that provide beneficial impacts, the Open Space Alternative would be an improvement over the Modified Project in all topic areas except air quality, land use, noise, and transportation and circulation.

G. Summary Table

Table 2-1 presents a summary of impacts and mitigation measures identified in this report. It is organized to correspond with the environmental issues discussed in Chapter 4 of this SEIR.

The table is arranged in four columns: 1) environmental impacts; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. For a complete description of potential impacts, please refer to the specific discussions in Chapter 4 of this SEIR.

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AESTHETICS			
The Modified Project would not create any new significant impacts related to aesthetics.			
AIR QUALITY			
The Modified Project would not create any new significant impacts related to air quality.			
BIOLOGICAL RESOURCES			
BIO-2: Development associated with the Approved Project and the Modified Project could impact California black rail and its habitat as discussed above. Impacts on California black rail and its habitat could be offset through the City's participation in the BRCP. The Draft BRCP identifies a goal for maintaining and increasing the population of California black rail in the BRCP Plan Area, which includes the protection of five patches of California black rail habitat and an objective to avoid the removal of occupied California black rail habitat. In addition, the large scale conservation of grasslands and avoidance and protection of wetlands within the BRCP Plan Area would also likely benefit the species.	S	BIO-2A: Surveys for California Black Rail If a proposed project would result in the loss of or occurs adjacent to freshwater marsh habitat, surveys shall be conducted to determine whether the marsh is occupied by California black rail. Two to three rounds of surveys shall be conducted between March 15 and May 31, with at least ten days between surveys. Survey methodology will generally follow the Wetlands Regional Monitoring Program protocol for black rail or another methodology as determined in coordination with CDFW. The surveyor(s) shall possess the required permits from CDFW for conducting the surveys. Project construction shall not be initiated until the surveys are completed and results reviewed by CDFW.	LTS
		BIO-2B: Avoid and Minimize Impacts on California Black Rail Development projects within the Project Area shall avoid and minimize impacts on freshwater marsh habitat and/or occupied California black rail habitat to the maximum extent practicable. Where direct impacts can be avoided, buffers shall be established around the occupied California black rail habitat to	

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES** (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		avoid and minimize disturbance of the species during construction. Buffers shall be developed in coordination with CDFW and be based on site-specific conditions and the nature of the construction activities. Buffer areas shall be delineated with a combination of bright orange construction fencing (the bottom 18 inches should be above grade to avoid entangling terrestrial wildlife) and silt fencing (with the bottom 6 inches buried) to clearly identify the area to be avoided and to keep sediments from entering the wetland, respectively. In addition, a biological monitor who is experienced with California black rails shall monitor construction activities to ensure that activities do not inadvertently impact the species or its habitat. The biological monitor shall also provide worker awareness training to construction personnel on the status and general biology of California black rail, inform them of the conservation measures that have been developed to avoid and minimize impacts on the species, and inform them of the consequences of non-compliance. Activities that require monitoring shall be decided based on site-specific conditions and the nature of the activity, and shall be developed in coordination with CDFW. Generally, those activities in close proximity to occupied habitat that require night work and associated lighting and/or that generate loud noises shall not be allowed during the nesting season, or they shall require monitoring.	

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES** (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		BIO-2C: Compensate for Loss of California Black Rail Habitat California black rail habitat that would be lost as a result of site-specific development projects allowed by the Approved or Modified Project shall be mitigated at a minimum of 1:1. Compensation shall consist of either preservation or restoration, or both, depending on the availability of equivalent habitat in the Project Area and pending consultation with CDFW. Compensation shall be achieved at either a mitigation bank or within an approved conservation area that is protected and managed in perpetuity.	
CULTURAL RESOURCES			
The Modified Project would not create any new significant impacts related to cultural resources.			
GEOLOGY, SOILS, AND MINERAL RESOURCES			
The Modified Project would not create any new significant impacts related to geology, soils, and mineral resources.			
GREENHOUSE GAS EMISSIONS			
The Modified Project would not create any new significant impacts related to greenhouse gas emissions.			
HAZARDS AND HAZARDOUS MATERIALS			
The Modified Project would not create any new significant impacts related to hazards and hazardous materials.			
HYDROLOGY AND WATER QUALITY			
The Modified Project would not create any new significant impacts related to hydrology and water quality.			

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-1 **SUMMARY OF IMPACTS AND MITIGATION MEASURES** (CONTINUED)

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
LAND USE			
The Modified Project would not create any new significant impacts related to land use.			
NOISE			
The Modified Project would not create any new significant impacts related to noise.			
POPULATION AND HOUSING			
The Modified Project would not create any new significant impacts related to population and housing.			
PUBLIC SERVICES AND RECREATION			
The Modified Project would not create any new significant impacts related to public services and recreation.			
TRANSPORTATION AND CIRCULATION			
~~**CIR-1**: Under the 25-year horizon buildout of the Draft 2030 General Plan, the segments of Olive Highway between Oroville Dam Boulevard and Foothill Boulevard and the segment of Highway 70 between Oroville Dam Boulevard and Ophir Road would operate at LOS F. In addition, the segment of Olive Highway between Foothill Boulevard and Oakvale Avenue; the segment of Oroville Dam Boulevard between Highway 70 and Larkin Road; and the segment of Highway 70 between Ophir Road and Palermo Road would operate at LOS E. Although the Draft 2030 General Plan identifies roadway improvements needed to provide acceptable traffic operations on these segments, delivery of these roadway improvements is not certain due to funding constraints.~~	~~S~~	~~Funding for these improvements is outside of the City's control, and no additional mitigation is available.~~	~~SU~~
UTILITIES AND INFRASTRUCTURE			
The Modified Project would not create any new significant impacts related to utilities and infrastructure.			

LTS = Less Than Significant S = Significant SU = Significant Unavoidable Impact

3 PROJECT DESCRIPTION

After a multi-year effort involving extensive community input, the City of Oroville adopted the Oroville 2030 General Plan on June 2, 2009. Since that time, the City has been proceeding with several key steps to implement the updated General Plan, including updating the Zoning Ordinance to bring it into conformance with the 2030 General Plan, preparing other updates to the Municipal Code, adding a chapter on low-impact development and resource-efficient design to the City's Design Guidelines, preparing a Climate Action Plan (CAP), and preparing a Balanced Mode Circulation Plan. In addition, the City is preparing targeted updates to the 2030 General Plan to strengthen the environmental, community, and economic sustainability of Oroville, as discussed in more detail in this chapter. Collectively, these project components are referred to as the Oroville Sustainability Updates.

This Supplemental Environmental Impact Report (SEIR) provides an assessment of the Oroville Sustainability Updates. It is based on the Public Review Drafts of the updated 2030 General Plan, Municipal Code, and Design Guidelines, which would all supersede the current versions of those documents, as well as the Public Review Draft CAP and Public Review Draft Balanced Mode Circulation Plan, all of which were published in January 2015.

The approved 2030 General Plan was evaluated in an EIR that was certified in June 2009. The Municipal Code Updates, Design Guidelines Update, CAP, and Balanced Mode Circulation Plan have not previously been evaluated under the California Environmental Quality Act (CEQA). In compliance with CEQA, this SEIR describes the potential environmental impacts of the Oroville Sustainability Updates as compared to those of the approved 2030 General Plan, as evaluated in the 2009 EIR. More specifically, in accordance with Section 15163(b) of the CEQA Guidelines, this SEIR contains the information necessary to make the previous EIR, which is the 2030 General Plan EIR that was certified in June 2009, adequate for the project as revised. The notice of preparation for the Oroville Sustainability Updates SEIR was published on May 6, 2014 (State Clearinghouse #2014052001). The City of Oroville is the Lead Agency for the environmental review of the proposed project.

A. Location and Setting

The location and setting of Oroville is described in detail in the 2009 2030 General Plan EIR. As described in that document, Oroville is one of five incorporated municipalities in Butte County and is the County seat. The incorporated city limits

consists of a 13-square-mile area located 65 miles north of Sacramento, where the Sacramento Valley meets the Sierra Nevada foothills. Oroville lies 5 miles west of Highway 99 along Highway 70, a primary transportation route connecting Oroville with Sacramento to the south and Plumas County to the north. Oroville's geographic location is shown in Figure 3-1.

Oroville is primarily a single-family residential community with a historic downtown district and main commercial corridors along Oroville Dam and Feather River Boulevards. As of 2014, the city has approximately 15,980 residents.[1] As a charter city, Oroville operates largely in accordance with its own City Charter, compared to general law cities, which are governed according to State statutes.

B. Project Area

The approved 2030 General Plan identifies three distinct planning units: the city limits, Sphere of Influence (SOI), and Planning Area. These are shown in Figure 3-2, and each is described in detail in the 2009 2030 General Plan EIR. This SEIR focuses on the analysis of potential impacts resulting from the Oroville Sustainability Updates for lands only within the city limits and SOI. This area is referred to as the "Project Area" in this document. The Project Area was established based on two criterions. First, as lands within the City's SOI, the City either has jurisdiction over or is able to comment on proposed development, in cooperation with Butte County. Second, the 2030 General Plan was developed to plan for development within these lands over the next 15 years.

C. Objectives and Process

This section describes the objectives and processes for the proposed Oroville Sustainability Updates.

1. Objectives of the Proposed Project

The objectives of the 2030 General Plan Updates carry forward the objectives of the 2030 General Plan, as enumerated in the 2009 2030 General Plan EIR. These objectives are to:

[1] California Department of Finance 2014 population estimates: http://www.dof.ca.gov/Research/demographic/reports/estimates/e-1/view.php, accessed May 14, 2014.

FIGURE 3-1

REGIONAL LOCATION

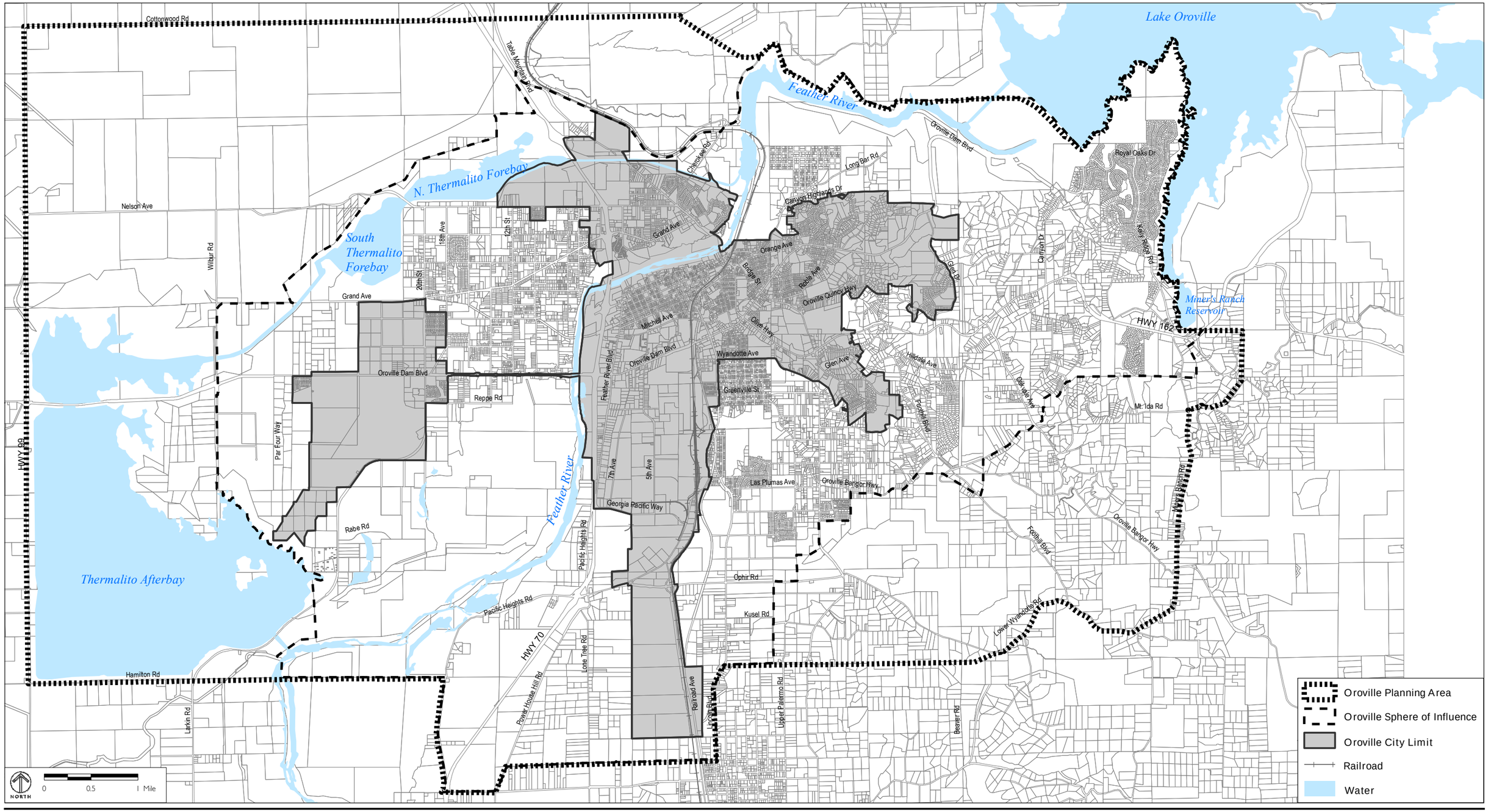
- Define a realistic vision of what the City desires to be in 15 years.
- Express the City's policy direction in regard to its physical, social, economic, cultural, and environmental character.
- Serve as a comprehensive guide for making decisions about land use, community character, circulation, open space, the environment, and public health and safety.
- Serve as the City's "constitution" for land use and community development. That is, it is to provide the legal foundation for all zoning, subdivision and public facilities ordinances, decisions and projects, all of which must be consistent with the 2030 General Plan.
- Be in a clear and easy to understand form that encourages public debate and understanding.

The Oroville Sustainability Updates aim to achieve the following additional objectives:

- Strengthen the environmental, community, and economic sustainability of Oroville.
- Bring the Zoning Ordinance into conformance with the 2030 General Plan, as required by State law (Government Code Section 65860).
- Support and encourage mixed-use development.
- Improve circulation and access for all modes of travel, including walking, biking, and using public transit.
- Improve access to physical activity and healthy food.
- Reduce greenhouse gas (GHG) emissions.
- Support the development of renewable energy supplies in Oroville.
- Reduce crime through environmental design.

2. Oroville Sustainability Updates Process

The process to prepare the Oroville Sustainability Updates began in July 2013 and will be completed, with the adoption of the proposed project by the City Council, in 2015. Community input was initially gathered at a September 25, 2013, meeting that covered the 2030 General Plan and Zoning Ordinance Updates and the CAP. Additional input was provided at the following meetings:



Source: City of Oroville GIS, 2005.

FIGURE 3-2

PLANNING AREAS

- October 16, 2013: Oroville Downtown Business Association Monthly Meeting
- December 10, 2013: Tourism Committee Meeting
- March 18, 2014: Mobile 4 Health Work Group - Greater Oroville Area

In consideration of this community input, City staff and the consultant team prepared the draft documents and published them with this Draft SEIR in January 2015.

D. Characteristics of the Modified Project

The City of Oroville has proposed the Modified Project, which includes the following components:

- 2030 General Plan Updates
- Municipal Code Updates
- Design Guidelines Updates
- CAP
- Balanced Mode Circulation Plan

This SEIR analyzes the environmental impacts of the Modified Project as compared to those of the Approved Project, which was the adoption of the 2030 General Plan. This section describes the previous environmental documentation and the components of the Modified Project.

1. Previous Environmental Documentation

On June 2, 2009, the City of Oroville approved the Approved Project, or the Oroville 2030 General Plan, which provides the fundamental basis for the City's land use and development policy, and represents basic community values, ideals, and aspirations to govern a shared environment through 2030. The 2030 General Plan includes the following elements:

- Land Use Element
- Community Design Element
- Circulation and Transportation Element
- Open Space, Natural Resource, and Conservation Element
- Public Facilities and Services Element
- Safety Element
- Noise Element

The Draft EIR for the Approved Project, which was published on March 31, 2008, and certified on June 2, 2009 (SCH #2008022024), evaluated the potential environmental impacts of the adoption of the 2030 General Plan. It analyzed the development that was expected to occur under the 2030 General Plan through its horizon year of 2030. These development projections for the year 2030 are provided in Table 3-1.

TABLE 3-1 **EXPECTED 2030 DEVELOPMENT UNDER THE 2030 GENERAL PLAN**

Location	Residential (Dwelling Units)	Industrial (Square Feet)	Commercial (Square Feet)
City Limit (only)	9,300	6,800,000	12,200,000
Sphere of Influence (only)	18,300	1,900,000	9,000,000
Total	**27,600**	**8,700,000**	**21,200,000**

2. 2030 General Plan Updates

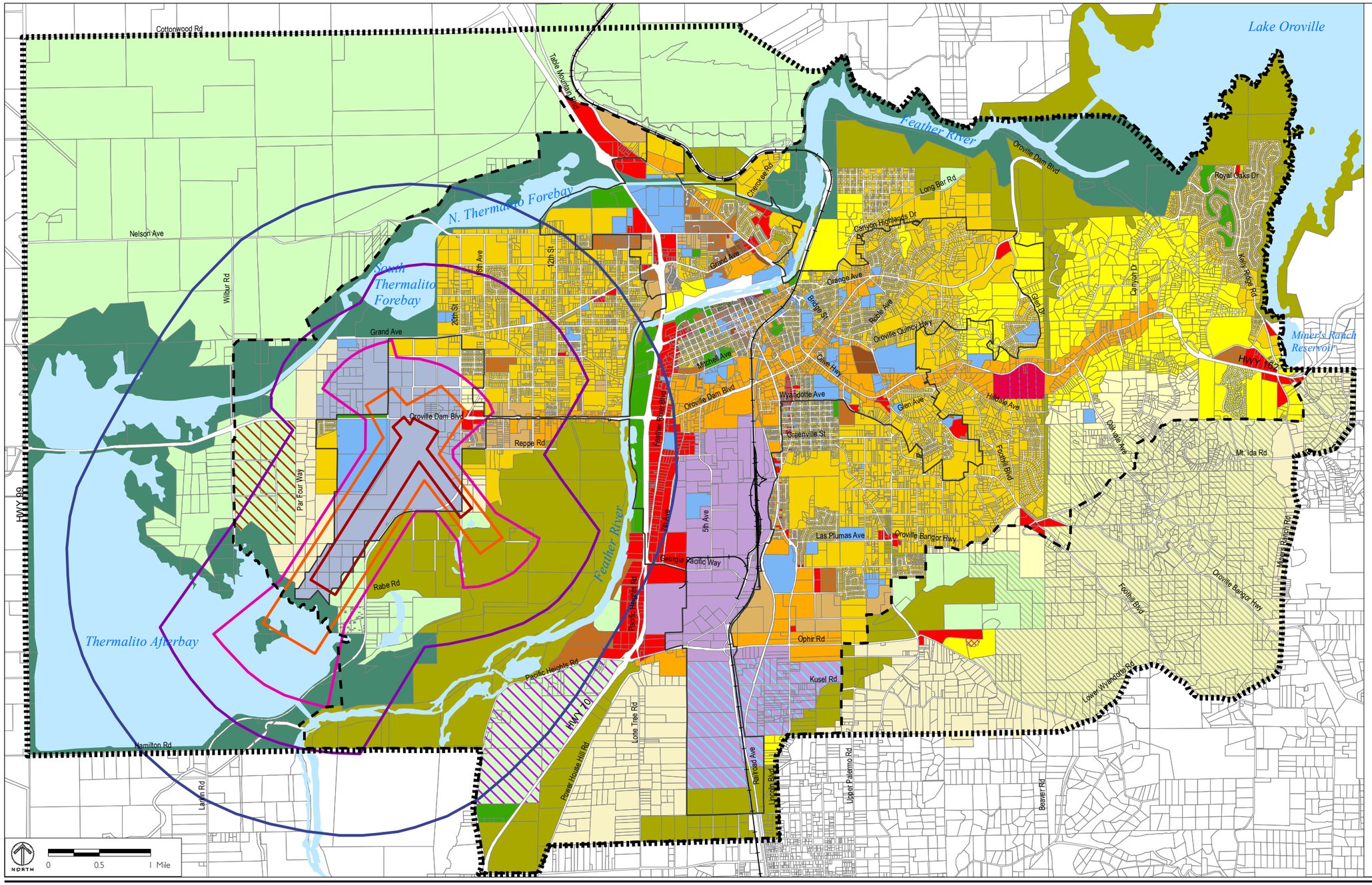
The 2030 General Plan Updates include changes to the land use map and designations, related updates to the expected 2030 development levels, revisions to the Circulation and Transportation Element to reflect the land use map changes and to support complete streets and walkability, addition of a new Economic Development Element, updates to reflect State statutes, and various policy revisions that address the City's park standards, access to local and healthy food, and other topics.

a. Land Use Map Changes

The 2030 General Plan Updates would amend the General Plan land use map as described below. The revised land use map is shown in Figure 3-3.

Designations in parts of Oroville's Downtown would be changed to reflect the land use concept identified in the Oroville Arts, Culture, and Entertainment District, as shown in Figure 3-4:

- Approximately 8 acres would change from Park to High Density Residential.
- Approximately 3 acres would change from Public to High Density Residential.



- Oroville Planning Area
- Oroville Sphere of Influence
- Oroville City Limit

Airport Land Use Safety Zones

- A
- B-1
- B-2
- C
- D
- Tribal Land
- Railroad

Land Use Designation

- Rural Residential (0-0.2 du/acre)
- Very Low Density Residential (0.2-1 du/acre)
- Low Density Residential (1-3 du/acres)
- Medium Low Density Residential (3-6 du/acres)
- Medium Density Residential (6-14 du/acre)
- Medium High Density Residential (14-20 du/acre)
- High Density Residential (20-30 du/acre)
- Mixed Use
- Retail and Business Services
- Office
- Industrial
- Airport Business Park
- Public
- Park
- Environmental Conservation/Safety
- Resource Management
- State Water Project
- Oro Bay Special Plan Area Overlay
- South Ophir Specific Plan Area Overlay
- Rio d'Oro Specific Plan Area Overlay
- Unique Agriculture Overlay
- Arts, Culture, and Entertainment Overlay
- Professional Office Overlay
- Water

Source Data: City of Oroville GIS, 2013.

NOTE: The Foothill Overlay is displayed in Figure 3-5.

FIGURE 3-3
DRAFT UPDATED 2030 GENERAL PLAN LAND USE MAP

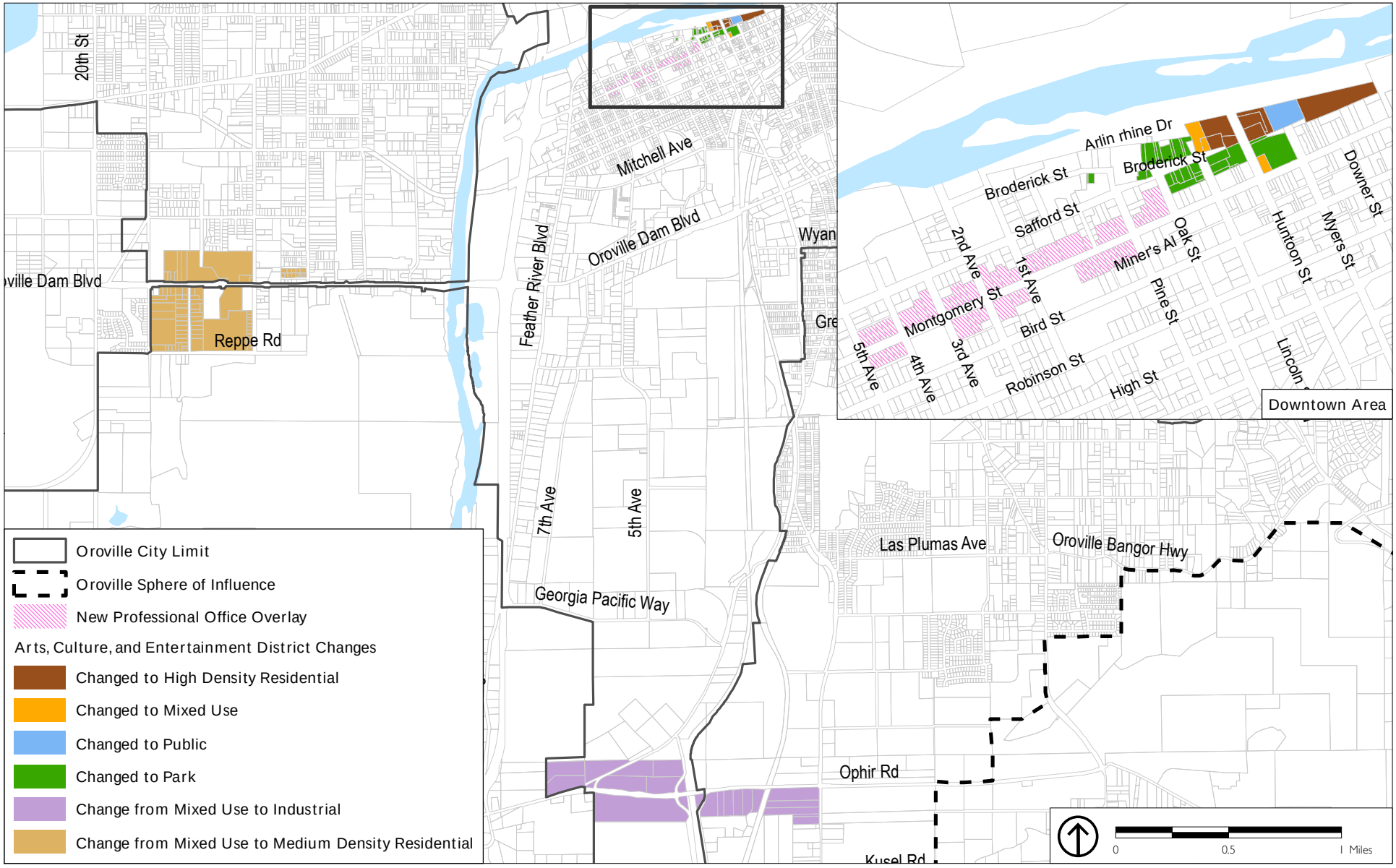
- Approximately 1 acre would change from Park to Mixed Use.
- Approximately 2 acres would change from Public to Mixed Use.
- Approximately 2 acres would change from Medium High Density Residential to Park.
- Approximately 3 acres would change from Mixed Use to Park.
- Approximately 4 acres would change from Public to Park.
- Approximately 4 acres would change from Park to Public.

The Mixed Use designation would be removed and replaced with a single-use designation in two areas, as shown in Figure 3-4:

- Along Highway 162 in the Thermalito area, a set of parcels would change to Medium Density Residential to reflect the existing residential uses and the Butte County General Plan land use map. The total area of change is approximately 106 acres.
- Along Ophir Road inside and just east of the city limits, a set of parcels would change to Industrial to reflect the existing industrial uses and the existing industrial character of the area. The total area of change is approximately 119 acres.

In addition, the following new overlays would be added to the map, as shown in Figures 3-4 and 3-5:

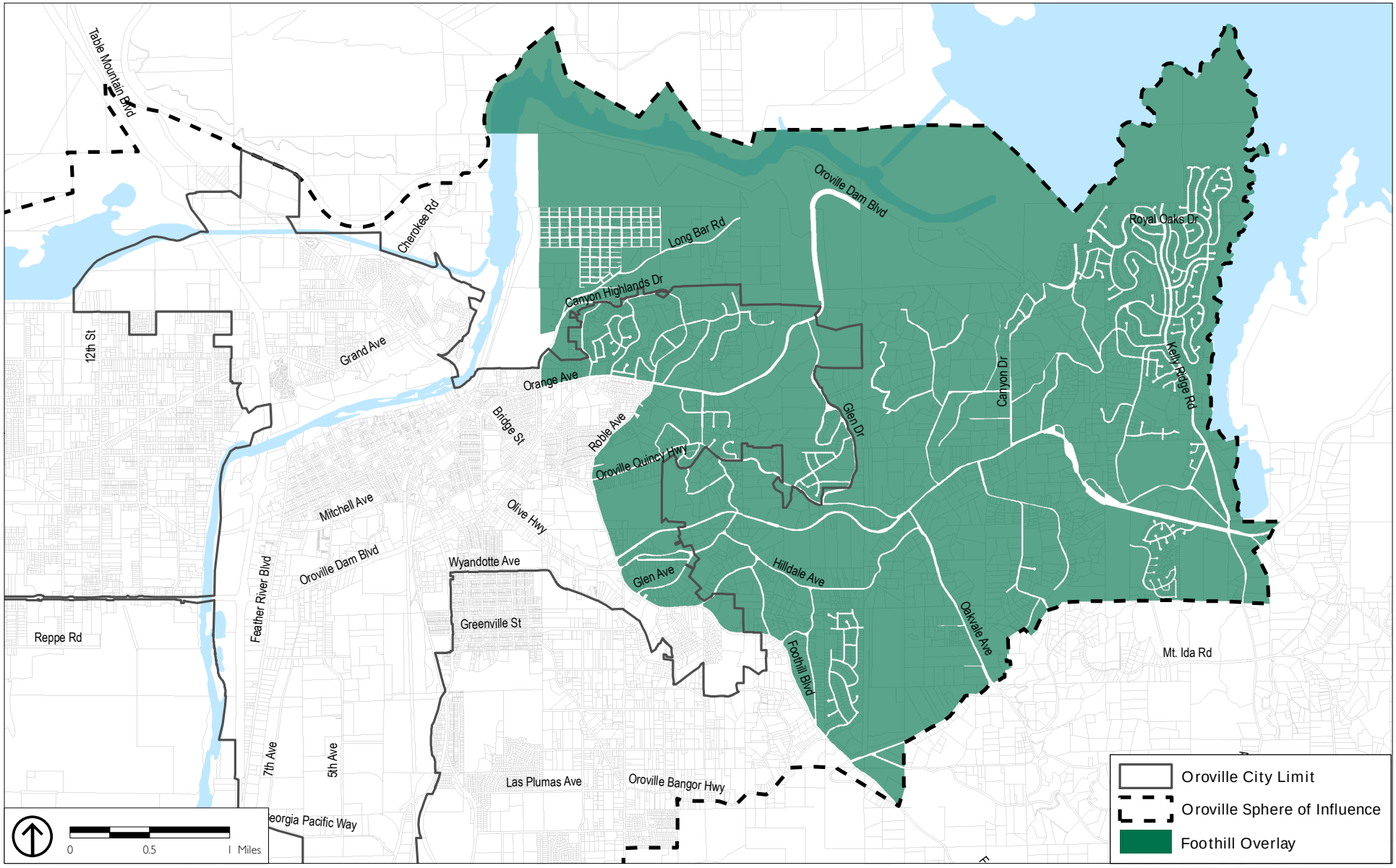
- **Professional Office Overlay.** This Overlay would be applied to the residential designations along Montgomery Street west of Oak Street, and it would allow professional office uses in addition to the uses allowed by the underlying designation.
- **Arts, Culture, and Entertainment Overlay.** This Overlay would be applied in the Downtown area, and it would allow uses that support the City's goals related to re-establishing the Historic Downtown as an arts, culture, entertainment, and employment center for the region.
- **Foothill Overlay.** This Overlay would be applied to the eastern part of the city and SOI, and it would limit activities with high fire risk and allow for rural roadway and sidewalk design standards while avoiding intermittent sidewalks due to inconsistent development patterns.



Source Data: PlaceWorks, 2014.

FIGURE 3-4

PROPOSED GENERAL PLAN LAND USE MAP CHANGES



Source Data: PlaceWorks, 2014.

FIGURE 3-5

PROPOSED FOOTHILL OVERLAY

The proposed General Plan land use map also includes other minor changes to reflect existing and surrounding uses, as outlined below:

- APN 031-110-032: Change from Mixed Use to Retail and Business Services to reflect an existing use.
- APN 012-290-002: Change from Medium High Density Residential to Parks and Recreation to reflect an existing use.
- APN 079-030-079: Change from Medium Density Residential to Medium Low Density Residential to match the surrounding uses.
- APNs 035-250-045, -066, -067, and -081: Change from Mixed Use to Public Facilities and Services to reflect the existing uses.
- Oroville Municipal Airport: Change from Airport Business Park to Public Facilities and Services to reflect the existing use.

b. Land Use Designation Changes

The 2030 General Plan Updates would change the allowable density and intensity of development within the Mixed Use land use designation. The adopted 2030 General Plan allows residential densities ranging from 10 to 30 units per acre and a maximum floor area ratio (FAR)[2] of 0.4 in the Mixed Use designation. The proposed 2030 General Plan Updates would increase the maximum FAR allowance to 1.0. In addition, the proposed 2030 General Plan Updates would allow for a higher density and intensity of mixed-use development in the Downtown area. The allowed residential density for Mixed Use in the Downtown would increase to 70 units per acre. In addition, when community amenities are provided, as enumerated in the Zoning Ordinance, the FAR allowance could be increased to between 2.0 and 3.5.

c. Expected 2030 Development Updates

Based on the land use map and designations changes described above, the amount of development expected in the General Plan horizon year would change. Specifically, changing areas from Mixed Use to residential and industrial

[2] FAR is a ratio of the gross building square footage permitted on a lot to the net square footage of the lot. For example, on a site with 10,000 square feet of land area, a FAR of 1.0 will allow 10,000 gross square feet of building floor area to be built. On the same site, a FAR of 2.0 would allow 20,000 square feet of floor area (e.g. two-story building with 100 percent of lot coverage, or a four-story building with 50 percent lot coverage), and a FAR of 0.4 would allow 4,000 square feet of floor area.

designations would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, designation changes to reflect the land use concept in the Arts, Culture, and Entertainment District and increasing the allowed density in Downtown mixed-use areas would also increase the amount of anticipated residential, retail, and office development in the Downtown. Using the same methodology to estimate future development as outlined in Chapter 3, Project Description, of the Draft EIR for the Approved Project, coupled with the development projections from the Arts, Culture, and Entertainment District report,[3] the Modified Project would make the following changes to the 2030 development projections:

- **Residential:** Increase by approximately 385 dwelling units
- **Industrial:** Increase by approximately 226,000 square feet
- **Commercial:** Decrease by approximately 32,000 square feet

As explained on page 3-1, this SEIR addresses only the new information needed to make the previous 2030 General Plan EIR adequate for the Modified Project. Therefore, this SEIR focuses on the net change between the Approved Project and the Modified Project.

d. Circulation and Transportation Element Revisions

The 2030 General Plan Updates include revisions to the Circulation and Transportation Element to update the description of planned and programmed improvements to be consistent with the Butte County Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS), an integrated transportation and land use plan to implement provisions of California's Global Warming Solutions Act (Assembly Bill [AB] 32) for passenger vehicle greenhouse gas (GHG) reductions. In addition, this updated section describes roadway improvements that are planned and funded by the City's Transportation Capital Improvement Program (TCIP), which was adopted after the 2030 General Plan was adopted.

The revisions to the Circulation and Transportation Element also include the following policy revisions:

- The City's level of service (LOS) policy (Policy P2.1) would be revised to expand the list of exceptions to the LOS D standard. In addition, the policy

[3] City of Oroville, 2013, *Oroville Arts, Culture & Entertainment District*, page ES.07, and personal communication with Nancy Fleming, BMS Design Group, on August 27, 2014.

revisions would clarify the process and circumstances for additional exceptions.

- A new action would direct the City to adopt Transportation Impact Analysis (TIA) guidelines that include multi-modal level of service (MMLOS) standards.
- A new action would direct the City to implement and maintain the Balanced Mode Circulation Plan, which guides the development of bicycle and pedestrian facilities in Oroville.
- A new policy would direct the City to provide transportation facilities based on a "Complete Streets" set of criteria that facilitates the balanced use of all travel modes (pedestrians, bicyclists, motorists, and public transit users) meeting the transportation needs of all ages and abilities and providing mobility for a variety of trip purposes. In addition, a new action would direct the City to update the City's Engineering and Street Design Standards to ensure that roadway and streetscape design specification are in accordance with Complete Streets concepts.
- Other policies and actions would be added, removed, or revised to address redundancies and update information as appropriate.

e. Economic Development Element

The 2030 General Plan Updates include the addition of a new Economic Development Element. The purpose of this Element is to provide a long-term vision for the growth and development of the local economy and to guide the City's economic development efforts. This Element describes Oroville's economy and would incorporate and expand upon the economic development policies and actions that were previously in the Land Use Element.

f. Updates to Reflect State Statutes

Various components of the 2030 General Plan would be updated to reflect changes to State law that have occurred since its 2009 adoption. These updates are as follows:

- The Land Use Element would include a new section describing and evaluating infrastructure and fire service for disadvantaged unincorporated communities within the City's SOI, in accordance with Senate Bill (SB) 244.
- The Land Use Element would include a new policy to support infill streamlining per SB 226.

- Consistent with various State flood-related statutes, the Safety Element would include updated information about the Central Valley Flood Protection Plan and other updated flood data, including a new figure showing the location of levees and updated flood zone data mapped by the Federal Emergency Management Agency (FEMA).
- The Safety Element would also include new maps showing historical wildfires and State and Local Responsibility Areas and new policies that support SB 1241.

g. Other Policy Revisions

The proposed 2030 General Plan Updates also include other policy revisions, as follows:

- Open Space, Natural Resources, and Conservation Element Policy P3.1 would be revised to increase the City's parkland standard for new development from 3 acres per 1,000 residents to 5 acres per 1,000 residents.
- The Open Space, Natural Resources, and Conservation Element would also include expanded policies and actions that support the CAP and the City's efforts to reduce GHG emissions.
- Policies and actions in the Land Use and Open Space, Natural Resources, and Conservation Elements would be revised and added to promote access to local and healthy food.

In addition, other minor corrections and clarifications would be made throughout the 2030 General Plan.

3. Municipal Code Updates

The Municipal Code Updates include changes to the zoning map and districts, revisions to the Solar Energy Ordinance, amendments to support access to local and healthy food, and new sections that address incentives for community benefits, Crime Prevention Through Environmental Design (CPTED), park provision standards, and oak tree loss mitigation. With the exception of the park provision and oak tree loss mitigation standards, all edits are to Chapter 26 (Zoning) of the Municipal Code.

California Government Code Section 65860 requires that a jurisdiction's Zoning Ordinance be consistent with its adopted General Plan. Therefore, the potential environmental impacts of the Zoning Ordinance would be expected to be

substantially similar to the potential environmental impacts of the 2030 General Plan and the proposed 2030 General Plan Updates, except in cases where the Zoning Ordinance is more restrictive than the General Plan, and therefore would have a reduced potential impact. In evaluating impacts related to the General Plan land use map, the 2009 Draft EIR for the Approved Project and this SEIR for the proposed 2030 General Plan Updates consider the highest density allowed by each land use designation. Although a range of zoning districts can implement a single General Plan land use designation, the 2009 EIR and this SEIR only consider the densest option. Therefore, the Zoning Ordinance would have equal or reduced impacts compared to the 2030 General Plan and the proposed 2030 General Plan Updates. However, in the interest of clarity and full disclosure, this SEIR discusses the Zoning Ordinance separately throughout.

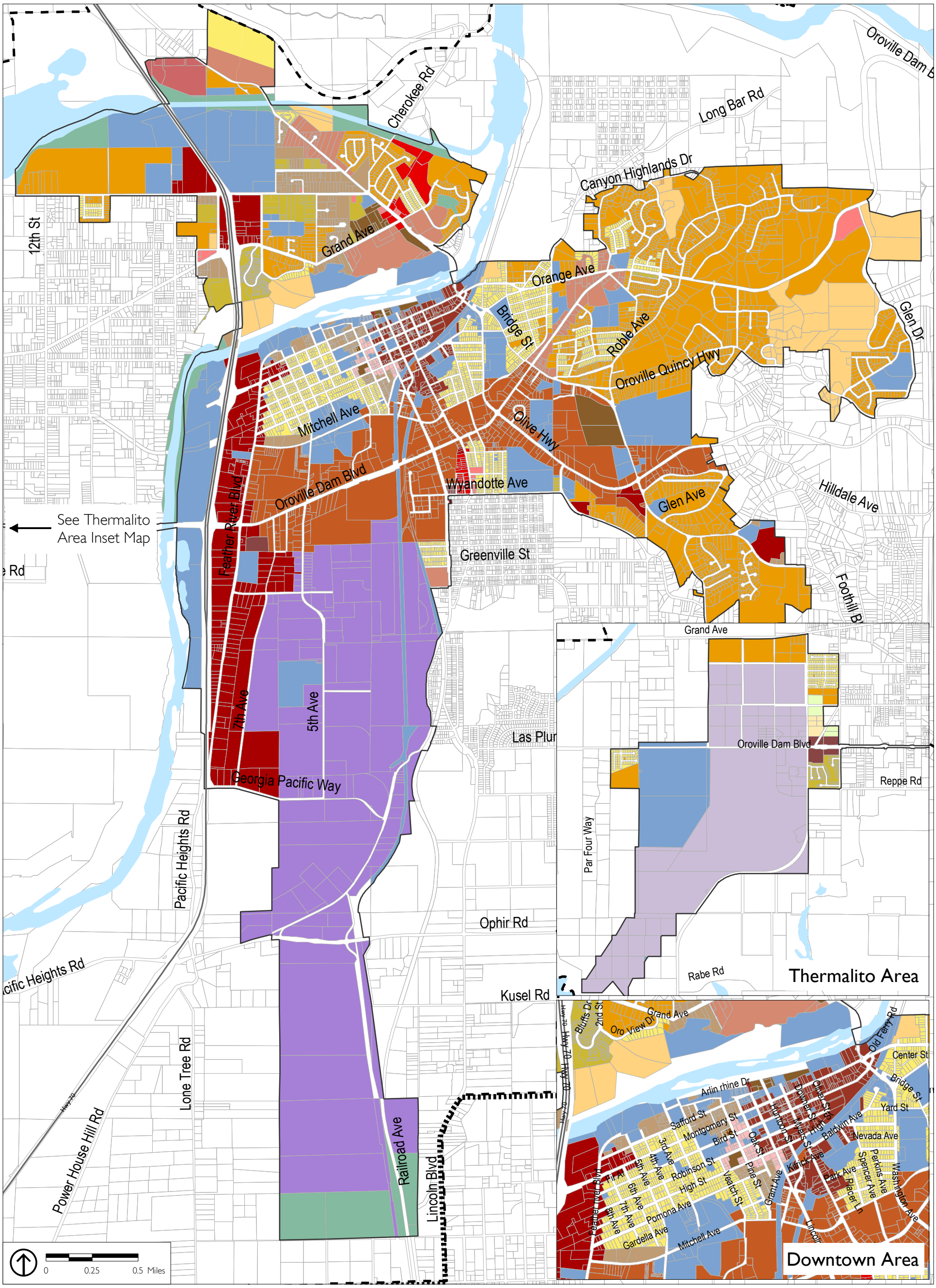
a. Zoning Map and Districts Changes

The zoning map for the City of Oroville was not updated following the adoption of the 2030 General Plan, so the zoning map is currently inconsistent with the General Plan land use map. Therefore, the Municipal Code Updates would comprehensively update the zoning map to make it consistent with the General Plan land use map, as shown in Figures 3-6 and 3-7.

The zoning districts and their corresponding General Plan land use designations are provided in Table 3-2. In some cases, there is only one zoning district that implements a General Plan land use designation. In other cases, General Plan land use designations are implemented by more than one zoning district.

The Municipal Code Updates also include adding the Foothill, Professional Office, and Arts, Culture, and Entertainment Overlays to the zoning map, consistent with the updates to the General Plan land use map described above. In addition, a Unique Agriculture Overlay would be added, consistent with the corresponding overlay on the General Plan land use map and the City's efforts to support local and unique agriculture in Oroville.

Finally, the Municipal Code Updates include modifications to the Mixed Use districts that support this type of development in Oroville and the City's related sustainability goals, as well as modifications to the Downtown Historic Overlay to allow a diversity of housing types consistent with existing development in Downtown residential areas.



Residential Districts
- Agricultural Residential (RA)
- Rural Residential 1 Acre (RR-1)
- Rural Residential 20,000 Square Feet (RR-20)
- Rural Residential 10,000 Square Feet (RR-10)
- Large-Lot Residential (RL)
- Single-Family Residential (R-1)
- Medium-Density Residential (R-2)
- High-Density Residential (R-3)
- Urban Density Residential (R-4)
- High-Density Residential/Professional (RP)

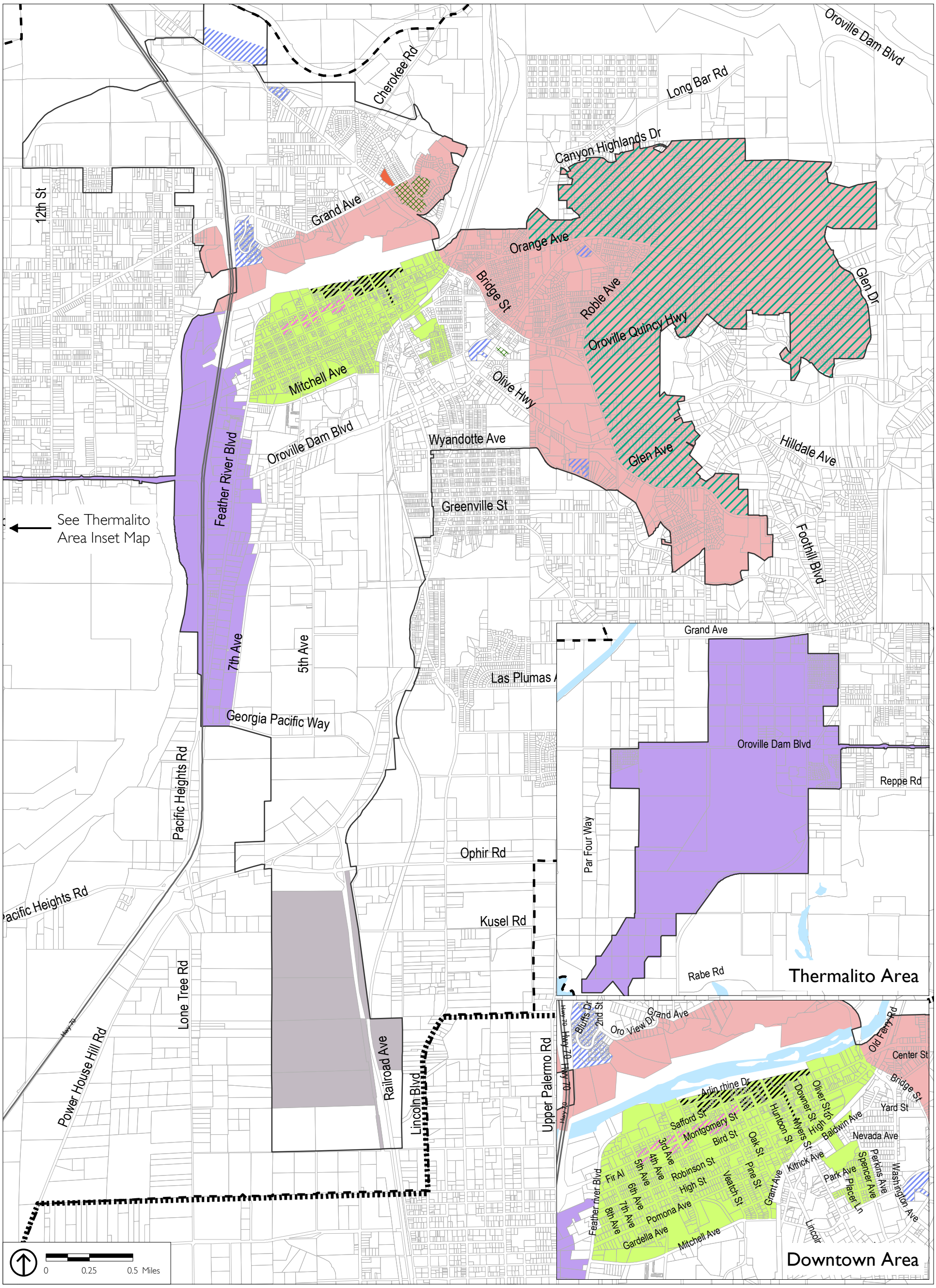
Commercial and Mixed-Use Districts
- Neighborhood Commercial (CN)
- Limited Commercial (C-1)
- Intensive Commercial (C-2)
- Highway Commercial (CH)
- Commercial Light Manufacturing (CLM)
- Office (OF)
- Downtown Mixed Use (MXD)
- Neighborhood Mixed Use (MXN)
- Corridor Mixed Use (MXC)

Industrial Districts
- Airport Business Park (ABP)
- Intensive Industrial (M-2)

Special Purpose Districts
- Public or Quasi-Public Facilities (PQ)
- Open Space (OS)

FIGURE 3-6
DRAFT UPDATED ZONING MAP - BASE DISTRICTS

NOTE: Zoning Overlay Districts are shown on a separate map.



Overlay Districts
- Hillside Development Overlay (HD-O)
- Planned Development Overlay (PD-O)
- Downtown Historic Overlay (DH-O)
- Airport Infuence Area Overlay (AIA-O)
- Mini-Storage Overlay (MS-O)
- Conditional Overlay (C-O)
- Arts, Culture, and Entertainment Overlay (ACE-O)
- Foothill Overlay (F-O)
- Professional Office Overlay (PO-O)
- Specific Plan Area Overlay (SPA-O)

FIGURE 3-7
DRAFT UPDATED ZONING MAP - OVERLAY DISTRICTS

TABLE 3-2 **GENERAL PLAN AND ZONING DESIGNATION CONSISTENCY**

2030 General Plan Land Use Designation	Zoning District
Rural Residential (RR) (0 to 0.2 du/ac)	Urban Reserve 10 Acres (UR-10) Urban Reserve 5 Acres (UR-5)
Very Low Density Residential (VLDR) (0.2 to 1 du/ac)	Agricultural Residential (RA) Rural Residential 1 Acre (RR-1)
Low Density Residential (LDR) (1 to 3 du/ac)	Rural Residential 20,000 Square Feet (RR-20) Rural Residential 10,000 Square Feet (RR-10)
Medium Low Density Residential (MLDR) (3 to 6 du/ac)	Large-Lot Residential (RL) Single-Family Residential (R-1)
Medium Density Residential (MDR) (6 to 14 du/ac)	Medium-Density Residential (R-2)
Medium High Density Residential (MHDR) (14 to 20 du/ac)	High-Density Residential (R-3) High-Density Residential/Professional (RP)
High Density Residential (HDR) (20 to 30 du/ac)	Urban Density Residential (R-4)
Mixed Use (MU) (10 to 30 du/ac and 1.0 FAR [70 du/ac and 2.0-3.5 FAR in Downtown with amenities])	Downtown Mixed Use (MXD) Corridor Mixed Use (MXC) Neighborhood Mixed Use (MXN)
Retail and Business Services (RBS) (0.4 FAR [2.0 in Downtown])	Neighborhood Commercial (CN) Limited Commercial (C-1) Intensive Commercial (C-2) Highway Commercial Corridor (CH) Commercial Light Manufacturing (CLM)
Office (OFC) (0.4 FAR)	Office (OF)
Industrial (IND) (0.4 FAR)	Limited Industrial (M-1) Intensive Industrial (M-2) Commercial Light Manufacturing (CLM)
Airport Business Park (ABP) (0.2 to 0.35 [depending on location])	Airport Business Park (ABP)
Public (PUB)	Public or Quasi-Public Facilities (PQ)
Park (PARK)	Public or Quasi-Public Facilities (PQ)
Environmental Conservation/Safety (ECS)	Open Space (OS) Public or Quasi-Public Facilities (PQ)
Resource Management (RM)	Open Space (OS)
State Water Project (SWP)	Open Space (OS) Public or Quasi-Public Facilities (PQ)

b. Solar Energy Ordinance Revisions

The Municipal Code Updates would revise Section 26-16.180 (Solar Energy) to provide a streamlined approach to solar energy development. Standards and permit requirements for different types of solar energy systems would be established, with a goal of allowing for an efficient permit process while minimizing potential impacts on neighboring properties. In addition, a new section, Section 26-16.185, would be added to establish requirements for on-site solar energy generation for large projects, consistent with the Climate Action Plan, which is discussed in Section D.5.

c. Local and Healthy Food Amendments

To support the City's efforts to improve the community's access to local and healthy food, the Municipal Code Updates include the following amendments:

- Remove the limitation on animal keeping for non-commercial purposes only in Section 26-16.120 (Animal Keeping).
- Add a new section on neighborhood food and beverage sales that is aimed at providing residential neighborhoods convenient access to healthy, fresh, and staple foods.
- Add a new section on urban agriculture that allows local food to be produced, sold, and available for community development and education in areas close to where people live and work.

d. Incentives for Community Benefits

The Municipal Code Updates would add a new section to the Zoning Ordinance that establishes incentives for applicants to locate and design development projects in a manner that provides substantial benefits to the community. Incentives would include parking requirement reductions; reduction of site development standards, lot sizes, setbacks, and other requirements; increased density, site coverage, FAR, and other limitations; and an FAR increase in the Downtown Mixed Use District. In order to obtain these incentives, projects must provide benefits related to one or more of the following:

- CPTED
- Development of a blighted property or in a blighted area
- Sustainable development features
- Design improvements to increase public transit accessibility
- Commuter trip reduction measures
- Features that increase the community's ability to access healthy, fresh foods

- Meeting healthy, local food retail standards
- Improved bicycle and pedestrian facilities
- Public outdoor gathering places
- Measures to expand arts and entertainment facilities in the Downtown
- Wayfinding improvements in the Downtown

e. Crime Prevention Through Environmental Design (CPTED)

The Municipal Code Updates includes a new section in the Zoning Ordinance that contains development regulations to reduce the perception and incidence of crime in Oroville based upon the principles of CPTED. In combination with other crime prevention strategies, development that incorporates CPTED principles helps to prevent crime by delineating private and public spaces, enhancing visibility, controlling property access, and ensuring adequate property maintenance.

In addition, Sections 26-13.020 (Fences, Walls and Screening), 26-13.070 (Parking), 26-13.050 (Landscape Standards), and 26-13.010 (Performance Standards) of the Zoning Ordinance would be revised to include additional CPTED standards.

f. Park Provision Standards

The Municipal Code Updates would add a new section to Chapter 23 (Subdivisions) of the Municipal Code that would outline park dedication requirements in newly created subdivisions. The requirements in this section would be consistent with the proposed 2030 General Plan policy revision to require 5 acres of parkland per 1,000 residents.

g. Oak Tree Loss Mitigation Ordinance

The Municipal Code Updates would include a new Municipal Code chapter on oak tree loss mitigation. This chapter would establish mitigation options for the removal of oak trees, including on-site replacement, in-lieu fees, or off-site replacement, as well as replacement standards and maintenance and monitoring requirements for replacement trees.

4. Design Guidelines Updates

In order to implement the City's sustainability-related goals outlined in the 2030 General Plan Open Space, Natural Resources, and Conservation Element, the Oroville Sustainability Updates project would add a new chapter to the Oroville Design Guidelines that addresses low-impact development and resource-efficient design. Specific guidelines address green standards, habitat-fostering landscapes, water use, resource-efficient materials, and stormwater management.

5. Climate Action Plan

The proposed CAP implements Action A13.4 of the existing 2030 General Plan Open Space, Natural Resources, and Conservation Element; it is a stand-alone document containing analysis and strategies to reduce GHG emissions in Oroville. The CAP identifies baseline GHG emissions and includes actions and strategies to help reduce future emissions related to energy efficiency and renewable energy, land use and transportation, waste reduction, water conservation, and land conservation. The CAP would establish a target to reduce GHG emissions from community activities to 11 percent below 2010 levels by 2020, a goal that is consistent with larger statewide initiatives adopted through AB 32, the California Global Warming Solutions Act. The proposed CAP also outlines a detailed implementation program and an adaptation plan to guide the community in dealing with climate change impacts.

6. Balanced Mode Circulation Plan

The proposed Balanced Mode Circulation Plan is a stand-alone document to guide the development of pedestrian and bicycle facilities in Oroville. It includes design guidelines and best practices for pedestrian and bicycle facilities, recreational trails, and public transit infrastructure, as well as specific recommendations for the City's roadways that will enhance pedestrian and bicycle environments and improve safety and accessibility. The Balanced Mode Circulation Plan also includes recommendations for supporting programs, implementation strategies, and funding sources.

E. Intended Uses of the Modified Project

This SEIR is intended to review potential environmental impacts associated with the Modified Project, which is the adoption and implementation of the Oroville Sustainability Updates, and to determine corresponding mitigation measures, as necessary. Subsequent projects will be reviewed by the City for consistency with the updated 2030 General Plan, updated Municipal Code, updated Design Guidelines, CAP, Balanced Mode Circulation Plan, and this EIR, and will be required to conduct adequate project-level environmental review under CEQA. Projects successive to this EIR could include the following:

- Approval and funding of major projects and capital improvements.
- Issuance of permits and other approvals necessary for implementation of the Oroville Sustainability Updates.

- Future Specific Plan, Planned Unit Development, and Area Plan approvals.
- Property rezoning consistent with the updated 2030 General Plan.
- Development Plan approvals, such as tentative maps, variances, conditional use permits, and other land use permits.
- Permit issuances and other approvals necessary for public and private development projects.
- Development Agreement process and approvals.

4.0 ENVIRONMENTAL EVALUATION

This chapter consists of 14 sections that evaluate the environmental impacts of the Modified Project. In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the Modified Project are analyzed for the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils and Mineral Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use (includes Agricultural and Forest Resources)
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Circulation
- Utilities and Infrastructure

A. Format of the Environmental Evaluation

Each section in Chapter 4 generally follows the same format and consists of the following subsections:

- The *Regulatory Framework* subsection contains an overview of the federal, State, and local laws and regulations applicable to each environmental review topic.
- The *Existing Conditions* subsection describes current conditions with regard to the environmental factor reviewed.
- The *Standards of Significance* subsection tells how an impact is judged to be significant in this SEIR. These standards are based on the CEQA Guidelines and other regulatory criteria where noted.
- The *Impact Discussion* gives an overview of potential impacts of the Modified Project compared to the Approved Project and tells why impacts were found to be significant or less than significant. This section also includes a discussion

of cumulative impacts of the Modified Project compared to the Approved Project.

- The *Impacts and Mitigation Measures* subsection lists identified impacts resulting from the Modified Project in comparison to the Approved Project, and suggests measures that would mitigate each impact, where such measures are available.

In Sections 4.1 through 4.14, each numbered impact is considered significant prior to mitigation. Mitigation measures have been suggested that would reduce significant impacts to the maximum extent feasible. Following an identified mitigation measure, there is a statement whether the mitigation would reduce the impact to less than significant, or whether it would remain significant and unavoidable.

B. Cumulative Impact Analysis

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. A cumulative impact consists of an impact created as a result of the combination of the project evaluated in the EIR together with other reasonably foreseeable projects causing related impacts.

In the case of an area-wide planning document such as a General Plan, cumulative effects occur from development under the General Plan within the city combined with effects of development on lands around the city and region. By definition, no development within the General Plan area would be considered part of the cumulative impacts; instead, development inside the General Plan area is part of the project itself.

Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

This SEIR will provide the cumulative context for future, individual projects. After this SEIR is certified, future projects processed with a Negative Declaration or Mitigated Negative Declaration pursuant to CEQA will rely on this SEIR for the cumulative analysis.

The cumulative impacts analyses in Sections 4.1 to 4.14 are included in the Impact Discussion in each section.

1. Geographic Area for Cumulative Analysis

Cumulative impacts may occur over different geographic areas for different types of analyses. The cumulative discussions in Sections 4.1 through 4.13 of the 2008 Draft EIR for the Approved Project explain the geographic scope of the area affected by each cumulative effect (e.g. watershed or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing air quality impacts, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions are the best tool for determining the cumulative effect. For most resource issues, the cumulative context evaluated in this SEIR is Butte County and its neighboring counties. The geographic area for cumulative analysis is unchanged from the 2009 Draft EIR for the Approved Project.

2. Cumulative Projects Considered

The CEQA Guidelines provide two approaches to analyzing cumulative impacts. The first is the "list approach," which requires a listing of past, present and reasonably anticipated future projects producing related or cumulative impacts. The second is the summary approach wherein the relevant projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions are summarized. A reasonable combination of the two approaches may also be used.

In each of the following 14 sections, the cumulative impacts of the Modified Project take into account growth and development projected by the Modified Project for the Project Area, in combination with impacts from projected growth in the rest of Butte County and the surrounding region. In each section of Chapter 4, the cumulative impacts discussion is based on the cumulative development described in Chapter 6.

4.1 AESTHETICS

This chapter evaluates the potential impacts to aesthetics associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses visual character, scenic vistas, scenic highways, and light and glare resulting from the spatial location of development. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here.

A. Changes in the Modified Project Relevant to Aesthetics

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes in the Downtown to reflect the Oroville Arts, Culture, and Entertainment District's land use concept; in other areas of the city these changes would allow residential and industrial uses in areas previously designated for mixed use. The updates would also include minor designation changes to improve future land use compatibility with existing development. Finally, the updates would increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. In summary, the land use map changes would redesignate areas that were already planned for development/urban uses; these changes would not affect open space areas.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

These changes are not expected to affect aesthetics because they don't contain any provisions that are related to this topic.

2. Municipal Code Updates

a. Zoning Map and Districts

The Municipal Code Updates include modifications to the Mixed Use districts, including development standards that can affect the visual character of mixed-use areas. Specifically, the Mixed Use development standards address building form and placement, including building height, upper floor stepbacks, and setbacks. In addition, the Downtown Mixed Use district supports an active and inviting public realm by addressing building entrances, building widths, storefront widths, ground floor building transparency, blank walls, parking locations, parking buffers, parking structures, and driveways and curb cuts. The Neighborhood and Corridor Mixed

Use districts support a pedestrian-friendly environment by addressing building siting and orientation, pedestrian orientation, and parking.

In addition, the Municipal Code Updates include a new section in the Downtown Historic Overlay that identifies building types that are permitted in this overlay area.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

Other Municipal Code Updates that could affect aesthetics include:

- Revising Section 26-16.180 (Solar Energy) to provide a streamlined approach to solar energy development. Solar energy facilities can affect views and visual character.
- A new section to the Zoning Ordinance that establishes incentives for applicants to locate and design development projects in a manner that provides substantial benefits to the community, including incentives related to Crime Prevention Through Environmental Design (CPTED), development of a blighted property or in a blighted area, and sustainable development features, which can all affect the aesthetic character and quality of a site or area.
- A new section in the Zoning Ordinance that contains development regulations to reduce the perception and incidence of crime in Oroville based upon the principles of CPTED. Such principles address private and public space delineation, visibility, fences/walls/screening, landscape standards, and lighting.
- A new Oak Tree Loss Mitigation Ordinance that establishes mitigation options for the removal of oak trees, which can contribute to the aesthetic character of an area.

3. Design Guidelines Updates

The new chapter of the Oroville Design Guidelines, Low Impact Development and Resource Efficient Design, would include the following elements that affect aesthetics:

- River-friendly landscaping guidelines, which encourage landscaping designed by professionals.

- Encouraging new development to minimize turf and replace it with ground-covers and "no-mow" turf, while installing native plantings.
- Policies to maximize the planting of large shade trees, preserve sites' natural drainage patterns and existing vegetation, and limit coverage by impervious surfaces.
- Using reflective paving and roofing materials.
- Encouraging the use of environmentally-friendly building materials and green roofs.

4. Climate Action Plan

The following strategies and actions proposed in the CAP could affect the aesthetic character of development sites and areas by encouraging:

- Xeriscaping and planting trees in public areas, streets, and new developments, and mitigation for the loss of oak trees.
- New infrastructure including rain barrels, on-site solar installations for new and existing development, and facilities for local renewable energy development.
- Use of reflective paving and roofing materials.
- Elimination of physical barriers that impede pedestrian circulation, including walls and landscaping.

5. Balanced Mode Circulation Plan

Several elements of the Balanced Mode Circulation Plan could affect aesthetics in Oroville, including guidelines that:

- Increase landscaping, planting strips, and planted medians.
- Increase sidewalk widths to incorporate landscaping and street furniture, pedestrian amenities and seating.
- Encourage pedestrian signage and lighting.

B. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to aesthetics if they would:

- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Have a substantial adverse effect on a scenic vista.
- Substantially degrade the view from a scenic highway, including, but not limited to, trees, rock outcroppings, and historic buildings.
- Expose people to substantial light or glare, which would adversely affect day or nighttime views in the area.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

C. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to aesthetics that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Substantially degrade the existing visual character or quality of the site and its surroundings.

Similar to the Approved Project, there are two primary ways in which the Modified Project could influence the future visual character and quality of Oroville on a citywide basis. First, development on a significant amount of land that is currently undeveloped could result in a significant change to the visual character and quality of the city. The second way that the Modified Project could affect the visual character and quality of Oroville is through a change in the form and appearance of new development within existing neighborhoods.

The Modified Project would not allow new development in areas that were previously designated for open space; therefore, the Modified Project would not change the Approved Project's impacts related to development on undeveloped land. However, as described in Section A, the Modified Project would allow development in the Downtown to occur at a higher intensity and density, and it would change the development standards for the Mixed Use districts that could affect the visual character of these areas. In addition, the Municipal Code Updates, Design Guidelines Updates, and CAP may result in more homes using solar panels and

other sustainable design features, which could affect the character of existing neighborhoods.

However, as described in more detail on pages 4.1-11 to 4.1-13 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan includes a range of goals, policies, and actions that ensure that new development supports high quality urban design and architecture and preserves and improves the visual quality of Oroville. In addition, as described in Section A, the proposed Municipal Code Updates would establish development standards that reduce potential visual impacts, incentivize the development of blighted areas and properties, and establish oak tree loss mitigation standards. Furthermore, the proposed Design Guidelines Updates, CAP, and Balanced Mode Circulation Plan would improve landscape design. Overall, based on the 2030 General Plan goals, policies, and actions, in combination with the aspects of the Modified Project discussed above, the impact would remain *less than significant*.

b. Have a substantial adverse effect on a scenic vista.

Increased density and intensity in the Downtown could lead to taller buildings that would block existing views of the foothills and open space. In addition, the revisions to the Solar Energy section of the Municipal Code may result in additional solar energy facilities in locations that could affect scenic vistas.

However, the 2030 General Plan contains goals, policies, and actions in the Open Space, Natural Resources, and Conservation Element intended to preserve these views, as described in more detail on pages 4.1-13 to 4.1-14 of the Draft EIR for the Approved Project. Additionally, the Oroville Design Guidelines encourage view preservation through guidelines that address the placement and orientation of buildings to preserve view corridors to scenic vistas and hillsides (Guideline 2.1.1 in the Industrial and Office chapter), preservation and enhancement of views from streets and public areas (Guideline 4.1.2 in the Residential chapter), and building and landscape design that minimizes the obstruction of key views from adjacent properties (Guideline 2.1.1 in the Hillside Development chapter).

Overall, because the Modified Project could lead to taller buildings and more solar energy facilities, the impact to scenic vistas would be slightly greater than the Approved Project; however, because any development allowed by the Modified Project would also be required to be consistent with the goals, policies, actions, and design guidelines protecting scenic vistas described above, the impact would remain *less than significant*.

c. Substantially degrade the view from a scenic highway, including, but not limited to, trees, rock outcroppings, and historic buildings.

There are no State-designated scenic highways in or through Oroville. Therefore, development allowed under the Modified Project would result in *no impact* to visual resources within a State-designated scenic highway.

d. Expose people to substantial light or glare, which would adversely affect day or nighttime views in the area.

As summarized in Section A, the Modified Project contains strategies and guidelines that have the potential to increase light or glare by encouraging using reflective paving and roofing materials, installing photovoltaic solar panels, and installing lighting to improve safety.

However, as identified on page 4.1-14 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan includes policies and actions to protect views of the night sky, minimize the effects of light pollution, and reduce day-time glare. Additionally, the Balanced Mode Circulation Plan encourages pedestrian lighting to be oriented towards the ground to minimize glare and preserve views of the night sky. Overall, based on the 2030 General Plan policies and actions, in combination with the Balanced Mode Circulation Plan guidelines, the impact would remain *less than significant*.

2. Cumulative Impacts

The 2009 EIR for the Approved Project found no significant cumulative impacts to aesthetics. Changes proposed in the Modified Project that affect aesthetics are relatively minor, and the analysis provided on page 4.1-15 of the Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, cumulative impacts to aesthetics would remain *less than significant.*

D. Impacts and Mitigation Measures

Because there are no additional significant impacts related to aesthetics as a result of the Modified Project, no additional mitigation measures are required.

4.2 AIR QUALITY

This chapter evaluates the potential impacts related to air quality associated with the changes to the Approved Project that are reflected in the Modified Project. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B. Although the 2008 Draft EIR combined the air quality and greenhouse gas (GHG) analyses into one chapter, GHG emissions are discussed separately in this SEIR in Chapter 4.6, Greenhouse Gas Emissions, because there is more extensive information and analysis available for this topic since the 2008 Draft EIR.

A. Regulatory Framework

1. Ambient Air Quality Standards

Since the 2008 Draft EIR for the Approved Project was published, the United States Environmental Protection Agency (EPA) and California Air Resources Board (ARB) adopted several revisions to the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), respectively. Local areas not meeting the NAAQS are required to submit and implement a State Implementation Plan (SIP) that includes pollution control measures that demonstrate how the standards will be met. Table 4.2-1 shows the NAAQS and CAAQS currently in effect for each criteria pollutant.

2. Air Quality Attainment Plan

The Butte County Air Quality Management District (BCAQMD) has local jurisdiction over air quality regulations in Butte County. Since the 2008 Draft EIR for the Approved Project was published, the BCAQMD has collaborated with other air pollution control districts and air quality management districts for counties located in the Northern Sacramento Valley Air Basin (NSVAB) to prepare the 2012 triennial update to their joint Air Quality Attainment Plan (AQAP).[1] Like the previous plans, the 2012 AQAP identifies improvement areas relative to the prior AQAP, proposes strategies to attain the 8-hour CAAQS for ozone, describes cooperative actions to address air pollution problems, and focuses on the adoption of control measures for stationary, area-wide, and indirect sources. The AQAP is the ozone SIP-equivalent for the project area.

[1] Northern Sacramento Valley Air Pollution Control Districts and Air Quality Management Districts, 2013, *Northern Sacramento Valley Planning Area 2012 Air Quality Attainment Plan*. Available at http://www.co.shasta.ca.us/docs/Resource_Management/aq-docs/2012_Triennial_Air_Quality_Attainment_Plan.pdf?sfvrsn=0. Accessed June 17, 2014.

TABLE 4.2-1 FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Criteria Pollutant	Average Time	Federal Standards[a]		California Standards
		Primary	Secondary	
Ozone	1-hour	None	None	0.09 ppm
	8–hour	0.075 ppm	0.075 ppm	0.070 ppm
Particulate Matter (PM10)	24-hour	150 μg/m^3	150 μg/m^3	50 μg/m^3
	Annual mean	None	None	20 μg/m^3
Fine Particulate Matter (PM2.5)	24-hour	35 μg/m^3	35 μg/m^3	None
	Annual mean	12.0 μg/m^3	15 μg/m^3	12 μg/m^3
Carbon Monoxide	8-hour	9 ppm	None	9.0 ppm
	1-hour	35 ppm	None	20 ppm
Nitrogen Dioxide	Annual mean	0.053 ppm	0.053 ppm	0.030 ppm
	1-hour	0.100 ppm	None	0.18 ppm
Sulfur Dioxide[b]	Annual mean	0.030 ppm	None	None
	24-hour	0.014 ppm	None	0.04 ppm
	3-hour	None	0.5 ppm	None
	1-hour	0.075 ppm	None	0.25 ppm
Lead	30-day average	None	None	1.5 μg/m^3
	Calendar quarter	1.5 μg/m^3	1.5 μg/m^3	None
	3-month average	0.15 μg/m^3	0.15 μg/m^3	None
Sulfates	24-hour	None	None	25 μg/m^3
Hydrogen Sulfide	1-hour	None	None	0.03 ppm
Vinyl Chloride	24-hour	None	None	0.01 ppm

Notes: μg/m^3 = micrograms per cubic meter
ppm = parts per million

[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

[b] The final 1-hour sulfur dioxide rule was signed June 2, 2010. The annual and 24-hour sulfur dioxide standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

Source: California Air Resources Board, 2013, *Ambient Air Quality Standards*. Available at http://www.arb.ca.gov/research/aaqs/aa qs2.pdf. Accessed: June 17, 2014.

3. BCAQMD CEQA Guidelines

The 2008 Draft EIR for the Approved Project used BCAQMD's 1997 CEQA Guidelines to evaluate potential air quality impacts. After publication of the Draft EIR, the air district revised its CEQA Guidelines with a new version that now supersedes the 1997 CEQA Guidelines. While BCAQMD's CEQA Guidelines have been modified since the Draft EIR for the Approved Project, the emissions thresholds have not changed. Accordingly, the thresholds summarized on pages 4.2-17 and 4.2-18 of the 2008 Draft EIR are still applicable to the Modified Project.

4. BCAQMD Rules 430 and 432

In addition to preparing the AQAP, BCAQMD develops and adopts rules to regulate sources of air pollution in Butte County. The air district has revised several rules relevant to the Modified Project since publication of the 2008 Draft EIR for the Approved Project. Of particular importance are Rule 432, *Federal New Source Review*, and Rule 430, *State New Source Review*. Revisions to Rule 432 were adopted in April 2014 to include all State and federal permitting requirements for all minor and major sources. Revisions to Rule 430 were adopted in December 2011 and require the installation of Best Available Control Technology to reduce health risks from toxic air containments (TACs) from new point sources.

B. Existing Conditions

1. Attainment Status

Since the 2008 Draft EIR for the Approved Project was published, EPA and ARB have revised the federal and State attainment status for Oroville with regard to the NAAQS and CAAQS. The city is currently located in a nonattainment area for the federal 8-hour ozone standard.[2,3] The city is also located in a nonattainment area for the State ozone, fine particulate matter (PM2.5), and coarse particulate matter (PM10) standards.[4]

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[2] Note that within Butte County, the Chico area is currently designated a nonattainment and maintenance area for the federal fine particulate matter and carbon monoxide standards, respectively. However, the Oroville area is currently in attainment with these standards.

[3] United States Environmental Protection Agency, 2014, *The Green Book Nonattainment Areas for Criteria Pollutants*. Available at http://www.epa.gov/airquality/greenbk/index.html. Accessed September 8, 2014.

[4] California Air Resources Board, 2014, *Area Designation Maps/State and National.* Available at http://www.arb.ca.gov/desig/adm/adm.htm. Accessed: September 8, 2014.

C. Changes in the Modified Project Relevant to Air Quality

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, the updates would increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. The updates would also include minor zone changes to improve future land use compatibility with existing development.

The land use updates would change the amount of certain types of development within the city and SOI, which could affect criteria pollutant emissions generated within the Project Area. Typically, mixed-use development has lower per capita VMT compared to traditional suburban development, since mixed-use development provides activities and basic needs nearby, thereby reducing automobile travel. Therefore, reductions in mixed-use development along Highway 162 in the Thermalito area may slightly increase mobile source emissions. Conversely, increasing the density of development in the Downtown area may reduce total mobile source emissions as higher density developments typically have fewer per capita vehicle trips, compared to development configured with lower densities. However, concentrating development in the Downtown area may increase peak-period carbon monoxide concentrations at specific intersections.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

Revisions to the Circulation and Transportation Element include several new actions and policies that encourage alternative modes of transportation, including public transit, walking, and bicycling. Reductions in VMT achieved by these actions would contribute to corresponding reductions in air pollutants generated by mobile sources (e.g. personal vehicles). Changes to the Open Space, Natural Resources, and Conservation Element will support implementation of the City's CAP, which—as described further below—could slightly increase construction-related air pollutants, but reduce annual emissions from building energy consumption and mobile sources.

Revisions to the Economic Development Element and Updates to Reflect State Statutes are not expected to affect air quality because they are not related to this topic.

2. Municipal Code Updates

a. Zoning Map and Districts

The Zoning Map and District updates would ensure consistency with the General Plan land use map (see Chapter 3), including the reductions in mixed-use development along Highway 162 in the Thermalito area and modifications to support increased density in Downtown Oroville that are discussed in Section C.1.a.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

The Municipal Code Updates provide a streamlined approach to solar energy development. To the extent that the Solar Energy Ordinance expands solar thermal technologies, the updated ordinance would be expected to slightly reduce air pollutants associated with natural gas combustion for hot water heating. The local and healthy food initiatives would reduce restrictions on urban agriculture. These initiatives may slightly reduce mobile source emissions through improved access to local foods, although the reduction is expected to be a small fraction of total food-related emissions. Changes to animal keeping restrictions may increase community exposure to odors. Community incentives for parking requirement reductions, mixed-use development, increased public transit accessibility, commuter trip reduction measures, and improved bicycle and pedestrian facilities would help reduce vehicle miles traveled (VMT) and resultant mobile source emissions.

Revisions related to the crime prevention through environmental design principles, park provision standards, and Oak Tree Loss Mitigation Ordinance are not expected to affect air quality because they don't contain any provisions that relate to this topic.

3. Design Guidelines Updates

Specific guidelines that promote energy- and resource-efficient design would reduce annual emissions from building energy consumption and mobile sources.

4. Climate Action Plan

Implementation of the CAP would reduce the City's greenhouse gas (GHG) emissions and has the potential to also reduce operational criteria air pollutant emissions through improvements in energy efficiency and reductions in VMT. Strategies that require infrastructure improvements (e.g. development of recycled water lines) may generate minor amounts of criteria pollutant emissions from construction activities, but each improvement would undergo its own project-level analysis under CEQA that would identify potential emissions, impacts, and mitigation associated with these improvements.

5. Balanced Mode Circulation Plan

The Balanced Mode Circulation Plan identifies design guidelines to promote pedestrian, bicycle, and public transit facilities. Reductions in VMT achieved by these actions would contribute to corresponding reductions in air pollutants generated by mobile sources (e.g. personal vehicles).

D. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to air quality if they would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

These standards are based on the CEQA Guidelines; specific BCAQMD thresholds are also discussed within the impact discussion below.

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to air quality that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Conflict with or obstruct implementation of the applicable air quality plan.

The Clean Air Act requires areas with air quality violating the NAAQS to prepare an air quality control plan referred to as the SIP. Typically, a project is deemed inconsistent with air quality plans if it would result in population, employment, or VMT that exceed the estimates included in the applicable air quality plan such that exceedances would hinder achievement of NAAQS and CAAQS.

As discussed in Section A.2, the most recent SIP for the Project Area is the 2012 AQAP, which outlines limits and control measures to achieve and maintain the federal ozone standard by the earliest practical date. The AQAP is based, in part, on growth projections and General Plan land use designations prepared by counties within the NSVAB. The Modified Project would have the potential to create a conflict with the AQAP if it allowed substantially more population or VMT than anticipated in the AQAP.

As explained in Chapter 3, the Modified Project would increase the residential projections by 385 units compared to Approved Project, which equates to a population increase of approximately 1,000 people, based on an estimate of 2.6 persons per household.[5] This represents approximately 3 percent of the estimated population increase evaluated in the 2008 Draft EIR.[6] The Modified Project would also increase industrial employment by 226 jobs and reduce commercial employment by 43 jobs, resulting in a net employment increase of approximately 183 jobs, relative to the Approved Project.[7] This is less than 1 percent of the

[5] State of California, Department of Finance, May 2014, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2014.*

[6] The 2008 Draft EIR estimated that the 2030 General Plan would add 13,800 residential units, or 32,300 new residents (see page 3-24).

[7] As noted in Chapter 3, the Modified Project would increase the industrial projection by 226,000 square feet and reduce the commercial projection by 32,000 square feet. Based on the 2008 Draft EIR assumptions of one employee per 1,000 square feet of industrial use and 1 employee per 750 square feet of commercial use, this equates to an increase of 226 new industrial jobs and 43 fewer commercial jobs. The net change in employment is therefore estimated at 183 new jobs.

estimated employment increase evaluated in the 2008 Draft EIR.[8] While the Modified Project would result in a slight increase in population and employment compared to the Approved Project, this change would be nominal (less than 5 percent) and would not change the impact related to consistency with applicable air quality plans. Moreover, as described further below, policies outlined in the revised Open Space, Natural Resources, and Conservation Element, CAP, Design Guidelines Updates, and Balanced Mode Circulation Plan would reduce VMT and associated mobile source emissions relative to what was analyzed in the 2008 Draft EIR. Accordingly, the Modified Project would not conflict with the 2012 AQAP and the impact would remain *less than significant*.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The analysis of air quality violations associated with the Modified Project considers potential emissions generated during construction and by mobile and area source emissions from development allowed by the Modified Project.

i. Generation of Construction Emissions

The 2008 Draft EIR determined that even with implementation of General Plan policies to reduce air quality issues, emissions of ozone precursors (i.e. reactive organic gases and nitrogen oxides), carbon monoxide, PM10, and PM2.5 associated with construction of the Approved Project would still exceed daily BCAQMD thresholds. Consequently, the 2008 Draft EIR determined that construction of development allowed by the General Plan would result in a significant and unavoidable air quality impact.

As described in Section C.1.a, the land use map and designation changes would redesignate certain land use types. The Modified Project would also increase allowable densities in the Downtown area. Increasing the density of residential development could affect the type and intensity of construction activities. Likewise, redesignating land uses from one type to another (e.g. from commercial to residential) could affect construction activities and associated emissions, relative to the Approved Project. The incremental difference in emissions between the Modified and Approved Project cannot be determined without detailed emissions modeling, which is beyond the scope of this plan-level document. However, overall construction-related emissions associated with development allowed by the General

[8] The 2008 Draft EIR estimated that the 2030 General Plan would add 19,400 new jobs in the next 25 years (see page 3-25).

Plan may be reduced with implementation of the proposed CAP, which establishes electrification goals for heavy-duty construction equipment.

With respect to the CAP, many of the emissions reduction strategies, such as energy efficiency upgrades (*BE-2 and BE-3*) and the installation of solar photovoltaic systems (*BE-5 and BE-6*), would not require significant construction. However, some strategies, including those related to transportation and possibly water conservation, could involve grading, paving, and/or the construction of permanent facilities. Although individual CAP improvements may not generate significant short-term emissions, it is possible that several improvements would be under construction at the same time and would generate construction emissions that could impact air quality. Accordingly, the impact would be the same as the Approved Project and remain *significant*.

ii. Generation of Criteria Pollutants from Mobile and Non-Mobile Sources

The 2008 Draft EIR determined that combined mobile and area source emissions from development allowed by the General Plan would result in a less-than-significant air quality impact.

As described above, the Modified Project would redesignate certain land uses, increasing residential and industrial square footages, relative to the Approved Project. Emissions sources typically associated with residential land uses include cooking and heating, landscaping activities, personal vehicle travel, and other area sources (e.g. aerosol use). Emissions sources associated with industrial development may include manufacturing, wood processing, warehousing, and heavy-duty vehicle usage (e.g. delivery trucks).

Increased residential and industrial development would generate additional emissions from these land use types beyond what was evaluated in the 2008 Draft EIR. However, while residential and industrial emissions may increase, they may be partially offset by the reduction in commercial building square footage and associated emissions. Any emissions increases associated with changes in land use types would be addressed through emissions reductions achieved by polices outlined in the revised Open Space, Natural Resources, and Conservation Element, CAP, Design Guidelines Updates, and Balanced Mode Circulation Plan. Specifically, the encouragement of public transit over personal vehicle use and the concentration of new mixed-use development near Downtown would reduce vehicle trips and mobile-source air pollutant emissions. Energy efficiency upgrades are likewise anticipated to result in a regional air quality benefit because they would reduce energy consumption, such as natural gas combustion for hot water heating.

These and other emissions reduction strategies would likely reduce mobile and non-mobile source criteria pollutant emissions, relative to what was previously considered in the 2008 Draft EIR. Accordingly, the impact would remain *less than significant*.

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

As discussed above, Oroville is currently designated a nonattainment area under the NAAQS and CAAQS for ozone and nonattainment under the CAAQS for PM2.5 and PM10 from past and present projects. Reasonably foreseeable growth could continue to exceed air quality standards or contribute to an existing or projected air quality exceedance. As discussed above, the Modified Project is expected to reduce mobile and non-mobile source criteria pollutant emissions, relative to what was previously considered in the 2008 Draft EIR. Accordingly, the Modified Project would not result in a considerable increase in criteria pollutants for which the project area is nonattainment. The impact would remain *less than significant*.

d. Expose sensitive receptors to substantial pollutant concentrations.

The analysis of health risks associated with the Modified Project considers sensitive receptor exposure to carbon monoxide hot-spots, long-term operational hazards, and short-term construction hazards.

i. Carbon Monoxide Hot-Spots from Vehicle Exhaust

Elevated levels of carbon monoxide concentrations are typically found in areas with significant traffic congestion. Carbon monoxide is a public health concern because it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. The 2008 Draft EIR determined that development allowed by the Approved Project would not result in violations of the State or the federal 1-hour or 8-hour carbon monoxide standards. Accordingly, traffic generated by the Approved Project would have a less-than-significant impact on carbon monoxide hot-spots.

While the Modified Project is expected to reduce overall vehicle trips and mobile-source air pollutant emissions (see above), relative to the Approved Project, changes in the land use designations and allowable densities might increase localized emissions hot-spots in certain areas. For example, the Modified Project would redesignate land uses along Highway 162 in the Thermalito area from Mixed Use to Medium Density Residential. Because mixed-use developments produce less

per capita vehicle trips than traditional development, peak-hour traffic volumes and emissions levels in this area may slightly increase with this change from Mixed Use to Medium Density Residential. Higher allowable densities in the Downtown areas may also increase carbon monoxide concentrations at specific intersections due to already congested conditions that may exist in the Downtown areas.

While peak-hour vehicle trips may increase under the Modified Project in certain locations, these would be nominal and would not result in violations of the State or the federal 1-hour or 8-hour carbon monoxide standards. As shown in Table 4.2-4 on page 4.2-20 of the 2008 Draft EIR, carbon monoxide concentrations associated with the Approved Project are well below the NAAQS and CAAQS. In order to elevate carbon monoxide concentrations above the ambient air quality standards, the Modified Project would need to increase traffic volumes at congested intersections by more than 44,000 vehicles per hour.[9] As noted above, the Modified Project would generate only slight increases in traffic volumes (far below 44,000 vehicles per hour) at specific intersections. Therefore, the Modified Project would not change the impact related to carbon monoxide emissions from vehicles compared to the Approved Project, and it would remain *less than significant*.

ii. Long-Term Operational Hazards

As discussed in Chapter 3, the Modified Project would increase industrial land uses by approximately 226,000 square feet, relative to the Approved Project.[10] Potential TACs associated with industrial uses could include, but are not limited to, solvents, diesel exhaust, and metals.[11] TACs are a public health concern because they have been shown to cause morbidity or mortality.

The redesigned industrial parcels would be located inside and just east of the city limits along Ophir Road. Land uses in this area currently include existing industrial developments and open space. Accordingly, by replacing the Mixed Use designation with Industrial, the Modified Project avoids a potential land use

[9] This screening criterion is drawn from the Bay Area Air Quality Management District's (BAAQMD's) CEQA Guidelines. Modeling performed by BAAQMD indicates that projects that meet this criterion would not contribute to violations of the carbon monoxide CAAQS. While the standard and associated modeling was conducted for projects in the Bay Area, the value can be used a proxy for potential traffic-related carbon monoxide impacts in other air districts. BAAQMD, 2011. California Environmental Quality Act, Air Quality Guidelines, May (Revised).

[10] While the Modified Project would increase residential square footage and retail and office space in the Downtown area, these land use types are not typically associated with high levels of TAC emissions.

[11] California Air Resources Board, 2005, *Air Quality and Land Use Handbook*. April. Sacramento, CA.

conflict where new residential receptors would have been sited adjacent to existing industrial land uses. Because there are no existing sensitive receptors within the immediate vicinity of the redesigned industrial parcels, the Modified Project would not expose current receptors to increased health risks. Moreover, all new industrial uses associated with the project would be subject to BCAQMD Rule 432, *Federal New Source Review*, and Rule 430, *State New Source Review* (see Section A.3).

Increases in residential density in the Downtown area would not change the types of sensitive land uses, relative to the Approved Project, but would increase the number of new residents that could be potentially exposed to ambient health risks. However, because health risks were determined to be less than significant in the 2008 Draft EIR for the Approved Project, the Modified Project would not expose any new residents to significant health risks. Moreover, many of the proposed General Plan land use map changes would redesignate land uses to reflect existing and surrounding uses, which would improve land use compatibility and reduce the potential for citing receptors adjacent to emissions sources.

The Modified Project also includes several policies that would reduce ambient human health risks throughout the community. For example, CAP strategy LUT-9, *Idling Ordinance*, limits heavy-duty vehicle idling to 3 minutes. Idling limits would reduce diesel exhaust emissions, which are of special concern because health studies show an association between diesel particulate matter (DPM) and premature mortality in those with existing cardiovascular disease. Strategies in the CAP and Balanced Mode Circulation Plan that encourage alternative transportation would also reduce VMT in 2020 by over 3.5 million miles, which would achieve corresponding reductions in onroad fuel combustion and TACs. Additionally, reductions in ozone precursors (reactive organic gases and nitrogen oxides) would reduce the formation of smog, which has numerous human health effects, including respiratory irritation.

Since the Modified Project would avoid siting residential receptors adjacent to industrial land uses and would contribute to overall reductions in mobile-source emissions, it would not increase the population potential affected by major sources of air pollution. The impact would remain *less than significant*.

iii. Short-Term Construction Hazards

Development allowed by the Modified Project would require diesel-powered construction equipment that could generate increased diesel exhaust and other TACs. However, as with the Approved Project, TACs from construction equipment are not anticipated to result in increased health risk because cancer

health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, often defined as a 70-year exposure period. Shorter timeframes of exposure associated with typical construction activities would not result in increased health risk. Moreover, CAP strategy LUT-10, *Electric-Powered Construction Equipment*, may also reduce potential exposure to DPM through electrification goals for heavy-duty construction equipment. Accordingly, impacts would remain *less than significant*.

e. Create objectionable odors affecting a substantial number of people.

Odors are only considered to be significant if they are a nuisance. BCAQMD identifies screening distances for odors generated by wastewater treatment plants, landfills, waste transfer stations, composting facilities, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, painting/coating operations, rendering plants, large coffee roasters, food processing facilities, and confined animal facilities. The increase in industrial land uses allowed under the Modified Project may result in additional odor generating sources. However, as described above, there are no existing sensitive receptors within the immediate vicinity of the redesigned industrial parcels. Accordingly, the land use map changes would not expose receptors to objectionable odors or otherwise result in a nuisance.

Changes to animal keeping restrictions in the Municipal Code may increase the number of animals kept on public and private properties. While these animals may generate some minor odors, all applicants would be required to secure a use permit that establishes conditions for odor management. In addition, BCAQMD Rule 200 prohibits the discharge of air contaminants or other material that may cause nuisance or annoyance to any considerable number of people. Therefore, compliance with this rule would also address any potential odors associated with new permit applications.

Based on the above analysis, the Modified Project would not result in substantial changes relative to the Approved Project that would increase objectionable odors. The impact would remain *less than significant*.

2. Cumulative Impacts

The 2008 Draft EIR found no significant cumulative impacts on air quality. Changes proposed in the Modified Project that affect air quality are relatively minor. The strategies and policies outlined in the revised Open Space, Natural Resources, and Conservation Element, CAP, Design Guidelines Update, and Balanced Mode Circulation Plan would likely contribute to long-term emissions reductions from mobile and non-mobile sources, compared to the Approved

Project. Accordingly, cumulative impacts on air quality would remain *less than significant*.

F. Impacts and Mitigation Measures

Because there are no additional significant impacts related to air quality as a result of the Modified Project, no additional mitigation measures are required.

4.3 BIOLOGICAL RESOURCES

This chapter evaluates the potential impacts related to biological resources associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses special-status species, sensitive biological communities, wetlands, migratory species, and policies and plans intended to protect biological resources. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B.

A. Regulatory Framework

Since the 2008 Draft EIR for the Approved Project was published, the Butte County Association of Governments has prepared a draft version of the Butte Regional Habitat Conservation Plan and Natural Community Conservation Plan (Butte Regional Conservation Plan, or BRCP).

The BRCP will provide western Butte County with a streamlined regulatory compliance process and provides for the regional conservation of various natural communities, including wetlands, and sensitive plants, fish, and wildlife species, including federally listed and State-listed species. A draft of the BRCP is currently under review with State and federal agencies.

The Project Area falls entirely within the planning area of the BRCP. Impacts on biological resources in the Project Area that would be covered by the BRCP would be mitigated through the City's participation in the BRCP. A BRCP Implementing Entity will be established to implement the conservation actions (e.g. habitat preservation and restoration) of the BRCP. However, until the time BRCP is approved, impacts on biological resources would be mitigated on a project-by-project basis.

B. Existing Conditions

Since the 2008 Draft EIR for the Approved Project was published, one additional special-status wildlife species has been identified in the Project Area.[1] No new

[1] California Department of Fish and Wildlife, 2014. *California Natural Diversity Database, RareFind 3, Version 3.1.0*. (June 4, 2014 update). Sacramento, CA: California Department of Fish and Wildlife. Sacramento, CA.

special-status plant species were identified in the Project Area since the 2008 Draft EIR. [1, 2]

The California black rail (*Laterallus jamaicensis cotur-niculus*), which is listed by the State as threatened and fully protected, was documented in the Project Area after publication of the 2008 Draft EIR.[1] California black rail historically occurred along the salt marshes of bays and estuaries along the coast of California.[3] The species has more recently been documented breeding in the northern Sierra Nevada foothills from Butte County south to Placer County.[4] California black rail are typically found in high portions of salt marshes, wet meadows, and shallow freshwater marshes.[5] Habitat in the northern Sierra Nevada foothills primarily consists of small patches of freshwater marsh on gentle slopes, typically forming from irrigation or ditch leaks.[6] Other areas of habitat include marshes forming from springs and areas of emergent vegetation associated with streams. Freshwater marsh habitat in the Project Area could be occupied by California black rail.

C. Changes in the Modified Project Relevant to Biological Resources

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed General Plan land use map changes are within existing developed and/or disturbed/managed (i.e. parks) areas and are related to changes in land use. The land use map changes do not change any designation from an open space designation (e.g. Resource Management or Environmental Conservation and

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[2] California Native Plant Society, 2014, *Inventory of Rare and Endangered Plants* (online edition, v7-14jun6-11-14). California Native Plant Society. Sacramento, CA. Available http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>. Accessed June 26, 2014.

[3] Eddleman, W. R., R. E. Flores and M. Legare, 1994, *Black Rail (*Laterallus jamaicensis*), The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/123.

[4] California Department of Fish and Wildlife 2014; Richmond, O. M., J. Tecklin, and S. R. Beissinger, 2008, Distribution of California Black Rails in the Sierra Nevada Foothills. *Journal of Field Ornithology*, 79(4): 381-390.

[5] Eddleman et al. 1994.

[6] Richmond et al. 2008: 386.

Safety) to one that would allow development. These updates are not anticipated to be relevant to biological resources.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

The proposed 2030 General Plan Updates primarily relate to resource topics other than biology and are not expected to directly affect biological resources. Some of the updates, such as the reduction of GHG emissions and an increase in park areas, would generally benefit wildlife species.

2. Municipal Code Updates

a. Zoning Map and Districts

The proposed zoning map updates are consistent with the General Plan Land Use Map discussed above, and are similarly not anticipated to be relevant to biological resources.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

The Municipal Code Updates include a new Municipal Code Chapter, 8C, Oak Tree Loss Mitigation, as directed by the proposed CAP, which is discussed further below. The proposed Ordinance requires mitigation for the removal of oak trees due to development, with options for on-site replacement, in-lieu fees, or off-site replacement, as well as replacement standards and maintenance and monitoring requirements for replacement trees.

No other Municipal Code Updates are anticipated to directly affect biological resources in the Project Area; some of the updates that result in lower GHG emissions and increase park areas would benefit wildlife.

3. Design Guidelines Updates

The updated Design Guidelines include requirements to avoid the use of any invasive plant species on the California Invasive Plant Council (Cal-IPC) list in landscaping of all types of development.

4. Climate Action Plan

The CAP includes land conservation strategy LC-2 to minimize oak trees losses from new development. This strategy directs the City to adopt a new oak tree

ordinance to mitigate for tree loss, as described above for the Municipal Code Updates.

5. Balanced Mode Circulation Plan

The Balanced Mode Circulation Plan includes design guidelines and recommendations for improvements on existing roads. Improvements could include construction of new bike paths, bike lanes, and recreational trails, which could affect biological resources.

D. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to biological resources if they would:

- Have a substantial adverse effect, either directly or through habitat modifications, on a plant or animal population, or essential habitat, defined as a candidate, sensitive or special-status species.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community type, such as native grasslands.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Have a substantial interference with the movement of any native resident or migratory fish or wildlife species, their wildlife corridors, or native nursery sites.
- Conflict with any local policies or ordinances protecting biological resources.
- Conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to biological resources that could occur as a result of implementation of the Modified Project or based on any changes to existing conditions that were not already disclosed in the 2008 Draft EIR for the Approved Project.

1. Project Impacts

a. Have a substantial adverse effect, either directly or through habitat modifications, on a plant or animal population, or essential habitat, defined as a candidate, sensitive or special-status species.

The Modified Project includes General Plan land use designation changes that would result in slightly more residential and industrial development and slightly less commercial development. The Modified Project would also redesignate approximately 9 acres in the Downtown area from Park to residential uses and Mixed Use. While these changes would change the character of development in certain parts of the city, they would not increase the overall urban footprint compared to that previously evaluated for the Approved Project. Parcels in the Arts, Culture, and Entertainment District proposed for redesignation from Park to residential uses and Mixed Use are already developed urban environments with limited value to existing habitat. Thus, the land use changes proposed by the Modified Project would not create new impacts on special-status plant or wildlife species that were evaluated in the prior EIR for the Approved Project, and the impact on those species would remain less than significant.

The Modified Project could potentially have adverse effects on special-status species habitat as a result of implementing the Balanced Mode Circulation Plan. Implementation of the Balanced Mode Circulation Plan could include widening existing roads or constructing new recreational trails, which could occur in areas of special-status species habitat. However, existing 2030 General Plan policies described on pages 4.3-23 and 4.3-28 to 4.3-29 of the 2008 Draft EIR for the Approved Project, combined with CEQA review of and mitigation for individual projects, would reduce potential impacts to a less-than-significant level.

The Modified Project could also benefit special-status species adjacent to development areas through the proposed Design Guidelines Updates. The updated Guidelines ban the use of invasive plant species in landscaping, which would avoid introduction of and prevent the spread of invasive plant species into adjacent natural areas that could displace special-status plants and make habitats unsuitable

for special-status wildlife. In addition, preservation of oak trees as a result of the proposed Oak Tree Loss Mitigation Ordinance could benefit special-status species that depend on oak tree habitat.

As explained in Section B, one new special-status wildlife species, the State-listed as threatened California black rail, was identified in the California Natural Diversity Database records search for the Project Area and was not previously addressed in the 2008 Draft EIR for the Approved Project. This evaluation considers the combined effects of the Approved and Modified Project on the California black rail, since this species was not evaluated in the 2008 Draft EIR.

Construction activities associated with the Approved Project and the Modified Project (e.g. grading and excavation) could result in the direct removal of California black rail habitat and/or in mortality and/or injury of California black rail adults, juveniles, nestlings, and eggs. Other construction activities (e.g. noise and lighting) could also result in direct impacts on California black rail by disrupting normal behaviors, including nesting, and could indirectly impact California black rail habitat by altering the hydrology that supports adjacent freshwater marsh habitat (e.g. removing contour ditches, disrupting subsurface hydrology, or redirecting flows). Once constructed, newly developed areas could also indirectly impact California black rail where these areas occur adjacent to occupied or potential habitat through the introduction of pets, noise, and lighting. The impacts on California black rail would be *significant*.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community type, such as native grasslands.

The Modified Project would potentially have adverse effects on riparian habitat and other sensitive natural communities within the Project Area as a result of implementing the Balanced Mode Circulation Plan. If located in areas of sensitive natural communities, roadway widening or construction of new recreational trails could damage or remove vegetation in these communities. However, existing 2030 General Plan policies described on page 4.3-29 of the 2008 Draft EIR for the Approved Project, combined with CEQA review of and mitigation for individual projects, would reduce potential impacts to a less-than-significant level.

The Modified Project could also benefit sensitive natural communities adjacent to development areas through the Design Guidelines Updates. The updated guidelines ban the use of invasive plant species in landscaping, which would avoid introduction of and prevent the spread of invasive plant species into adjacent natural areas. In addition, preservation of oak trees as a result of the proposed Oak

Tree Loss Mitigation Ordinance could benefit sensitive natural communities that include oak trees.

Overall, the Modified Project would not change the Approved Project's impact on riparian habitat or other sensitive natural communities, and it would remain *less than significant*.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

The Modified Project would potentially have adverse effects on federally protected wetlands within the Project Area as a result of implementing the Balanced Mode Circulation Plan (BMCP). If roads would be widened or new recreational trails would be constructed into federally protected wetlands, construction could directly fill or indirectly affect these areas. However, existing 2030 General Plan policies and Section 1602 Streambed Alteration Agreement requirements from the California Department of Fish and Wildlife (CDFW) described on page 4.3-30 of the 2008 Draft EIR for the Approved Project, combined with CEQA review of and mitigation for individual projects, would reduce potential impacts to a less-than-significant level.

The Modified Project could also benefit wetlands adjacent to development areas through the Design Guidelines Updates. The updated guidelines ban the use of invasive plant species in landscaping, which would avoid introduction of and prevent the spread of invasive plant species into adjacent wetland areas.

Overall, the Modified Project would not change the Approved Project's impact on federally protected wetlands, and it would remain *less than significant*.

d. Have a substantial interference with the movement of any native resident or migratory fish or wildlife species, their wildlife corridors, or native nursery sites.

The Modified Project could affect the movement of wildlife species within the Project Area through the implementation of the Balanced Mode Circulation Plan. The Balanced Mode Circulation Plan proposes to add pedestrian and bike paths to some rural collector roads, including Oroville-Quincy Highway. The proposed design solutions may increase the amount of paved surface, since the roadway shoulders currently consist of a mix of pavement, gravel, and natural vegetation, but would generally not result in new physical constraints on wildlife movement.

Increased presence of pedestrians and bicyclists could affect wildlife movement through these areas. However, development of recreational trails that follow the 2030 General Plan policies under Goal OPS-9, as explained on page 4.3-31 of the 2008 Draft EIR for the Approved Project, would ensure that wildlife corridors are not substantially impacted. Therefore, the Modified Project would not change the Approved Project's impact on the movement of native resident or migratory fish or wildlife species, and it would remain *less than significant*.

e. Conflict with any local policies or ordinances protecting biological resources.

Similar to the Approved Project, the Modified Project would not conflict with any local policies or ordinances within the Project Area. The biological resource requirements in the various federal, State, and local regulations and policies that are described on pages 4.3-1 to 4.3-5 of the 2008 Draft EIR for the Approved Project would remain intact following implementation of the Modified Project. In addition, the 2030 General Plan includes numerous policies to protect biological resources that are regulated under those federal, State, and local policies and regulations, and the proposed Oak Tree Loss Mitigation Ordinance would have a beneficial effect on oak trees in the Project Area by requiring replacement plantings for removed oak trees. Therefore, similar to the Approved Project, the Modified Project would have *no impact*.

f. Conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

As discussed in Section A, the BRCP has not been adopted. Therefore, the Modified Project would not conflict with any approved habitat conservation plans or natural community conservation plans within the Project Area, and the impact would remain *less than significant*.

2. Cumulative Impacts

Implementation of the Modified Project would reduce some of the cumulative effects of development in the Oroville area allowed by the Approved Project by avoiding the use of invasive species in landscaping and by requiring mitigation for the loss of oak trees.

However, as discussed in Section E.1, changes to the circulation plan as a result of the Balanced Mode Circulation Plan could contribute to the cumulative loss of sensitive natural communities, federally protected wetlands, and habitat for common and special-status species, which could result in the loss or displacement

of wildlife that would have to compete for suitable habitats with existing adjacent populations.

This change would occur as an intrinsic part of land use changes, and development outside Oroville would be beyond the City's ability to regulate or control. Therefore, the Modified Project would not substantially change the *significant* cumulative impact of the Approved Project.

F. Impacts and Mitigation Measures

As noted in Section A, since the release of the 2008 Draft EIR for the Approved Project, a draft version of the BRCP has been developed and is expected to be out for public review by early 2015. Since the City of Oroville would be a participant in the BRCP and the City of Oroville 2030 General Plan would be covered by the BRCP, any impacts on biological resources by covered activities within the Project Area would be mitigated through the City's participation in the BRCP. However, until the time BRCP is approved, impacts on biological resources would be mitigated on a project-by-project basis.

Impact BIO-2: Development associated with the Approved Project and the Modified Project could impact California black rail and its habitat as discussed above. Impacts on California black rail and its habitat could be offset through the City's participation in the BRCP. The Draft BRCP identifies a goal for maintaining and increasing the population of California black rail in the BRCP Plan Area, which includes the protection of five patches of California black rail habitat, and an objective to avoid the removal of occupied California black rail habitat. In addition, the large scale conservation of grasslands and avoidance and protection of wetlands within the BRCP Plan Area would also likely benefit the species.

In case the BRCP is not finalized prior to the approval and implementation of the Approved and Modified Projects, the following mitigation measures would be implemented on a site-specific project basis to reduce impacts on California black rail to a less-than-significant level.

> Mitigation Measure BIO-2A: Surveys for California Black Rail
> If a proposed project would result in the loss of or occurs adjacent to freshwater marsh habitat, surveys shall be conducted to determine whether the marsh is occupied by California black rail. Two to three rounds of surveys shall be conducted between March 15 and May 31, with at least ten days

between surveys. Survey methodology will generally follow the Wetlands Regional Monitoring Program protocol for black rail or another methodology as determined in coordination with CDFW.[7] The surveyor(s) shall possess the required permits from CDFW for conducting the surveys. Project construction shall not be initiated until the surveys are completed and results reviewed by CDFW.

Mitigation Measure BIO-2B: Avoid and Minimize Impacts on California Black Rail

Development projects within the Project Area shall avoid and minimize impacts on freshwater marsh habitat and/or occupied California black rail habitat to the maximum extent practicable. Where direct impacts can be avoided, buffers shall be established around the occupied California black rail habitat to avoid and minimize disturbance of the species during construction. Buffers shall be developed in coordination with CDFW and be based on site-specific conditions and the nature of the construction activities. Buffer areas shall be delineated with a combination of bright orange construction fencing (the bottom 18 inches should be above grade to avoid entangling terrestrial wildlife) and silt fencing (with the bottom 6 inches buried) to clearly identify the area to be avoided and to keep sediments from entering the wetland, respectively.

In addition, a biological monitor who is experienced with California black rails shall monitor construction activities to ensure that activities do not inadvertently impact the species or its habitat. The biological monitor shall also provide worker awareness training to construction personnel on the status and general biology of California black rail, inform them of the conservation measures that have been developed to avoid and minimize impacts on the species, and inform them of the consequences of non-compliance. Activities that require monitoring shall be decided based on site-specific conditions and the nature of the activity, and shall be developed in coordination with CDFW. Generally, those activities in close proximity to occupied habitat that require night work and associated lighting and/or that generate loud noises shall not be allowed during the nesting season, or they shall require monitoring.

[7] Wetland Regional Monitoring Program, 2002, *Wetlands Regional Monitoring Program Plan, Part 2: Data Collection Protocols, Wetland Bird Monitoring*. Pages 28–29.

Mitigation Measure BIO-2C: Compensate for Loss of California Black Rail Habitat

California black rail habitat that would be lost as a result of site-specific development projects allowed by the Approved or Modified Project shall be mitigated at a minimum of 1:1. Compensation shall consist of either preservation or restoration, or both, depending on the availability of equivalent habitat in the Project Area and pending consultation with CDFW. Compensation shall be achieved at either a mitigation bank or within an approved conservation area that is protected and managed in perpetuity.

Significance After Mitigation: *Less than significant.*

4.4 CULTURAL RESOURCES

This chapter evaluates the potential cultural resource impacts associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses historical, archaeological, and paleontological resources, as well as potential impacts associated with the disturbance of human remains. Sections in the 2008 Draft EIR for the Approved Project on Regulatory Framework and Existing Conditions are the same and not repeated here.

A. Changes in the Modified Project Relevant to Cultural Resources

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed General Plan land use map changes are within existing developed and/or disturbed/managed (i.e. parks) areas and are related to changes in land use. The land use map changes do not change a designation from an open space designation (e.g. Resource Management or Environmental Conservation and Safety) to one that would allow development, so it is not expected that they would change potential impacts from the Approved Project related to buried cultural resources.

The 2030 General Plan Updates include a new Arts, Culture, and Entertainment Overlay, which supports historic resources in the Downtown and helps to establish the Historic Downtown as an arts, culture, entertainment, and employment center for the region. The land use map would also be updated to reflect the land use concept within the Arts, Culture, and Entertainment District, further supporting these goals.

The land use map would also be revised to include a new Professional Office Overlay that would be applied to the residential designations along Montgomery Street west of Oak Street. This Overlay would allow professional office uses in addition to the uses allowed by the underlying designation, which has the potential to affect cultural resources given the historic nature of some of the structures in this area.

Finally, the 2030 General Plan Updates would also increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces, which could affect historic resources in the Downtown.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

These changes are not expected to affect cultural resources because they don't contain any provisions that are related to this topic.

2. Municipal Code Updates

a. Zoning Map and Districts

The Municipal Code Updates include modifications to the Downtown Historic Overlay to allow a diversity of housing types that reflect the traditional scale and character of residential neighborhoods in Downtown Oroville. Given the historic nature of this area, these modifications could affect cultural resources.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

The Municipal Code Updates would provide a streamlined approach, standards, and permit requirements for solar energy systems, which could affect cultural resources if applied to historic buildings or sites.

3. Design Guidelines Updates

The Design Guidelines Updates include new guidelines that encourage green building design, which could affect historic buildings.

4. Climate Action Plan

The CAP includes strategies and actions that would promote green building design, which could affect historic buildings.

5. Balanced Mode Circulation Plan

This document is not expected to affect cultural resources because it does not contain any provisions that are related to this topic.

B. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant cultural resource impact if they would:

- Cause a substantial adverse change in the significance of a historical resource.

- Cause a substantial adverse change in the significance of an archaeological resource.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

C. Impact Discussion

The following discussion provides an analysis of potential project and cumulative cultural resource impacts that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project. This discussion is organized by and responds to each of the potential impacts identified in the Standards of Significance.

1. Project Impacts

a. Cause a substantial adverse change in the significance of a historical resource.
As described on page 4.4-18 of the 2008 Draft EIR for the Approved Project, future development allowed by the General Plan could lead to physical demolition, destruction, relocation, or alteration of potential historical resources. Given that new buildings could qualify as historic resources as more time passes, further studies at the time a development project is proposed would be required to determine the level of significance of this impact for individual projects.

As discussed in Section A, changes proposed in the Modified Project could increase potential impacts on historic resources in the built environment through:

- Allowing professional office uses in the homes along Montgomery Street.
- Increased density and intensity of development in the Downtown.
- Promoting a diversity of housing types in the Downtown Historic Overlay.
- Facilitating the development of solar energy facilities.
- Promoting green building design.

However, as described in detail on page 4.4-18 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan includes goals, policies, and actions that would address potential historic resource impacts, including policies that require consultation to determine if historic resources are present and if so, the development of a mitigation plan. In addition, as discussed in Section A, the proposed Arts, Culture, and Entertainment Overlay supports historic resources in the Downtown. Therefore, the impact would remain *less than significant.*

b. Cause a substantial adverse change in the significance of an archaeological resource.

As described on page 4.4-19 of the 2008 Draft EIR for the Approved Project, future construction activities allowed by the General Plan, such as grading and excavation, may result in the accidental destruction or disturbance of archaeological sites. Additionally, development allowed by the General Plan may draw the public to gather in areas with visible archaeological resources, resulting in destruction, illicit collection or prospecting by unauthorized persons.

As discussed in Section A, changes proposed in the Modified Project would not change the overall development area allowed by the General Plan. The land use map changes are within existing developed and/or disturbed/managed (i.e. parks) areas and are related to changes in land use. Therefore, they would not change potential impacts from the Approved Project related to buried archeological resources. Furthermore, the Modified Project would not change the 2030 General Plan policies that protect archeological resources, which are described on page 4.4-19 of the 2008 Draft EIR for the Approved Project. Therefore, the Modified Project would not change the *less-than-significant* impact on archaeological resources caused by the Approved Project.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As described on pages 4.4-19 to 4.4-20 of the 2008 Draft EIR for the Approved Project, future construction activities and development allowed by the General Plan could impact paleontological resources or unique geologic features through ground disturbing activities or attracting people to such resources, resulting in illicit collection of fossils, prospecting, or damage to a unique geologic feature.

As discussed in Section C.1.b, the Modified Project would not change the overall development area allowed by the General Plan, so it would not change the Approved Project's impacts on buried cultural resources. In addition, the Modified

Project would not change the 2030 General Plan policies that protect paleontological resources, which are described on page 4.4-20 of the 2008 Draft EIR for the Approved Project. Therefore, the Modified Project would not change the *less-than-significant* impact on paleontological resources or unique geologic features caused by the Approved Project.

d. Disturb any human remains, including those interred outside of formal cemeteries.

As described on page 4.4-20 of the 2008 Draft EIR for the Approved Project, the General Plan could impact Native American resources, including human remains. As discussed in Section C.1.b, the Modified Project would not change the overall development area allowed by the General Plan, so it would not change the Approved Project's impacts on buried cultural resources. In addition, the Modified Project would not change the 2030 General Plan goals and policies that protect Native American resources, which are described on page 4.4-20 of the 2008 Draft EIR for the Approved Project. Therefore, it would not change the *less-than-significant* impact on Native American resources and human remains caused by the Approved Project.

2. Cumulative Impacts

The 2008 Draft EIR for the Approved Project found no significant cumulative impacts to cultural resources. The changes proposed in the Modified Project that would affect cultural resources are relatively minor, and the analysis provided on pages 4.4-20 to 4.4-21 of the 2008 Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, cumulative impacts to cultural resources would remain *less than significant*.

D. Impacts and Mitigation Measures

Because there are no additional significant impacts related to cultural resources as a result of the Modified Project, no additional mitigation measures are required.

4.5 GEOLOGY, SOILS, AND MINERAL RESOURCES

This chapter evaluates the potential impacts related to geology, soils, and mineral resources associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses potential hazards and resources, including liquefaction, ground shaking, ground rupture, and landslides. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exception noted in Section A.

A. Regulatory Framework

Since the 2008 Draft EIR for the Approved Project was published, the State of California released an updated version of the California Building Code (CBC) in 2013. The CBC is included in Title 24 of the California Code of Regulations. The CBC incorporates the International Building Code, a model building code that has been adopted across the United States. The CBC is updated every three years, and the current 2013 CBC took effect January 1, 2014. The City of Oroville adopted the 2013 CBC through Ordinance 1800. Through the CBC, the State provides a minimum standard for building design and construction. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

B. Changes in the Modified Project Relevant to Geology, Soils, Mineral Resources

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, the updates would increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. The updates would also include minor zone changes to improve future land use compatibility with existing development. The additional development allowed by the Modified Project could expose more people to risks from geologic hazards.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

These changes are not expected to impact geology, soils, and mineral resources because they don't contain any provisions that are related to this topic.

2. Municipal Code and Design Guidelines Updates, Climate Action Plan, and Balanced Mode Circulation Plan

These changes and documents are not expected to impact geology, soils, and mineral resources because they don't contain any provisions that are related to this topic.

C. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to geology, soils, and mineral resources if they would:

- Expose people or structures to 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.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides, mudslides, or other similar hazards.
- Result in substantial soil erosion or 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 risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

- Result in the loss of availability of a known mineral resource that would be of value to the region or the state, or of a locally-important mineral resource recovery site delineated on a mineral resource plan, local general plan, specific plan, or other land use plan.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines. For reference, Table 18-1-B of the Uniform Building Code defines expansive soils as shown in Table 4.5-1.

TABLE 4.5-1 **UNIFORM BUILDING CODE EXPANSIVE SOIL CLASSIFICATIONS**

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

D. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to geology, soils, or mineral resources that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Expose people or structures to 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.

As described on page 4.5-19 of the 2008 Draft EIR for the Approved Project, the Project Area is not within an Aquist-Priolo Zone. Nevertheless, recognizing that there is still a risk to the city from primary and secondary seismic hazards, the 2030 General Plan Safety Element includes several policies to minimize risk from fault rupture.

The Modified Project would slightly increase the development potential of the General Plan, which could expose more people to risks from primary and secondary seismic hazards. However, the Modified Project would maintain the 2030 General Plan policies that minimize the risk of ground rupture, including the following:

- Safety Element Policy P1.1 requires new residential development to be grouped and located in such a way as to avoid areas of geologic hazard, including steep slopes and areas of unstable soils.
- Safety Element Policy P1.2 requires all new developments to be subjected to a geotechnical study prior to development approval and to mitigate any identified hazards to a level of insignificance.

Therefore, the impact related to fault rupture would remain *less than significant.*

b. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

The Modified Project would slightly increase the development potential of the General Plan, which could expose more people to risks from seismic ground shaking. However, the Modified Project would maintain the 2030 General Plan policies that minimize the risk of ground rupture, which are described on pages 4.5-19 to 4.5-20 of the 2008 Draft EIR for the Approved Project. In addition, as discussed in Section A, the City of Oroville adopted the most recent CBC, which outlines standards for seismic design, foundations, and drainage and requires that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist. Overall, while the Modified Project would slightly increase the city's development potential, which could expose more people to risks from seismic ground shaking, local, State, and federal policies and regulations would ensure that the impact would remain *less than significant*.

c. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

As shown in Figure 4.5-1, Geologic Hazards, of the 2008 Draft EIR for the Approved Project, the central and the southeastern portion of the Project Area have moderate liquefaction potential. Because the Modified Project would slightly increase the development potential in the city, including in areas that are susceptible to liquefaction, it would expose more people to risks from liquefaction and other seismic-related ground failure. However, as discussed in Section D.1.a, the Modified Project would maintain the 2030 General Plan policies that limit development on areas of unstable soils and require soils reports for new development. Additionally, all development occurring under both the Approved and Modified Projects must comply with the CBC, which contains specific requirements for building safety. Therefore, the seismic-related ground failure impact would remain *less than significant*.

d. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, mudslides, or other similar hazards.

As shown in Figure 4.5-1, Geologic Hazards, of the 2008 Draft EIR for the Approved Project, steep slopes of 30 percent or greater exist in several areas in and around the city, primarily on hillsides and bluffs in the northern part of the Project Area. These areas may present a significant hazard in terms of potential landslides, mudslides, and similar hazards. Because the Modified Project would slightly increase the development potential in the city, including in areas that are susceptible to landslides and mudslides, it would expose more people to associated risks. However, the Modified Project would maintain the 2030 General Plan policies that address potential hazards associated with landslides, mudslides, and other unstable soil conditions, including Safety Element Policy P1.2, which requires new development to be subjected to a geotechnical study prior to development approval and to mitigate any identified hazards to a level of insignificance. Additionally, all development occurring under both the Approved and Modified Projects must comply with the CBC, which contains specific requirements for building safety. Therefore, the impact related to landslides, mudslides, or similar hazards would remain *less than significant*.

e. Result in substantial soil erosion or loss of topsoil.

As described on pages 4.5-20 to 4.5-21 of the 2008 Draft EIR for the Approved Project, human activities, such as grading, excessive irrigation, and removal of vegetation, contribute to erosion. Therefore, development allowed by the General

Plan could result in soil erosion. Because the Modified Project would slightly increase the development potential in the city, it could increase associated soil erosion impacts. However, the Modified Project would maintain the 2030 General Plan policies that address erosion, including Safety Element Policy P1.2, which requires new development to be subjected to a geotechnical study prior to development approval and to mitigate any identified hazards to a level of insignificance. Additionally, all development occurring under both the Approved and Modified Projects must comply with the CBC, which contains specific regulations for erosion control. Therefore, the impact related to soil erosion would remain *less than significant*.

f. 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.

Impacts from liquefaction and landslides are discussed in Sections D.1.c and D.1.d. Lateral spreading is a phenomenon in which relatively flat land areas undergo sudden lateral movement, generally toward a slope or channel margin during an earthquake. Lateral spreading occurs most frequently where liquefiable layers are present at depth and a slope, such as a riverbank, is located nearby. Subsidence and soil collapse refer to the compaction of soils and alluvium as a result of ground shaking. Compaction typically occurs in places that are underlain by soft water-saturated, low-density alluvial material. Subsidence can also occur where water or natural gas is extracted.

Because the Modified Project would slightly increase the development potential in the city, including in areas that are susceptible to unstable soils from lateral spreading, subsidence, and compaction, it would expose more people to associated risks. However, as discussed in Section D.1.a, the Modified Project would maintain the 2030 General Plan policies that limit development on areas of unstable soils and require soils reports for new development. Additionally, all development occurring under both the Approved and Modified Projects must comply with the CBC, which contains specific requirements for building safety. Therefore, the impact related to unstable soils would remain *less than significant*.

g. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

As shown in Figure 4.5-3, Expansive Soils, of 2008 Draft EIR for the Approved Project, most of the Project Area has a high potential for expansion. Future development allowed by the General Plan would therefore increase the number of people and structures potentially exposed to expansive soils. The Modified Project

would slightly increase the development potential in the city, which would expose more people to such impacts. However, as discussed in Section D.1.a, the Modified Project would maintain the 2030 General Plan policies that limit development on steep slopes and areas of unstable soils and require soils reports for new development. Additionally, all development occurring under both the Approved and Modified Projects must comply with the CBC, which contains specific requirements for building safety. As a result, impacts related to expansive soils would remain *less than significant.*

h. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Although the Modified Project would increase the development potential in the city, which would increase the use of septic tanks or alternative wastewater disposal systems, Policy 7.12 in Public Facilities and Services Element requires that on-site wastewater disposal systems be in compliance with Chapter 4.5 (commencing with Section 13290) to Division 7 of the California Water Code (AB 885) and with the requirements of the Regional Water Quality Control Board. As discussed on page 4.5-21 of the 2008 Draft EIR for the Approved Project, all new, rehabilitated, or septic systems in disrepair must adopt minimum operating requirements that may include siting, construction, and performance requirements. As a result, all new septic or alternative wastewater systems would be built on suitable soils, and the Modified Project would not change the *less-than-significant* soils impact.

i. Result in the loss of availability of a known mineral resource that would be of value to the region or the state, or of a locally-important mineral resource recovery site delineated on a mineral resource plan, local general plan, specific plan, or other land use plan.

As explained on page 4.5-22 of the 2008 Draft EIR for the Approved Project, the State Geologist has not yet mapped the mineral resources in Butte County. Therefore, there is a chance that development allowed by the General Plan could occur on or near land with important mineral resources, which could result in the loss of availability of mineral resources that are important at the state, regional, or local levels. Because the Modified Project would slightly increase the development potential in the city, potential impacts to mineral resources could be increased.

However, as explained on pages 4.5-22 to 4.5-23 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan provides a framework for balancing the protection and production of mineral resources while also reducing the negative environmental and land use impacts of mining and resource extraction activities on

the surrounding community. In particular, Policy 7.3 in the Open Space, Natural Resources and Conservation Element calls for conserving aggregate resources if the State Division of Mines and Geology determines they are present in the Project Area. To reduce potential land use conflicts that could impact mineral resources or recovery sites, Policy 7.4 calls for extractions to be permitted as a conditional use and to prohibit incompatible land uses in Regionally Significant Construction Aggregate Resource Areas.

The Modified Project would maintain these 2030 General Plan policies that minimize potential land use conflicts between aggregate resource activities and other uses, and in general ensure that new development would not impact the future availability of mineral resources or mineral resource recovery sites. Therefore, the mineral resource impact would remain *less than significant*.

2. Cumulative Impacts

The 2008 Draft EIR for the Approved Project found no significant cumulative impacts related to seismic hazards, adverse soil conditions, or mineral resources. Changes proposed in the Modified Project that affect geologic and soil hazards and mineral resources are relatively minor, and the analysis provided on page 4.5-23 of the 2008 Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, cumulative impacts related to geology, soils, and mineral resources would remain *less than significant.*

E. Impacts and Mitigation Measures

Since there are no additional significant impacts related to geology, soils, and mineral resources as a result of the Modified Project, no additional mitigation measures are required.

4.6 GREENHOUSE GASES

This chapter evaluates the potential impacts related to greenhouse gases (GHGs) associated with the changes to the Approved Project that are reflected in the Modified Project. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B. Although the 2008 Draft EIR combined the air quality and GHG analyses into one chapter, this SEIR provides separate discussions for these topics because there is more extensive information and analysis available regarding GHG emissions since the 2008 Draft EIR; air quality is discussed in Chapter 4.2, Air Quality.

A. Regulatory Framework

1. Federal Regulations

Since the 2008 Draft EIR for the Approved Project was published, the US Environmental Protection Agency (EPA) has taken a lead role in establishing GHG regulations under the Clean Air Act. Although no overarching new federal legislation has been adopted, the EPA Administrator issued, under the authority of the Clean Air Act, a Cause or Contribute Finding in 2010 that found that the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. The EPA has also been developing regulations for existing and new stationary sources such as power plants, refineries, and other large sources of emissions under the Clean Air Act. The federal government has also updated the Corporate Average Fuel Economy (CAFE) vehicle efficiency standards to promote fuel efficiency and GHG emissions reductions.

2. State Regulations

California has continued to adopt statewide legislation addressing various aspects of climate change and GHG emissions mitigation. The State CEQA Guidelines were updated in 2010 to require lead agencies to describe, calculate, or estimate the amount of GHG emissions that would result from a project. The guidelines also emphasize the necessity to determine potential climate change effects of the project and propose mitigation as necessary.

Several senate bills (SBs) related to climate action planning have also been adopted since publication of the 2008 Draft EIR. For example, SB 2 was adopted in 2011 to expand the State's existing Renewables Portfolio Standards (RPS) to obligate affected electric service providers to procure at least 33 percent of retail sales from renewable resources by 2020. SB 375 was also adopted to coordinate land use

planning, regional transportation plans (RTPs), and funding priorities to help California meet the GHG reduction goals established in Assembly Bill 32. SB 375 requires regional transportation plans developed by metropolitan planning organizations (MPOs) to incorporate a sustainable communities strategy (SCS) in their RTPs. The goal of the SCS is to reduce GHG emissions from automobiles and light trucks through reductions in regional vehicle miles traveled (VMT) as a result of changes in land use planning and consequent transportation patterns.

The Butte County Association of Governments' *2012 Metropolitan Transportation Plan* includes the region's SCS and was adopted on December 13, 2012.

B. Existing Conditions

1. California Greenhouse Gas Inventory

After the 2008 Draft EIR for the Approved Project was published, the California Air Resources Board (ARB) released a revised statewide GHG inventory, in which total gross emissions in 2012 were estimated at 458,680,000 metric tons of carbon dioxide equivalent ($MTCO_2e$). The transportation sector represents the largest source of emissions (37 percent), followed by industrial sources (22 percent), electricity generation (21 percent), agriculture sources (8 percent), and residential (7 percent) and commercial (5 percent) sources.[1]

2. Oroville Greenhouse Gas Inventory and Forecast

Similar to the ARB's statewide inventory, the City of Oroville quantified GHGs generated by the community in 2010 (referred to as the 2010 Inventory) to identify existing emissions sources and the magnitude of their emissions. The Inventory indicates that in 2010, Oroville residents and businesses generated approximately 163,000 $MTCO_2e$. The transportation sector represents the largest source of community emissions (48 percent), followed by building energy consumption (46 percent).

As Oroville grows, energy consumption, water usage, waste generation, and transportation activity will increase. The City developed a "business-as-usual" (BAU) forecast to evaluate the impact of this growth on future GHG emissions in 2020 (referred to as the 2020 BAU Forecast). The 2020 BAU Forecast is based on

[1] California Air Resources Board, 2014, *California GHG Inventory for 2012—by Economic Sector*. Available at http://www.arb.ca.gov/cc/inventory/data/graph/pie/pie_by_sector_2012.htm. Accessed June 17, 2014.

changes in population, households, and employment and represents a scenario that does not consider the effects of future local, State, or federal actions to reduce GHG emissions. The forecast includes growth through 2020 expected as part of the Modified Project. Table 4.6-1 compares the 2020 BAU Forecast to the 2010 Inventory, and shows that GHG emissions are expected to increase by approximately 32,500 $MTCO_2e$ (20 percent) between 2010 and 2020 under a BAU scenario. Much of this growth is attributable to increases in building energy use, vehicle trips, and offroad equipment.

TABLE 4.6-1 **2010 INVENTORY AND 2020 BAU FORECAST FOR COMMUNITY GHG EMISSIONS IN OROVILLE**

Emission Sector	2010 Inventory (MTCO2e)	2020 BAU Emissions (MTCO2e)
Building Energy	75,042	92,238
Onroad Transportation	78,096	90,104
Offroad Vehicles and Equipment	4,221	6,133
Solid Waste Management	4,125	5,080
Wastewater Treatment	1,348	1,660
Water Management	456	571
Total	**163,288**	**195,786**

Source: Draft CAP.

C. Changes in the Modified Project Relevant to Greenhouse Gases

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, the updates would increase the minimum FAR allowance and allow for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. The land use updates would change the amount of certain types of development within the city and SOI, which could

affect GHG emissions generated within the Project Area. Because mixed-use development produces fewer VMT and associated GHG emissions on a per capita basis compared to traditional development, reductions in mixed-use development along Highway 162 in the Thermalito area may slightly increase mobile source GHG emissions. Conversely, increasing the density of development in the Downtown area may reduce mobile source emissions as higher density developments typically have fewer per capita vehicle trips, compared to development configured with lower densities.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

Revisions to the Circulation and Transportation Element include several new actions and policies that encourage alternative modes of transportation, including public transit, walking, and bicycling. Reductions in VMT achieved by these actions would contribute to corresponding reductions in GHG emissions generated by mobile sources (e.g. personal vehicles). Changes to the Open Space and Conservation Element will support implementation of the City's CAP, which—as described further below—could slightly increase construction-related GHG emissions, but reduce annual emissions from building energy consumption, water use, waste generation, and mobile sources. Increases in open space and urban forestry would also affect carbon stock and sequestration rates.

Revisions to the Economic Development Element and Updates to Reflect State Statutes are not expected to affect GHG emissions because they don't contain any provisions that are relevant to this topic.

2. Municipal Code Updates

a. Zoning Map and Districts

The Zoning Map and District updates would ensure consistency with the General Plan land use map (see Chapter 3), including the reductions in mixed-use development along Highway 162 in the Thermalito area and modifications to support increased density in Downtown Oroville that are discussed in Section C.1.a.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

The Municipal Code Updates provide a streamlined approach to solar energy development, which would reduce indirect GHG emissions from building energy use. The local and healthy food initiatives would reduce restrictions on urban agriculture. These initiatives may slightly reduce mobile source GHG emissions through improved access to local produce, although the reduction is expected to be a small fraction of total produce-related emissions. Community incentives for parking requirement reductions, mixed-use development, increased public transit accessibility, commuter trip reduction measures, and improved bicycle and pedestrian facilities would help reduce VMT and resultant mobile source GHG emissions. Finally, the Oak Tree Loss Mitigation Ordinance would minimize existing oak tree losses, which would help promote carbon sequestration and reduce GHG emissions.

Revisions related to crime prevention through environmental design principles and park provision standards are not expected to affect GHG emissions because they don't contain any provisions that are relevant to this topic.

3. Design Guidelines Updates

Specific guidelines that promote energy- and resource-efficient design are expected to reduce annual GHG emissions from building energy consumption, water usage, waste and wastewater generation, and mobile sources.

4. Climate Action Plan

Implementation of the CAP would help reduce future GHG emissions related to building energy consumption, land use and transportation, waste generation, and water use through 2020. Strategies that require infrastructure improvements (e.g. development of recycled water lines) may generate minor amounts of GHG emissions from construction activities, but each improvement would undergo its own project-level analysis under CEQA that would identify potential emissions, impacts, and mitigation associated with these improvements.

As the year 2020 approaches, the City will develop reduction targets for years beyond 2020 to continue the City's commitment to reducing GHG emissions. City staff will propose a target for City Council adoption by January 1, 2020. The proposal will include an assessment of the potential impact on the community of meeting this target (e.g. monetary costs and co-benefits), as well as on the City's

internal resources. The strategies included in this CAP will help to put the City on a path to achieve more substantial reductions in the years after 2020. However, it is likely the City will rely on analyses and programs currently under development by the ARB to support continuation of AB 32 and the State's GHG emissions reductions goals.

5. Balanced Mode Circulation Plan

The Balanced Mode Circulation Plan identifies design guidelines to promote pedestrian, bicycle, and public transit facilities. Reductions in VMT achieved by these actions would contribute to corresponding reductions in GHG emissions generated by mobile sources (e.g. personal vehicles).

D. Standards of Significance

1. Greenhouse Gas Emissions

As outlined in the CEQA Guidelines, the changes between the Approved Project and the Modified Project would have a significant impact with regard to GHG emissions if they would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

For the purposes of a plan-level analysis, these two standards of significance are essentially the same. A plan that results in the generation of GHG emissions that conflicts with an adopted GHG emissions reductions plan would be considered to have a significant impact on the environment. For the purposes of this analysis, consistency with AB 32's reduction target for 2020 will be evaluated to determine significance.

The AB 32 Scoping Plan, which was originally adopted in 2008, provides a roadmap for meeting AB 32's reduction target and recommends a complementary reduction goal for local governments of 15 percent below current emissions levels. However, subsequent to the development of the AB 32 Scoping Plan, ARB released updated statewide emissions data that reflect the effect of the recent

economic recession.[2] The updated inventories indicate that a 10- to 11-percent reduction below current levels by 2020 is now needed to achieve the AB 32 target, as opposed to the previous estimate of a 15 percent reduction.

The proposed CAP establishes an emissions reduction target of 11 percent below 2010 levels by 2020. Based on the updated inventory data developed by the ARB, Oroville's target of 11 percent below 2010 levels is consistent with the most recent statewide trends and goals for reducing GHG emissions.[3]

For the period beyond 2020, there is no State or federal adopted law with a GHG reduction target. While Executive Order (EO) S-03-05 includes a goal of reducing emissions by 80 percent below 1990 levels, it is not currently binding on local governments. Accordingly, the following impact discussion details specific impacts associated with the Modified Project through the year 2020, followed by a more general discussion of impacts in the General Plan horizon year of 2030.

2. Impacts of Climate Change on the Modified Project

The California Second District Court of Appeals[4] has held that while an EIR must analyze the environmental effects that may result from a project, an EIR is not required to examine the effects of the environment, such as sea level rise (SLR), on a project (see *Ballona Wetlands Land Trust v. City of Los Angeles* [2011], 201 Cal. App. 4th 455). In its decision, the Court called into question the validity of portions of the State CEQA Guidelines that require consideration of impacts of the environment on a project. The Ballona decision potentially eliminates the need for lead agencies in the second appellate district to consider the impacts of climate change on proposed projects. The Ballona decision did not, however, call into question the State CEQA Guidelines amendments enacted in 2010 that establish how GHG emissions are to be analyzed and mitigated under CEQA.

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[2] California Air Resources Board, 2013, Greenhouse Gas Inventory Data-Graphs. Available at http://www.arb.ca.gov/cc/inventory/data/graph/graph.htm>. Accessed October 1, 2013.

[3] The target likely exceeds the local effort needed to meet AB 32. Statewide analysis by the ARB defines *current* as the period between 2005 and 2008. Accordingly, Oroville's 2010 Inventory is approximately 2 to 5 years later than the current year (2005 to 2008) inventories used to establish ARB's recommended reduction target. Fewer reductions from 2010 levels would therefore be required to meet AB 32 because cumulative emissions generated between 2010 and 2020 will be lower than cumulative emissions generated between 2005 and 2020.

[4] The Project Area is in the California Third District Court of Appeals, but this decision could have statewide impacts.

Unless binding legislation that overturns the Ballona decision is adopted,[5] this decision is expected to be argued as precedent in CEQA cases throughout the state for the premise that CEQA does not need to examine the impacts of the environment on a project. Nonetheless, courts outside of the second appellate district will have the discretion to differ in their interpretations of the State CEQA Guidelines and may find that an analysis of the effects of climate change on proposed projects is required. Accordingly, a qualitative discussion of the issue has been provided below using the following criteria:

- Would the Modified Project place people or structures at substantial risk of harm due to predicted climate change effects?

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to GHG emissions that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2008 Draft EIR for the Approved Project.

1. Project Impacts

a. Generate GHG 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 GHGs.

i. Generation of Greenhouse Gas Emissions in 2020

Because the 2008 Draft EIR for the Approved Project was published before there was guidance from the State to evaluate GHG emissions, it did not quantify GHG emissions in 2020, nor did it make an impact determination for emissions in 2020.

As shown in Table 4.6-1, community activities in Oroville generated approximately 163,000 $MTCO_2e$ in 2010. BAU emissions in 2020 are projected to increase to approximately 196,000 $MTCO_2e$, or by 20 percent relative to 2010 levels. Accordingly, achieving the City's 11 percent GHG reduction goal would avoid the generation of approximately 50,000 $MTCO_2e$ and reduce 2020 GHG emissions to approximately 145,000 $MTCO_2e$.

[5] On March 21, 2012, the California Supreme Court denied case review and depublication requests submitted by several environmental organizations.

The City's proposed CAP includes a variety of regulatory and incentive-based strategies that will reduce emissions from both existing and new development in Oroville. Several of the CAP strategies build on existing City programs, whereas others provide new opportunities to address climate change. Statewide sustainability efforts, which will have a substantial impact on future GHG emissions, serve as the foundation of the CAP. Local strategies adopted by Oroville will supplement these State programs and achieve additional GHG emissions reductions. The local strategies align with the goals and policies of the General Plan Updates, Design Guideline Updates, and Balanced Mode Circulation Plan.

The proposed CAP groups the local strategies into five action areas: energy efficiency and renewable energy, land use and transportation, waste reduction, water conservation, and land conservation. The combined implementation of the State and local strategies included in the CAP is expected to reduce 2020 community-wide GHG emissions by 60,270 $MTCO_2e$ (17 percent below 2010 levels), which exceeds the 2020 emissions reduction target by 9,811 $MTCO_2e$. This is equivalent to removing more than 12,500 passenger vehicles from the road each year.[6] As shown in Table 4.6-2, the majority (85 percent) of emissions reductions are achieved by State programs, which is typical of other CAPs throughout California. Local strategies implemented by Oroville supplement reductions achieved by the State programs to meet and exceed the reduction target. Strategies not currently quantified, as well as local effects of the State's cap-and-trade program, will likely contribute additional reductions beyond those estimated in the CAP.

The GHG reduction strategies summarized in the proposed CAP have been identified as either mandatory or voluntary. Strategies that are required by State law, such as compliance with Senate Bill X7-7, would be mandatory for either existing and/or new development. The City would require implementation of these strategies, pursuant to State and new or existing local laws and regulations. Although incentive-based strategies would be voluntary, they can still produce real and substantive GHG reductions. This is due in part to the cost savings associated with these approaches; for example, making energy efficient improvements to homes, carpooling, using public transit, reducing driving, minimizing waste, and reducing water use all save money. GHG reductions associated with these

[6] United States Environmental Protection Agency, 2014, *Greenhouse Gas Equivalency Calculator*. Available at http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results. Accessed: March 13, 2014

TABLE 4.6-2 ACHIEVING OROVILLE'S 2020 EMISSIONS REDUCTION TARGET

Parameter	Emissions ($MTCO_2e$)
2020 BAU Greenhouse Gas Emissions Forecast (see Table 4.6-1)	195,786
2020 Emissions Reduction Target (11 percent below 2010 levels)[a]	145,326
$Total_1$ Reductions Needed to Reach Target	*50,459*
2020 Emissions Reductions from State Strategies	51,465
2020 Emissions Reductions from Local Strategies	8,805
Energy Efficiency and Renewable Energy	3,756
Land Use and Transportation	1,418
Waste Reduction	1,983
Water Conservation[b]	1,646
Land Conservation	2
$Total_2$ GHG Reductions Achieved by the CAP	*60,270*
Emissions Reductions in Excess of Target ($Total_2$ minus $Total_1$)	9,811
Percent Below 2010 Levels	17 percent

Notes: BAU = business as usual
[a] Total GHG emissions in 2010 were 163,288 $MTCO_2e$; an 11 percent reduction equals 145,326 $MTCO_2e$.
[b] Water efficiency improvements will reduce water consumption, which will contribute to reductions in building energy use. For example, efficient faucets that use less water will require less energy for hot water heating. Most of the reductions achieved in this action area are associated with reduced hot water heating.
Source: Draft CAP.

incentive-based measures were quantified based on anticipated participation rates, which are summarized in the Draft CAP and appendices.

Based on the quantified emissions reductions shown in Table 4.6-2, implementation of the Modified Project would enable the City to reduce its community GHG emissions to meet the reduction target of 11 percent below 2010 levels. Strategies not currently quantified, as well as local effects of the State's cap-and-trade program,[7] will likely contribute additional reductions beyond those estimated in the CAP.[8] Implementation of the Modified Project will therefore be consistent with State measures to reduce GHG emissions, including AB 32 and the AB 32 Scoping Plan. This would be a *less-than-significant* impact through 2020.

ii. Generation of Greenhouse Gas Emissions in 2030

In the General Plan horizon year of 2030, the 2008 Draft EIR determined that even with implementation of General Plan policies to reduce GHGs, GHG emissions would result in a significant and unavoidable GHG impact.

As described in Section C.1.a, the Modified Project would redesignate certain land uses, increasing the amount of residential and industrial square footage relative to the Approved Project. Increased residential and industrial development would generate additional emissions from these land use types, although a portion of emissions may be partially offset by the reduction in commercial building square footage and associated emissions.

As explained in the proposed CAP, the City will develop reduction targets for years beyond 2020 to continue the City's commitment to reducing GHG emissions. By this time, the City should have implemented the majority of the CAP and therefore will have a better understanding of the effectiveness and efficiency of different reduction strategies and approaches. The new post-2020 reduction targets will be consistent with broader State and federal reduction goals and with the scientific understanding of the needed reductions by 2030. Per the Draft CAP, the City would adopt the post-2020 reduction plan by December 31, 2019.

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[7] Cap-and-trade is a market-based regulation that will reduce GHGs by establishing a limit or "cap" on GHGs.

[8] The effects of California's cap-and-trade system, which took effect starting in 2013, are not included in the Draft CAP analysis. However, it is expected that by 2020, the cap-and-trade system will result in additional reductions in the building energy and transportation sectors due to changes in energy prices directly (at the consumer level) or indirectly (at the producer level). See further discussion in the Draft CAP.

While CAP strategies to reduce GHG emissions would be implemented under the Modified Project and the CAP commits to future development of a post-2020 reduction plan, it would be premature to assume the character of future strategies and/or their effectiveness. Furthermore, AB 32 has a horizon of 2020, with no mandated requirements in 2030 other than keeping to the 2020 target levels. Accordingly, GHG reductions needed to achieve consistency with future State climate change regulations in 2030 may be higher than 11 percent. As shown in Table 4.6-2, implementation of the CAP would reduce 2020 emissions by 17 percent below 2010 levels, which may help achieve future reduction targets adopted by the State. However, without this plan in place or adoption of the City's post-2020 goals, it is not known whether the Modified Project would reduce 2030 emissions consistent with statewide objectives. Accordingly, while future emissions would likely be lower under the Modified Project compared to the Approved Project, this impact would remain *significant* through 2030.

b. Place people or structures at substantial risk of harm due to predicted climate change effects.

As noted above, in light of the *Ballona Wetlands* appellate court ruling, current CEQA court precedent has indicated that analysis of the impact of the environment on a project, including the effects of climate change, may not be required. Nevertheless, this Supplemental EIR has taken a conservative approach by completing this analysis.

The 2008 Draft EIR for the Approved Project did not directly analyze the impacts of climate change on the city or on future development in the city. This Supplemental EIR analysis addresses the impacts of climate change on the city and future development allowed by the Modified Project, and also identifies whether the Modified Project would help to reduce or exacerbate the city's resiliency to climate change effects.

As discussed on pages 4.2-9 through 4.2-10 of the 2008 Draft EIR for the Approved Project, several environmental effects are projected to impact California over the next century as a result of global climate change. The proposed CAP considers likely shifts in local climate patterns and provides an initial vulnerability assessment to identify community elements that are likely to be affected by these climate shifts. Based on available literature, the CAP indicates that climate change could impact the city in the following ways:[9,10]

[9] California Energy Commission, 2014, *Cal-Adapt*. Available at http://cal-adapt.org/>. Accessed: February 26, 2014.

- **Increases in Ambient Temperatures and Extreme Heat Events**. Average annual temperatures in the Oroville area are projected to increase by 3.5 to 6.3 degrees Fahrenheit (°F) by the end of the century, relative to historical averages (1961 to 1990). Heat waves and very high temperatures could also last longer and become more frequent. In addition, changes in ambient temperatures and extreme heat events could create conditions that are conducive to air pollution formation, which could further exacerbate existing air quality issues. Secondary impacts may include increased incidents of drought and rain-on-snow events if warm weather follows snowfall in the Sierra Nevada. Rain-on-snow events can cause large amounts of runoff that may stress local stormwater and drainage facilities (as discussed further below).

- **Increased Flooding.** Heavy rains and rain-on-snow events in the Sierra Nevada could worsen flooding in Oroville due to the large volume of rain at one time, coupled with increased erosion and runoff. The Oroville Dam currently releases excess water during large rain events; a 150,000-cubic feet per second (cfs) release would trigger disaster response teams to address potential flooding. For example, peak release during the devastating 1997 New Year's flood was approximately 160,000 cfs.[11] In comparison, average hourly outflows at Lake Oroville are typically around 30 to 40 cfs.[12] A shift in precipitation patterns could increase the need for large-scale releases and the frequency of flooding events. Although the *2014 Butte County Local Hazard Mitigation Plan* rates the current probability of flooding in Oroville as "occasional/unlikely," the severity is rated as "catastrophic."

- **Decreased Snowfall and Winter Snowpack**. The average early snowpack runoff in the Sierra Nevada has declined by 10 percent over the past century. Studies indicate that snowpack in the Sierra Nevada may be further reduced by 25 to 40 percent, relative to mid-century conditions, by 2050.[13] As of June 2014, California is facing a severe drought and the snowpack in the Sierra

[10] California Natural Resources Agency, 2009, *2009 California Climate Adaptation Strategy*.

[11] California Department of Water Resources, 1997, *The Great New Year's Flood of 1997 in Northern California*. Prepared by Maurice Roos, Chief Hydrologist.

[12] California Department of Water Resources, 2014, *Oroville Dam*. Available at http://cdec.water.ca.gov/cgi-progs/queryF?s=ORO&d=07-Apr-2014+03:49&span=12hours. Accessed April 9, 2014.

[13] California Department of Water Resources, 2009, *Integrated Water Management Plan*. Available at http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/highlights_cwp2009_page.pdf. Accessed February 26, 2014.

Nevada is 12 percent of the annual average.[14] Changes in snowfall and snow accumulation could reduce water supplies for all end users throughout the city. Flow levels for the Feather River may also be reduced, potentially affecting Lake Oroville and the Oroville Dam.

- **Increased Frequency and Intensity of Storms**. Increased frequency and intensity of winter storm events could affect peak stream flows and increase flooding as large amounts of runoff move over pavement and other built surfaces. Although modeling results can vary, climate scientists predict an increase in warmer temperatures and atmospheric moisture, which can lead to an increase in heavy downpours during winter months.[15] Changes in precipitation patterns may amplify the existing flood risk in the city.

- **Increased Wildfire Risk.** Warmer and drier conditions are expected to increase wildfire risk in the Oroville area by 13 to 52 percent by the end of the century, relative to 2010 levels. Anticipated changes in fire behavior suggest up to a three-fold increase in the potential area burned within the greater Oroville area. According to the Local Hazard Mitigation Plan, the current probability of wildfires in Oroville is "likely" and the severity is "critical."

- **Changes in Growing Season and Species Distribution.** Changes in growing season conditions could cause variations in crop quality and yield. Plant and wildlife distributions may also be affected by changes in temperature, competition from colonizing species, regional hydrology, and other climate-related effects. These shifts could also increase the ability of disease vectors (organisms that transmit diseases, such as mosquitoes) to survive or thrive in areas that were previously uninhabitable.

While Oroville will be exposed to a variety of unavoidable climate change effects, exposure does not necessarily mean that the community will be sensitive to the effect. Accordingly, the proposed CAP characterizes climate change sensitivity by analyzing the potential for climate change impacts to negatively affect community elements, including people, services, amenities, and structures. The document indicates that that water supply, public health, and transportation infrastructure are

[14] California Department of Water Resources, 2014, *DWR Director Welcomes Coordinated Federal Drought Aid.* Available at http://www.water.ca.gov/news/newsreleases/2014/020514.pdf. Accessed February 11, 2014.

[15] California Energy Commission, July 2012, *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. CEC-500-2012-007.

three valuable community assets with high potential to suffer consequences as a result of changes in the existing climate.

Polices outlined in the proposed Open Space and Conservation Element revisions, CAP, Design Guidelines Updates, and Balanced Mode Circulation Plan will increase the city's resiliency and ability to adapt to changing climatic conditions. In particular, the CAP includes energy efficiency and renewable energy measures that will reduce fossil fuel consumption and potentially partially buffer the city from future spikes in energy prices and demand. Water conservation measures included in the CAP will also reduce the city's reliance on diminishing water supplies influenced by changing precipitation levels and temperature. Land use and transportation measures, including the Balanced Mode Circulation Plan, that promote alternative vehicles and non-motorized forms of travel may improve local air quality. Likewise, urban forestry practices may help reduce urban heat island effects and ambient temperatures within the heavily urbanized portions of the city.

While these and other policies included in the Modified Project would help minimize the effects of climate change and increase the city's resiliency and adaptability to climate change, the city would still be exposed to climate change effects as a result of past and present GHG emissions. Recognizing this potential risk, the proposed CAP includes an initial adaptation plan to reduce the impact of unavoidable climate change effects. Specifically, the CAP suggests adaptation strategies for three critical community elements—water supply, public health, and transportation infrastructure—and provides a framework for developing locally relevant strategies for all other community elements. Development and implementation of the climate change adaptation plan will make new development and the city more resilient overall to inevitable climate change effects and would avoid additional physical harm to persons and property that results from climate change. Thus, development allowed by the General Plan would not make a considerable contribution to a cumulative impact related to adaptation to climate change effects, and impacts would be *less than significant*.

2. Cumulative Impacts

As discussed in detail on page 4.2-27 of the 2008 Draft EIR for the Approved Project, the analysis in Section E addresses cumulative projects.

F. Impacts and Mitigation Measures

Since there are no additional significant impacts related to GHG emissions as a result of the Modified Project, no additional mitigation measures are required.

4.7 HAZARDS AND HAZARDOUS MATERIALS

This chapter evaluates the potential impacts related to hazards and hazardous materials associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses hazardous materials, airport safety, emergency planning, and wildland and urban fire hazards. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exception noted in Section A.

A. Regulatory Framework

Since the 2008 Draft EIR for the Approved Project was published, Senate Bill (SB) 1241 went into effect on January 1, 2013. SB 1241 requires that cities and counties review and update their safety elements upon completion of their next housing element to determine high fire danger areas and address fire risk in State Responsibility Areas. The legislation also requires that jurisdictions ensure fire protection and suppression services are available before approving tentative or parcel maps in either of these areas.

B. Changes in the Modified Project Relevant to Hazards and Hazardous Materials

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, the updates would increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. The updates would also include minor zone changes to improve future land use compatibility with existing development. The additional development allowed by the Modified Project could expose more people to hazards and hazardous materials and impact emergency planning.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

In support of SB 1241, the proposed 2030 General Plan Updates include the following new Safety Element policies regarding wildland fires:

- Policy P3.3: Require that all development in areas of potential wildland fire hazards, including areas designated by CAL FIRE as High Fire Hazard Severity Zones, include the following:
  - Fire breaks adjoining open space areas.
  - Adequate access to adjoining open space areas.
  - Adequate clearance around structures.
  - Fire-resistant ground cover.
  - Fire-resistant roofing materials.
  - Adequate emergency water flow.
- Policy P3.4: Incorporate drought-resistant and fire-resistant plants in public works projects in areas subject to wildland fires.
- Policy P3.5: Regularly train Oroville Fire Department staff for wildland fire-fighting conditions.

2. Municipal Code and Design Guidelines Updates, Climate Action Plan, and Balanced Mode Circulation Plan

These changes and documents are not expected to impact hazards and hazardous materials because they don't contain any provisions that are related to this topic.

C. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to hazards and hazardous materials if they would:

- 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 ¼ 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, create a significant hazard to the public or the environment.

- For a project within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people living or working in the project area.
- For a project within the vicinity of a private airstrip, result in a safety hazard for people living or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

D. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to hazards and hazardous materials that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The Modified Project would slightly increase the development potential of the General Plan, which could expose more people to hazards from the routine transport, use, or disposal of hazardous materials. In addition, the Modified Project would allow more industrial development than the Approved Project, which could result in a greater number of businesses that transport, use, or dispose of hazardous materials. However, the Modified Project would maintain the 2030 General Plan policies that would protect the public from these hazards, including Safety Element Policy P4.6, which calls for the continued cooperation with the Butte County Environmental Health Division and Oroville Fire Department in the review of all projects which require the use, storage, or transport of hazardous waste to ensure necessary measures are taken to protect public health and safety, as well as Policy P4.8, which calls for the continued cooperation with waste disposal companies to facili-

tate opportunities for safe disposal of household hazardous waste. As a result, the impact would remain *less than significant.*

b. 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.

As described on page 4.6-23 of the 2008 Draft EIR for the Approved Project, hazardous materials releases could occur during excavating, grading or construction activities, and the areas of primary concern are those with a historical or suspected presence of toxic materials. Although the State Department of Toxic Substances Control (DTSC) has not identified any new toxic sites in the Project Area since the 2008 Draft EIR for the Approved Project was published, the slight increase in the development potential of the General Plan under the Modified Project could expose more people to hazards from hazardous materials upsets, accidents, or releases. In addition, the Modified Project would allow more industrial development than the Approved Project, which could increase the potential for hazardous materials upsets, accidents, or releases.

However, as discussed on page 4.6-24 of the 2008 Draft EIR for the Approved Project, federal, State, County, and local regulations and mandated guidelines would protect the public and the environment from such events. In addition, the Modified Project would maintain the General Plan Safety Element policies under Goal SAF-4, which protect the community from the harmful effects of hazardous materials. In particular:

- Policy P4.1 prohibits development in areas of known toxic contamination until such contamination has been remediated or mitigated to acceptable levels.
- Policy P4.2 requires applicants to take and analyze soil samples prior to grading or construction in areas with a historical or suspected presence of toxic materials, including areas with known mine tailings, Superfund sites, or other sites identified by the City or concerned agencies. If contamination is discovered prior to development, consultation with the appropriate agencies and proper clean-up measures are required.
- Policy P4.3 directs the City to rely on the Local Hazard Mitigation Plan in the event of a hazardous materials accident.
- Policy P4.5 supports efforts to identify and remediate soils and groundwater contaminated with toxic materials, and to identify and eliminate sources contributing to such contamination.

Therefore, the impact related to creating a significant hazard to public through upset and accident involving the release of hazardous materials would remain *less than significant.*

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.

The area redesignated for industrial uses under the Modified Project is not within ¼ mile of a public school. However, as explained on page 4.6-24 of the 2008 Draft EIR for the Approved Project, future school sites may be located near industrial uses. As discussed in the 2008 Draft EIR and sections above, General Plan Safety Element policies under Goal SAF-4 and compliance with federal, State, County, and local regulations would ensure that the risk to schools from hazardous materials and emissions would remain at a *less-than-significant* level.

d. 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, create a significant hazard to the public or the environment.

As noted in Section D.1.b, the DTSC has not identified any new toxic sites in the Project Area since the 2008 Draft EIR for the Approved Project was published. As explained on page 4.6-25 of the 2008 Draft EIR for the Approved Project, future uses on the identified hazardous materials sites could create hazards to the public or environment. However, the General Plan Safety Element policies discussed in Section D.1.b would ensure that such sites are remediated before grading or construction. Therefore, the impact from hazardous materials sites would remain *less than significant.*

e. For a project within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people living or working in the project area.

The Modified Project would change the land use designation of a 106-acre area along Highway 162 in the Thermalito area from Mixed Use to Medium Density Residential. This area is located approximately ½ mile from the Oroville Municipal Airport. As discussed in Chapter 4.8, Land Use and Planning, of this Draft Supplemental EIR, the Medium Density Residential designation is consistent with the Butte County Airport Land Use Compatibility Plan (ALUCP). Residential uses in this area allowed by both the Approved and Modified Projects could be exposed to safety hazards. However, the Medium Density Residential designation proposed by the Modified Project would allow less development overall than the Mixed Use designation under the Approved Project, so there would be fewer residents and workers in this area than under the Approved Project. The Modified Project would

also redesignate the Oroville Municipal Airport from Airport Business Park to Public Facilities and Services to reflect the existing use, which is also consistent with the ALUCP.

Because the land use designation changes proposed in the Modified Project are consistent with the ALUCP and there would be fewer residents and workers in the airport area, there would be no new airport-related hazards, and the impact would remain *less than significant*.

f. For a project within the vicinity of a private airstrip, result in a safety hazard for people living or working in the project area.

There are no private airstrips within the vicinity of the Project Area; therefore, the *no impact* finding from the Approved Project would remain.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The Modified Project would slightly increase the development potential of the General Plan, which could result in an increase in demand for emergency service during disasters. However, the Modified Project would maintain the General Plan Safety Element policies and actions that are described on page 4.6-27 of the 2008 Draft EIR for the Approved Project, which direct the City to coordinate with other agencies for emergency response and access, train staff for disaster response, and use and maintain the Local Hazard Mitigation Plan. Therefore, the emergency response impact would remain *less than significant*.

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

As explained on pages 4.6-15 to 4.6-17 and 4.6-25 of the 2008 Draft EIR for the Approved Project, most areas of Oroville face some level of threat from wildland fires, with the eastern part of the Oroville Planning Area at the greatest risk. Although the land use designation changes proposed by the Modified Project are primarily in areas of moderate fire threat, new development allowed by the Modified Project could expose new populations to wildland fire hazards. However, the Modified Project would maintain the General Plan Safety Element policies that protect the public from risks associated with wildland and urban fires, which are described on page 4.6-26 of the 2008 Draft EIR for the Approved Project. In addition, the Modified Project would add new policies that further protect the public from wildland fire hazards, as described in Section B.1.b. Therefore, the wildland fire hazard impact would remain *less than significant*.

2. Cumulative Impacts

The 2009 EIR for the Approved Project found no significant cumulative impacts related to hazards and safety. Changes proposed in the Modified Project that affect hazardous materials, airports, and wildland fire hazards are relatively minor, and the analysis provided on pages 4.-27 to 4.6-28 of the 2008 Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, cumulative impacts to hazards and safety would remain *less than significant*

E. Impacts and Mitigation Measures

Since there are no additional significant impacts related to hazards and hazardous materials as a result of the Modified Project, no additional mitigation measures are required.

4.8 HYDROLOGY AND WATER QUALITY

This chapter evaluates the potential impacts related to hydrology and water quality associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses water resources, flooding, and water quality. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B below.

A. Regulatory Framework

1. Federal Emergency Management Agency

Since the 2008 Draft EIR for the Approved Project was published, the Federal Emergency Management Agency (FEMA) updated its Flood Insurance Rate Maps (FIRMs) for Butte County, including Oroville. The new flood maps were released on July 6, 2010, and they became effective on January 6, 2011.

2. State Laws and Regulations

The following State laws and regulations have been enacted since the 2008 Draft EIR for the Approved Project was published.

a. Senate Bill 5

The Central Valley Protection Act of 2008 was enacted by Senate Bill (SB) 5.[1] The requirements of SB 5 are as follows:

- By July 1, 2008, the State must develop preliminary 100-year and 200-year flood maps for areas in the Central Valley that are protected by project levees. The State completed this mapping effort in 2008.
- The Central Valley Flood Protection Board (CVFPB) (formerly the Reclamation Board) adopted the Central Valley Flood Protection Plan (CVFPP) in June 2012. The CVFPP establishes a system-wide approach to improving flood management, including recommendations for structural and non-structural means for improving performance and eliminating the deficiencies of flood management facilities.
- Within two years after the adoption of the CVFPP,[2] communities within the Sacramento-San Joaquin Valley, including Oroville, must amend their General

[1] California Department of Water Resources, (undated), *2007 Flood Legislation Summary*, page 3.

Plans to include data and analysis, goals, and policies for the protection of lives and property from flooding, and related feasible implementation measures that are consistent with the CVFPP. Within one year of General Plan adoption, zoning ordinance amendments must be enacted to maintain consistency with the General Plan.

- Counties must collaborate with cities within their jurisdiction to develop flood emergency plans.
- Cities and counties must revise the Safety Element of their General Plan in order to show 200-year flood maps and maps of levee protection zones.[3]
- By 2015, for areas with a population of 10,000 people or greater, local governments cannot approve new developments unless the land under review has 200-year flood protection, the city has conditioned the project to provide an adequate level of protection, or efforts are in place to provide that level of protection.[4]

b. Senate Bill 1278

SB 1278, approved in 2012, amends State flood protection laws, including the Central Valley Protection Act of 2008. Specifically:

- Communities within the Sacramento-San Joaquin Valley must amend their General Plans to be consistent with the CVFPP within two years of July 2, 2013, rather than within two years of adoption of the CVFPP as had been previously required.
- Communities within the Sacramento-San Joaquin Valley can make a finding that, based on substantial evidence in the record, a property in an undetermined risk area (i.e. an area with a population of 10,000 people or greater within a moderate flood hazard zone that does not have an urban level of protection) has met the urban level of flood protection (i.e. 200-year flood protection for leveed systems) in order to approve development.

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[2] As indicated below, SB 1278 amended this timeline to instead be within two years of July 2, 2013.

[3] The Project Area is not located within the 200-year floodplain, based on California Department of Water Resources, *Best Available Map (BAM) Web Viewer*, available at http://gis.bam.water.ca.gov/bam/, accessed on November 12, 2014.

[4] As indicated below, SB 1278 amended this requirement to allow an additional finding.

- By July 2, 2013, the State must release floodplain maps and data pertaining to facilities of the State Plan of Flood Control and the water surface elevation of flooding in urban areas in the event of their failure during a 200-year flooding event.

c. California Water Code Section 9130[5]

California Water Code Section 9130 requires the Department of Water Resources (DWR) to prepare Levee Flood Protection Zone (LFPZ) maps by December 31, 2008. The LFPZ illustrates areas where flood levels would be more than 3 feet deep if a project levee (i.e. a levee that is part of the State Water Project) were to fail. DWR used information from several sources to prepare the published maps for LFPZ, including FEMA floodplain maps, FEMA Q3 data, US Army Corps of Engineer (USACE)'s 2002 Sacramento and San Joaquin River Basins Comprehensive Study, and local project-levee studies. The most recent LFPZ Sacramento River Basin map was updated on August 19, 2011, and although it includes a small portion of the General Plan Planning Area, the Project Area evaluated by this Supplemental EIR does not intersect with the LFPZ (see Chapter 3, Project Description, for more information about the Project Area).

3. Northern Sacramento Valley Integrated Regional Water Management Plan

The Northern Sacramento Valley Integrated Regional Water Management Plan (IRWMP) was adopted on March 3, 2014. The IRWMP covers the six counties of the northern Sacramento Valley, including Butte, Colusa, Glenn, Shasta, Sutter, and Tehama Counties, and enhances coordination of the region's water resources. The plan addresses the following water-related issues:

- Economic health and vitality
- Water supply reliability
- Flood, stormwater, and flood management
- Water quality improvements
- Ecosystem protection and enhancement

The process to develop the IRWMP was collaborative, involving coordination between multiple agencies, community stakeholders, tribes, and the public.

[5] California Department of Water Resources, August 19, 2011, Levee Flood Protection Zones Sacramento River Basin, available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/docs/SacramentoRiver_LFPZ_Map.pdf.

B. Existing Conditions

1. FEMA Flood Zones

Since the 2008 Draft EIR for the Approved Project was published, as discussed in Section A.1, FEMA released new flood maps for Butte County, which includes Oroville and the Project Area. The current FEMA flood zone map for the Project Area is shown in Figure 4.8-1.

2. Levees

Since the 2008 Draft EIR for the Approved Project was published, DWR has published new levee maps for the Oroville area. Maps of existing levees are shown in Figure 4.8-2. The majority of levees in the Project Area are non-federal levees, and they are concentrated along the Feather River, the western and southern fringes of the Thermalito Afterbay, and the southern fringes of the Thermalito Forebay. Federal levees are located in the southwest portion of the Project Area, between the Feather River and the Thermalito Afterbay.

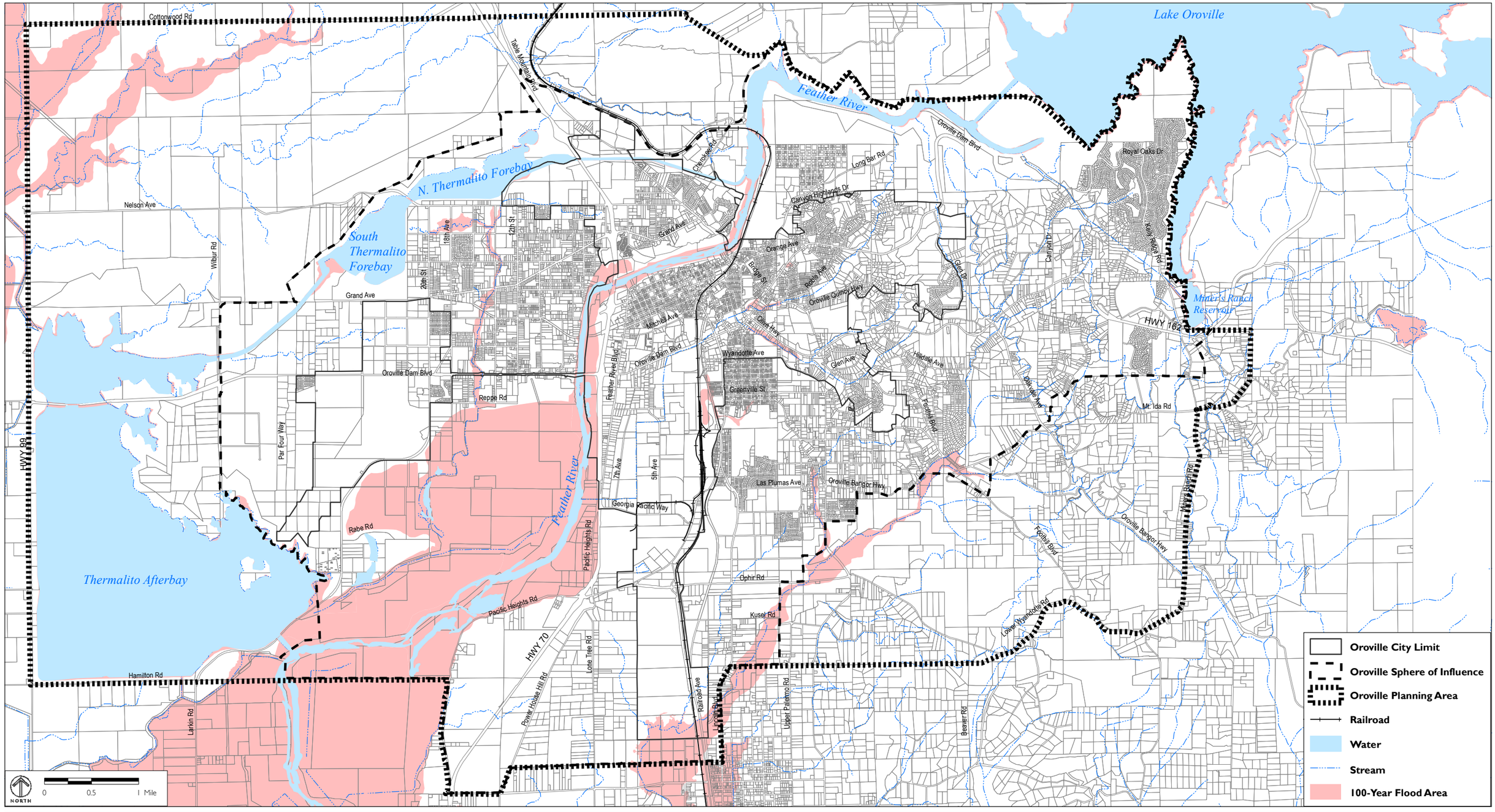
Levee inundation area maps are not available for the Oroville Planning Area. However, as noted in Section A.2.c, DWR has mapped LFPZs for State Water Project levees in the Sacramento River Basin; they do not include any portion of the Project Area.

C. Changes in the Modified Project Relevant to Hydrology and Water Quality

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

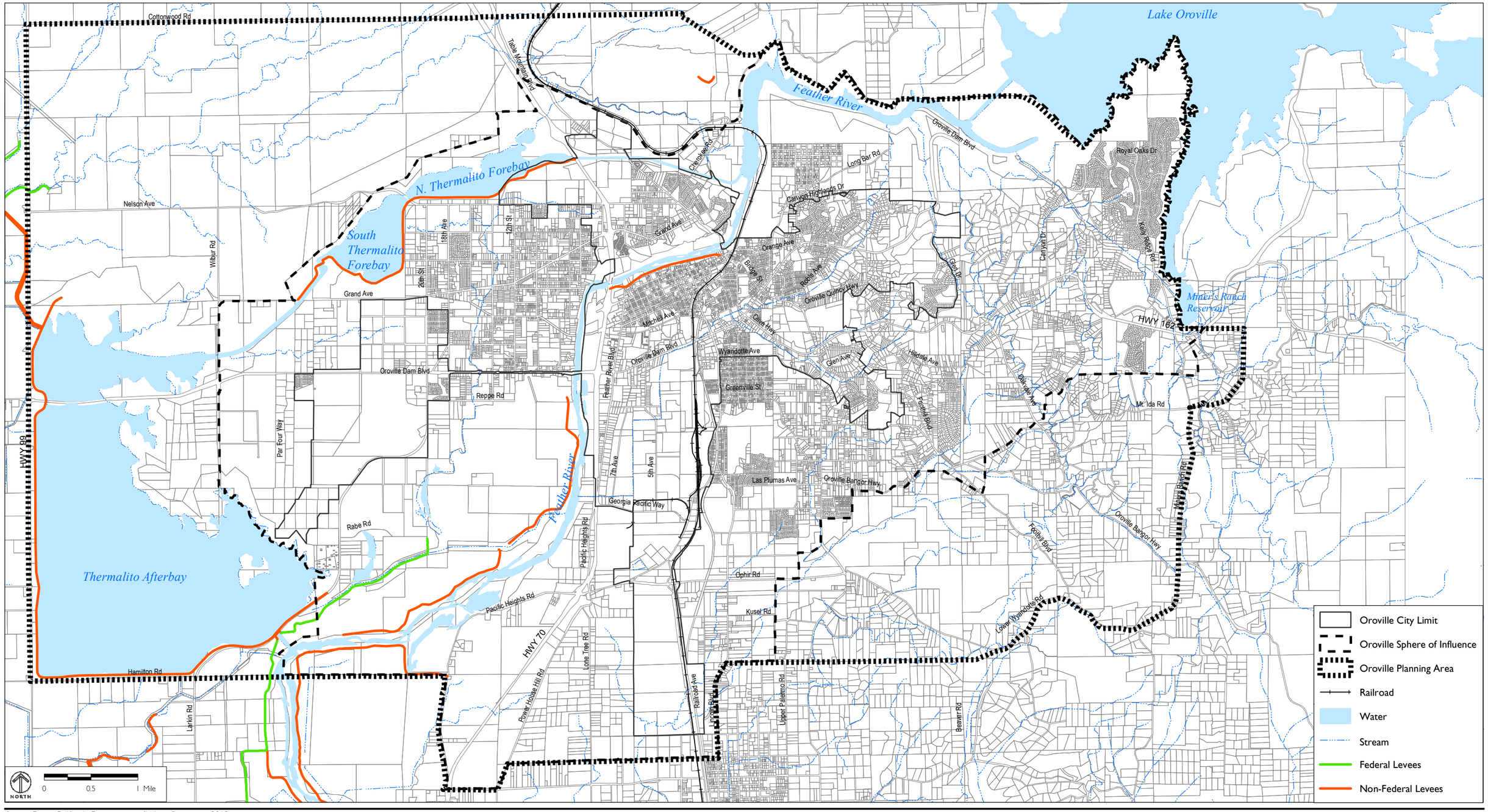
The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, the updates would increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. The updates would also include minor zone changes to improve future land use compatibility with existing development. The additional development allowed by the Modified Project could increase groundwater demands and expose more people to flooding hazards.



Source Data: FEMA, 2011.

FIGURE 4.8-1

100-YEAR FEMA FLOOD ZONES



Source Data: California Department of Water Resources, 2013.

FIGURE 4.8-2
LEVEES

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

Consistent with various State flood-related statutes, the 2030 General Plan Safety Element would be revised to include updated information about the CVFPP and other updated flood data, including a new figure showing the location of levees and updated flood zone data mapped by FEMA.

2. Municipal Code Updates

These changes are not expected to impact hydrology and water quality because they don't contain any provisions that are relevant to this topic.

3. Design Guidelines Updates

The proposed new Design Guidelines chapter regarding low impact development (LID) practices and resource efficient construction methods includes specific design guidelines for plant selection, water irrigation systems, and mulching that conserve water. In addition, this new chapter includes guidelines for natural stormwater management that limit impervious areas and promote groundwater recharge. Specific site and landscape design guidelines that are pertinent to hydrology and water quality include the following, which are all included in Chapter 9 of the proposed Design Guidelines Update:

- **2.1.1:** Minimize turf in planting areas to reduce water use, chemical fertilizers, greenwaste, the fuel required for mowing and associated emissions from maintenance equipment.
- **2.1.2:** Replace turf with groundcovers and "no-mow" turf varieties that have low water requirements.
- **3.1.1:** The landscaping and irrigation design must comply with the State's water budget calculations.
- **3.1.2:** A dedicated landscape water meter must be installed for projects with an irrigation area greater than 5,000 square feet, and is recommended for projects smaller than 5,000 square feet.
- **3.1.3:** A weather-based or soil moisture-based controller, with a rain sensing shutoff device, should be installed for all irrigation systems.
- **3.1.4:** A low volume irrigation system (i.e. drip, inline drip and bubblers) should be installed in mulched planting areas, on slopes greater than 25

percent, and in narrow or irregularly shaped areas that are less than 8 feet wide in any direction to prevent overspray.

- **3.1.5:** A low volume irrigation system (i.e. drip, in-line drip and bubblers) should be installed in areas within 24-inches of a non-permeable surface, unless the planting area is adjacent to permeable paving or non-permeable paving that drains directly into the landscape.
- **3.1.6:** Each irrigation valve should be designated for hydrozones with similar site, slope, sun exposure, and soil conditions, and plant materials that have comparable water requirements.
- **3.1.7:** Where possible, utilize recycled water for irrigation; plumbing should be clearly marked with purple pipe for easy identification.
- **3.1.8:** Utilizing graywater for irrigation is strongly encouraged. Washing machine systems do not require a permit, as long as they comply with the California Plumbing Code (Section 108.4.1).
- **3.2.1:** A minimum 2-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, or direct seeding applications. A 3-inch layer of mulch is recommended, where feasible.
- **5.1.1:** The site's natural drainage patterns should be preserved or replicated to the extent possible.
- **5.1.2:** During site planning, avoid excessive grading and disturbance of existing vegetation and soils to the extent possible.
- **5.1.3:** Development should be concentrated and located on portions of the site with less permeable soils to preserve areas that can promote infiltration.
- **5.1.4:** Limit a project's overall impervious coverage (i.e. paving and roof area). Projects that create or replace 5,000 square feet or more of impervious surface must treat stormwater, as per the NPDES General Permit for Small Municipal Separate Storm Sewer Systems MS4. Refer to the full regulation text for exempt projects and treatment requirements.
- **5.2.1:** Provide energy dissipation at all points of concentrated flow, such as at downspouts and curb cuts. Energy dissipation may include cobbles, splash blocks, flow spreaders or pop up emitters.
- **5.2.2:** Employ small-scale design solutions that direct smaller quantities of runoff into landscaped areas. Spreading out and sinking in stormwater will

lower cost impacts. For example, reduce the size of paved areas by breaking them up with planting areas that will capture water.

- **5.2.3:** Where it is practical, permeable materials should be utilized in hardscape areas.
- **5.2.4:** Consider circulation in the design of elements for stormwater management. For example, strategically locate paving or provide pedestrian "bridges" over rain gardens, particularly in parking lots, to reduce the foot traffic through them.
- **5.2.5:** Detain and retain runoff throughout the site, where feasible.
- **5.3.1:** Increase the water absorbing capacity of on-site soils by amending soils with compost, compost tea or non-synthetic fertilizers.

4. Climate Action Plan

The proposed CAP includes the following actions related to hydrology and water quality:

- **WC-1.1:** Promote water audit programs in collaboration with efforts by local water purveyors that offer free water audits to large landscape accounts as well as single-family, multi-family, and commercial customers.
- **WC-1.2:** Collaborate with purveyors to enact conservation programs for commercial, industrial, and institutional accounts and create programs to install ultra-low-flush toilets in facilities.
- **WC-1.3:** Implement the Water Efficient Landscape Ordinance to reduce outdoor water consumption.
- **WC-2.1:** Coordinate with the Sewerage Commission—Oroville Region, the two regional wastewater collection agencies, and the Public Works Department to assess the feasibility of producing and distributing recycled water within the city.
- **WC-2.2:** Inventory potential non-potable uses of water for potential substitution by recycled and/or gray water.
- **WC-2.3:** Consider programs to collect sub-potable storm water for onsite reuse for landscape irrigation.

In addition, in Chapter 5, Climate Change Adaptation, the CAP examines Oroville's water supply, one of three important community elements. It assesses

the sensitivity of the water supply to each of the identified climate change exposures, including increased temperature, wildfires, extreme heat, and storms, as well as the adaptive capacity of the water system. The CAP also presents several adaptation strategies to improve the resiliency of the water system and decrease the magnitude of future climate change impacts.

5. Balanced Mode Circulation Plan

This document is not expected to impact hydrology and water quality because it doesn't contain any provisions that are relevant to this topic.

D. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to hydrology and water quality if they would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site.
- Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place structures that would impede or redirect flood flows within a 100-year flood hazard area.
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Inundation by seiche, tsunami, or mudflow.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines. Stormwater drainage facilities are addressed in Chapter 4.14, Utilities and Infrastructure.

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to hydrology and water quality that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Violate any water quality standards or waste discharge requirements.

The Modified Project would slightly increase the development potential of the General Plan, which could increase the amount of pollutants that enter stormwater runoff from development, as described in detail on pages 4.7-20 to 4.7-21 of the 2008 Draft EIR for the Approved Project. In addition, the Modified Project would increase the area designated for industrial uses, which is more likely to use materials that would release pollutants into stormwater runoff than other types of development.

However, the Modified Project would maintain the 2030 General Plan Open Space, Natural Resources, and Conservation Element policies that protect water quality, including Policy P11.3, which requires the protection of surface and groundwater resources from contamination from runoff containing pollutants and sediment through implementation of best management practices, and Policy P11.4, which requires coordination with State and local agencies to identify and eliminate or minimize all sources of existing and potential point and non-point sources of pollution to ground and surface waters. Therefore, the water quality impact would remain *less than significant*.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).

New development allowed by the Approved and Modified Projects would utilize municipal water sources, which would include the use of some groundwater. As explained on page 4.7-21 of the 2008 Draft EIR for the Approved Project,

groundwater accounts for a portion of the Project Area's water supplies. The Modified Project would slightly increase the development potential of the General Plan, which could increase demands on groundwater supplies. This increase in development potential could also increase the amount of impervious surface in the Project Area, which could reduce the area available for groundwater recharge.

However, the Modified Project would maintain the 2030 General Plan Open Space, Natural Resources, and Conservation Element policies that protect groundwater resources, including Policy P11.1, which calls for maintaining the natural condition of waterways and floodplains to ensure adequate groundwater recharge and water supply, and Policy P11.2, which calls for minimizing impermeable paving. In addition, as described in Section C.3, the proposed Design Guidelines Update includes new guidelines that are intended to conserve groundwater, limit impervious areas, and promote groundwater recharge. As described in Section C.4, the proposed CAP includes actions to conserve groundwater and adaptation strategies to improve the resiliency of Oroville's water system to climate change. Therefore, the groundwater impact would remain *less than significant*.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site.

The Modified Project would slightly increase the development potential of the General Plan, which could increase the amount of impervious surface in the Project Area. As explained on page 4.7-22 of the 2008 Draft EIR for the Approved Project, an increase in impervious surface could affect the stormwater drainage systems in the Oroville area by concentrating stormwater runoff and consequently require additional drainage facilities. The alteration of drainage patterns could also result in substantial erosion, siltation, or flooding.

However, the Modified Project would maintain the 2030 General Plan Open Space, Natural Resources, and Conservation Element policies that address drainage pattern alterations and associated impacts, including Policies 11.1, 11.2, and 11.3, which are described in Sections E.1.a and E.1.b. These policies would maintain the natural condition of waterways and floodplains, minimize impermeable paving, and implement best management practices. In addition, the Modified Project would add new design guidelines that promote natural stormwater management, including Guidelines 5.1.1 through 5.1.4, which call for site planning that maintains natural drainage patterns and promotes infiltration, and Guidelines 5.2.1 through 5.2.5, which promote design elements that dissipate, detain, and retain runoff, as shown

in Section C.3. Therefore, the drainage pattern impact would remain *less than significant*.

d. Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.

As described on page 4.7-22 of the 2008 Draft EIR for the Approved Project, development allowed by the 2030 General Plan would create runoff water by constructing impervious surface and contributing new sources of pollutants that would enter runoff water. Because the Modified Project would slightly increase the development potential of the General Plan, the amount of impervious surface in the Project Area could be increased, which would exacerbate potential impacts. In addition, the increase in industrial uses allowed by the Modified Project could increase the pollutant load of runoff water.

However, the Modified Project would maintain the 2030 General Plan Open Space, Natural Resources, and Conservation Element Policies P11.2 and P11.3, which are described in Sections E.1.a and E.1.b and address impermeable paving, protection of surface and groundwater resources from runoff containing pollution, and stormwater management. In addition, Policy P11.4 requires coordination with State and local agencies to identify and eliminate or minimize all sources of existing and potential point and non-point sources of pollution to ground and surface waters. In addition, as described in Sections E.1.b and E.1.c, the proposed Design Guidelines Update includes new guidelines that limit impervious areas and promote natural stormwater management. Therefore, the impact would remain *less than significant*.

e. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

As shown in Figure 4.8-1, the Project Area contains areas currently designated by FEMA as 100-year flood zones. A portion of the area along Highway 162 in Thermalito that would change from Mixed Use to Medium Density Residential under the Modified Project[6] is within the 100-year flood zone. Because Mixed Use allows residential uses, housing would be allowed within the 100-year flood zone under both the Approved and Modified Projects.

[6] See Chapter 3, Project Description, of this Draft Supplemental EIR for more information about this land use map change.

The Modified Project would maintain the 2030 General Plan Safety Element policies that, as described on page 4.7-23 of the 2008 Draft EIR for the Approved Project, protect the public from flood hazards, including Policy P2.2, which requires adequate protection from flood damage and hazards for development within floodplains. In addition, as discussed on pages 4.7-23 to 4.7-24 of the 2008 Draft EIR for the Approved Project, Chapter 8B-4 of the Oroville Municipal Code set additional requirements for building in the floodplain, including a requirement that all new construction must have the lowest floor, including basement, elevated a minimum of 1 foot above the base flood elevation (Section 8B-7(a)(3)(A)). Therefore, the flooding-related impact would remain *less than significant*.

f. Place structures that would impede or redirect flood flows within a 100-year flood hazard area.

As discussed in Section E.1.e, the Modified Project would change the land use designation from Mixed Use to Medium Density Residential in one area that is within the 100-year flood zone. Therefore, development would have been allowed under both the Approved and Modified Projects, indicating that structures that could impede or redirect flows within this flood hazard area could be placed here under both scenarios.

The Modified Project would maintain the 2030 General Plan Safety Element policies that, as described on page 4.7-24 of the 2008 Draft EIR for the Approved Project, would avoid flood flow impacts, including Policies P2.1 and P2.5, which discourage development within the Feather River floodplain and other flood-prone areas and direct that the natural condition of waterways and floodplains be maintained. Therefore, the flood flow-related impact would remain *less than significant*.

g. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

The 2009 EIR for the Approved Project found a significant and unavoidable impact related to exposure of people and structures to risks from flooding as a result of dam failure. As explained on pages 4.7-24 to 4.7-25 of the 2008 Draft EIR for the Approved Project, failure of the Oroville Dam would inundate much of the city and surrounding area. Although the dam could withstand a 6.5 magnitude earthquake, which is considered to be the largest credible event projected for the region, development allowed by the 2030 General Plan would be within the dam inundation area, causing a significant impact.

Many of the parcels that would be redesignated under the Modified Project are within the Oroville Dam inundation area. Through these redesignations and other changes, the Modified Project would slightly increase the development potential of the General Plan, which could expose more people and structures to flooding as the result of dam failure. However, the slight increase in population and employment compared to the Approved Project would be nominal (less than 5 percent)[7] and would not change the impact related to flooding risks due to dam failure.

As discussed in Section B.2, since the 2008 Draft EIR for the Approved Project was published, DWR has released maps showing existing federal and non-federal levees in the Oroville area. In addition, as discussed in Section A.2.c, DWR has prepared maps of LFPZs, which identify areas where flood levels would be more than 3 feet deep if a project levee were to fail. The LFPZ map indicates that the Project Area is not in a LFPZ.[8]

The Modified Project would maintain the 2030 General Plan Safety Element policies that reduce potential impacts, including Policy P2.1, which discourages development within flood-prone areas, and Policy P2.10, which directs the City to encourage DWR to manage the Oroville Dam water regime to reduce risk.

Overall, the Modified Project would not change the impact related to dam inundation, and the LFPZ map that has been released since the 2008 Draft EIR for the Approved Project was published does not identify any new impacts related to levee inundation areas. Therefore, the flooding-related impact under the Modified Project would be the same as under the Approved Project, and remain *significant*.

h. Inundation by seiche, tsunami, or mudflow.

As explained on page 4.7-25 of the 2008 Draft EIR for the Approved Project, Lake Oroville, the Thermalito Forebays and Afterbay, and other water bodies within the Project Area pose risks related to seiches. The Modified Project would slightly increase the development potential of the General Plan, which could expose more people and structures to inundation from seiches. However, the slight increase in population and employment compared to the Approved Project would be nominal

[7] See Section E.1.a of Chapter 4.2, Air Quality, for more details on the population and employment increase.

[8] California Department of Water Resources, August 19, 2011, Levee Flood Protection Zones Sacramento River Basin, available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/docs/SacramentoRiver_LFPZ_Map.pdf.

(less than 5 percent)[9] and would not change the impact related to inundation by seiches. In addition, the Modified Project would maintain the 2030 General Plan Safety Element policies that would reduce potential impacts, including Policies P7.1 and P7.3 and Action A7.2, which, as described on page 4.7-25 of the 2008 Draft EIR for the Approved Project, facilitate coordinated and effective emergency response for situations like seiche inundation.

As explained on pages 4.7-25 to 4.7-26 of the 2008 Draft EIR for the Approved Project, Oroville is not at risk from a tsunami due to its inland location, but there are areas with steep slopes above water bodies where mudslides pose risks. Steep slope areas are shown in Figure 4.5-1, Geologic Hazards, of the 2008 Draft EIR for the Approved Project. None of the parcels that would be redesignated by the Modified Project are within these steep slope areas. In addition, the Modified Project would maintain the 2030 General Plan Safety Element policies that reduce potential impacts related to mudflows, including Policies P1.1, P1.3, and P1.4, which, as described on page 4.7-26 of the 2008 Draft EIR for the Approved Project, avoid development in areas with unstable soils, encourage retrofitting of existing structures, and incorporate design and engineering to minimize risks in new development.

Overall, the Modified Project would have the same impacts related to inundation by seiches, tsunamis, or mudflows. Potential tsunami and mudflow impacts would remain *less than significant*, and the impact related to inundation by seiches would remain *significant*.

2. Cumulative Impacts

The 2009 EIR for the Approved Project found a significant and unavoidable cumulative impact due to the population and development increase within an area that is subject to dam inundation and seiche hazards. As discussed in Section E.1, changes proposed in the Modified Project that affect hydrology and water quality are relatively minor, and the analysis provided on page 47-27 of the 2008 Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, cumulative impact related to hydrology and water quality would remain *significant*.

[9] See Section E.1.a of Chapter 4.2, Air Quality, for more details on the population and employment increase.

F. Impacts and Mitigation Measures

Because there are no additional significant impacts related to hydrology and water quality as a result of the Modified Project, no additional mitigation measures are required.

4.9 LAND USE

This chapter evaluates the potential impacts related to land use associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses physical divisions of communities, conflicts with land use plans, conflicting land uses, and impacts to agricultural and forestry resources. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B.

A. Regulatory Framework

1. Butte County Metropolitan Transportation Plan and Sustainable Communities Strategy

In December 2012, the Butte County Association of Governments (BCAG) adopted the Butte County Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS). The MTP/SCS is an integrated transportation and land use plan to implement provisions of California's Global Warming Solutions Act (AB 32) for passenger vehicle greenhouse gas (GHG) reductions. The MTP/SCS's policy on land use strategies is to provide economical, long-term solutions to transportation problems by encouraging community designs which encourage walking, public transit, and bicycling.

2. Butte County General Plan 2030

Butte County adopted General Plan 2030 on October 26, 2010. Butte County General Plan 2030 provides direction on how the County will fulfill its community vision and manage its future growth, and includes land use, development, and conservation policy that will govern Butte County through 2030. Butte County General Plan 2030 identifies the types and intensities of uses that are permissible in relation to different land use designations. Any future development in the Project Area that occurs on unincorporated Butte County land would be subject to the provisions of the Butte County General Plan 2030.

3. Oroville 2030 General Plan

The City of Oroville adopted the Oroville 2030 General Plan on June 2, 2009. The Oroville 2030 General Plan provides the fundamental basis for the City's land use and development policy and represents basic community values, ideals, and aspirations to govern a shared environment through 2030. More information about the 2030 General Plan is available in Chapter 3 of the 2008 Draft EIR for the Approved Project.

4. Economic Development Areas

Since the 2008 Draft EIR for the Approved Project was published, due to changes at the State level, the Redevelopment Agency has dissolved, and the Redevelopment Area and Enterprise Zone that were in the Project Area have been eliminated.

B. Existing Conditions

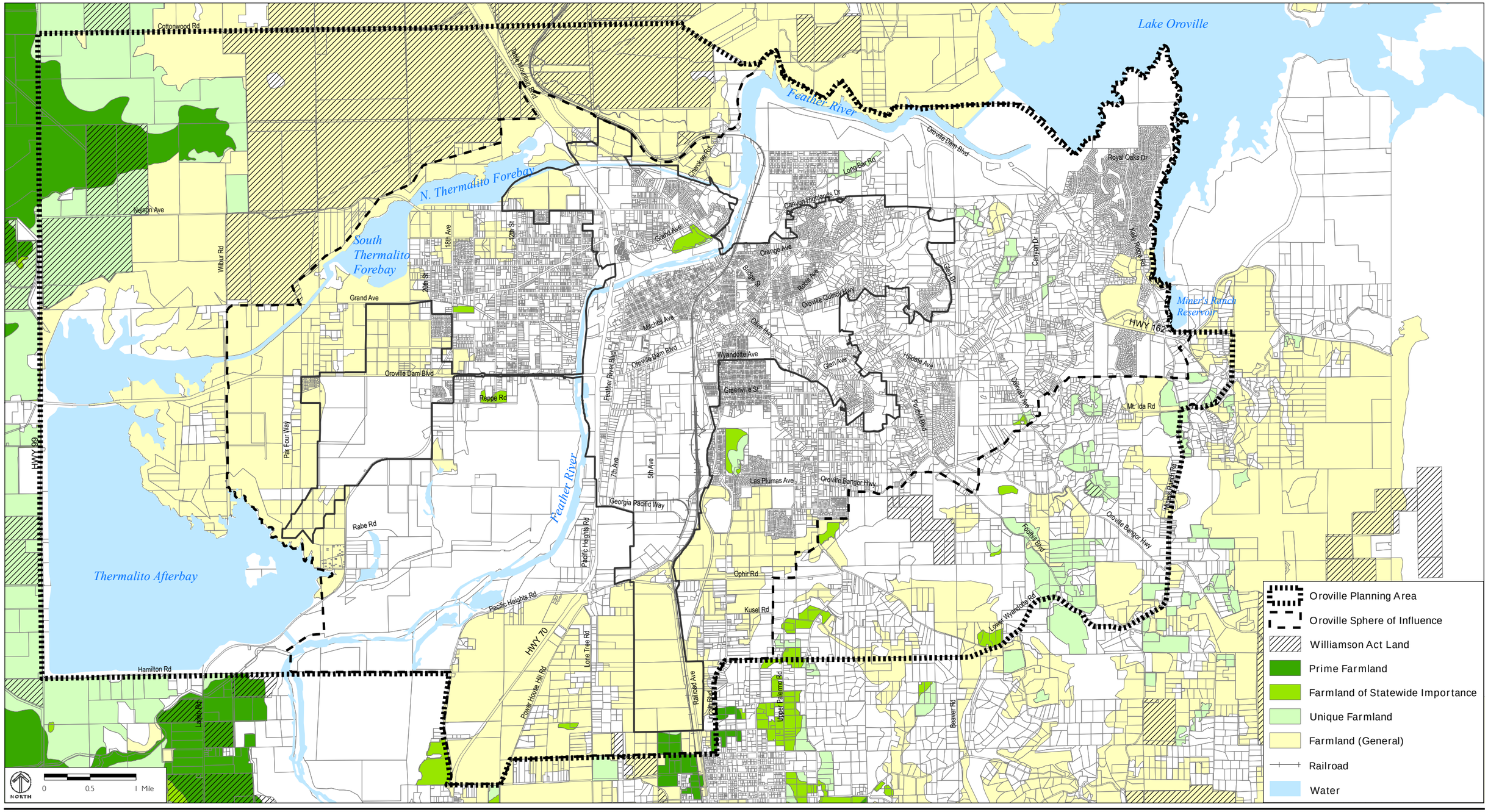
1. Agricultural Lands

Since the 2008 Draft EIR for the Approved Project was published, the California Natural Resources Agency has released new Farmland Mapping and Monitoring Program (FMMP) data for the year 2010. The agricultural land classifications from the 2010 FMMP data for the Project Area are shown in Figure 4.9-1. Agricultural land is limited within the city limits, but more extensive throughout the SOI. Agricultural lands are typically used for row crops, orchards, and grazing. Grazing and pasture land account for most of the agriculture in the Oroville area, with much of the remainder in citrus and olive orchards.

2. Forest Lands

Since the 2009 EIR for the Approved Project was certified, Appendix G of the CEQA Guidelines was revised to include impact analysis questions pertaining to forest lands. Therefore, this section provides information about existing forest lands in the Project Area.

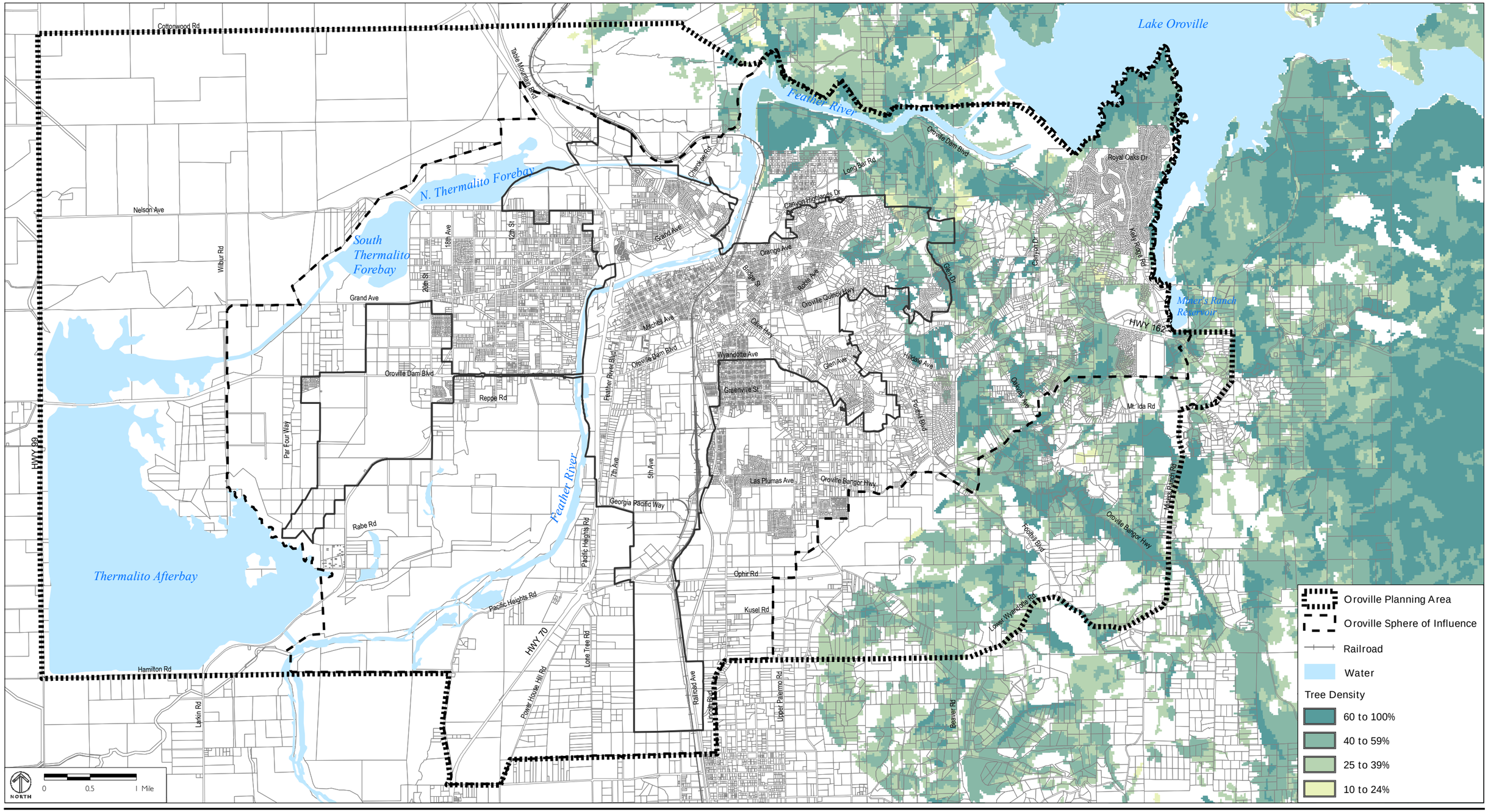
Forest land resources are shown in Figure 4.9-2. The densest forest land areas are located outside of the city limits, in the northeastern portion of the SOI, south of the Feather River and Oroville Reservoir. The major vegetation community associated with timberlands in Butte County is westside mixed conifer (Sierra mixed conifer), which is dominated by sugar pine, ponderosa pine, Douglas fir, white fir, and incense cedar.



Source: FMMP, 2010; City of Oroville GIS, 2005.

FIGURE 4.9-1

AGRICULTURAL LANDS



Source: California Department of Forestry and Fire Protection Multi-Source Land Cover Data, 2006.; City of Oroville GIS, 2005.

FIGURE 4.9-2

FOREST LANDS

C. Changes in the Modified Project Relevant to Land Use

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would change land use designations and add new overlay designations in various locations throughout the Project Area. The Modified Project would also change the allowable density and intensity of development within the Mixed Use land use designation and allow for a higher density and intensity of mixed-use development in the Downtown area. A summary of these changes is provided in Chapter 3, Project Description, of this Supplemental EIR.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

The Open Space, Natural Resources, and Conservation Element would include expanded policies and actions that support the CAP and the City's efforts to reduce GHG emissions, including the following land use-related policies:

- Policy P16.2: Promote land use patterns that reduce the number and length of motor vehicle trips.
- Policy P16.3: Encourage a balance between jobs and housing, to the extent feasible.
- Policy P16.4: Encourage higher density residential and mixed-use development adjacent to commercial centers and transit corridors.
- Policy P16.5: Encourage employment areas to include a mix of supportive commercial services to minimize the number of employee trips.
- Policy P16.6: Encourage retail and office areas to be located within walking and biking distance of existing and proposed residential developments.

2. Municipal Code Updates

a. Zoning Map and Districts

As described in Chapter 3, Project Description, of this Supplemental EIR, the zoning map for the City of Oroville was not updated following the adoption of the 2030 General Plan, so the zoning map is currently inconsistent with the General Plan land use map. Therefore, the Municipal Code Updates would comprehensively update the zoning map to make it consistent with the General Plan land use map.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

Other Municipal Code Updates that could affect land use include revisions to Section 26-16.180 (Solar Energy) to provide a streamlined approach to solar energy development and revisions to Section 26-16.120 (Animal Keeping) to remove the limitation on animal keeping for non-commercial purposes only. Solar energy and animal keeping facilities can affect land use compatibility.

In addition, the Municipal Code Updates include a new section on urban agriculture that allows local food to be produced, sold, and available for community development and education in areas close to where people live and work, which would support local agricultural uses.

The Municipal Code Updates also include a new Municipal Code chapter on oak tree loss mitigation, which would benefit forest land resources.

3. Design Guidelines Updates

These changes are not expected to impact land use because they don't contain any provisions that are related to this topic.

4. Climate Action Plan

The CAP includes the following set of actions aimed at reducing GHG emissions from land use-related sources:

- **LUT-1.1:** Continue to implement Section 26-22 of the Zoning Code, which provides density bonuses for projects with five or more units that include low income housing.
- **LUT-2.1:** Require new specific plans to provide sufficient employment generating land uses to achieve a jobs-to-housing balance equal to the level provided in the incorporated communities of Butte County.
- **LC-3.1:** Provide incentives and guidelines for urban and small-scale agriculture.

5. Balanced Mode Circulation Plan

This document is not expected to impact land use because it doesn't contain any provisions that are related to this topic.

D. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to land use if they would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Create or exacerbate a conflict between land uses on the project site and in the surrounding area.
- 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 Williamson Act contract or existing agricultural zoning.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
- Result in the loss of forest land or conversion of forest land to non-forest use.
- Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use.

These standards include the same standards that were used in the 2008 Draft EIR for the Approved Project, as well as new standards regarding forest land resources that have been added to the CEQA Guidelines since the 2008 Draft EIR was published.

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to land use that could occur as a result of implementation of the

Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Physically divide an established community.

As with the Approved Project, the Modified Project would not add any structures or features that would physically divide an established community; rather, implementation of both the Approved and Modified Projects would further develop existing areas of Oroville and create cohesive diverse neighborhoods. In addition, the Modified Project would maintain the 2030 General Plan Land Use Element policies that would avoid dividing established communities. These policies, which are described in detail on pages 4.8-20 and 4.8-25 of the 2008 Draft EIR for the Approved Project, address annexations into the city limits to reduce "island effects," promote the development of cohesive neighborhoods, and support compatibility with existing land uses. Therefore, the Modified Project would not change the impact from the Approved Project, and it would remain *less than significant*.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

As described on page 4.8-25 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan is the primary planning document for the City of Oroville. The Modified Project updates other City documents to improve the consistency with the 2030 General Plan and its policy framework. In particular, as described in Chapter 3, Project Description, of this Draft Supplemental EIR, the zoning map and designations would be updated to be consistent with the General Plan land use map. The other Modified Project components all implement General Plan direction, including:

- **Municipal Code Updates:** Implement Land Use Element Action A1.2, which is to review and revise, as necessary, the Development Code to ensure its consistency with the General Plan.
- **Design Guidelines Updates:** Support the policies under Open Space, Natural Resources, and Conservation Element Goal OPS-11, which is to protect water quality and quantity in creeks, lakes, natural drainages, and groundwater basins.

- **Climate Action Plan:** Supports the policies and actions under Open Space, Natural Resources, and Conservation Element Goals OPS-16 and OPS-17, which are to reduce GHG emissions and improve the sustainability of actions by City government, residents, and businesses in Oroville, and to encourage conservation of energy resources and promote green building.
- **Balanced Mode Circulation Plan:** Implements Circulation Element Action A2.5, which is to implement and maintain the Balanced Mode Circulation Plan, which guides the development of bicycle and pedestrian facilities in Oroville.

As described on pages 4.8-25 to 4.8-26 of the 2008 Draft EIR for the Approved Project, outside the current city limits, the Butte County General Plan land use designations and policies apply. Both the Approved and Modified Projects designate land outside of the city limits, within the SOI, for certain land uses, but until that land is annexed to the City, the County maintains jurisdiction. Much of the SOI is consistent with the Butte County General Plan 2030 land use designations under both the Approved and Modified Projects, but there are areas that are not consistent. Nevertheless, since only one set of land use policies apply at any given time, there cannot be a conflict between the City and County General Plans. As a result, the Modified Project would not result in a conflict with the Butte County General Plan policies or land use designations.

As explained in Section A.1, the Butte County MTP/SCS has been adopted since the publication of the 2008 Draft EIR for the Approved Project, and it includes a policy on land use strategies to provide economical, long-term solutions to transportation problems by encouraging community designs which encourage walking, public transit, and bicycling. The Modified Project supports consistency with the MTP/SCS by adding the policies described in Section C.1.b, which all promote development that supports alternative modes of transportation. In addition, the proposed CAP would further support the MTP/SCS through the land use and transportation strategies that are aimed at reducing GHG emissions in Oroville. Consistency with the growth projections in the MTP/SCS is discussed and evaluated in Chapter 4.11, Population and Housing, of this Draft Supplemental EIR.

Finally, the Modified Project would adjust the General Plan land use map within the Airport Land Use Compatibility Plan (ALUCP). Specifically, the Modified Project would change the land use designation of a 106-acre area along Highway 162 in the Thermalito area from Mixed Use to Medium Density Residential. This

area is within Airport Land Use Compatibility Zone (ALUCZ) C of the Oroville Municipal Airport, which requires either a minimum 5-acre lot size or a minimum of four dwelling units per acre. Both the Mixed Use and Medium Density Residential designations are consistent with the ALUCZ, since they both require residential densities that are greater than four dwelling units per acre. The Modified Project would also redesignate the Oroville Municipal Airport from Airport Business Park to Public Facilities and Services to reflect the existing airport use, which is also consistent with the ALUCP.

In summary, the Modified Project would not create any new conflicts with land use plans, policies, or regulations, and the impact would remain *less than significant*.

c. Create or exacerbate a conflict between land uses on the project site and in the surrounding area.

As described on page 4.8-26 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan land use designations include several areas in which traditionally incompatible land use types are positioned immediately adjacent to each other, such as residential uses adjacent to industrial uses or in proximity to the railroad tracks. The Modified Project would reduce these occurrences due to the proposed change in the General Plan land use map from Mixed Use to Industrial along Ophir Road. This area of Ophir Road is adjacent to both other industrial areas and railroad tracks, and with the proposed change, residential uses would no longer be allowed in this area. The other proposed land use map changes would not create new conflicts.

The Modified Project would also maintain the 2030 General Plan Land Use Element policies that promote land use compatibility. These policies, which are described on pages 4.8-26 to 4.8-27 of the 2008 Draft EIR for the Approved Project, address non-conforming uses and land use compatibility issues related to industrial uses.

Finally, as discussed in Section E.1.b, the Modified Project would not create any new airport-related land use conflicts based on the ALUCP.

In summary, the Modified Project would not create or exacerbate land use conflicts, and the impact would remain *less than significant*.

d. 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.

The Modified Project would not redesignate any Farmland parcels from an open space designation to one that allows development. Of the areas that the Modified Project would change, there are only two small areas that intersect with Farmland:

- The majority of APN 031-110-032 is classified as Farmland of Statewide Importance. The Modified Project would change the land use designation from Mixed Use to Retail and Business Services to reflect an existing use.
- The southwest corner of the area along Highway 162 south of Thermalito that would be changed from Mixed Use to Medium Density Residential is classified as Farmland of Statewide Importance.

Therefore, implementation of both the Approved and Modified Projects would convert Farmland. The Modified Project would not designate any new Farmland areas for non-agricultural use. Furthermore, the Modified Project would maintain the 2030 General Plan Open Space, Natural Resources, and Conservation Element policies that support agriculture, which are described on page 4.8-27 of the 2008 Draft EIR for the Approved Project. Therefore, the farmland impact would be the same under both the Approved and Modified Projects, and it would remain *significant*.

e. Conflict with existing Williamson Act contract or existing agricultural zoning.

As described on page 4.8-28 of the 2008 Draft EIR for the Approved Project, there is only one parcel in the Project Area with a Williamson Act contract; it is located at the southern extent of the Project Area along Palermo Road. The Modified Project would not change the designation on that parcel. Therefore, the Modified Project would not change the impact finding from the Approved Project, which was a finding of *no impact*.

f. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).

As described in Section B.2, since the 2009 EIR for the Approved Project was certified, Appendix G of the CEQA Guidelines was revised to include impact analysis questions pertaining to forest lands; this question was not analyzed in the 2009 EIR. As shown in Figure 4.9-2, the California Department of Forestry and

Fire Protection (CAL FIRE) has mapped forest lands through their land cover data, which shows that there are forest lands in the Project Area. However, none of the parcels that would be redesignated by the Modified Project are currently zoned for forest land or timberland by either the City or County. Therefore, there would be *no impact* associated with zoning conflicts for forest land or timberland.

g. Result in the loss of forest land or conversion of forest land to non-forest use.

As described in Section B.2, since the 2009 EIR for the Approved Project was certified, Appendix G of the CEQA Guidelines was revised to include impact analysis questions pertaining to forest lands; this question was not analyzed in the 2009 EIR. Public Resources Code Section 12220(g) defines "forest land" 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 in Figure 4.9-2, according to 2006 mapping data from CAL FIRE, forest land areas exist in certain portions of the Project Area. The densest forest land areas are located outside of the city limits, in the northeastern and eastern portions of the SOI. None of the parcels that would be redesignated under the Modified Project are considered forest land. In addition, the 2030 General Plan Open Space, Natural Resources, and Conservation Element contains the following policies and actions that would minimize the loss of forest land:

- **Policy P9.5:** Require the preparation of a site-specific tree management and preservation report by a certified arborist or urban forester for development proposals on sites that contain significant oak woodlands and related habitat. This report shall include recommendations for the retention of healthy mature trees wherever feasible and promote the concept of oak regeneration corridors within project design.
- **Policy P9.12:** Preserve orchards, woodlands, and wetlands by clustering development in locations where the land supports fewer natural resources, and infrastructure is in or is close to the project site.
- **Action A9.3:** Develop a plan to enhance individual oaks, oak woodlands and other native tree groups throughout the Planning Area. The plan will provide options for the management of oaks and other tree resources.

Also, Section 26-13.060 of the Oroville Municipal Code requires a tree removal permit for the removal of any tree with a circumference of 24 inches or more when measured at 4½ feet above ground level.

Furthermore, the proposed Municipal Code Updates includes an Oak Tree Loss Mitigation Ordinance, which establishes mitigation options for the removal of oak trees, including on-site replacement, in-lieu fees, or off-site replacement, as well as replacement standards and maintenance and monitoring requirements for replacement trees.

Given that the Modified Project would not redesignate any forest land parcels, combined with the 2030 General Plan policies and actions, existing Municipal Code tree preservation requirements, and proposed Oak Tree Loss Mitigation Ordinance discussed above, the impact related to the loss of forest land would be *less than significant*.

h. Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use or the conversion of forest land to non-forest use.

As described on page 4.8-29 of the 2008 Draft EIR for the Approved Project, allowing potentially incompatible urban uses next to farms could create circumstances that impair the productivity and profitability of agricultural operations, which could lead to the conversion of Farmland. Similarly, placing incompatible uses next to forest lands could indirectly lead to the conversion of those forest lands to non-forest uses. However, the Modified Project would not redesignate any parcels that are adjacent to agricultural or forest land parcels, so it would not change the impact from the Approved Project, and it would remain *less than significant*.

2. Cumulative Impacts

As described on page 4.8-29 of the 2008 Draft EIR for the Approved Project, development allowed by the Approved Project would contribute to cumulative agricultural impacts in Butte County and the surrounding area. The Modified Project would not change the amount of agricultural land that would be impacted. Similarly, development allowed by both the Approved and Modified Projects would contribute to cumulative forest land impacts in the region. The agricultural and forest land impacts would occur as an intrinsic part of land use changes, and development outside Oroville would be beyond the City's ability to regulate or control. Therefore, the Modified Project would not substantially change the *significant* cumulative impact of the Approved Project.

F. Impacts and Mitigation Measures

Because there are no additional significant impacts related to land use as a result of the Modified Project, no additional mitigation measures are required.

4.10 NOISE

This chapter evaluates the potential impacts related to noise associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses human exposure to unacceptable noise levels, generation of unacceptable noise levels, groundborne vibration, and noise from airports. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exception noted in Section A.

A. Regulatory Framework

Since the 2008 Draft EIR for the Approved Project was published, the State adopted an updated California Building Code (CBC), which includes noise insulation standards.[1] These noise standards are applied to new construction in California for the purpose of interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA[2] CNEL[3] or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

[1] The State of California's noise insulation standards are codified in the California Code of Regulations (CCR), Title 24, Building Standards Administrative Code, Part 2, CBC.

[2] Noise terms and definitions are provided in the 2010 EIR for General Plan 2030. dBA = A-Weighted Sound Level, which is the decibel level as measured using the A-weighting filter network, which de-emphasizes the very low and very high frequency components of the sound in a manner that replicates the frequency response of the human ear.

[3] Noise terms and definitions are provided in the 2010 EIR for General Plan 2030. CNEL = Community Noise Equivalent Level, which is the energy-average of the A-weighted sound levels occurring during a 24-hour period, with 5 decibels (dB) added to the levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. These adjustments (often referred to as 'penalties') account for the increased sensitivity that most community receptors have for unwanted noise intrusion during the evening and nighttime hours.

B. Changes in the Modified Project Relevant to Noise

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The Modified Project would include changes to the land use map and designations, as described in Chapter 3, Project Description, of this Draft Supplemental EIR. These changes would affect the location of sensitive receptors and noise-generating uses, as well as the traffic generated by these uses. Thus, these changes would also have some effect – either positive or negative – on traffic noise levels.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

Revisions to the Circulation and Transportation Element include several new actions and policies that encourage alternative modes of transportation, including public transit, walking, and bicycling. Reductions in vehicle miles traveled (VMT) achieved by these actions would contribute to associated reductions in traffic noise.

Revisions to the Economic Development Element and other updates and policy revisions are not expected to affect noise because they don't contain any provisions that are related to this topic.

2. Municipal Code Updates

a. Zoning Map and Districts

The Zoning Map and districts updates would ensure consistency with the General Plan use map, including modifications to support increased density in Downtown Oroville. Increases in the allowed density of Downtown development would likely produce fewer overall trips, which would tend to decrease both traffic volumes and the associated traffic noise, as compared to potential development configured with lower densities.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

Community incentives for parking requirement reductions, mixed-use development, increased public transit accessibility, commuter trip reduction measures, and improved bicycle and pedestrian facilities would help reduce VMT and the associated community noise from reduced traffic flows.

Other Municipal Code updates are not expected to affect noise because they don't contain any provisions that are related to this topic.

3. Design Guidelines Updates

Design Guidelines Updates are not expected to affect noise because they don't contain any provisions that are related to this topic.

4. Climate Action Plan

The proposed CAP includes strategies and actions that would reduce VMT, which would reduce community-wide traffic noise. The CAP also includes strategies and actions to promote alternative energy production, including wind turbines. Wind turbines, depending on where they are sited and on the proximity to sensitive receptors, could be a potentially new source of noise, but in a relatively localized area near the turbine installations. The future conditions and potential impacts for such potential installations, however, cannot be reasonably foreseen or assessed at this juncture.

5. Balanced Mode Circulation Plan

The Balanced Mode Circulation Plan identifies design guidelines to promote pedestrian, bicycle, and public transit facilities. Reductions in VMT achieved by these actions would contribute to associated reductions in traffic noise.

C. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to noise if they would:

- Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or other applicable standards.
- Expose people to or generate excessive ground-borne vibration or groundborne noise levels.
- Create a substantial temporary, periodic, or permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Expose people living or working in the project area to excessive noise from a public or private airport.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

D. Impact Discussion

The following discussion provides an analysis of potential project-generated and cumulative noise impacts that could occur as a result of implementation of the Modified Project that were not already disclosed in the EIR for the Approved Project.

1. Project Impacts

a. Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or other applicable standards.

As explained on page 4.9-20 of the 2008 Draft EIR for the Approved Project, development of residential land uses and other potentially noise-sensitive uses under the Approved Project (such as schools, parks, and churches), could occur in areas adjacent to noise sources such as roadways, industrial facilities, the airport, or the Union Pacific Railroad (UPRR) tracks. Changes to the land use map described in Chapter 3, Project Description, of this Draft Supplemental EIR could affect the exposure of noise-sensitive land uses to noise. Specifically, the Modified Project would increase exposure of residential uses to noise in the Downtown area through the various land use designation changes identified in the Oroville Arts, Culture, and Entertainment District. The Modified Project could also decrease exposure of residential uses to noise in an industrial area through the land use designation changes proposed along Ophir Road.

As explained in Chapter 3, the Modified Project would increase the residential projections by 385 units compared to Approved Project, which equates to a population increase of approximately 1,000 people, based on an estimate of 2.6 persons per household.[4] This represents approximately 3 percent of the estimated population increase evaluated in the 2008 Draft EIR.[5] The Modified Project would also increase industrial employment by 226 jobs and reduce commercial employment by 43 jobs, resulting in a net employment increase of approximately

[4] State of California, Department of Finance, May 2014, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2014*.

[5] The 2008 Draft EIR estimated that the 2030 General Plan would add 13,800 residential units, or 32,300 new residents (see page 3-24).

183 jobs, relative to the Approved Project.[6] This is less than 1 percent of the estimated employment increase evaluated in the 2008 Draft EIR.[7] While the Modified Project would result in a slight increase in population and employment compared to the Approved Project, this change would be nominal (less than 5 percent) and the associated potential changes in traffic flow volumes would not notably change the traffic noise modeling results from the 2008 Draft EIR. As explained on page 4.9-20 of the 2008 Draft EIR, noise levels within several hundred feet of major roadways, rail lines, the airport boundaries, and stationary sources are expected to exceed City standards in some locations. Therefore, there is the potential for new noise sensitive uses to be located in areas where noise exceeds City noise compatibility standards.

In addition, the proposed CAP would promote the development of alternative energy facilities, including wind turbines, which could be a new source of noise that could affect noise sensitive uses.

However, as with the Approved Project, 2030 General Plan goals, policies, and actions directly address the exposure of new noise sensitive land uses to noise exceeding general plan noise standards; see pages 4.9-21 to 4.9-29 of the 2008 Draft EIR for the Approved Project for a summary of those goals, policies, and actions. In particular, Noise Element Policy P1.3 requires preparation of a noise analysis/acoustical study, which is to include recommendations for mitigation, for all proposed projects that may result in potentially significant noise impacts to nearby noise-sensitive land uses or that are predicted to be exposed to noise levels greater than the General Plan noise standards. In addition, Policy P1.4 states that the City will require an acoustical analysis and include appropriate mitigation measures in the project design where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior transportation noise levels exceeding the General Plan noise standards.

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[6] As noted in Chapter 3, the Modified Project would increase the industrial projection by 226,000 square feet and reduce the commercial projection by 32,000 square feet. Based on the 2008 Draft EIR assumptions of one employee per 1,000 square feet of industrial use and 1 employee per 750 square feet of commercial use, this equates to an increase of 226 new industrial jobs and 43 fewer commercial jobs. The net change in employment is therefore estimated at 183 new jobs.

[7] The 2008 Draft EIR estimated that the 2030 General Plan would add 19,400 new jobs in the next 25 years (see page 3-25).

In addition, as discussed in Section B, the Modified Project includes several components that would reduce VMT, which would also tend to reduce community traffic noise.

Overall, due to the nominal change in the population and employment, the incorporation of project components that reduce VMT, and the 2030 General Plan goals, policies, and actions summarized in the 2008 Draft EIR for the Approved Project, the Modified Project would not change the noise impact from the Approved Project, and it would remain *less than significant*.

b. Expose people to or generate excessive groundborne vibration or groundborne noise levels.

As described on page 4.9-29 of the 2008 Draft EIR for the Approved Project, groundborne vibration or noise can be generated by train passages and construction activity. The Modified Project would change the General Plan land use designation from Mixed Use to Industrial along a section of Ophir Road that is near the UPRR tracks. This land use change could reduce the exposure of sensitive residential land uses to groundborne noise and vibration from trains in the Ophir Road area. However, in total, as described in Chapter 3, the Modified Project would result in a net increase of residential uses throughout the city. These residential uses could be exposed to other groundborne noise and vibration from construction activity.

In addition, as described in Chapter 3, the Modified Project is expected to increase overall development activity compared to the Approved Project, given the net increase in residential units and non-residential square footage. Therefore, construction activity would increase, which would increase construction-related groundborne noise and vibration.

However, as described in detail on page 4.9-30 of the 2008 Draft EIR for the Approved Project, 2030 General Plan goals and policies directly address the exposure of noise sensitive land uses to groundborne noise and vibration. In particular, Noise Element Policy P1.11 requires that vibration-sensitive buildings, such as residences, are sited at least 100 feet from the centerline of the railroad tracks whenever feasible and that development of vibration-sensitive buildings within 100 feet from the centerline of the railroad tracks require a study demonstrating that groundborne vibration issues associated with rail operations have been adequately addressed (i.e. through building siting or construction techniques). In addition, Policy P2.3 limits noise generating construction activities

located within 1,000 feet of residential uses to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays and non-holidays.

Because the Modified Project would slightly increase development activity, it could also increase the severity of the groundborne noise and vibration impact compared to the Approved Project; however, because any development allowed by the Modified Project would also be subject to 2030 General Plan policies that would mitigate the impact, it would remain *less than significant*

c. Create a substantial temporary, periodic, or permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

i. Temporary/Periodic Increase in Ambient Noise

As explained on pages 4.9-30 to 4.9-31 of the 2008 Draft EIR for the Approved Project, construction and demolition activity associated with development allowed by the Approved Project could create temporary and periodic increases in ambient noise. Because the Modified Project would slightly increase development activity, it could also increase temporary and periodic noise compared to the Approved Project. However, construction and demolition activity under the Modified Project would be subject to the same 2030 General Plan policies that are described on page 4.9-31 of the 2008 Draft EIR for the Approved Project, including Noise Element Policies P2.3 and P2.4, which limit the hours of noise generation construction activities and require standard construction noise control measures. As with the Approved Project, these policies would reduce potential impacts related to temporary and periodic noise to a *less-than-significant* level.

ii. Permanent Increase in Ambient Noise

As described on pages 4.9-32 to 4.9-35 of the 2008 Draft EIR for the Approved Project, increased traffic resulting from the Approved Project would cause a substantial permanent increase in ambient noise to occur. As discussed in Section D.1.a, although the Modified Project would result in a slight increase in population and employment compared to the Approved Project, this change would be nominal (less than 5 percent) and would not significantly affect the traffic noise modeling results from the 2008 Draft EIR. In addition, under both the Approved and Modified Projects, development of stationary noise sources, such as industrial facilities, could cause substantial increases in noise.

However, as with the Approved Project, 2030 General Plan goals, policies, and actions would reduce potential mobile and stationary noise sources; see pages 4.9-21 to 4.9-29 of the 2008 Draft EIR for the Approved Project for a summary of those goals, policies, and actions. In particular, Noise Element Goal NOI-2 is to

reduce noise levels from sources such as domestic uses, construction, and mobile sources (including motor vehicles and aircraft). In support of this goal, Policy P2.1 states that the City will mitigate noise created by new transportation noise sources, including roadway improvement projects, so as not to exceed City noise standards. Policy P2.7 requires the City to work with Caltrans to implement design methods other than sound walls to attenuate traffic noise along highways in Oroville. The policy will also encourage Caltrans to incorporate noise reducing features, reduce speeds, and utilize alternative road surfacing materials that minimize vehicle noise during highway improvement projects, when feasible and where consistent with City policies.

In addition, as discussed in Section B, the Modified Project includes several components that would reduce VMT, which would also reduce traffic noise.

Overall, due to the nominal change in the population and employment, the incorporation of project components that reduce VMT, and the 2030 General Plan goals, policies, and actions summarized in the 2008 Draft EIR for the Approved Project, the Modified Project would not change the noise impact from the Approved Project, and it would remain *less than significant*.

d. Expose people living or working in the project area to excessive noise from a public or private airport.

As described on page 4.9-32 of the 2008 Draft EIR for the Approved Project, new noise sensitive uses in the vicinity of the Oroville Municipal Airport could be exposed to excessive noise. The Modified Project would change the land use designation of a 106-acre area along Highway 162 in the Thermalito area from Mixed Use to Medium Density Residential. This area is located approximately ½ mile from the Oroville Municipal Airport. As discussed in Chapter 4.8, Land Use and Planning, of this Draft Supplemental EIR, the Medium Density Residential designation is consistent with the Butte County Airport Land Use Compatibility Plan. Residential uses in this area allowed by both the Approved and Modified Projects could be exposed to aircraft noise. However, the Medium Density Residential designation proposed by the Modified Project would allow less development overall than the Mixed Use designation under the Approved Project, so there would be fewer residents and workers in this area than under the Approved Project.

As with the Approved Project, 2030 General Plan goals, policies, and actions would address aircraft noise; see pages 4.9-21 to 4.9-29 of the 2008 Draft EIR for the Approved Project for a summary of those goals, policies, and actions. In particular,

Noise Element Policy P1.10 states that when considering development proposals in the environs of the Oroville Municipal Airport, the City will enforce the noise compatibility criteria and policies set forth in the adopted Butte County Airport Land Use Compatibility Plan. This includes restricting the development of residential or other noise sensitive receptor development uses within the 55 dB CNEL noise contour around the Oroville Municipal Airport.

Because the Modified Project would allow less residential development near the airport than under the Approved Project, it would slightly decrease the aircraft noise impact, and it would remain *less than significant*.

2. Cumulative Impacts

As explained on page 4.9-36 of the 2008 Draft EIR for the Approved Project, predicted traffic noise levels in 2030 for the Approved Project would contribute to cumulative noise impacts, resulting in a significant and unavoidable impact. Given the nominal change in the population and employment and the incorporation of project components that reduce VMT, the Modified Project would not substantially increase the projected 2030 traffic noise; therefore, the cumulative impact from the Approved Project would not change, remaining *significant*.

E. Impacts and Mitigation Measures

Since there are no additional significant impacts related to noise as a result of the Modified Project, no additional mitigation measures are required.

4.11 POPULATION AND HOUSING

This chapter evaluates the potential impacts related to population and housing associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses population growth and the displacement of housing and people that would necessitate the construction of housing elsewhere. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B.

A. Regulatory Framework

The Butte County Association of Governments (BCAG) is the official comprehensive planning agency for the Butte County region. Every four years, BCAG produces long-term growth forecasts for the region, which are used in preparation of BCAG's Metropolitan Transportation Plan (MTP), Sustainable Communities Strategy (SCS), Air Quality Conformity Determination, and Regional Housing Needs Plan. The current growth projections cover the period from 2010 to 2035, and were prepared in 2011 for the 2012 MTP/SCS. The growth projections include "low," "medium," and "high" scenarios for growth; the 2012 MTP/SCS uses the "medium scenario" as the "most realistic growth scenario for the region."[1]

B. Existing Conditions

1. Population

Since the 2008 Draft EIR for the Approved Project was published, the California Department of Finance (DOF) released updated demographic data for Oroville and Butte County. In 2010, the DOF estimated Oroville's population to be 14,687, which accounts for about 7 percent of Butte County's total population of approximately 221,768.[2]

Population projections forecasted by BCAG estimate Oroville's population to reach 26,921 by the year 2030 under their "medium" growth scenario. This would be an approximately 83-percent increase from the 2010 population, with a

[1] Butte County Association of Governments, 2012, *Butte County Metropolitan Transportation Plan and Sustainable Communities Strategy 2012-2035*, page 4-4.

[2] State of California, Department of Finance, May 2010, *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark.*

projected compound annual growth rate of 2.9 percent. Unincorporated Butte County, which makes up a portion of the Project Area, is projected to experience a population increase of 25,040 by 2030 from the 2010 population of 84,302, an approximately 30-percent increase with a compound annual growth rate of 1.3 percent.[3]

2. Housing

Data obtained from the DOF indicates that in 2010, there were 6,393 housing units in Oroville, which account for about 7 percent of the 96,623 housing units in Butte County.[4]

Housing unit projections forecasted by BCAG estimate the number of Oroville's housing units to increase to approximately 11,718 by the year 2030 under their "medium" growth scenario, with a projected compound annual growth rate of 2.9 percent. Unincorporated Butte County, which makes up a portion of the Project Area, is projected to experience a housing increase of 11,050 units by 2030 from the 37,199 units in 2010, an approximately 30-percent increase with a compound annual growth rate of 1.3 percent.[5]

3. Employment

BCAG's regional growth forecasts provide countywide employment projections; they are not broken down by municipality. For the entire Butte County, BCAG predicts that the 71,501 jobs in 2010 will increase by 31,980 jobs by 2030, a 45-percent increase.

C. Changes in the Modified Project Relevant to Population and Housing

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development.

[3] Butte County Association of Governments, 2011, *Butte County Long-Term Regional Growth Forecasts 2010-2035*.

[4] State of California, Department of Finance, May 2010, *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark*.

[5] Butte County Association of Governments, 2011, *Butte County Long-Term Regional Growth Forecasts 2010-2035*.

Specifically, the Modified Project would make the following changes to the 2030 development projections from the Approved Project:

- **Residential:** Increase by approximately 385 dwelling units
- **Industrial:** Increase by approximately 226,000 square feet
- **Commercial:** Decrease by approximately 32,000 square feet

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

These changes are not expected to impact population and housing because they don't contain any provisions that are related to this topic.

2. Municipal Code and Design Guidelines Updates, Climate Action Plan, and Balanced Mode Circulation Plan

These changes and documents are not expected to impact population and housing because they don't contain any provisions that are related to this topic.

D. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to population and housing if they would:

- Induce substantial 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).
- Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to population and housing that could occur as a result of

implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Induce substantial 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).

The 2008 Draft EIR for the Approved Project estimated that implementation of the 2030 General Plan would result in approximately 9,300 residential units within the city limits in 2030, which corresponds to a population of about 21,800.[6]

As noted in Section C.1.a, the Modified Project would increase the number of housing units in the Project Area in 2030 by about 385 units; all of those units would be located within the city limits. Therefore, with the additional development allowed by the Modified Project, there would be 9,685 residential units within the city limits in 2030, with a corresponding population of about 25,200.[7]

As explained in Section B, BCAG forecasts that there will be 11,718 housing units in Oroville in 2030, which corresponds to a population of 26,921. Therefore, the housing units and population under the Modified Project would be within the BCAG regional growth projections.

The 2008 Draft EIR for the Approved Project also estimated that implementation of the 2030 General Plan would add 19,375 new jobs to the Project Area by 2030. The Modified Project would increase industrial employment by 226 jobs and reduce commercial employment by 43 jobs, resulting in a net employment increase of approximately 183 jobs, relative to the Approved Project.[8] Therefore, the total employment increase would be about 19,560 by 2030, which is within the regional employment increase predicted by BCAG for Butte County.

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[6] See pages 3-24 to 3-25 of the 2008 Draft EIR for the Approved Project. The population estimate assumes 2.34 persons per household based on 2006 DOF data.

[7] Based on a persons per household estimate of 2.6: State of California, Department of Finance, May 2014, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2014*.

[8] As noted in Section C.1.a, the Modified Project would increase the industrial projection by 226,000 square feet and reduce the commercial projection by 32,000 square feet. Based on the 2008 Draft EIR assumptions of one employee per 1,000 square feet of industrial use and 1 employee per 750 square feet of commercial use, this equates to an increase of 226 new industrial jobs and 43 fewer commercial jobs. The net change in employment is therefore estimated at 183 new jobs.

While the 2030 population, housing, and employment under the Approved and Modified Projects are within BCAG's regional growth projections, the 2009 EIR for the Approved Project found that the increase in residential units within the Project Area would still be considered "substantial population growth," and found the impact to be significant and unavoidable. The increase in development potential under the Modified Project is nominal; the Modified Project would increase the population in 2030 by about 3 percent and the employment by less than 1 percent compared to what was evaluated in the 2008 Draft EIR for the Approved Project. Because the increase in development potential under the Modified Project is within BCAG's regional growth projections and represents a nominal increase over the Approved Project, the Modified Project would not change the impact from the Approved Project, and it would remain *significant*.

b. Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.

As with the Approved Project, the Modified Project would not result in the displacement of substantial amounts of housing. Both the Approved and Modified Projects would allow an overall increase in the total number of housing units in Oroville, with the Modified project adding an additional 385 new housing units. The majority of development proposed by the Approved and Modified Projects would occur as residential and non-residential uses are developed on vacant or underutilized parcels. Additionally, as described in more detail on page 4.10-7 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan includes policies ensuring that a range of residential densities and types are developed within the city and facilitating the development of affordable housing to meet State requirements for low and moderate-income households. Therefore, the impact related to displacement of housing would remain *less than significant*.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

As with the Approved Project, the Modified Project is not expected to displace people. As discussed in Section E.1.b, the Modified Project would result in a net increase in housing. As explained in Section E.1.a, implementation of the Modified Project would also increase the number of jobs in the Project Area by 183 compared to the Approved Project, so it would also not displace people who work in Oroville. Therefore, the Modified Project is not expected to displace substantial numbers of people, and the impact would remain *less than significant*.

2. Cumulative Impacts

As with the Approved Project, the Modified Project would not have significant impacts on the displacement of either housing or people, but, along with the Approved Project, would induce substantial population growth. Although the 2030 General Plan includes several policies to control and guide future growth in the Project Area in a well-planned manner, these policies would not be sufficient to mitigate the impact to a less-than-significant level. In combination with anticipated population growth in other parts of Butte County and the surrounding region, this substantial population increase would not change, remaining a *significant* cumulative impact.

F. Impacts and Mitigation Measures

Since there are no additional significant impacts related to population and housing as a result of the Modified Project, no additional mitigation measures are required.

4.12 PUBLIC SERVICES AND RECREATION

This chapter evaluates the potential impacts related to public services and recreation associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses police, fire, schools, libraries, and park and recreation services. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here. For each topic in this chapter, the standards of significance are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

A. Changes in the Modified Project Relevant to Public Services and Recreation

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. Specifically, the Modified Project would make the following changes to the 2030 development projections from the Approved Project:

- **Residential:** Increase by approximately 385 dwelling units
- **Industrial:** Increase by approximately 226,000 square feet
- **Commercial:** Decrease by approximately 32,000 square feet

The increase in 385 dwelling units corresponds to a population increase of approximately 1,000 people, based on an estimate of 2.6 persons per household.[1] This represents approximately 3 percent of the estimated population increase evaluated in the 2008 Draft EIR.[2]

The change in non-residential development corresponds to an increase in industrial employment by 226 jobs and a reduction in commercial employment by 43 jobs, resulting in a net employment increase of approximately 183 jobs, relative to the

[1] State of California, Department of Finance, May 2014, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2014*.

[2] The 2008 Draft EIR estimated that the 2030 General Plan would add 13,800 residential units, or 32,300 new residents (see page 3-24).

Approved Project.[3] This is less than 1 percent of the estimated employment increase evaluated in the 2008 Draft EIR.[4]

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

The proposed 2030 General Plan Updates would add a new section to the Land Use Element that describes and evaluates structural fire protection service for disadvantaged unincorporated communities (DUCs) within the City's SOI, in accordance with Senate Bill (SB) 244. This new section finds that all of the DUCs have adequate access to structural fire protection service.

The proposed 2030 General Plan Updates would also add the following new fire protection-related policies to the Safety Element in support of Senate Bill (SB) 1241:

- **Policy P3.3:** Require that all development in areas of potential wildland fire hazards, including areas designated by CAL FIRE as High Fire Hazard Severity Zones, include the following:
  - Fire breaks adjoining open space areas.
  - Adequate access to adjoining open space areas.
  - Adequate clearance around structures.
  - Fire-resistant ground cover.
  - Fire-resistant roofing materials.
  - Adequate emergency water flow
- **Policy P3.4:** Incorporate drought-resistant and fire-resistant plants in public works projects in areas subject to wildland fires.
- **Policy P3.5:** Regularly train Oroville Fire Department staff for wildland firefighting conditions.

Finally, the proposed 2030 General Plan Updates would revise Open Space, Natural Resources, and Conservation Element Policy P3.1 to increase the City's parkland standard for new development from 3 acres per 1,000 residents to 5 acres per 1,000 residents.

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[3] Based on the 2008 Draft EIR assumptions of one employee per 1,000 square feet of industrial use and 1 employee per 750 square feet of commercial use.

[4] The 2008 Draft EIR estimated that the 2030 General Plan would add 19,400 new jobs in the next 25 years (see page 3-25).

2. Municipal Code Updates

a. Zoning Map and Districts

These changes are not expected to impact public services and recreation because they don't contain any provisions that are related to this topic.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

The Municipal Code Updates include a new Section 26-13.100, Crime Prevention through Environmental Design (CPTED), which includes development regulations to reduce the perception and incidence of crime in Oroville through design. Development that incorporates CPTED principles would help to prevent crime by delineating private and public spaces, enhancing visibility, controlling property access, and ensuring adequate property maintenance.

The Municipal Code Updates also include a new Municipal Code Chapter 23-207, Dedication of Land for Park and Recreation Purposes. Pursuant to the Government Code 66477, California Quimby Act, the new chapter would require new development to provide at least 5 acres per 1,000 residents within the subdivision, and/or to pay in-lieu fees.

3. Design Guidelines Updates, Climate Action Plan, and Balanced Mode Circulation Plan

These changes and documents are not expected to impact public services and recreation because they don't contain any provisions that are related to this topic.

B. Police

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to police services in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to police services if they would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered

police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to police services that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

As described on page 4.11-5 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan would increase the need for police services. Specifically, to continue to provide the current level of service, two officers per 1,000 residents, the 2008 Draft EIR for the Approved Project estimated that approximately 102 additional sworn officers would need to be added to the Oroville Police Department. To support the additional officers, supplementary support staff, equipment, and increased facility space would also be needed.

As described in Section A.1.a, the Modified Project would slightly increase the population in the Project Area by about 1,000 people, or 3 percent compared to the Approved Project. This would require that an additional two officers would be required beyond the projected need for the Approved Project. It is unlikely that two additional officers would require new or expanded police facilities on their own, but this increased demand would contribute to the likely need for new or expanded facilities under the Approved Project.

The Modified Project would maintain the 2030 General Plan Public Facilities and Services Element policies and actions that ensure acceptable police service levels in Oroville, which are described on pages 4.11-5 to 4.11-6 of the 2008 Draft EIR for the Approved Project. In addition, the Modified Project would add a new section to the Municipal Code on CPTED, which would help to prevent crime by delineating private and public spaces, enhancing visibility, controlling property access, and ensuring adequate property maintenance, and, in turn, reduce demands on police services. Therefore, the police service impact would remain *less than significant*.

b. Cumulative Impacts

As described on page 4.11-6 of the 2008 Draft EIR for the Approved Project, future regional growth would result in increased demand for police services throughout the region. However, Oroville would provide for additional police services within its own boundaries and would be required to address the potential environmental impacts of the development of additional police facilities. Therefore, the Approved and Modified Projects would not contribute to a cumulative impact related to police services, and it would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to police services as a result of the Modified Project, no additional mitigation measures are required.

C. Fire

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to fire protection services in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to fire services if they would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, need for new or physically altered fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to fire services that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, need for new or physically altered fire facilities, the

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

As described on page 4.11-10 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan would increase demand for fire protection and emergency medical services, which would require additional staff, equipment, and facilities to maintain or exceed current response times. As described in Section A.1.a, the Modified Project would slightly increase the population and employment in the Project Area, and increase of less than 5 percent compared to the Approved Project. This nominal increase in population and employment is not anticipated to require new or expanded fire protection or emergency medical facilities on its own, but the increased demand would contribute to the likely need for new or expanded facilities under the Approved Project.

The Modified Project would maintain the 2030 General Plan Public Facilities and Services Element policies that support the activities of the Oroville Fire Department, which are described on page 4.11-10 of the 2008 Draft EIR for the Approved Project. In addition, as described in Section A.1.b, the Modified Project would add new policies to the Safety Element that improve fire safety in areas that are susceptible to wildland fire hazards and ensure regular training for Oroville Fire Department staff for wildland fire-fighting conditions. Therefore, the fire protection and emergency medical service impact would remain *less than significant*.

b. Cumulative Impacts

As described on pages 4.11-10 to 4.11-11 of the 2008 Draft EIR for the Approved Project, future regional growth would result in increased demand for fire protection services throughout the region. However, Oroville would provide for additional fire protection services within its own boundaries and would be required to address the potential environmental impacts of the development of additional fire stations. Therefore, the Approved and Modified Projects would not contribute to a cumulative impact related to fire protection services, and it would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to fire protection services as a result of the Modified Project, no additional mitigation measures are required.

D. Schools

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to schools in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to schools if they would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to schools that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

As described on page 4.11-22 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan would increase the demand for school facilities and associated additional staff and equipment. Specifically, the Approved Project would add approximately 6,900 new students to the Project Area by 2030.

As described in Section A.1.a, the Modified Project would slightly increase the residential development potential in the Project Area by about 385 housing units compared to the Approved Project. Using the same student generation rate as the 2008 Draft EIR for the Approved Project (0.5 students for each housing unit), this equates to about 190 new students, an approximately 3-percent increase compared to the Approved Project. Therefore, the Modified Project would contribute to the likely need for new or expanded school facilities under the Approved Project.

The Modified Project would maintain the 2030 General Plan Public Facilities and Services Element policies that provide for adequate public school facilities to meet future demand, which are described on page 4.11-22 of the 2008 Draft EIR for the Approved Project. In addition, new development under the Approved and Modified Projects would be subject to a mitigation fee for new development, which is deemed to fully mitigate the impacts of new development on school facilities, per SB 50 and California Government Code Section 65995, which are described on pages 4.11-11 to 4.11-12 of the 2008 Draft EIR for the Approved Project. Therefore, the school service impact would remain *less than significant*.

b. Cumulative Impacts

As discussed on page 4.11-23 of the 2008 Draft EIR for the Approved Project, future regional growth would result in increased demand for additional school facilities. However, other development in the region would also be subject to a mitigation fee for new development per SB 50 and California Government Code Section 65995, which, as discussed in Section D.2.a, would fully mitigate the impacts of new development on school facilities. In addition, as specific school expansion or improvement projects are identified, additional project-specific, environmental analysis would be completed. As a result, cumulative impacts to schools would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to school services as a result of the Modified Project, no additional mitigation measures are required.

E. Libraries

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to libraries in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to library services if they would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to library services that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

As described on pages 4.11-24 and 4.11-26 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan would increase the demand for library services and facilities, which are already over capacity. As described in Section A.1.a, the Modified Project would slightly increase the population in the Project Area by about 1,000 people, or 3 percent compared to the Approved Project. Therefore, the Modified Project would contribute to the need for new or expanded library facilities under the Approved Project.

The Modified Project would maintain the 2030 General Plan Public Facilities and Services Element policies that ensure that adequate services and facilities are funded to meet increasing demand, which are described on pages 4.11-25 to 4.11-26 of the 2008 Draft EIR for the Approved Project. In addition, as specific library expansion or improvement projects are identified under both the Approved and Modified Projects, additional project-specific, environmental analysis would be completed. Therefore, the library service impact would remain *less than significant*.

b. Cumulative Impacts

As described on page 4.11-26, future regional growth would result in increased demand for library facilities throughout the county. As a result, the Butte County Library system would most likely need to expand library facilities to meet the increased demand. However, it is unknown exactly where these library facility expansions would occur to support the cumulative increase in population, though they would occur within urbanized areas where there is a concentration of population. As specific library expansion or improvement projects are identified, additional project-specific, environmental analysis would be completed. As a result, cumulative impacts to library services would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to library services as a result of the Modified Project, no additional mitigation measures are required.

F. Parks and Recreation

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to parks and recreation in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to parks and recreation if they would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreation facilities, need for new or physically altered parks and recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.
- Increase 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.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to parks and recreation that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreation facilities, need for new or physically altered parks and recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives.

As described on pages 4.11-33 to 4.11-34 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan would increase the demand for park and recreational facilities in the Project Area. However, the existing parkland within the

Project Area would be adequate to meet the 2030 General Plan parkland ratio of 3 acres of parkland per every 1,000 residents.

The 2008 Draft EIR for the Approved Project estimated that implementation of the 2030 General Plan would result in approximately 27,600 residential units within the Project Area in 2030, which corresponds to a population of 64,600.[5] As described in Section A.1, the Modified Project would slightly increase the population in the Project Area by about 1,000 people, or 3 percent compared to the Approved Project. In total, the anticipated 2030 population in the Project Area would be 65,600.

The Modified Project would change the City's parkland ratio from 3 acres of parkland per 1,000 residents to 5 acres per 1,000 residents. Therefore, with the revised parkland ratio, the 2030 population under the Modified Project would require 328 acres of parkland. As reported on page 4.11-29 of the 2008 Draft EIR for the Approved Project, there are only 278 acres of existing parkland within the Project Area, so approximately 50 acres of additional parkland would be required under the Modified Project.

The Modified Project would maintain the 2030 General Plan Open Space, Natural Resources and Conservation Element policies that ensure that the City's parkland goals are met, which are described on page 4.11-34 of the 2008 Draft EIR for the Approved Project. Under the Modified Project, Policy P3.1, which establishes the parkland service ratio, would be revised to reflect the change from 3 to 5 acres per 1,000 residents. In addition, as summarized in Section A.2.b, the Modified Project includes a new Municipal Code chapter that would require new development to provide parkland at this 5-acre ratio and/or to pay in-lieu fees. Furthermore, as specific park and recreation facility expansion projects are identified under both the Approved and Modified Projects, additional project-specific, environmental analysis would be completed. Therefore, the park facility impact would remain *less than significant*.

ii. Increase 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.

New residents and employees that would be generated by development allowed by the Approved and Modified Projects would use existing local and regional parks

[5] See pages 3-24 to 3-25 of the 2008 Draft EIR for the Approved Project. The population estimate assumes 2.34 persons per household based on 2006 California Department of Finance data.

and recreational facilities. However, given the wide range of parks and recreational facilities available for public use in Oroville and the surrounding area, as described on pages 4.11-27 to 4.11-33 of the 2008 Draft EIR for the Approved Project, the anticipated population and employment growth is not expected to increase the use of recreational facilities to the extent that substantial deterioration would occur. Moreover, implementation of the parkland dedication requirements established in the Municipal Code under the Modified Project, as discussed in Section A.2.b, would ensure that new parkland is provided to support new development, which would avoid overburdening existing parks. Consequently, the Approved and Modified Projects would not result in substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities, and a *less-than-significant* impact would occur.

b. Cumulative Impacts

As discussed on pages 4.11-34 to 4.11-35 of the 2008 Draft EIR for the Approved Project, future regional growth would result in increased demand for park and recreational facilities throughout the region. As specific parkland expansion or improvement projects are identified, additional project-specific, environmental analysis would be completed. As a result, the cumulative impact would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to parks and recreation as a result of the Modified Project, no additional mitigation measures are required.

4.13 TRANSPORTATION AND CIRCULATION

This chapter evaluates the potential impacts related to transportation and circulation associated with the changes to the Approved Project that are reflected in the Modified Project. In addition to roadway operations, this analysis considers how changes to the Approved Project would impact traffic hazards, emergency access, parking supply, alternative transportation modes, and air traffic. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B.

A. Regulatory Framework

1. State Regulations

a. California Department of Transportation – Transportation Concept Reports

As explained on page 4.12-1 of the 2008 Draft EIR for the Approved Project, Caltrans' transportation concept reports (TCRs) identify long-range improvements for specific State highway corridors. These reports also establish the "concept" or desired level of service (LOS) for specific corridor segments. Long-range improvements are identified to bring the existing facility up to the design concept expected to adequately serve 20-year traffic forecasts. In addition, the ultimate design concept for the facility is identified for conditions beyond the immediate 20-year design period.

Since the 2008 Draft EIR for the Approved Project was published, Caltrans has updated the TCRs for Highways 70 and 162, which are located in the Project Area, in August 2014 and June 2011, respectively.

According to the *District 3 State Route 70 Transportation Concept Report* (2014), the 20-year and ultimate facility concept for the segment of Highway 70 from the Yuba County/Butte County line to Ophir Road has been changed to a four-lane conventional facility. Between Ophir Road and Highway 162, the 20-year and ultimate facility concept is a four-lane expressway, and north of Highway 162, the 20-year and ultimate facility concept is a four-lane freeway. The ultimate concept LOS for the segment south of Ophir Road is D; north of Ophir Road it is D in rural areas and E in urbanized areas.

According to the *State Route 162 Transportation Corridor Concept Report* (2011), Highway 162 from Highway 99 to Highway 70 will continue to have a 20-year concept of a two-lane conventional highway; the ultimate facility will be a four-lane conventional highway. This segment has a 20-year concept LOS of D. The segment

between Highway 70 and Foothill Boulevard has a 20-year and ultimate facility concept of a four-lane conventional highway with LOS E. The segment east of Foothill Boulevard has a 20-year and ultimate facility concept of a two-lane conventional highway with LOS D.

b. California Complete Streets Act

The California Complete Streets Act (Assembly Bill [AB] 1358), passed in 2008, requires all General Plan updates after January 1, 2011 to "plan for a balanced, multi-modal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel" and defines "users of streets, roads, and highways" to include bicyclists, children, persons with disabilities, motorists, pedestrians, users of public transportation, and seniors.

c. Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The Legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375, discussed in Chapter 4.6, Greenhouse Gas Emissions), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas emissions (GHG), as required by the California Global Warming Solutions Act of 2006 (AB 32, discussed in Chapter 4.6, Greenhouse Gas Emissions). Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users. To further the State's commitment to the goals of SB 375, AB 32 and AB 1358, SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code.

SB 743 started a process that could fundamentally change transportation impact analysis as part of CEQA compliance. These changes will include the elimination of auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts in many parts of California (if not statewide). Further, parking impacts will not be considered significant impacts on the environment for select development projects within infill areas with nearby frequent public transit service. SB 743 includes amendments that allow cities and counties to opt out of traditional LOS standards where congestion management plans are used and requires the Office of Planning and Research (OPR) to update the CEQA Guidelines and establish "criteria for determining the

significance of transportation impacts of projects within transit priority areas.[1] As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." OPR is in the process of investigating alternative metrics, but a preliminary metrics evaluation suggests that auto delay and LOS may work against goals such as GHG reduction and accommodation of all transportation modes. OPR published a preliminary discussion draft of changes to the CEQA Guidelines to implement SB 743 on August 6, 2014, and is currently reviewing and considering comments made on the preliminary discussion draft. The revised CEQA Guidelines will require certification and adoption by the Secretary for Resources before they go into effect, which may take multiple months depending on the amount and type of input received during the rulemaking review process.[2]

2. Regional Plans and Policies

a. Butte County Metropolitan Transportation Plan and Sustainable Communities Strategy

In December 2012, after publication of the 2008 Draft EIR for the Approved Project, the Butte County Association of Governments (BCAG) adopted the Butte County Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS). The MTP/SCS is an integrated transportation and land use plan to implement provisions of California's Global Warming Solutions Act (AB 32) for passenger vehicle GHG reductions.

The MTP/SCS includes funding for the Butte County portion of the Highway 70 Passing Lane Project. Implementation will occur in three phases with the first phase programmed to begin in 2016 and the final phase programmed to begin in 2030. As shown in Figure 4.13-1, phase 1 will construct a five-lane facility (i.e. two travel lanes in each direction with a center turn lane) between Ophir Road to just south of Palermo Road. Phases 2 and 3 of this project will add passing lanes to Highway 70 from the terminus of Phase 1 to Yolo County.

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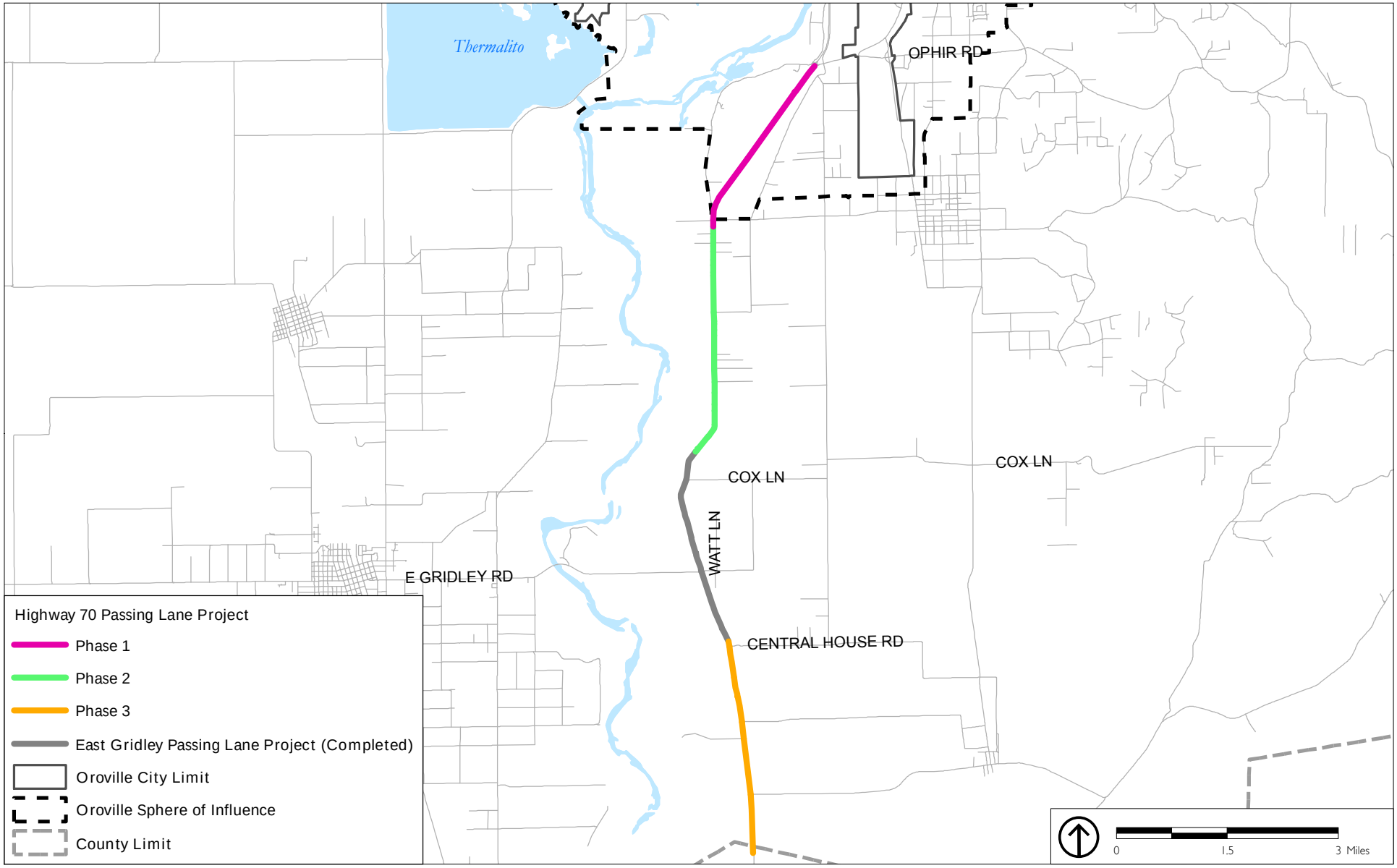
[1] A "transit priority area" is defined in as an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in Public Resources Code Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[2] *Is LOS Obsolete in California, Understanding the Transportation Analysis Implications of Senate Bill (SB) 743*, http://www.fehrandpeers.com/sb743/, accessed June 13, 2014.



Source Data: Caltrans, 2014; PlaceWorks, 2014.

FIGURE 4.13-1

HIGHWAY 70 PASSING LANE PROJECT IN BUTTE COUNTY

The MTP/SCS also identifies funding for and describes three Congestion Mitigation and Air Quality (CMAQ) projects in Oroville: the Oroville Park and Ride Project, Table Mountain/Nelson Avenue Roundabout, and Highway 162 Signalization Synchronization Project. The federal government funds CMAQ projects that improve air quality or decrease congestion. These projects are described below:

- The Oroville Park and Ride Project will construct a park-n-ride facility on Montgomery Street just west of Table Mountain Boulevard that will include a public transit bus shelter, bike racks, and other amenities.
- The Table Mountain/Nelson Avenue Roundabout will construct a roundabout at the existing two-way stop controlled intersection.
- The Highway 162 Signalization Synchronization Project will coordinate traffic signals along Mitchell Avenue, Myers Street, and Washington Avenue. The project will include intersection controller updates, vehicle detection, and emergency signal preemption.

b. Federal Transportation Improvement Program

The Federal Transportation Improvement Program (FTIP) is a programming document that identifies all regionally significant transportation projects and programs for Butte County that will be funded by federal, State, and local funding sources within the short-term horizon. BCAG is responsible for preparing, adopting, and submitting the FTIP. Projects identified in the FTIP include those for:

- Streets and roads
- Highways
- Public transit
- Safety
- Bridge reconstruction
- Enhancements
- Other programs that receive federal dollars of require some type of federal approval

The City of Oroville has one project in the 2015 Butte County FTIP (Project HSIP5-03-009), which is for the installation of a traffic signal at the Oroville Dam Boulevard/Orange Avenue/Acacia Avenue intersection.

c. Butte County General Plan 2030

Butte County adopted an updated General Plan in October 2010. The Butte County General Plan 2030 Circulation Element includes the following key policies that are applicable with Oroville's Sphere of Influence and General Plan Planning Area:

- Policy CIR-P1.1: Circulation capital improvement plans shall be jointly coordinated with the respective municipalities and the Butte County Association of Governments.
- Policy CIR-P1.3: Transportation planning within the municipalities' spheres of influence shall consider the municipalities' land use and circulation plans, as appropriate, and shall be consistent with Policy CIR-P6.1 pertaining to County Levels of Service.
- Policy CIR-P6.1: The level of service for County-maintained roads within the unincorporated areas of the county but outside municipalities' sphere of influences (SOIs) shall be level of service (LOS) C or better during the PM peak hour. Within a municipality's SOI, the level of service shall meet the municipality's level of service policy.
- Policy CIR-P6.2: The level of service on State Highways should at least match the concept level of service for the facility, as defined by Caltrans.
- Policy CIR-P6.3: Project approval shall be conditioned on the provision of roadway improvements to meet the level of service standards in policies CIR-P6.1 and CIR-P6.2. Exceptions to satisfying the level of service standards and/or constructing transportation facilities to the County's design standards may be allowed on a case-by-case basis where reducing level of service or not constructing a transportation facility to County standards would result in a clear public benefit. Such circumstances may include, but are not limited to the following:
  - Conserving agricultural or open space land.
  - Enhancing the agricultural economy.
  - Protecting scenic roadways or highways.
  - Preserving downtown community environments.
- Policy CIR-P6.5: Street improvements within the sphere of influence of an incorporated municipality shall conform to the street standards of that municipality.

3. Local Plans

Since the 2008 Draft EIR for the Approved Project was published, the City of Oroville adopted its Bicycle Transportation Plan on August 3, 2010. The Bicycle Transportation Plan includes goals to provide a system of bikeways and multi-use trails for recreation and transportation, improve safety and comfort for bicyclists and pedestrians, and provide adequate bicycle support facilities. It proposes 51 Class I and II bikeways; a Riverfront Parkway Phase II multi-use path extending along the levee from Centennial Plaza; a project along Highway 70 through Pacific Heights connecting to River Bend Park; and the development or update of related plans, studies, and potential projects.

B. Existing Conditions

Pages 4.12-3 through 4.12-25 of the 2008 Draft EIR for the Approved Project provides existing conditions information related to transportation and circulation. This section provides updates to that existing conditions information where appropriate.

1. Roadway System

The major routes in the Project Area roadway system are shown in Figure 4.13-2 according to operational classification and number of travel lanes. The classifications in Figure 4.13-2 indicate the operational hierarchy of the roadway system.

2. Roadway Capacity and Level of Service

The current Level of Service (LOS) was calculated for each roadway study segment in the roadway system to evaluate the quality of existing traffic conditions. LOS is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving as well as speed, travel time, traffic interruptions and freedom to maneuver. The LOS grades are generally defined as follows:

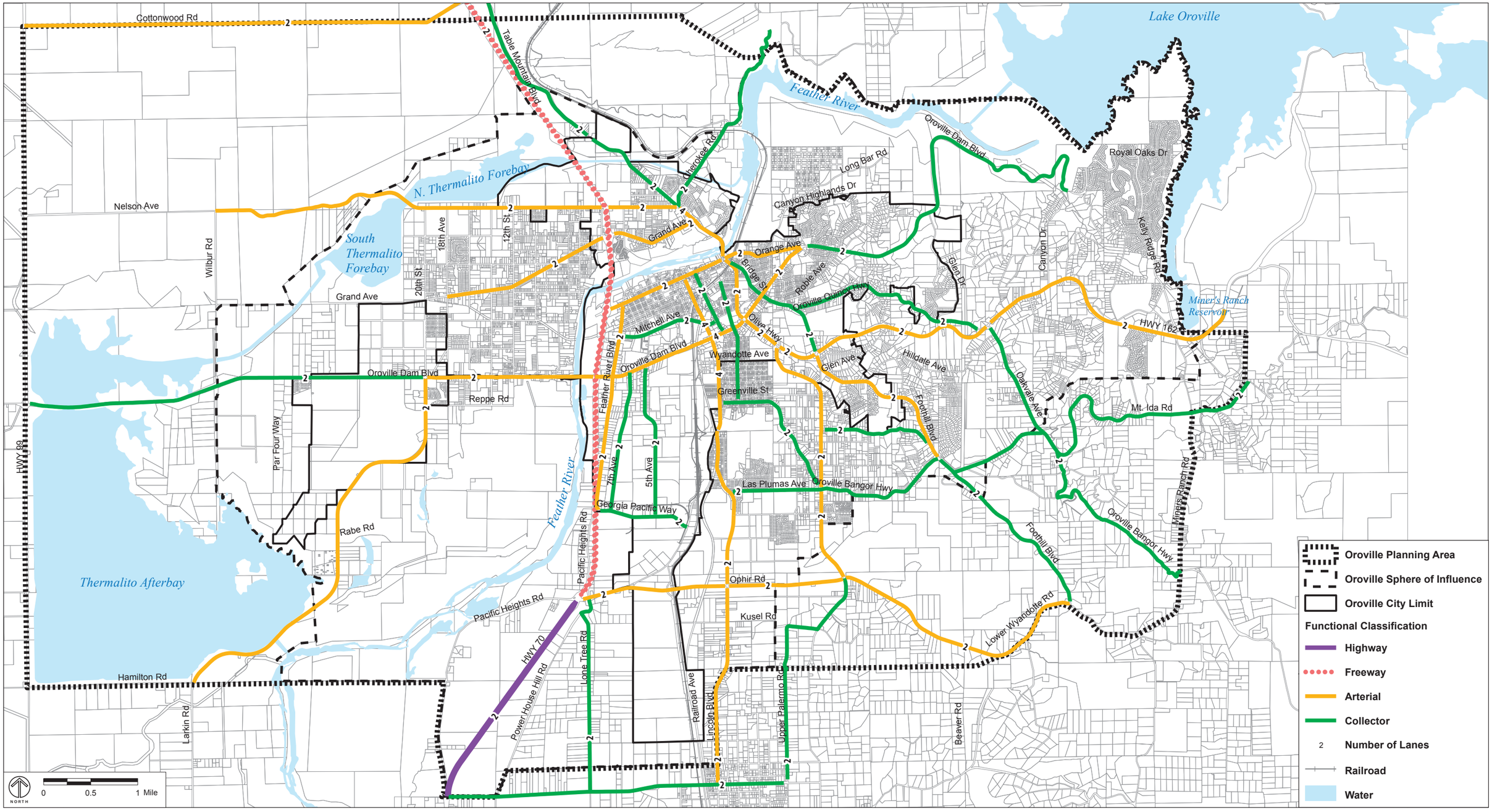
- **LOS A** represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver.
- **LOS B** has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience and maneuvering freedom.

- **LOS C** has stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.
- **LOS D** represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.
- **LOS E** represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
- **LOS F** is used to define forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

LOS was determined by comparing existing traffic volumes for selected roadway segments with peak-hour LOS capacity thresholds. These thresholds are shown in Table 4.13-1 and were calculated based on the methodology contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2000). The HCM methodology is the prevailing measurement standard used throughout the United States.

Figure 4.13-3 shows PM peak hour LOS results for the Project Area roadways. LOS is calculated using traffic counts from 2006, 2012, and 2013 from the City of Oroville Transportation Capital Improvement Program (TCIP), Butte County Association of Governments (BCAG), and Caltrans. Traffic counts for State facilities are from 2012.

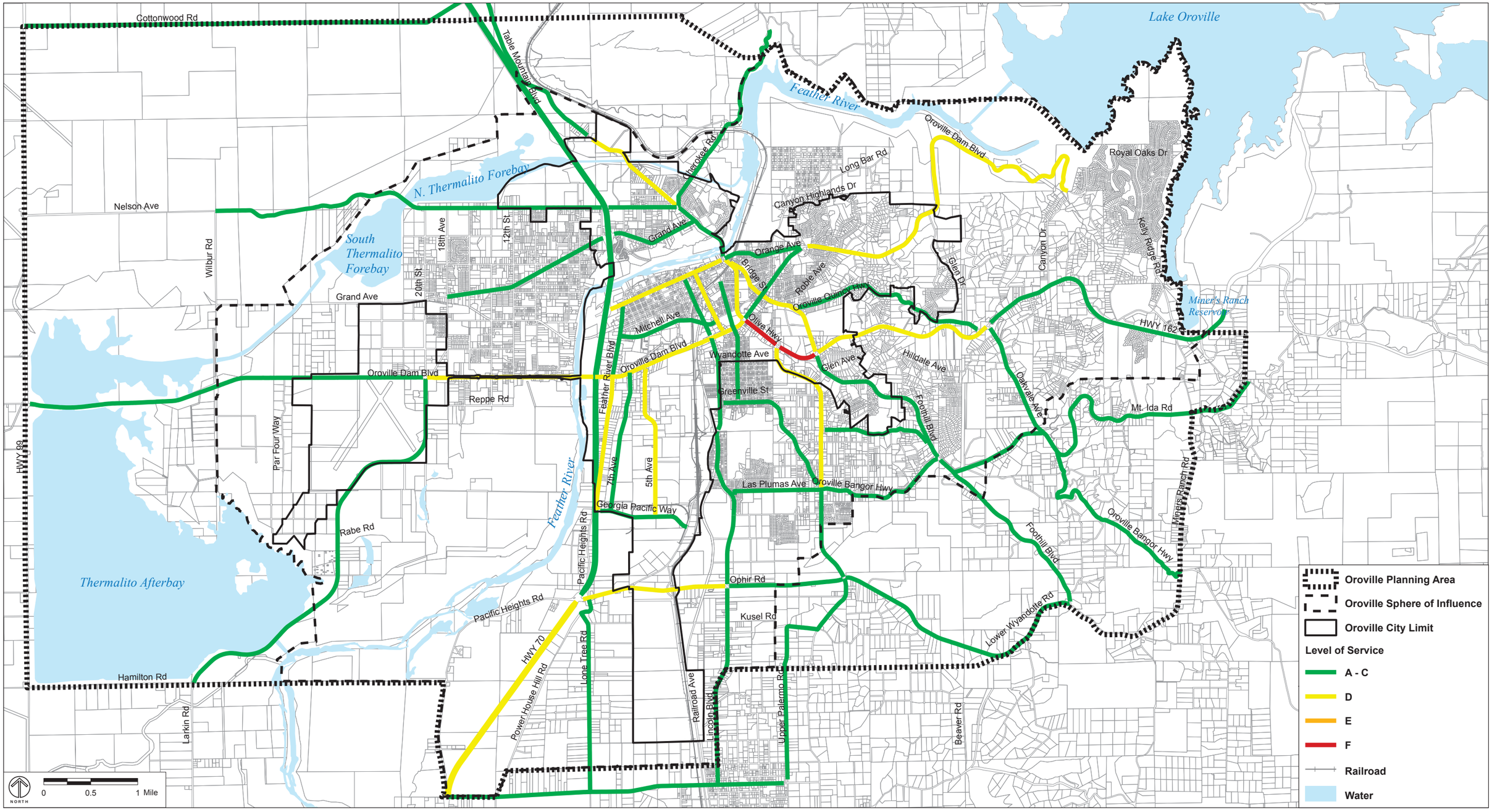
The transportation analysis is based on the PM peak hour because it represents the highest hourly volume during a typical weekday and is generally a good indication of roadway operation. PM peak hour volumes are used to design future roadways because of their regular weekday occurrence, which makes them a reasonable measure for identifying the number of through travel lanes that are needed. Using an hour with higher or lower volumes could lead to inadequate roadway designs or designs that have excessive capacity. However, this methodology does not completely capture the operational effect (i.e. vehicle queuing and delay) of closely spaced, signalized intersections.



Source: Fehr & Peers, 2007 and City of Oroville GIS, 2005.

FIGURE 4.13-2

FUNCTIONAL CLASSIFICATION AND LANES - EXISTING CONDITIONS



Source: Fehr & Peers, 2007 and City of Oroville GIS, 2005.

FIGURE 4.13-3

PM PEAK HOUR LEVEL OF SERVICE - EXISTING CONDITIONS

TABLE 4.13-1 **OPERATIONAL CLASS AND PEAK HOUR LEVEL-OF-SERVICE THRESHOLDS**

	Peak Hour LOS Capacity Threshold				
Facility Type	**A**	**B**	**C**	**D**	**E**
Minor 2-lane Hwy	90	200	680	1,410	≤1,740
Major 2-lane Hwy/Exp	120	290	790	1,600	≤2,050
4-lane, Multi-lane Hwy/Exp	1,070	1,760	2,530	3,280	≤3,650
6-lane Expressway	1,610	2,640	3,800	4,920	≤5,480
2-lane Minor Arterial	--	--	650	1,180	≤1,250
2-lane Major Arterial	--	--	970	1,760	≤1,870
4-lane Major Arterial, Undivided	--	--	1,750	2,740	≤2,890
4-lane Major Arterial, Divided	--	--	1,920	3,540	≤3,740
6-lane Arterial, Divided	--	--	2,710	5,320	≤5,600
3-lane Arterial, One-way Rd	--	--	310	2,060	≤2,170
2-lane Freeway	1,110	2,010	2,880	3,570	≤4,010
2-lane Freeway + Aux Lane	1,410	2,550	3,640	4,490	≤5,035
3-lane Freeway	1,700	3,080	4,400	5,410	≤6,060
3-lane Freeway + Aux Lane	2,010	3,640	5,180	6,350	≤7,100
4-lane Freeway	2,320	4,200	5,950	7,280	≤8,140
6-lane Freeway	3,330	6,030	8,640	10,710	≤12,030
Minor 2-lane Collector	--	--	370	790	≤1,020
Major 2-lane Collector	--	--	550	1,180	≤1,520

Notes: -- = LOS is not achievable due to type of facility.
Source: 2012 Transportation Capital Improvement Program (TCIP) and Impact Fee Update Program, City of Oroville.

Policy P2.1 of the proposed Circulation Element sets forth the minimum operating standard of LOS D for all arterials, collector streets, and intersections, with some exceptions.

As shown in Figure 4.13-3, and based on the thresholds identified in Table 4.13-1, Olive Highway between Oroville Dam Boulevard and Foothill Boulevard is the only segment that exceeds the LOS D threshold established in Policy P2.1 under existing conditions. This result is consistent with field observations, which indicate unacceptable operation, characterized by extensive vehicle queuing, on this eastbound segment of Olive Highway (SR 162). The observed vehicle queues had a relatively short duration of about 15 minutes, but had significant impacts on vehicle progression.

3. Public Transit System

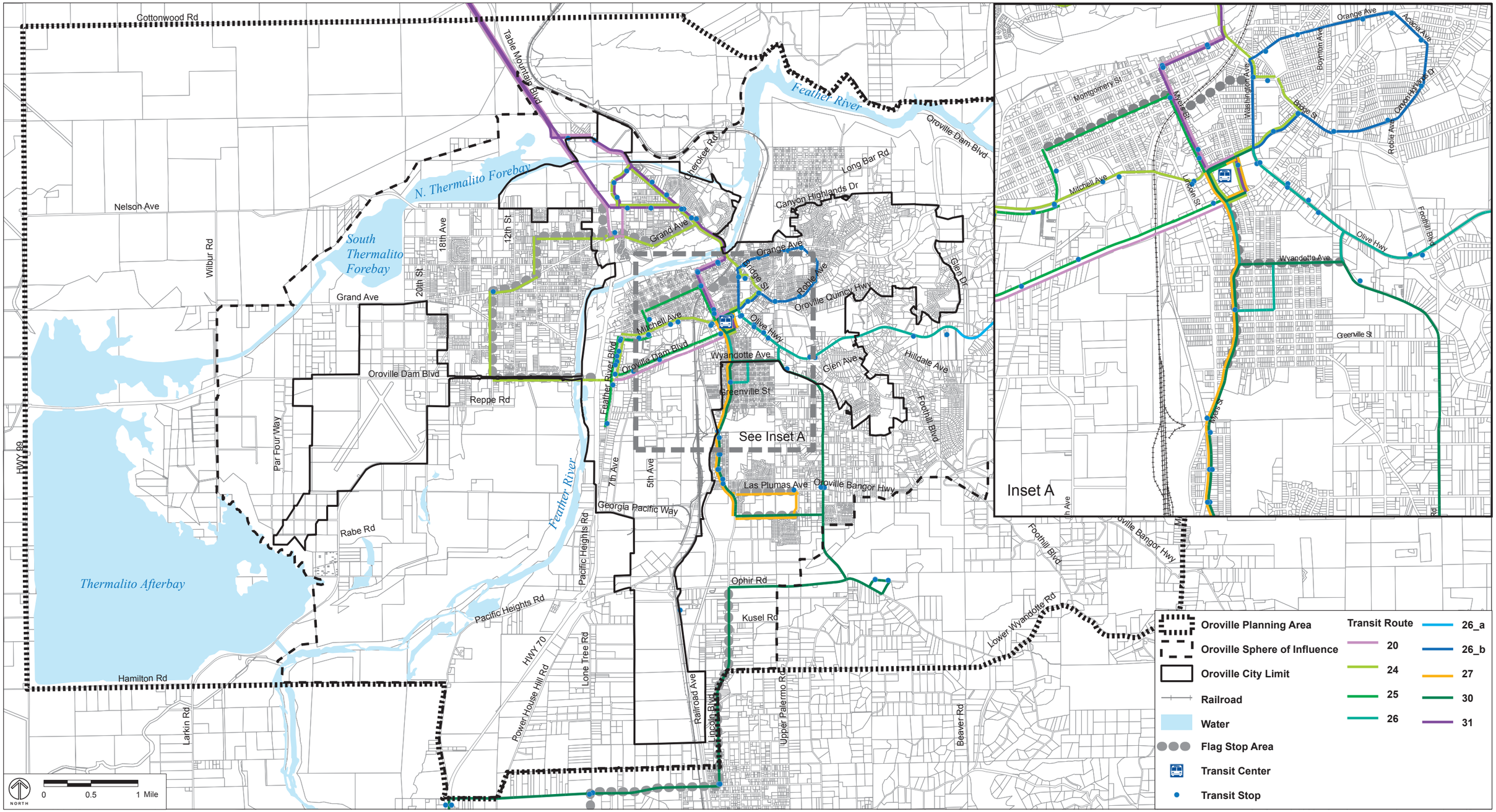
As described on pages 4.12-12 through 4.12-18 of the 2008 Draft EIR for the Approved Project, BCAG operates the B-Line of the Butte Regional Transit system, which serves the residents of Oroville and provides intercity/regional and local fixed-route services. Figure 4.13-4 shows the B-Line transit routes and Table 4.13-2 details the average daily boardings for bus routes serving Oroville, both of which have been updated since the versions published in the 2008 Draft EIR for the Approved Project.

4. Bicycle System

Figure 4.13-5 shows an updated map of bikeways and unpaved multi-use recreational trails in the Oroville area since the version published in the 2008 Draft EIR for the Approved Project. This map shows the following types of bikeways as defined by Caltrans:

- Class I – off-street bike paths.
- Class II – on-street bike lanes marked by pavement striping.
- Class III – signed on-street bike routes that share the road with motorized vehicles.

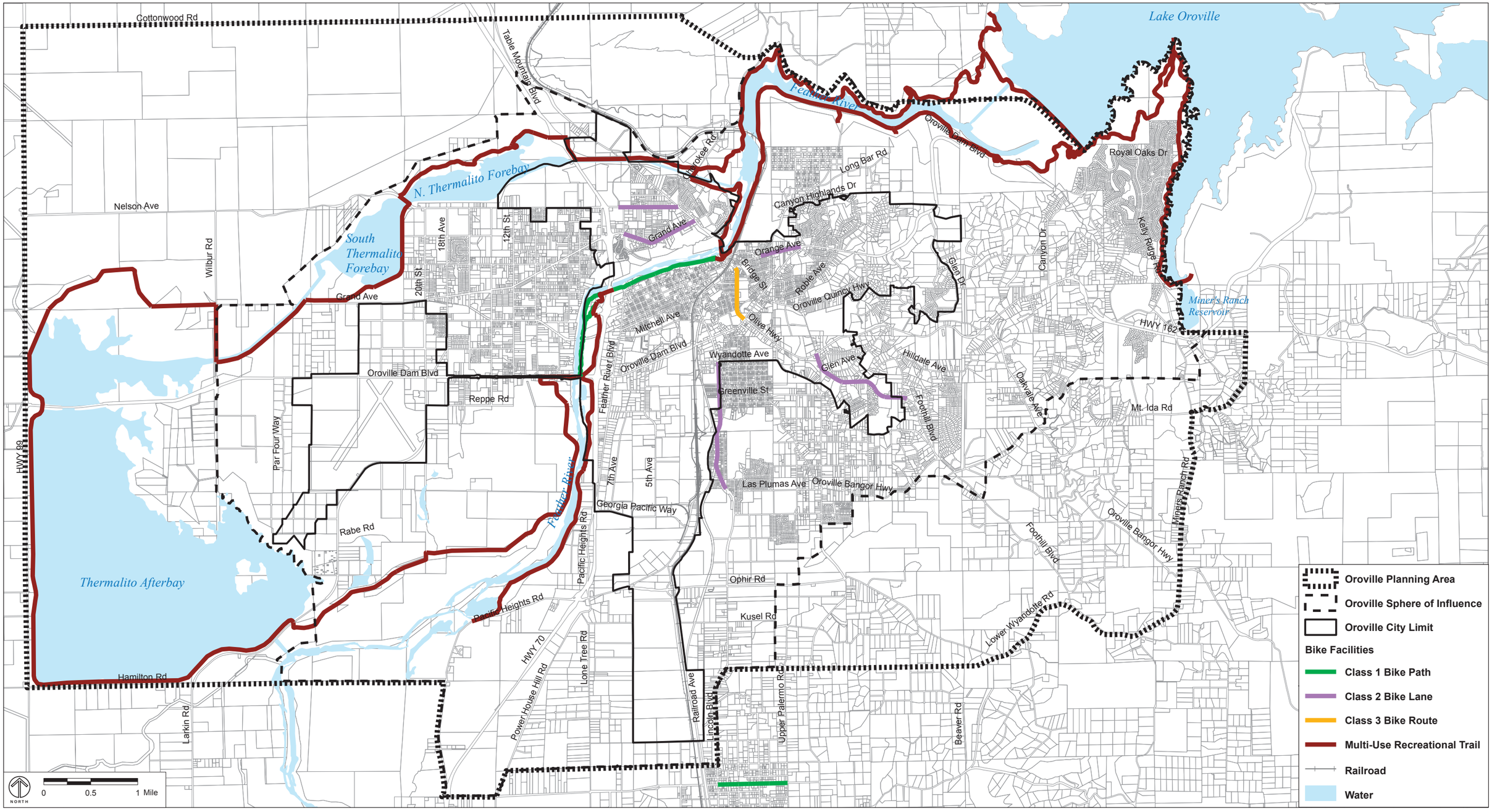
Class II bike lanes exist on Nelson Avenue and Grand Avenue (east of SR 70), Orange Avenue (Montgomery Street to Oroville Dam Boulevard), Lincoln Boulevard (Wyandotte Avenue to Arnold Avenue) and Foothill Boulevard (Olive Highway to Pinedale Avenue). A Class III bike route exists on Washington Avenue (Orange Avenue to Oroville Dam Boulevard).



Source: Fehr & Peers, 2007 and City of Oroville GIS, 2005.

FIGURE 4.13-4

TRANSIT FACILITIES - EXISTING CONDITIONS



Source: Fehr & Peers, 2007 and City of Oroville GIS, 2005.

FIGURE 4.13-5

BIKE FACILITIES - EXISTING CONDITIONS

TABLE 4.13-2 **AVERAGE DAILY BOARDINGS FOR BUS ROUTES SERVING OROVILLE**

Service Area	B-Line Transit Route	Average Weekday Boardings
Oroville	24 Thermalito	139
	25 Oro Dam	61
	26 Olive Highway	59
	27 South Oroville	86
Regional	20 Chico-Oroville	660
	30 Oroville-Biggs	77
	31 Paradise-Oroville	15

Source: Butte County Association of Governments 2014.

Off-street Class I and unpaved multi-use recreational trails are located on the Feather River and Thermalito Afterbay. These off-street facilities are part of the Brad Freeman Trail, which is a 40-mile loop trail.

C. Changes in the Modified Project Relevant to Transportation and Circulation

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. In addition, the updates would increase the minimum FAR allowance and provide for higher density and intensity of mixed-use development in the Downtown area, as well as increased retail and office spaces. The updates would also include minor zone changes to improve future land use compatibility with existing development.

The land use updates would change the amount of certain types of development within the city and SOI, which could affect VMT from these land uses. Typically,

mixed-use development has lower per capita VMT compared to traditional suburban development, since mixed-use development provides activities and basic needs nearby, thereby reducing automobile travel. Therefore, reductions in mixed-use development along Highway 162 in the Thermalito area may result in increased VMT. Conversely, increasing the density of development in the Downtown area may reduce per capita VMT, since higher densities and intensities of development provide opportunities for residents, employees, and visitors to circulate among larger numbers of businesses and activities by walking, bicycling, or making shorter trips by automobile, compared to typical suburban development patterns.

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

The Modified Project would change the City's LOS policy in the Circulation and Transportation Element to the following:

> **Policy P2.1:** Maintain a Level of Service (LOS) D or better as defined in the most current edition of the *Highway Capacity Manual* or subsequent revisions for roadways and intersections, except as specified below:
>
> **City/County Roadways:**
>
> - Lincoln Boulevard – Baggett Marysville Road to Ophir Road (LOS E)
> - Ophir Road – Highway 70 to Lincoln Boulevard (LOS E)
> - Ophir Road – Lincoln Boulevard to Lower Wyandotte Road (LOS F)
> - Table Mountain Boulevard – Cottonwood Road to Garden Drive (LOS E)
>
> **State Facilities:**
>
> - Olive Highway – Oroville Dam Boulevard to Lower Wyandotte Road (LOS F)
> - Olive Highway – Lower Wyandotte Road to Foothill Boulevard (LOS F)
> - Olive Highway – Foothill Boulevard to Oakvale Avenue (LOS F)
> - Olive Highway – Oakvale Avenue to Kelley Ridge Road (LOS E)
> - Oroville Dam Boulevard – Feather River Boulevard to Olive Highway (LOS F)
>
> Additional exceptions to this policy may be allowed by the City Council on a case-by-case basis, where reducing the level of service would result in a clear public benefit. Such circumstances may include, but are not limited to, the following:

- Preserving open space land
- Preserving scenic roadways/highways
- Avoiding adverse impacts to alternative transportation modes
- Right-of-way constraints would make improvements infeasible

Other revisions to the Circulation and Transportation Element include several new actions and policies that encourage alternative modes of transportation, including the following:

- **Action P2.4:** Monitor the development of multi-modal level of service (MMLOS) standards by the Transportation Research Board, other agencies, and jurisdictions. When a valid methodology for Oroville is identified, develop and adopt Transportation Impact Analysis (TIA) guidelines that include MMLOS standards specific to Oroville. The MMLOS standards will apply to City-maintained roadways and will allow for flexibility as necessary to recognize site-specific constraints, such as protecting sensitive resources or ensuring pedestrian and bicycle safety.

- **Policy P3.5:** Provide transportation facilities based on a "Complete Streets" set of criteria that facilitates the balanced use of all travel modes (pedestrians, bicyclists, motorists, and transit users) meeting the transportation needs of all ages and abilities and providing mobility for a variety of trip purposes.

- **Action A3.5:** Update the City's Engineering and Street Design Standards to ensure that roadway and streetscape design specification are in accordance with the Complete Streets concept described in Policy P3.5.

Revisions to the Economic Development Element and Updates to Reflect State Statutes are not expected to affect transportation and circulation because they don't contain any provisions related to this topic.

2. Municipal Code Updates

a. Zoning Map and Districts

The Zoning Map and District updates would ensure consistency with the General Plan land use map (see Chapter 3), including the reductions in mixed-use development along Highway 162 in the Thermalito area and modifications to support increased density in Downtown Oroville that are discussed in Section C.1.a.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

Other Municipal Code Updates are not expected to affect transportation and circulation because they don't contain any provisions related to this topic.

3. Design Guidelines Updates

Design Guidelines Updates are not expected to affect transportation and circulation because they don't contain any provisions related to this topic.

4. Climate Action Plan

The CAP includes the following set of actions aimed at reducing GHG emissions from transportation-related sources:

- **LUT-1.1:** Continue to implement Section 26-22 of the Zoning Code, which provides density bonuses for projects with five or more units that include low income housing.
- **LUT-2.1:** Require new specific plans to provide sufficient employment generating land uses to achieve a jobs-to-housing balance equal to the level provided in the incorporated communities of Butte County.
- **LUT-3.1:** Develop a toolkit that provides guidance for implementing transportation facilities based upon complete street concepts that support balanced use by all modes of travel, including pedestrians, bicyclists, motorists, and transit users.
- **LUT-4.1:** Require new residential and commercial development to provide internal connections to existing and planned pedestrian networks.
- **LUT-4.2:** Eliminate physical barriers, such as walls, landscaping, and slopes that impede pedestrian circulation.
- **LUT-5.1:** Modify City development standards to include specific development and roadway design standards to implement traffic calming measures.
- **LUT-6.1:** Provide public charging stations at key high use locations around the city (e.g., City Hall, the Centennial Cultural Center, shopping centers, libraries, hospital, and commercial areas).
- **LUT-6.2:** Partner with private providers for pay charging stations.

- **LUT-7.1:** Encourage businesses to provide commute trip reduction (CTR) programs to at least 25 percent of employees.
- **LUT-7.2:** Encourage businesses to set aside parking spaces at conveniently located commercial developments as park-n-ride spaces.
- **LUT-8.1:** Optimize roadway operations through use of intelligent transportation systems (ITS) techniques such as traffic signal coordination to improve traffic flow without the need for capacity improvements.
- **LUT-9.1:** Adopt an ordinance that limits idling time to 3 minutes for heavy-duty construction equipment.
- **LUT-10.1:** Require that at least 25 percent of construction equipment for new development utilize electric power instead of gasoline or diesel fuel.
- **LUT-11.1:** Modify the Municipal Code to require new development include electrical outlets on the exterior of buildings.
- **LUT-11.2:** Provide education and outreach on incentive programs and public health benefits associated with electric-powered landscaping equipment.

5. Balanced Mode Circulation Plan

The Balanced Mode Circulation Plan identifies design guidelines to promote pedestrian, bicycle, and public transit facilities.

D. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to transportation and circulation if they would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

- Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?
- Result in inadequate emergency access?
- Result in inadequate parking capacity?
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

These standards are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines. As explained in Section A, SB 743 could change the approach to transportation impact analysis under CEQA. However, because the CEQA Guidelines have not yet been updated to implement SB 743, this analysis considers standards that are based on the current CEQA Guidelines.

E. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to transportation and circulation that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

1. Project Impacts

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

As with the traffic analysis in the 2008 Draft EIR for the Approved Project, this traffic conditions impact analysis is focused on potential LOS impacts that would occur from travel demands associated with the updated General Plan land use map. This impact analysis is based on traffic volume forecasts developed using a modified version of the Butte County MTP/SCS travel demand forecasting (TDF) model, which was developed by the Butte County Association of Governments (BCAG) for the development and analysis of the Butte County MTP/SCS. The traffic impact analysis was conducted by calculating roadway segment LOS by comparing year 2035 PM peak hour traffic volume forecasts under the Modified Project (for selected roadway segments) to peak-hour LOS capacity thresholds. These thresholds are shown in Table 4.13-1 and were calculated based on the

methodology contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2000). The HCM methodology is the prevailing measurement standard used throughout the United States.

As explained in Section C.1.b, the proposed 2030 General Plan Circulation and Transportation Element includes an updated LOS policy standard of LOS D, with some exceptions.

Figure 4.13-6 shows the PM peak hour (two-way) traffic volumes forecast and LOS under the General Plan land use map, as proposed by the Modified Project, in the year 2035. Table 4.13-3 summarizes the PM peak hour roadway segment traffic operations based on the peak hour traffic volumes shown on Figure 4.13-6. Those segments that would fall below the City's LOS D standard are highlighted in the table.

Policy P2.1 of the proposed 2030 General Plan establishes a LOS D threshold for City roadways. Based on the LOS shown in Table 4.13-3, the following roadways are anticipated to operate worse than LOS D during the PM peak hour assuming development allowed by the Modified Project combined with cumulative traffic generated outside of the city:

City/County Roadways:

- Lincoln Boulevard – Baggett Marysville Road to Ophir Road (LOS E)
- Ophir Road – Highway 70 to Lincoln Boulevard (LOS E)
- Ophir Road – Lincoln Boulevard to Lower Wyandotte Road (LOS F)
- Table Mountain Boulevard – Cottonwood Road to Garden Drive (LOS E)

State Facilities:

- Olive Highway – Oroville Dam Boulevard to Lower Wyandotte Road (LOS F)
- Olive Highway – Lower Wyandotte Road to Foothill Boulevard (LOS F)
- Olive Highway – Foothill Boulevard to Oakvale Avenue (LOS F)
- Olive Highway – Oakvale Avenue to Kelley Ridge Road (LOS E)
- Oroville Dam Boulevard – Feather River Boulevard to Olive Highway (LOS F)

The Modified Project accepts these lower levels of service through the exceptions listed in Policy P2.1. This reflects a change in policy for the City in balance with the needs of all transportation system users and community values. A lower vehicle LOS may be desirable when weighed with other community values related to

economic development, roadway infrastructure costs, system maintenance, and consideration of bicycle, pedestrian, and public transit users. A higher LOS can result in higher expenditures of infrastructure dollars for wider roadways that do not necessarily best serve all users of the system and results in less than optimum utilization of the roadway.

Based on these considerations, no mitigation measures are feasible to reduce the impacted roadway segments to a less-than-significant level. Therefore, although this impact remains significant and unavoidable in the context of the adopted 2030 General Plan, in the context of the Modified Project, the impact would be *less than significant* because the proposed revisions to Policy P2.1 include exceptions for these roadways.

In addition, because the traffic analysis in this Draft Supplemental EIR considered the General Plan land use map as proposed in the Modified Project in its entirety, rather than only focusing on the changes from the land use map in the Approved Project, this traffic analysis replaces that of the 2008 Draft EIR for the Approved Project. Therefore, this less-than-significant finding replaces the significant-and-unavoidable impact finding from the 2008 Draft EIR for the Approved Project.

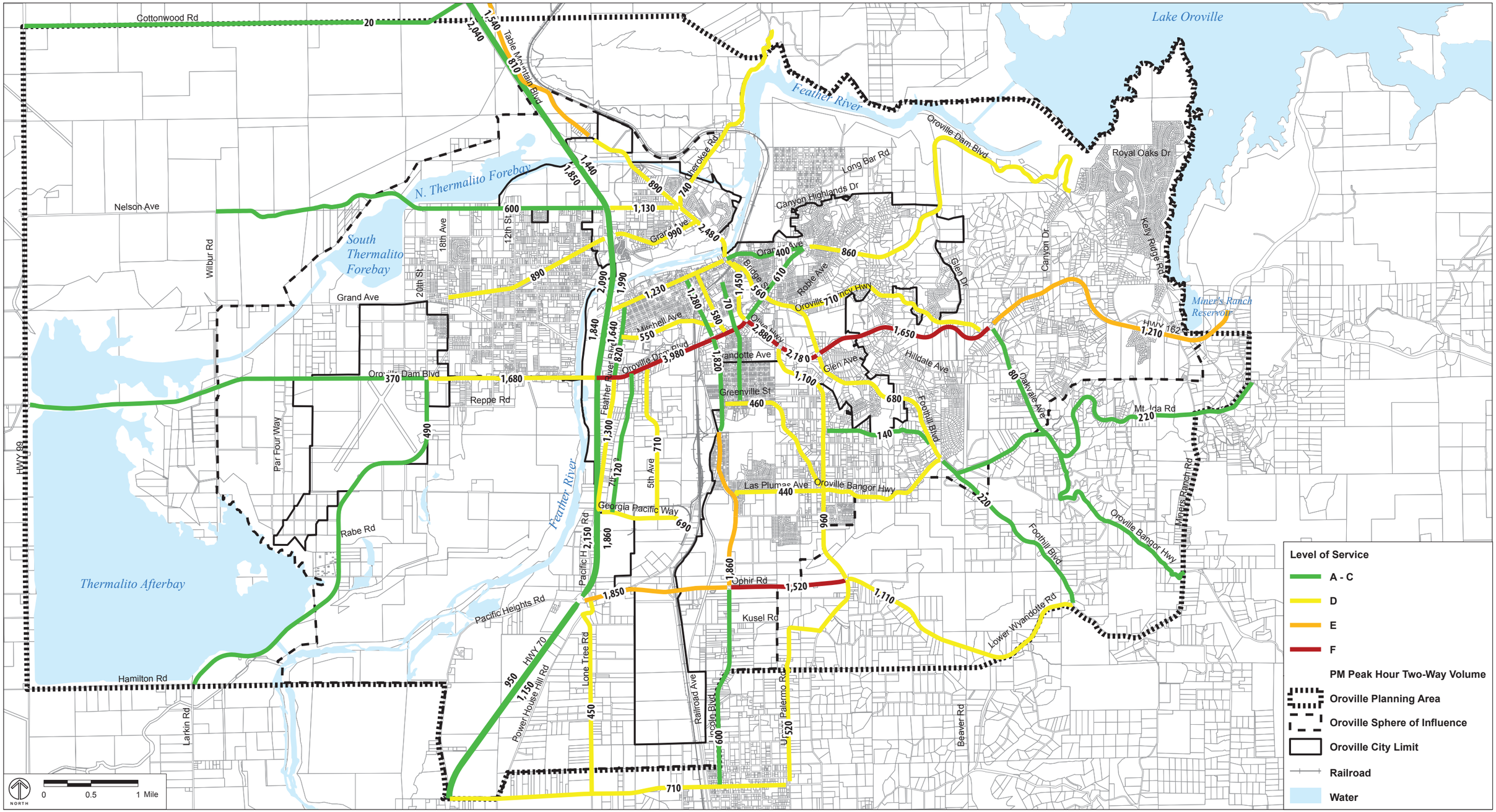
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

As described in the 2008 Draft EIR for the Approved Project, California counties that contain an urbanized area with a population of 200,000 or more are required to designate a congestion management agency (CMA) and to prepare a congestion management plan (CMP). Since Butte County does not satisfy the population threshold for an urban county, it is not required to designate a CMA. Therefore, this significance threshold is not applicable and *no impact* would occur.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

As explained in Chapter 3, the Modified Project would increase the residential projections by 385 units compared to Approved Project, which equates to a population increase of approximately 1,000 people, based on an estimate of 2.6 persons per household.[3] This represents approximately 3 percent of the estimated

[3] State of California, Department of Finance, May 2014, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2014*.



Source: Fehr & Peers, 2014.

FIGURE 4.13-6

PM PEAK HOUR (TWO-WAY) TRAFFIC VOLUMES AND LEVEL OF SERVICE - GENERAL PLAN CONDITIONS

TABLE 4.13-3 **PM PEAK HOUR ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVEL OF SERVICE, YEAR 2035 CONDITIONS**

Roadway	From	To	2035 Roadway Classification & Number of Lanes	2035 PM Peak Hour (Two-Way) Traffic Volume Forecast	2035 PM Peak Hour Level of Service
Cherokee Road	Oregon Gulch Road	Table Mountain Boulevard	2-Lane Minor Collector	740	D
Cottonwood Road	Highway 70	State Route 99	2-Lane Minor Arterial	20	C or Better
Feather River Boulevard	Oroville Dam Boulevard	Georgia Pacific Way	2-Lane Major Arterial	1,300	D
Feather River Boulevard	Oroville Dam Boulevard	Montgomery Street	2-Lane Major Arterial	820	C or Better
Foothill Boulevard	Olive Highway	Oroville Bangor Highway	2-Lane Minor Arterial	680	D
Foothill Boulevard	Oroville Bangor Highway	Lower Wyandotte Road	2-Lane Major Collector	220	C or Better
Foothill Boulevard	Oro Quincy Highway	Olive Highway	2-Lane Minor Collector	560	D
Georgia Pacific Way	Highway 70	Baggett Marysville Road	2-Lane Major Collector	690	D
Grand Avenue	Highway 70	18th Avenue	2-Lane Minor Arterial	890	D
Grand Avenue	3rd Street	Table Mountain Boulevard	2-Lane Major Arterial	990	D
Larkin Road	Highway 162	E Hamilton Road	2-Lane Minor Arterial	490	C or Better
Lincoln Boulevard	Myers Street	Baggett Marysville Road	4-Lane Major Arterial	1,930	D
Lincoln Boulevard	Ophir Road	Palermo Road	2-Lane Major Arterial	600	C or Better
Lincoln Boulevard	Oroville Dam Boulevard	Myers Street	4-Lane Major Arterial	1,820	C or Better
Lincoln Boulevard	Baggett Marysville Road	Monte Vista Avenue	2-Lane Major Arterial	1,860	E
Lincoln Boulevard	Monte Vista Avenue	Ophir Road	2-Lane Major Arterial	1,860	E
Lincoln Street	Montgomery Street	Oroville Dam Boulevard	4-Lane Major Arterial	1,280	C or Better

TABLE 4.13-3 **PM PEAK HOUR ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVEL OF SERVICE, YEAR 2035 CONDITIONS** (CONTINUED)

Roadway	From	To	2035 Roadway Classification & Number of Lanes	2035 PM Peak Hour (Two-Way) Traffic Volume Forecast	2035 PM Peak Hour Level of Service
Lone Tree Road	Highway 70	Palermo Road	2-Lane Minor Collector	450	D
Lower Wyandotte Road	Olive Highway	Oroville Bangor Highway	2-Lane Minor Arterial	1,100	D
Lower Wyandotte Road	Ophir Road	Foothill Boulevard	2-Lane Minor Arterial	1,110	D
Lower Wyandotte Road	Oroville Bangor Highway	Ophir Road	2-Lane Minor Arterial	960	D
Mitchell Avenue	Feather River Boulevard	Myers Street	2-Lane Minor Collector	550	D
Montgomery Street	Highway 70	Table Mountain Boulevard	2-Lane Major Arterial	1,230	D
Montgomery Street/Orange Avenue	Washington Avenue	Oroville Dam Boulevard	2-Lane Major Arterial	400	C or Better
Mt. Ida Road	Foothill Boulevard	Oakvale Avenue	2-Lane Minor Collector	220	C or Better
Myers Street	Montgomery Street	Oroville Dam Boulevard	2-Lane Major Collector	580	D
Nelson Avenue	Wilbur Road	Highway 70	2-Lane Minor Arterial	600	C or Better
Nelson Avenue	Highway 70	Table Mountain Boulevard	2-Lane Major Arterial	1,130	D
Olive Highway	Oakvale Avenue	Kelly Ridge Road	2-Lane Minor Arterial	1,210	E
Olive Highway	Oroville Dam Boulevard	Lower Wyandotte Road	2-Lane Major Arterial	2,880	F
Olive Highway	Lower Wyandotte Road	Foothill Boulevard	2-Lane Minor Arterial	2,180	F
Olive Highway	Foothill Boulevard	Oakvale Avenue	2-Lane Minor Arterial	1,650	F
Ophir Road	Highway 70	Lincoln Boulevard	2-Lane Major Arterial	1,850	E
Ophir Road	Lincoln Boulevard	Lower Wyandotte Road	2-Lane Minor Arterial	1,520	F
Oroville Bangor Highway	Lincoln Boulevard	Las Plumas Avenue	2-Lane Minor Collector	460	D

TABLE 4.13-3 **PM PEAK HOUR ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVEL OF SERVICE, YEAR 2035 CONDITIONS** (CONTINUED)

Roadway	From	To	2035 Roadway Classification & Number of Lanes	2035 PM Peak Hour (Two-Way) Traffic Volume Forecast	2035 PM Peak Hour Level of Service
Oroville Bangor Highway	Naranja Avenue	Miner's Ranch Road	2-Lane Minor Collector	80	C or Better
Oroville Bangor Highway	Las Plumas Avenue	Foothill Boulevard	2-Lane Minor Collector	440	D
Oroville Dam Boulevard	Acacia Avenue	Canyon Drive	2-Lane Major Collector	860	D
Oroville Dam Boulevard	Larkin Road	Highway 70	2-Lane Major Arterial	1,680	D
Oroville Dam Boulevard	Highway 99	Larkin Road	2-Lane Minor Collector	370	C or Better
Oroville Dam Boulevard	Feather River Boulevard	Olive Highway	4-Lane Major Arterial	3,980	F
Oroville Dam Boulevard	Orange Avenue	Oroville Quincy Highway	2-Lane Minor Arterial	610	C or Better
Oroville Garden Ranch Road	Lower Wyandotte Road	Foothill Boulevard	2-Lane Minor Collector	140	C or Better
Oroville Quincy Highway	Bridge Street	Olive Highway	2-Lane Minor Collector	710	D
Palermo Road	Highway 70	Upper Palermo Road	2-Lane Minor Collector	710	D
South 5th Avenue	Oroville Dam Boulevard	Georgia Pacific Way	2-Lane Major Collector	710	D
South 7th Avenue	Oroville Dam Boulevard	Georgia Pacific Way	2-Lane Minor Collector	120	C or Better
Spencer Avenue	Baldwin Avenue	Oroville-Bangor Highway	2-Lane Minor Collector	70	C or Better
Table Mountain Boulevard	Nelson Avenue	Montgomery Street	4-Lane Major Arterial	2,480	D
Table Mountain Boulevard	Cottonwood Road	Garden Drive	2-Lane Minor Collector	810	E
Table Mountain Boulevard	Garden Drive	Nelson Avenue	2-Lane Major Collector	890	D
Upper Palermo Road	Palermo Road	Lower Wyandotte Road	2-Lane Minor Collector	520	D
Washington Avenue	Montgomery Street	Oroville Dam Boulevard	2-Lane Major Arterial	1,450	D

TABLE 4.13-3 **PM PEAK HOUR ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVEL OF SERVICE, YEAR 2035 CONDITIONS** (CONTINUED)

Roadway	From	To	2035 Roadway Classification & Number of Lanes	2035 PM Peak Hour (Two-Way) Traffic Volume Forecast	2035 PM Peak Hour Level of Service
Northbound Highway 70	Ophir Road	Palermo Road	2-Lane Freeway	1,150	C or Better
Northbound Highway 70	Ophir Road	Oroville Dam Boulevard	2-Lane Freeway	1,860	C or Better
Northbound Highway 70	Oroville Dam Boulevard	Montgomery Street	2-Lane Freeway	1,640	C or Better
Northbound Highway 70	Montgomery Street	Grand Avenue	2-Lane Freeway	1,990	C or Better
Northbound Highway 70	Nelson Avenue	Garden Drive	2-Lane Freeway	1,440	C or Better
Northbound Highway 70	Garden Drive	Cottonwood Road	2-Lane Freeway	1,540	C or Better
Southbound Highway 70	Cottonwood Road	Garden Drive	2-Lane Freeway	2,040	C or Better
Southbound Highway 70	Garden Drive	Nelson Avenue	2-Lane Freeway	1,850	C or Better
Southbound Highway 70	Grand Avenue	Montgomery Street	2-Lane Freeway	2,090	C or Better
Southbound Highway 70	Montgomery Street	Oroville Dam Boulevard	2-Lane Freeway	1,840	C or Better
Southbound Highway 70	Oroville Dam Boulevard	Ophir Road	2-Lane Freeway	2,150	C or Better
Southbound Highway 70	Palermo Road	Ophir Road	2-Lane Freeway	950	C or Better

Note: Highlighted cells indicate roadway segments where LOS would exceed LOS D.
Source: Fehr & Peers, 2014.

population increase evaluated in the 2008 Draft EIR.[4] The Modified Project would also increase industrial employment by 226 jobs and reduce commercial employment by 43 jobs, resulting in a net employment increase of approximately 183 jobs, relative to the Approved Project. [5] This is less than 1 percent of the estimated employment increase evaluated in the 2008 Draft EIR.[6] While the Modified Project would result in a slight increase in population and employment compared to the Approved Project, this change would be nominal (less than 5 percent).

This slight increase in population and employment could lead to a correspondingly slight increase in airport activity at the Oroville Municipal Airport and other regional airports. However, this small increase in demand would not result in a change in air traffic patterns or traffic levels that would result in a substantial safety risk. In 2013, there were 99 flight operations per day on average at the Oroville Municipal Airport,[7] which could accommodate the slight increase in usage potentially created by the Modified Project. Furthermore, the Modified Project would maintain the 2030 General Plan policies that support aviation facilities and services in Oroville, including Goal CIR-10, Policy P10.1, and associated actions that address the vitality of the Oroville Municipal Airport. Therefore, the Modified Project would not change the *less-than-significant* impact related to aviation transportation.

d. Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).

As described on page 4.12-44 of the 2008 Draft EIR for the Approved Project:

[4] The 2008 Draft EIR estimated that the 2030 General Plan would add 13,800 residential units, or 32,300 new residents (see page 3-24).

[5] As noted in Chapter 3, the Modified Project would increase the industrial projection by 226,000 square feet and reduce the commercial projection by 32,000 square feet. Based on the 2008 Draft EIR assumptions of one employee per 1,000 square feet of industrial use and 1 employee per 750 square feet of commercial use, this equates to an increase of 226 new industrial jobs and 43 fewer commercial jobs. The net change in employment is therefore estimated at 183 new jobs.

[6] The 2008 Draft EIR estimated that the 2030 General Plan would add 19,400 new jobs in the next 25 years (see page 3-25).

[7] AirNav, LLC, *Oroville Municipal Airport, FAA Information Effective 08 January 2015*, http://www.airnav.com/airport/KOVE, accessed on January 19, 2015.

- The 2030 General Plan does not create internal policy inconsistencies or inconsistencies with other adopted plans or programs relating to transportation or circulation hazards.
- Although traffic volumes in Oroville are forecast to increase over the planning horizon, there are no specific features or improvements included in the General Plan that would result in an avoidable hazardous condition.
- Several General Plan policies address the need to minimize hazards that could result from poor roadway design.

Based on the above points, the 2008 Draft EIR for the Approved Project concludes that the 2030 General Plan would have a positive rather than a negative effect on traffic safety, resulting in no impact.

The Modified Project does not add any new internal policy inconsistencies or inconsistencies with other adopted plans or programs relating to transportation or circulation hazards. As shown in Figure 4.13-6, traffic volumes will increase over the planning horizon under the Modified Project, but, as with the Approved Project, there are no specific features or improvements included in the General Plan that would result in an avoidable hazardous condition. Finally, the Modified Project maintains Circulation Element policies that address transportation and circulation hazards, including:

- **Policy P2.3:** Make future roadway improvements to correspond to the roadway against applicable standards for the classifications and standards described in the Circulation Element.
- **Policy P4.6:** Prohibit on-street truck and Recreational Vehicle (RV) parking in residential areas, as such parking restricts adequate sight distances or otherwise poses a potentially hazardous situation.
- **Policy P9.1:** Enforce the City's designated truck route system and ordinances. Develop new local truck routes to serve planned commercial and industrial areas in the City including appropriate signing.
- **Policy P9.2:** No truck traffic shall be allowed in residential areas.

Therefore, the Modified Project would not change the *no impact* finding related to traffic hazards.

e. Result in inadequate emergency access.

As described on pages 4.12-44 to 4.12-45 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan does not conflict with adopted plans or programs related to emergency access. The Modified Project similarly does not conflict with plans or programs related to emergency access, and it maintains the Circulation Element policies that ensure adequate emergency access, including the following:

- **Policy P3.1:** Widths for new streets shall be limited to the minimum width necessary to adequately carry the volume of anticipated traffic and meet the City's LOS Policy of D, while allowing for adequate bicycle and pedestrian facilities and emergency access.
- **Policy P3.2:** Prohibit development of private streets in new residential projects, unless emergency access standards, maintenance agreements, and design standards are met to the satisfaction of the City Engineer and there are compelling circumstances that prohibit the streets from being designed to meet public standards.
- **Policy P3.3:** New development shall ensure that safe and efficient emergency vehicle access is provided.

Therefore, the Modified Project would not change the *no impact* finding related to emergency access.

f. Result in inadequate parking capacity.

As explained on page 4.12-45 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan Circulation Element is internally consistent and consistent with other adopted plans and programs related to parking capacity. The Modified Project similarly does not create inconsistencies related to parking policies and plans, and it maintains the Circulation Element policies that ensure adequate parking capacity, including the following:

- Policy P4.1: Wherever possible, avoid reductions in on-street parking as a means to provide additional travel lanes.
- Policy P4.2: If future growth in traffic volumes necessitates removal of on-street parking places to provide additional traffic lanes, ensure, if feasible, that the lost on-street spaces are replaced with an equal number of off-street spaces within the same vicinity.
- Policy P4.3: Require provision of adequate off-street parking in conjunction with all new developments outside the historic downtown.

- Policy P4.5: Balance the need for improved traffic flow with the need for on-street parking in the design of new or reconfiguration of existing streets.

Therefore, the Modified Project would not change the *less-than-significant* impact related to parking capacity.

g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks).

As explained on pages 4.12-45 to 4.12-49 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan Circulation Element is internally consistent and consistent with other adopted plans and programs related to alternative transportation. Since the 2008 Draft EIR for the Approved Project was published, the City of Oroville adopted the Bicycle Transportation Plan. Under the Modified Project, the 2030 General Plan Circulation Element would be updated to be consistent with that Bicycle Transportation Plan, including updates to General Plan Figure CIR-7, which shows the planned bicycle facilities from the Bicycle Transportation Plan.

In addition, the Modified Project would maintain the goals and policies that address alternative travel modes, including Goals CIR-3, CIR-5, CIR-6, and CIR-7 and their associated policies, which are described on page 4.12-46 of the 2008 Draft EIR for the Approved Project. Furthermore, the Modified Project would add the following new Circulation Element policy and actions to support alternative transportation:

- **Action P2.4:** Monitor the development of multi-modal level of service (MMLOS) standards by the Transportation Research Board, other agencies, and jurisdictions. When a valid methodology for Oroville is identified, develop and adopt Transportation Impact Analysis (TIA) guidelines that include MMLOS standards specific to Oroville. The MMLOS standards will apply to City-maintained roadways and will allow for flexibility as necessary to recognize site-specific constraints, such as protecting sensitive resources or ensuring pedestrian and bicycle safety.
- **Policy P3.5:** Provide transportation facilities based on a "Complete Streets" set of criteria that facilitates the balanced use of all travel modes (pedestrians, bicyclists, motorists, and transit users) meeting the transportation needs of all ages and abilities and providing mobility for a variety of trip purposes.

- **Action A3.5:** Update the City's Engineering and Street Design Standards to ensure that roadway and streetscape design specification are in accordance with the Complete Streets concept described in Policy P3.5.

Therefore, the Modified Project would not change the *no impact* finding related to alternative transportation.

2. Cumulative Impacts

As described on page 4.12-49 of the 2008 Draft EIR for the Approved Project, increased traffic from the Approved Project would exacerbate existing deficiencies along Highways 70, 99, and 162, resulting in a significant and unavoidable impact.[8]

The Modified Project would contribute to traffic on these regional roadways. However, as explained in Section E.1.c, the increase in population and employment from the Modified Project would be nominal. In addition, as described in Section C, the proposed CAP and Balanced Mode Circulation Plan include strategies to reduce VMT and promote alternative modes of transportation. Therefore, the Modified Project would not change the cumulative impact from the Approved Project, and it would remain *significant*.

F. Impacts and Mitigation Measures

Because there are no additional significant impacts related to transportation and circulation as a result of the Modified Project, no additional mitigation measures are required.

[8] The 2008 Draft EIR for the Approved Project listed the three highways as Highways 70, 99, and 65. However, there is no Highway 65 in the Project Area. The 2009 Final EIR for the Approved Project added Highway 162 to the list.

4.14 UTILITIES AND INFRASTRUCTURE

This chapter evaluates the potential impacts related to utilities and infrastructure associated with the changes to the Approved Project that are reflected in the Modified Project. The following evaluation assesses water, wastewater, stormwater, solid waste, and energy. Sections in the 2008 Draft EIR for the Approved Project on the Regulatory Framework and Existing Conditions are the same and not repeated here, with the exceptions noted in Sections A and B. For each topic in this chapter, the standards of significance are the same as the standards used in the 2008 Draft EIR for the Approved Project, which are based on the CEQA Guidelines.

A. Regulatory Framework

1. State Regulations

a. Assembly Bill 1881

Assembly Bill (AB) 1881 required that the California Department of Water Resources (DWR) distribute a model water efficient landscape ordinance to counties and cities by January 1, 2009. By January 1, 2010, every county and city, including charter cities, were required to adopt either DWR's model ordinance or a water efficient landscape ordinance that is at least as effective as the DWR model ordinance. If a county or city failed to adopt an ordinance, AB 1881 requires that local officials enforce DWR's model ordinance as if it had been adopted by the county or city.

b. Senate Bill x7-7

Senate Bill (SB) x7-7 sets a statewide goal of reducing per capita urban water use by 20 percent by December 31, 2020. The State shall make incremental progress towards this goal by reducing per capita water use by at least 10 percent by December 31, 2015. An urban retail water supplier shall include the following information in its urban water management plan:

- Baseline daily per capita water use
- 2020 water use target
- Interim (2015) water use target

Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by SB x7-7 will not be eligible for State water grants or loans.

c. Title 24 Building and Energy Efficiency Standards

In May 2012, the California Energy Commission adopted the 2013 Building and Energy Efficiency Standards, which became effective on January 1, 2013. These standards are approximately 24 percent more energy efficient for residential buildings and 30 percent more energy efficient for non-residential buildings compared to the 2008 Building and Energy Efficiency Standards.

2. City of Oroville Sanitary Sewer Master Plan

In January 2013, the City of Oroville adopted the Sanitary Sewer Master Plan Update. The Master Plan accomplishes the following objectives:

- Evaluate the capacity of the existing sanitary sewer collection system using dry and wet weather flows.
- Determine future capacity needs to support the City's 2030 General Plan buildout.
- Develop a Capital Improvement Program (CIP) that provides the City with a reliable plan to mitigate existing system deficiencies and expand the wastewater collection system to service future customers.
- Determine the revenue and rates necessary to finance the CIP and sanitary sewer operation and maintenance (O&M) costs through a detailed financial analysis.

B. Existing Conditions

Since the 2008 Draft EIR for the Approved Project was published, updated information about water and wastewater utilities in the Project Area has been released.

1. Water Service Providers

As noted on page 4.13-4 of the 2008 Draft EIR for the Approved Project, the Project Area is served by three local domestic water providers: the California Water Service Company (Cal Water Oroville), South Feather Power and Water, and Thermalito Water and Sewer District (TWSD).[1] This section provides updated information about each water service provider as available.

[1] TWSD was originally called the Thermalito Irrigation District, and was discussed as such in the 2008 Draft EIR for the Approved Project.

a. California Water Service Company

In 2010, Cal Water Oroville estimated that it served 9,920 individuals. By the year 2030, Cal Water Oroville projected that they would serve approximately 10,300 individuals, and that total water use would be 3,092 acre-feet per year (AFY). Cal Water Oroville has a contract with Butte County for delivery of up to 3,500 AFY from the State Water Project. Cal Water Oroville also receives surface water from the outlet of PG&E's Coal Canyon Power Plant; on average, Cal Water Oroville treats about 3,000 AFY from this source. Cal Water Oroville also utilizes groundwater, and the current design capacity for the operational wells is 4,559 AFY. The 2010 Urban Water Management Plan (UWMP) for Cal Water Oroville indicates that there is a significant surplus of purchased water and groundwater available through the 2040 planning horizon of the UWMP.[2]

b. South Feather Water and Power

In 2010, South Feather Water and Power delivered approximately 4,336 AFY to its customers, which included an estimated population of about 16,350 individuals. In 2030, South Feather Water and Power projects that it will serve approximately 27,170 individuals, and that total water use will be 6,410 AFY. As mentioned on page 4.13-7 of the 2008 Draft EIR for the Approved Project, South Feather Water and Power's primary treatment plant has the capacity to treat 14.5 million gallons per day (MGD) (about 16,240 AFY). The 2010 UWMP for South Feather Water and Power indicates that its sources of developed water supply will continue to more than adequately meet the current and the foreseeable demand through the 2035 planning horizon of the UWMP.[3]

c. Thermalito Water and Sewer District

TWSD predicts that by 2030, it will serve approximately 13,950 individuals, and water deliveries will total 2,946 AFY. Their existing supply of 11,459 AFY will be adequate to serve this demand.[4]

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[2] California Water Service Company, 2011, *2010 Urban Water Management Plan, Oroville District*, pages 24, 44, 49, and 50.

[3] South Feather Water and Power Agency, 2012, *2010 Urban Water Management Plan,* pages 15, 19, 21, 25, and 28.

[4] TWSD has not adopted its 2010 UWMP. However, this information is provided in the Draft 2010 UWMP update, as shown in Tables 3, 4, and 5 of the following document: Thermalito Water and Sewer District, 2013, *Water Supply Assessment for Martin Ranch East*.

2. Wastewater Service Providers

As noted on page 4.13-14 of the 2008 Draft EIR for the Approved Project, the Project Area is served by three wastewater collection agencies: the City of Oroville, TWSD, and Lake Oroville Area Public Utility District (LOAPUD). These three Districts have a Joint Powers Agreement with the Sewerage Commission-Oroville Region (SCOR) to handle wastewater treatment and disposal. This section provides updated information about each wastewater service provider as available.

a. City of Oroville

The City of Oroville provides wastewater collection services to individuals within the city limits. Average dry wastewater flows were 1.7 million gallons per day (MGD) in 2007 and are expected to grow to approximately 6.5 MGD by 2030 as residential, commercial, and industrial development occurs throughout the Project Area. Peak wet weather flow (PWWF), defined as a peak instantaneous flow rate occurring during a 10-year reoccurrence interval storm event, was 11.3 MGD in 2007 and is expected to grow to 20.7 by 2030.[5]

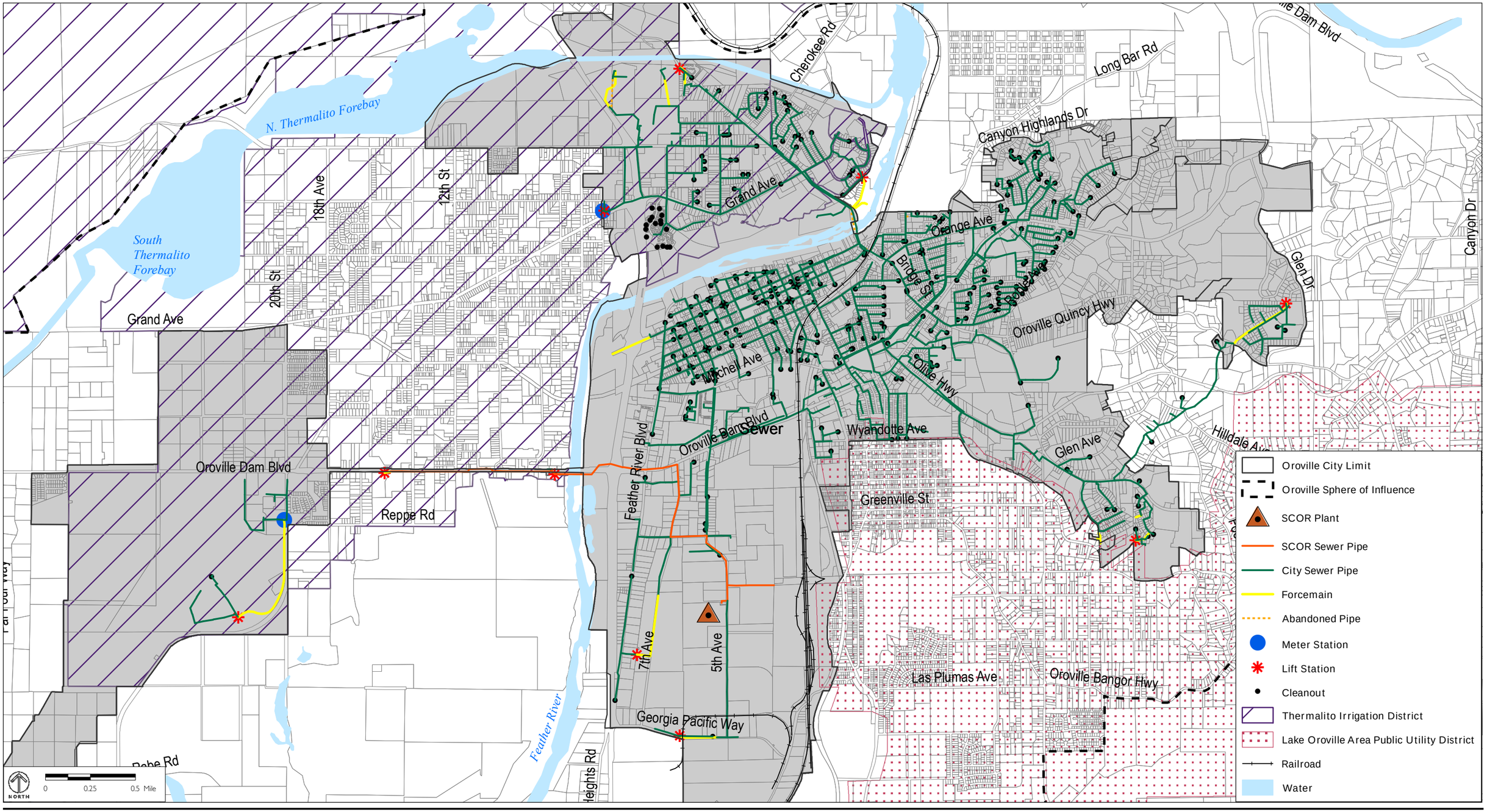
The City's Engineering Division of the Community Development/Public Works Department is responsible for the City's system and operates approximately 66 miles of sanitary sewer line with approximately 1,350 manholes and over 11,000 feet of force main. The City also maintains seven sewer lift stations.[6] Figure 4.14-1 illustrates the locations of sewer collection infrastructure, including pipes and lift stations.

A capacity analysis conducted for the City's collection system as part of the City's Sanitary Sewer Master Plan Update found that 35 percent of the manholes and 11 percent of the sewer pipes are undersized to convey anticipated flows in 2030. The Sanitary Sewer Master Plan Update considers funding sources for the improvement projects needed to address these deficiencies.[7]

[5] City of Oroville, January 2013, *Final Draft Sanitary Sewer Master Plan.*

[6] City of Oroville, January 2013, *Final Draft Sanitary Sewer Master Plan.*

[7] City of Oroville, January 2013, *Final Draft Sanitary Sewer Master Plan.*



Source: City of Oroville GIS, 2005.

FIGURE 4.14-1

SEWER COLLECTION SYSTEM FACILITIES

b. Thermalito Water and Sewer District

TWSD provided wastewater collection services to approximately 9,140 people or approximately 2,675 equivalent dwelling units (EDUs) in 2009. At that time, TWSD collected an average of 182.5 million gallons of wastewater per year, with an average dry weather flow (ADWF) of approximately 0.5 MGD. Its average wet weather flow (AWWF) was approximately 2.4 MGD. TWSD's collection system consists of 36 miles of sanitary sewer line with approximately 570 manholes and is generally in good condition.[8]

c. Lake Oroville Area Public Utility District

LOAPUD provides sanitary sewer collection services in unincorporated areas east and south of Oroville. As of July 2013, LOAPUD provides service for approximately 6,010 EDUs, and its ADWF is 0.86 MGD. By 2030, its ADWF is predicted to be 1.71 MGD (in part due to a larger service area).[9]

C. Changes in the Modified Project Relevant to Utilities and Infrastructure

1. 2030 General Plan Updates

a. Land Use Map and Designation Changes

The proposed 2030 General Plan Updates would include land use designation changes that would reduce the amount of anticipated commercial development, while increasing the amount of anticipated residential and industrial development. Specifically, the Modified Project would make the following changes to the 2030 development projections from the Approved Project:

- **Residential:** Increase by approximately 385 dwelling units
- **Industrial:** Increase by approximately 226,000 square feet
- **Commercial:** Decrease by approximately 32,000 square feet

The increase in 385 dwelling units corresponds to a population increase of approximately 1,000 people, based on an estimate of 2.6 persons per household.[10]

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[8] Butte Local Agency Formation Commission, 2009, *Municipal Services Review for Wastewater Service Providers – Oroville Region*, pages 6-1, 6-4, and 6-13.

[9] Butte Local Agency Formation Commission, 2013, *Final Municipal Service Review Update and Sphere of Influence Plan for the Lake Oroville Area Public Utility District*, pages 5 and 31-32.

[10] State of California, Department of Finance, May 2014, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2014*.

This represents approximately 3 percent of the estimated population increase evaluated in the 2008 Draft EIR.[11]

The change in non-residential development corresponds to an increase in industrial employment by 226 jobs and a reduction in commercial employment by 43 jobs, resulting in a net employment increase of approximately 183 jobs, relative to the Approved Project.[12] This is less than 1 percent of the estimated employment increase evaluated in the 2008 Draft EIR.[13]

b. Other Changes (Including Circulation and Transportation Element Revisions, Economic Development Element, Updates to Reflect State Statutes, and Other Policy Revisions)

The proposed 2030 General Plan Updates would add a new section to the Land Use Element that describes and evaluates water, wastewater, and stormwater service for disadvantaged unincorporated communities (DUCs) within the City's SOI, in accordance with SB 244. This new section finds that some of the DUCs have inadequate access to water and wastewater service, and that all of the DUCs have identified stormwater drainage infrastructure needs and deficiencies. This new section also identifies funding sources for infrastructure improvements to address these needs and deficiencies.

In addition, the Open Space, Natural Resources, and Conservation Element would include expanded policies and actions that support the CAP and the City's efforts to reduce GHG emissions through energy conservation, including the following new policies and actions:

- **Policy P16.13:** Promote and reward the energy efficiency efforts of local businesses through recognition on the City's website and other publicity.
- **Policy P17.6:** Encourage solar-oriented and renewable design, as well as grid-neutral development (i.e. development that generates enough energy to offset its demands), by establishing standards for streets that are directionally oriented to facilitate roof faces that best accommodate solar panels and maximize their efficiency, based on the best available research.

[11] The 2008 Draft EIR estimated that the 2030 General Plan would add 13,800 residential units, or 32,300 new residents (see page 3-24).

[12] Based on the 2008 Draft EIR assumptions of one employee per 1,000 square feet of industrial use and 1 employee per 750 square feet of commercial use.

[13] The 2008 Draft EIR estimated that the 2030 General Plan would add 19,400 new jobs in the next 25 years (see page 3-25).

- **Policy P17.9:** Use alternative energy sources, such as solar, for City facilities to set an example for others to follow.
- **Action A17.5:** Train all plan review and inspection staff in green building material options, techniques, and practices.
- **Action A17.6:** Develop streamlined permit processes for approval of small-scale wind and solar energy systems for on-site residential and commercial use.
- **Action A17.7:** Review and update the Zoning Code and building codes to allow for innovative energy-efficient technologies, provided they do not conflict with other goals in the General Plan.
- **Action A17.8:** Institute City purchasing policies that give preference, when feasible, to the purchase of energy-efficient products, products that contain recycled materials, and products that reduce waste generated.
- **Action A17.9:** Institute City purchasing policies that give preference to renewable energy, when feasible.

2. Municipal Code Updates

a. Zoning Map and Districts

These changes are not expected to impact utilities and infrastructure because they don't contain any provisions that are relevant to this topic.

b. Other Municipal Code Updates (Including Solar Energy Ordinance, Local and Healthy Food Initiatives, Incentives for Community Benefits, Crime Prevention Through Environmental Design, Park Provision Standards, and Oak Tree Loss Mitigation Ordinance)

The Municipal Code Updates would provide a streamlined approach to solar energy development by establishing standards and permit requirements for different types of solar energy systems, with a goal of allowing for an efficient permit process. In addition, a new section would be added to establish requirements for on-site solar energy generation for large projects.

3. Design Guidelines Updates

The proposed new Design Guidelines chapter regarding low impact development (LID) practices and resource efficient construction methods includes specific design guidelines for plant selection, water irrigation systems, and mulching that conserve water. This new chapter also includes guidelines for natural stormwater management that limit impervious areas and promote groundwater recharge, as well as guidelines to reduce solid waste and conserve energy.

Specific site and landscape design guidelines that are pertinent to utilities and infrastructure include the following, which are all included in Chapter 9 of the proposed Design Guidelines Update:

- **2.1.1:** Minimize turf in planting areas to reduce water use, chemical fertilizers, greenwaste, the fuel required for mowing and associated emissions from maintenance equipment.
- **2.1.2:** Replace turf with groundcovers and "no-mow" turf varieties that have low water requirements.
- **3.1.1:** The landscaping and irrigation design must comply with the State's water budget calculations.
- **3.1.2:** A dedicated landscape water meter must be installed for projects with an irrigation area greater than 5,000 square feet, and is recommended for projects smaller than 5,000 square feet.
- **3.1.3:** A weather-based or soil moisture-based controller, with a rain sensing shutoff device, should be installed for all irrigation systems.
- **3.1.4:** A low volume irrigation system (i.e. drip, inline drip and bubblers) should be installed in mulched planting areas, on slopes greater than 25 percent, and in narrow or irregularly shaped areas that are less than 8 feet wide in any direction to prevent overspray.
- **3.1.5:** A low volume irrigation system (i.e. drip, in-line drip and bubblers) should be installed in areas within 24-inches of a non-permeable surface, unless the planting area is adjacent to permeable paving or non-permeable paving that drains directly into the landscape.
- **3.1.6:** Each irrigation valve should be designated for hydrozones with similar site, slope, sun exposure, and soil conditions, and plant materials that have comparable water requirements.
- **3.1.7:** Where possible, utilize recycled water for irrigation; plumbing should be clearly marked with purple pipe for easy identification.
- **3.1.8:** Utilizing graywater for irrigation is strongly encouraged. Washing machine systems do not require a permit, as long as they comply with the California Plumbing Code (Section 108.4.1).

- **3.2.1:** A minimum 2-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, or direct seeding applications. A 3-inch layer of mulch is recommended, where feasible.
- **4.1.1:** All City public works and public construction projects are subject to the Construction and Demolition (C&D) Debris Recycling Ordinance (Oroville Municipal Code, Ordinance 1721, Chapter 11D), and must submit a waste management plan. Both residential and non-residential projects must recycle, salvage, or reuse a minimum of 65 percent of nonhazardous construction and demolition waste.
- **4.2.1:** Where feasible, all projects shall utilize environmentally-friendly materials, such as salvaged items, materials made from recycled content, or FSC-certified wood for decking, fencing, and outdoor furnishings.
- **4.2.2:** When it is practical, all projects shall utilize high density polyethylene (HDPE) instead of polyvinyl chloride (PVC) for irrigation piping and site furnishings because it is more resilient and flexible, chlorine-free, manufactured with fewer additives, and easier to recycle.
- **4.3.1:** All projects should utilize local recycled compost generated from post-consumer green waste and/or food waste to the extent possible.
- **4.3.2:** All projects should utilize local recycled mulch generated from urban organic materials, not including lumber industry by-products, to the extent possible.
- **5.1.1:** The site's natural drainage patterns should be preserved or replicated to the extent possible.
- **5.1.2:** During site planning, avoid excessive grading and disturbance of existing vegetation and soils to the extent possible.
- **5.1.3:** Development should be concentrated and located on portions of the site with less permeable soils to preserve areas that can promote infiltration.
- **5.1.4:** Limit a project's overall impervious coverage (i.e. paving and roof area). Projects that create or replace 5,000 square feet or more of impervious surface must treat stormwater, as per the NPDES General Permit for Small Municipal Separate Storm Sewer Systems MS4. Refer to the full regulation text for exempt projects and treatment requirements.

- **5.2.1:** Provide energy dissipation at all points of concentrated flow, such as at downspouts and curb cuts. Energy dissipation may include cobbles, splash blocks, flow spreaders or pop up emitters.
- **5.2.2:** Employ small-scale design solutions that direct smaller quantities of runoff into landscaped areas. Spreading out and sinking in stormwater will lower cost impacts. For example, reduce the size of paved areas by breaking them up with planting areas that will capture water.
- **5.2.3:** Where it is practical, permeable materials should be utilized in hardscape areas.
- **5.2.4:** Consider circulation in the design of elements for stormwater management. For example, strategically locate paving or provide pedestrian "bridges" over rain gardens, particularly in parking lots, to reduce the foot traffic through them.
- **5.2.5:** Detain and retain runoff throughout the site, where feasible.
- **5.3.1:** Increase the water absorbing capacity of on-site soils by amending soils with compost, compost tea or non-synthetic fertilizers.

Chapter 9 of the proposed Design Guidelines Update also includes the following building design guidelines that are pertinent to utilities and infrastructure:

- **1.1.1:** Non-residential development shall identify readily accessible areas, which serve the entire building and meet local ordinances, for recycling paper, cardboard, glass, plastic, and metals, as per the Non-Residential CALGreen Code.
- **1.2.1:** Large construction projects are encouraged to comply with Leadership in Energy & Environmental Design (LEED) and Build It Green (BIG) approaches, and smaller projects are encouraged to reference the GreenPoint Rated checklist provided by BIG.
- **2.1.1:** Install water conserving plumbing fixtures and fittings, as per the Residential and Non-Residential CALGreen Code.
- **2.1.2:** For non-residential buildings in excess of 50,000 square feet, install separate submeters for each individual tenant that consumes more than 100 gallons per day, as per the Non-Residential CALGreen Code.
- **2.2.1:** Where possible, utilize rainwater for toilet flushing. Other systems designed to collect and treat rainwater for potable uses need to be inspected

and permitted on a case-by-case basis. Indoor plumbing using harvested rainwater should be clearly marked with yellow pipe for easy identification.

- **3.1.1:** Residential additions of 100 square feet or more, tenant improvements of 500 square feet or more, new structures of 500 square feet or more, demolition of 100 square feet or more, and all City projects and public construction projects are subject to the Construction and Demolition (C&D) Debris Recycling Ordinance (Oroville Municipal Code, Ordinance 1721, Chapter 11D). Such projects must submit a waste management plan. Both residential and non-residential projects must recycle, salvage, or reuse a minimum of 65 percent of nonhazardous construction and demolition waste.
- **3.2.2:** Where feasible, utilize salvaged materials from existing buildings. Materials that can be easily reused include light fixtures, plumbing fixtures, doors and trim, masonry, electrical devices, appliances, foundations, or portions of foundations.
- **3.3.1:** Where feasible, roofs and building patios shall meet the criteria of solar reflectance greater than or equal to .30 or a SRI of 29 percent or greater, which will reduce the heat island effect.
- **3.3.2:** Where feasible, structures should be constructed with intensive or extensive green roofs.

4. Climate Action Plan

The proposed CAP includes many actions that support water conservation, solid waste reduction, and energy conservation, including the following:

- **WC-1.1:** Promote water audit programs in collaboration with efforts by local water purveyors that offer free water audits to large landscape accounts as well as single-family, multi-family, and commercial customers.
- **WC-1.2:** Collaborate with purveyors to enact conservation programs for commercial, industrial, and institutional accounts and create programs to install ultra-low-flush toilets in facilities.
- **WC-1.3:** Implement the Water Efficient Landscape Ordinance to reduce outdoor water consumption.
- **WC-2.1:** Coordinate with the Sewerage Commission—Oroville Region, the two regional wastewater collection agencies, and the Public Works Department to assess the feasibility of producing and distributing recycled water within the city.

- **WC-2.2:** Inventory potential non-potable uses of water for potential substitution by recycled and/or gray water.
- **WC-2.3:** Consider programs to collect sub-potable storm water for onsite reuse for landscape irrigation.
- **WR-1.1:** Require businesses and multi-family developments of five units or more that produce more than 4 cubic yards of solid waste per week to recycle.
- **WR-1.2:** Require contractors to submit a recycling and reuse plan and use separate material bins at the construction site.
- **WR-1.3:** Provide compost receptacles for food waste and other green waste produced in City facilities.
- **BE-1.1:** Adopt a Green Building Ordinance to keep 15% ahead of expected future updates to Title 24 through 2020.
- **BE-2.1:** Promote innovative, low-interest financing for voluntary energy efficiency retrofits for existing single family and multi-family homes.
- **BE-2.2:** Provide education and outreach on cost-effective retrofit packages.
- **BE-3.1:** Promote innovative, low-interest financing for voluntary energy efficiency retrofits for existing nonresidential buildings.
- **BE-3.2:** Provide education and outreach on cost-effective retrofit packages.
- **BE-4.1:** Replace all street lights with LED bulbs by 2020.
- **BE-4.2:** Develop incentives to encourage the voluntary replacement of less efficient outdoor bulbs with energy efficient ones in existing residential and nonresidential buildings.
- **BE-5.1:** Revise the Solar Energy Ordinance to require new residential projects of six units or more to install solar PV on 50% of new homes in the development.
- **BE-5.2:** Revise the Solar Energy Ordinance to require new nonresidential projects larger than or equal to 25,000 square feet to incorporate onsite solar energy generation to provide a minimum of 25% of the project's energy needs.
- **BE-6.1:** Provide education and outreach to support voluntary solar installations for existing homes and commercial and industrial buildings.

- **BE-7.1:** Identify possible sites for renewable energy production using local renewable resources such as solar, wind, and hydro.
- **BE-7.2:** Establish a protocol for reviewing a proposed alternative energy project against existing City policies and ordinances.

In addition, in Chapter 5, Climate Change Adaptation, the CAP examines Oroville's water supply, one of three important community elements. It assesses the sensitivity of the water supply to each of the identified climate change exposures, including increased temperature, wildfires, extreme heat, and storms, as well as the adaptive capacity of the water system. The CAP also presents several adaptation strategies to improve the resiliency of the water system and decrease the magnitude of future climate change impacts.

5. Balanced Mode Circulation Plan

This document is not expected to impact utilities and infrastructure because it doesn't contain any provisions that are relevant to this topic.

D. Water

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to water service in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to water service if they would:

- Have insufficient water supplies available to serve the project from existing entitlements and resources.
- Require or result in the construction of new facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to water that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Have insufficient water supplies available to serve the project from existing entitlements and resources.

As described in Section C, the Modified Project would increase residential and industrial development, and decrease commercial development. In total, the proposed changes would increase water demands in 2030 by about 145 AFY.[14] As described in Section B.1, there is more than adequate capacity from each water service provider to handle this additional water demand, due in part to the water conservation requirements established in SB x7-7, which is discussed in Section A.1.b. In addition, as described on pages 4.13-10 to 4.13-11 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan contains policies and actions to reduce water demand through water conservation and water recycling, and new development projects served by any domestic water provider could not be approved by the City unless a sufficient water supply is available. Furthermore, as discussed in Section C, the Modified Project includes new design guidelines and CAP actions that conserve water, as well as CAP climate change adaptation strategies to improve the resiliency of the water system and decrease the magnitude of climate change impacts.

Overall, the increased development potential of the Modified Project would result in slightly higher water demands compared to the Approved Project. However, there is adequate capacity from existing water sources, and new development would have to comply with policies and guidelines that ensure adequate supply and reduce water consumption. Therefore, the water supply impact would remain *less than significant*.

ii. Require or result in the construction of new facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

As described on page 4.13-11 of the 2008 Draft EIR for the Approved Project, development allowed by the 2030 General Plan would likely require additional water distribution infrastructure. Some of the additional development allowed by the Modified Project would similarly require additional water distribution infrastructure. However, the Modified Project would maintain the 2030 General Plan policies that call for water system planning and the installation of water lines concurrently with the construction of new roadways. In addition, as described on page 4.13-12 of the 2008 Draft EIR, as specific water system improvement projects

[14] Based on the following water demand factors reported in the Butte County General Plan 2030 EIR: 0.33 AFY per residential connection, 0.2 gallons per day (GPD) per square foot for retail/office uses, and 0.1 GPD per square foot for industrial uses.

are identified, additional project-specific environmental analysis would be completed pursuant to CEQA. Therefore, the water facility impact would remain *less than significant*.

b. Cumulative Impacts

The 2009 EIR for the Approved Project found no significant cumulative impacts to regional water supplies, groundwater supplies, or water infrastructure. As described in Section C, the Modified Project would result in a slight increase in development potential, but it also includes many design guidelines and CAP actions to conserve water. The analysis provided on pages 4.13-12 to 4.13-13 of the 2008 Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, cumulative impacts to water service would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to water service as a result of the Modified Project, no additional mitigation measures are required.

E. Wastewater

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to wastewater in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to wastewater if they would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have insufficient wastewater treatment capacity available to serve the project's projected demand in addition to existing demand.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to wastewater that could occur as a result of implementation of the

Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

As described on pages 4.13-20 to 4.13-21 of the 2008 Draft EIR for the Approved Project, the Approved Project would exceed the growth rate projected by SCOR, causing the SCOR treatment plant to reach its permitted treatment capacity sooner than SCOR had predicted. However, as described in that section, SCOR will be required to work with the Central Valley Regional Water Quality Control Board (RWQCB) to complete an approved plan and renew its treatment and discharge permit. The additional development allowed by the Modified Project would contribute to the need for an updated treatment and discharge permit, but SCOR would be subject to the same requirements as under the Approved Project.

As development allowed by the Approved and Modified Projects occurs, the quality of wastewater flowing to the SCOR treatment plant is expected to remain similar to current conditions with normal variations in strength within typical ranges for municipal wastewater. Although the Modified Project would increase the amount of industrial development, which could lead to increased pollutant loads, 2030 General Plan Public Facilities and Services Element Policy P7.6 directs the City to continue to support the SCOR requirements that, if necessary, industrial water users pretreat wastewater on-site prior to discharging into the sewer system, or into any permeable conduit or basin that ultimately could lead to groundwater contamination. In addition, the Modified Project would establish a new set of design guidelines, listed in Section C.3, that promote natural stormwater management and improve overall water quality from runoff.

Overall, the Modified Project would slightly increase the development capacity, which could cause the treatment plant's capacity to be reached sooner than previously expected, and it could lead to increased pollutant loads from additional industrial development. However, the existing Central Valley RWQCB permit requirements, the existing General Plan and SCOR requirements regarding industrial wastewater pretreatment, and the proposed design guidelines regarding natural stormwater management would ensure that wastewater treatment requirement impacts would remain *less than significant*.

ii. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

As described on page 4.13-21 of the 2008 Draft EIR for the Approved Project, an expansion of the SCOR wastewater treatment plant would be required to serve future development, including development allowed by the Approved Project. The Modified Project would slightly increase the development potential of the 2030 General Plan, so it would contribute to the need for an expansion to the wastewater treatment plant. However, as described in Section C.1, the increase in the service population under the Modified Project is nominal (less than 5 percent), and as described in the 2008 Draft EIR, potential environmental impacts of future wastewater treatment plant expansions would be assessed through the CEQA review process once the scale of the project is defined. Therefore, the Modified Project would not change the *less-than-significant* wastewater treatment facility impact of the Approved Project.

iii. Have insufficient wastewater treatment capacity available to serve the project's projected demand in addition to existing demand.

As described on pages 4.13-21 to 4.13-22 of the 2008 Draft EIR for the Approved Project, additional wastewater treatment capacity is required to serve development allowed by the Approved Project. The Modified Project would slightly increase the development potential of the General Plan, so it would require additional treatment capacity than the Approved Project. However, as described in Section C.1, the increase in the service population under the Modified Project is nominal (less than 5 percent), and the Modified Project would maintain the 2030 General Plan Public Facilities and Services Element policies that require that wastewater treatment capacity be available prior to the approval and construction of new development, as described in detail on page 4.13-22 of the 2008 Draft EIR for the Approved Project. Therefore, the wastewater treatment capacity impact would remain *less than significant*.

b. Cumulative Impacts

As discussed on page 4.13-22 of the 2008 Draft EIR for the Approved Project, only growth in Oroville and its SOI would result in the need for new or expanded wastewater facilities for the City, LOAPUD, TWSD, or SCOR. Because the 2030 General Plan includes policies to tie development with the provision of utilities, the Approved and Modified Projects would not lead to significant project-level or cumulative impacts associated with the provision of wastewater service. Therefore, the cumulative impact would remain *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to wastewater service as a result of the Modified Project, no additional mitigation measures are required.

F. Stormwater

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to stormwater in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to stormwater if they would:

- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to stormwater that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

As described on page 4.13-25 of the 2008 Draft EIR for the Approved Project, development allowed by the 2030 General Plan would require additional stormwater drainage facilities to collect and dispose of runoff from urban uses. Although the Modified Project would increase the development potential of the General Plan, it would not allow development on areas previously designated for open space, indicating that the Modified Project would not require the installation of new stormwater drainage infrastructure in areas that would have been left undeveloped under the Approved Project. In addition, as discussed in Section C.3, the Modified Project would add a new set of design guidelines that promote natural stormwater management, which would reduce the need for stormwater drainage facilities. Finally, the Modified Project would maintain the 2030 General Plan Public Facilities and Services Element policies that ensure that adequate stormwater

facilities are provided by new development, and, as under the Approved Project, any new stormwater drainage facilities would be evaluated through a separate CEQA review process, as discussed on page 4.13-25 of the 2008 Draft EIR. Therefore, the Modified Project would not change the *less-than-significant* stormwater drainage facility impact.

b. Cumulative Impacts

The 2009 EIR for the Approved Project found no significant cumulative impacts related to storm drainage facilities. Changes proposed in the Modified Project would not affect the need for storm drainage facilities, and the analysis provided on pages 4.13-25 to 4.13-26 of the 2008 Draft EIR for the Approved Project is still relevant to the Modified Project. Therefore, the cumulative storm drainage facilities impact would not change, remaining *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to storm drainage facilities as a result of the Modified Project, no additional mitigation measures are required.

G. Solid Waste

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to solid waste in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to solid waste if they would:

- Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Not comply with federal, State and local statutes and regulations related to solid waste and recycling.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to solid waste that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

As described on page 4.13-29 of the 2008 Draft EIR for the Approved Project, the Ostrom Road Landfill has sufficient capacity through the year 2066, and can accommodate development allowed by the Approved Project. As described in Section C.1, the Modified Project would increase the service population by less than 5 percent. Given the ample capacity of the Ostrom Road Landfill and the nominal increase in service population under the Modified Project, it is anticipated that there is adequate capacity for development allowed by the Modified Project. Therefore, the impact to solid waste would remain *less than significant*.

ii. Not comply with federal, State and local statutes and regulations related to solid waste and recycling.

As described on page 4.13-29 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan Public Facilities and Services Element includes policies and actions that help meet State-mandated recycling goals. While the Modified Project would slightly increase the service population in the Project Area, which could increase solid waste generation, it would maintain the General Plan policies and actions that encourage recycling and minimize the amount of solid waste generated by residents and businesses. In addition, the Modified Project would establish new design guidelines and CAP actions that would further reduce waste. Therefore, the Modified Project would not change the *less-than-significant* solid waste and recycling regulations impact of the Approved Project.

b. Cumulative Impacts

As described on page 4.13-30 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan would not contribute to cumulative solid waste impacts given the ample capacity of the Ostrom Road Landfill. Changes proposed in the Modified Project would not change this finding, and the analysis provided in the 2008 Draft EIR is still relevant to the Modified Project. Therefore, the cumulative solid waste impact would not change, remaining *less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to solid waste as a result of the Modified Project, no additional mitigation measures are required.

H. Energy

This section describes potential impacts associated with the changes to the Approved Project that are reflected in the Modified Project with regard to energy consumption in Oroville.

1. Standards of Significance

The changes between the Approved Project and the Modified Project would have a significant impact with regard to energy consumption if they would:

- Result in the wasteful, inefficient, and unnecessary consumption of energy during construction or operation.

2. Impact Discussion

The following discussion provides an analysis of potential project and cumulative impacts related to energy consumption that could occur as a result of implementation of the Modified Project that were not already disclosed in the 2009 EIR for the Approved Project.

a. Project Impacts

i. Result in the wasteful, inefficient, and unnecessary consumption of energy during construction or operation.

As discussed on page 4.13-31 of the 2008 Draft EIR for the Approved Project, the construction and operation of development allowed by the 2030 General Plan would utilize energy. The additional development potential allowed by the Modified Project would increase energy consumption for construction and operation activities. However, the Modified Project would maintain the General Plan 2030 Open Space, Natural Resources, and Conservation Element policies that conserve energy, as described in detail on page 4.13-31 of the 2008 Draft EIR, and add new energy conservation policies and actions, as shown in Section C.1.b. In addition, the proposed CAP actions BE-1.1 through BE-7.2, which are listed in Section C.4, would improve energy conservation throughout the city through a Green Building Ordinance, energy efficiency retrofits, street light upgrades, on-site solar energy requirements, education and outreach, and renewable energy site identification. The Municipal Code Updates discussed in Section C.2 would support the CAP's solar energy actions by streamlining solar energy development and establishing requirements for on-site solar energy generation. In addition, the Design Guidelines Updates discussed in Section C.3 would add new building design guidelines that promote LEED, BIG, and GreenPoint Rated buildings that are

energy efficient and that reduce heat island effects through reflective and green roofs.

Given the policies, actions, requirements, and guidelines in the Approved and Modified Projects, impacts related to the wasteful, inefficient, and unnecessary consumption of energy would remain *less than significant*.

b. Cumulative Impacts

As discussed above, the Approved and Modified Projects would avoid a significant impact associated with the wasteful use of energy by implementing 2030 General Plan policies, CAP actions, Municipal Code requirements, and Design Guidelines. As described on page 4.13-32 of the 2008 Draft EIR for the Approved Project, other jurisdictions in the region are required to meet State regulations in regards to energy conservation, such as required by Title 24. As a result, cumulative impacts related to the wasteful, inefficient, or unnecessary use of energy would *remain less than significant*.

3. Impacts and Mitigation Measures

Since there are no additional significant impacts related to energy consumption as a result of the Modified Project, no additional mitigation measures are required.

5 ALTERNATIVES TO THE PROPOSED PROJECT

The proposed Oroville Sustainability Updates have been described and analyzed in the previous sections with an emphasis on potentially significant impacts and recommended mitigation measures to avoid those impacts to the extent feasible. The State CEQA Guidelines §15126.6 also require the description and comparative analysis of a reasonable range of alternatives to the proposed project that could feasibly attain the objectives of the project while avoiding or lessening the project's impacts. While the EIR is not required to consider every conceivable alternative to a project, it must consider a reasonable range of feasible alternatives that will foster informed decision making and public participation.

The following discussion is intended to inform the public and decision-makers of project alternatives that have been developed, including the positive and negative aspects of those alternatives. In accordance with the CEQA Guidelines and procedures, three project alternatives, including the No Project Alternative, are discussed below. CEQA Guidelines also require that the environmentally superior alternative be identified. This information is included at the end of this chapter.

As described in Chapter 1, Introduction, in accordance with CEQA Guidelines §15163, this SEIR only contains the information necessary to make the 2009 EIR for the Approved Project adequate for the project as revised. Therefore, this chapter focuses on alternatives to the Modified Project that would avoid or lessen its impacts.

A. Alternatives Considered but Rejected for Further Analysis

The 2009 EIR for the Approved Project considered two alternatives in addition to the No Project Alternative: the Reduced Density Alternative, which reduced the allowed residential densities to reflect existing patterns of development, and the Neighborhood Focused Growth Alternative, which focused development into targeted locations within the Project Area and was mainly comprised of mixed-use and commercial development located at neighborhood residential/commercial centers. These alternatives and others that would fundamentally change the General Plan land use map were considered for this SEIR, but rejected because they would replace the extensive process that led to the adoption of the 2030 General Plan. In addition, the two alternatives to the 2030 General Plan were already evaluated in the 2009 EIR for the Approved Project. This SEIR focuses on alternatives that would avoid or lessen the Modified Project's impacts by considering alternative land uses in the targeted areas of the General Plan land use map that are being considered for change.

B. Alternatives Considered in this SEIR

Aside from the No Project Alternative, two alternatives were developed to attempt to reduce the environmental impacts of the proposed project.

The three alternatives are as follows:

- **No Project Alternative.** The proposed Oroville Sustainability Updates would not be adopted; the existing Oroville 2030 General Plan, Zoning Ordinance and map, Municipal Code, and Design Guidelines would remain unchanged, and the CAP and Balanced Mode Circulation Plan would not be adopted.
- **Existing General Plan Land Use Map Alternative.** The proposed changes to the General Plan land use map and designations would not be adopted, but the rest of the proposed 2030 General Plan changes would be adopted, including the Circulation and Transportation Element revisions, the new Economic Development Element, updates to reflect State statutes, and other policy revisions. The zoning map would be updated to reflect the current adopted 2030 General Plan land use map, and the remaining Sustainability Updates would occur, including the Municipal Code Updates, Design Guidelines Updates, CAP, and Balanced Mode Circulation Plan.
- **Open Space Alternative.** The General Plan land use map would be revised as proposed by the Oroville Sustainability Updates, except that the two Mixed Use areas would change to an open space designation instead of the proposed Medium Density Residential and Industrial designations. To allow economic use of the property, the open space designation would still allow a single family home on each existing parcel; a 300-foot buffer would be required between the home and an existing adjacent industrial use. All other proposed General Plan land use map changes would be adopted, along with all other components of the Oroville Sustainability Updates.

Table 5-1 summarizes the level of development for each alternative, and Table 5-2 summarizes the result of analyzing each alternative against the impact factors considered for the Modified Project, according to whether it would have a mitigating or adverse effect. This analysis is presented in greater detail in the following sections.

TABLE 5-1 **PROJECT ALTERNATIVES DEVELOPMENT SUMMARY**

Alternatives	Dwelling Units	Commercial (Square Feet)	Industrial (Square Feet)
Oroville Sustainability Updates (Project)	27,985	21.17 million	8.93 million
No Project Alternative	27,600	21.2 million	8.7 million
Existing General Plan Land Use Map Alternative	27,600	21.2 million	8.7 million
Open Space Alternative	27,940	21.17 million	8.7 million

C. No Project Alternative

This section analyzes the No Project Alternative against the Modified Project.

1. Principal Characteristics

Under this alternative, the proposed Oroville Sustainability Updates would not be adopted; the existing Oroville 2030 General Plan, Zoning Ordinance and map, Municipal Code, and Design Guidelines would remain unchanged, and the CAP and Balanced Mode Circulation Plan would not be adopted. Thus, new development would occur according to the existing 2030 General Plan land use designations. In addition, the existing zoning map would remain in effect, which makes this alternative infeasible, since State statutes require that the Zoning Ordinance be consistent with the adopted General Plan. However, it is analyzed because CEQA requires that an EIR consider the impacts of not adopting the proposed project.

As shown in Table 5-1, the No Project Alternative differs from the Modified Project in terms of the amount of anticipated development by the General Plan horizon year of 2030. The No Project Alternative would allow slightly more commercial development and slightly less residential and industrial development by 2030 than the Modified Project. The expected 2030 development under the No Project Alternative, which is based on the 2030 General Plan, is equivalent to that of the Approved Project, which is approximately:

- 27,600 dwelling units
- 21.2 million square feet of retail/office space
- 8.7 million square feet of industrial space

TABLE 5-2 **COMPARISON OF PROJECT ALTERNATIVES**

Impact Factors	No Project Alternative	Existing General Plan Land Use Map Alternative	Open Space Alternative
Aesthetics	=	+	+
Air Quality	-	=	=
Biological Resources	=	=	+
Cultural Resources	=	=	+
Geology, Soils and Mineral Resources	+	+	+
Greenhouse Gas Emissions	- -	+	+
Hazards and Hazardous Materials	=	=	+
Hydrology and Water Quality	=	+	+
Land Use	- -	-	-
Noise	=	=	=
Population and Housing	+	+	+
Public Services and Recreation	=	+	+
Transportation and Circulation	- -	=	=
Utilities and Infrastructure	=	+	+

++ Substantial improvement compared to the Modified Project.
+ Insubstantial improvement compared to the Modified Project.
= Same impact as Modified Project.
- Insubstantial deterioration compared to the Modified Project.
- - Substantial deterioration compared to the Modified Project.

Note: Competing aspects within some factors would create both improvement and deterioration simultaneously for a single alternative. These trade-offs are discussed in the text.

2. Impact Analysis

The No Project Alternative would have the following impacts relative to the Modified Project.

a. Aesthetics

The Modified Project would not allow new development in areas that were previously designated for open space, so it would result in the same level of conversion of undeveloped land, which can have aesthetics impacts, as the No Project Alternative. However, the No Project Alternative would not allow the increased density and intensity of development in the Downtown and mixed use areas, nor would it allow the Modified Project components that promote solar panels and other sustainable design features, both of which could affect the character of existing neighborhoods and/or affect scenic vistas through tall buildings and solar energy facilities. In addition, the No Project Alternative would not include the Modified Project's strategies and guidelines that have the potential to increase light or glare, such as by encouraging the use of reflective paving and roofing materials, installing photovoltaic solar panels, and installing lighting to improve safety.

Both the No Project Alternative and the Modified Project would be subject to the same set of 2030 General Plan policies regarding aesthetics, which would help to mitigate potential visual impacts. However, the No Project Alternative would not include the proposed Municipal Code Updates that would establish development standards that reduce potential visual impacts, incentivize the development of blighted areas and properties, and establish oak tree loss mitigation standards, nor would it include the landscape design improvements that would result from the proposed Design Guidelines Updates, CAP, and Balanced Mode Circulation Plan, all of which would reduce potential visual impacts as described in Chapter 4.1, Aesthetics.

Overall, although the No Project Alternative would avoid some of the Modified Project's potential impacts on aesthetics related to neighborhood character, scenic vistas, and light and glare, it would lack some of the improved development standards and landscape design improvements that would result from the Modified Project. Therefore, the No Project Alternative would have essentially the same impact as the Modified Project.

b. Air Quality

As discussed in Chapter 4.2, the most recent Air Quality Attainment Plan (AQAP) is based on the land use designations in the adopted 2030 General Plan. The

Modified Project would not conflict with the AQAP given the nominal increase in population and employment coupled with proposed policies to reduce vehicle miles traveled (VMT) and associated mobile source emissions. The air quality plan consistency impact would be the same under the No Project Alternative, since it would include the adopted 2030 General Plan land use map.

The No Project Alternative would allow less development than the Modified Project, so it would reduce construction-related and operational air pollutant emissions. However, it would lack the policies and actions to reduce emissions through the Modified Project's proposed changes to the Open Space, Natural Resources, and Conservation Element, CAP, Design Guidelines Updates, and Balanced Mode Circulation Plan, mainly by electrifying heavy-duty construction equipment, encouraging public transit over personal vehicle use, concentrating new mixed-use development near Downtown, and promoting energy efficiency upgrades. Furthermore, the No Project Alternative would maintain the Mixed Use designation along Ophir Road, which could expose new residential sensitive receptors to existing industrial sources of toxic air contaminants (TACs) in this area, and it would lack the Modified Project's policies that would reduce ambient human health risks throughout the community, such as CAP strategy LUT-9, *Idling Ordinance*, which limits heavy-duty vehicle idling to 3 minutes, and strategies in the CAP and Balanced Mode Circulation Plan that encourage alternative transportation and reduce VMT and corresponding onroad fuel combustion, TACs, and smog.

On the other hand, the No Project Alternative would maintain existing animal keeping restrictions, thus avoiding potential increases in odors, but, as described in Chapter 4.2, such odors would be mitigated by the City's use permit requirements and Butte County Air Quality Management District (BCAQMD) requirements.

Overall, while the No Project Alternative would generate fewer construction-related and operational air pollutant emissions based on development levels, it would lack the many policies, actions, and strategies that would reduce emissions. In addition, the No Project Alternative could expose more sensitive receptors to TACs and other health risks. Therefore, the No Project Alternative would cause an insubstantial deterioration compared to the Modified Project.

c. Biological Resources

The No Project Alternative would have the same overall urban footprint as the Modified Project, so it would have similar impacts on biological resources as the Modified Project with respect to the land use map. However, the No Project Alternative would not include implementation of the Balanced Mode Circulation

Plan, which could have adverse effects on special-status species habitat, riparian habitat, other sensitive natural communities, and federally protected wetlands due to roadway widenings or new trail construction that could occur in areas of special-status species habitat, sensitive natural communities, or federally protected wetlands.

On the other hand, the No Project Alternative would lack the Modified Project's potential benefits to special-status species, sensitive natural communities, and wetlands adjacent to development areas from the proposed Design Guidelines Updates, which ban the use of invasive plant species in landscaping, and the proposed Oak Tree Loss Mitigation Ordinance, which preserves oak trees.

In summary, the No Project Alternative would avoid potential impacts associated with roadway widenings and new trail construction from the Balanced Mode Circulation Plan, but this benefit would be offset by the lack of invasive plant species guidelines and oak tree preservation and mitigation requirements. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

d. Cultural Resources

The No Project Alternative would have the same overall urban footprint as the Modified Project, so it would have similar impacts on buried cultural resources as the Modified Project. The No Project Alternative would not include various components of the Modified Project that have the potential to impact historic resources in the built environment, as discussed in Chapter 4.4, including:

- Allowing professional office uses in the homes along Montgomery Street.
- Increased density and intensity of development in the Downtown.
- Promoting a diversity of housing types in the Downtown Historic Overlay.
- Facilitating the development of solar energy facilities.
- Promoting green building design.

On the other hand, the No Project Alternative would lack the Arts, Culture, and Entertainment Overlay and associated land use map changes that overall support historic resources in the Downtown and help to establish the Historic Downtown as an arts, culture, entertainment, and employment center for the region. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

e. Geology, Soils, and Mineral Resources

The No Project Alternative would allow less development than the Modified Project, which would expose fewer people to risks from geologic and seismic hazards, including ground rupture, ground shaking, liquefaction, landslides and mudslides, unstable soils, and expansive soils. This reduction in development potential could also reduce soil erosion, use of septic tanks or alternative wastewater disposal systems, and mineral resource impacts. Although compliance with 2030 General Plan policies and State requirements would mitigate the Modified Project's potential impacts, the reduction in development potential under the No Project Alternative would still reduce impacts, causing an insubstantial improvement compared to the Modified Project.

f. Greenhouse Gas Emissions

The No Project Alternative would allow slightly less development than the Modified Project, which could reduce greenhouse gas (GHG) emissions in Oroville. However, the No Project Alternative would not include the proposed CAP, which sets a GHG emissions reduction target that is consistent with Assembly Bill (AB) 32 and the AB 32 Scoping Plan, and establishes strategies and actions to reduce GHG emissions to a level that meets that target. The proposed CAP also directs the City to establish a GHG emissions reduction target for years beyond 2020, so the No Project Alternative would lack appropriate GHG emissions reduction planning for both 2020, the target year for AB 32, and 2030, the General Plan horizon year.

Furthermore, as described in Chapter 4.6, the Modified Project includes policies, strategies, and actions in the Open Space and Conservation Element revisions, CAP, Design Guidelines Updates, and Balanced Mode Circulation Plan to increase the city's resiliency and ability to adapt to changing climatic conditions. In particular, the CAP includes energy efficiency and renewable energy measures that will reduce fossil fuel consumption and potentially partially buffer the city from future spikes in energy prices and demand. Water conservation measures included in the CAP will also reduce the city's reliance on diminishing water supplies influenced by changing precipitation levels and temperature. Land use and transportation measures, including the Balanced Mode Circulation Plan, that promote alternative vehicles and non-motorized forms of travel may improve local air quality. Likewise, urban forestry practices may help reduce urban heat island effects and ambient temperatures within the heavily urbanized portions of the city. In addition, the CAP includes adaptation strategies and frameworks that will make new development and the city more resilient overall to inevitable climate change effects and avoid additional physical harm to persons and property that results

from climate change. Without these components of the Modified Project, the No Project Alternative would place people and structures at risk of harm due to climate change effects.

Without the proposed CAP strategies and actions to reduce GHG emissions and adapt to climate change, the No Project Alternative would conflict with AB 32 and the AB 32 Scoping Plan, and it would increase risks related to climate change effects. Therefore, the No Project Alternative would cause a substantial deterioration compared to the Modified Project.

g. Hazards and Hazardous Materials

The No Project Alternative would allow slightly less development than the Modified Project, including less industrial development, which could reduce potential hazards related to the transport, use, disposal, or accidental release of hazardous materials. This reduction in development potential could also reduce potential impacts related to the implementation of an adopted emergency response or evacuation plan, as well as reduce exposure to wildland fire hazards. However, the No Project Alternative would allow more residential development within the Oroville Airport Land Use Compatibility Plan area by maintaining the Mixed Use designation along Highway 162 near Thermalito, which allows a higher density of residential development than the Medium Density Residential designation proposed by the Modified Project, thus exposing more residents to airport hazards. In addition, the No Project Alternative would lack the Modified Project's proposed Safety Element policies that would provide additional protections to the public from wildland fire hazards, as described in Chapter 4.7.

In summary, the No Project Alternative would reduce some hazards and hazardous materials impacts by allowing less development overall, but this benefit would be offset by the increased amount of residential development near the airport and the lack of additional wildland fire policies proposed by the Modified Project. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

h. Hydrology and Water Quality

The No Project Alternative would allow slightly less development than the Modified Project, which could reduce groundwater demands and reduce impacts on groundwater recharge, drainage patterns, and surface runoff from less impervious surface area overall. In addition, the reduction in industrial development under the No Project Alternative could improve water quality. Both

the No Project Alternative and the Modified Project would allow development, including housing, in areas that are subject to flooding.

The No Project Alternative would lack the Modified Project components that conserve groundwater, limit impervious areas, promote groundwater recharge, and promote natural stormwater management, and it would lack the proposed CAP adaptation strategies to improve the resiliency of Oroville's water system to climate change.

In summary, the No Project Alternative would reduce some hydrology and water quality impacts by allowing less development, but this benefit would be offset by the lack of policies, strategies, actions, and guidelines proposed by the Modified Project that would help to mitigate impacts. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

i. Land Use

Neither the No Project Alternative nor the Modified Project would physically divide established communities. The No Project Alternative would maintain the existing 2030 General Plan land use map and the existing zoning map, which are not consistent, creating a conflict between these two important planning documents. In addition, the No Project Alternative would maintain the Mixed Use designation in the Ophir Road area, which could increase potential land use conflicts between new residential uses and existing industrial uses.

The No Project Alternative and the Modified Project would impact the same amount of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, and they would impact the same amount of forest land. However, the No Project Alternative would lack the proposed Oak Tree Loss Mitigation Ordinance, which would establish mitigation options for the removal of oak trees, including on-site replacement, in-lieu fees, or off-site replacement, as well as replacement standards and maintenance and monitoring requirements for replacement trees, thus reducing forest land impacts.

Because the No Project Alternative would cause a conflict between the 2030 General Plan and the zoning map and increase potential land use conflicts in the Ophir Road area, it would cause a substantial deterioration compared to the Modified Project.

j. Noise

The No Project Alternative would allow slightly less development than the Modified Project, which could reduce the exposure of sensitive uses to noise and vibration and decrease the generation of noise and vibration from construction and demolition activity and stationary noise sources such as industrial facilities. In particular, the No Project Alternative would allow less residential development in the Downtown area, which would decrease the exposure of residential uses to noise in that area. In addition, the No Project Alternative would not include the proposed CAP strategies that promote the development of alternative energy facilities, including wind turbines, which could generate noise.

However, the No Project Alternative would increase exposure of residential uses to noise and vibration in the Ophir Road area by allowing residential uses in an area with existing sources of industrial and railroad noise and vibration. In addition, the No Project Alternative would maintain the Mixed Use designation along Highway 162 in the Thermalito area, which would allow more development within the Oroville Airport Land Use Compatibility Plan area, increasing the number of residents and workers that could be exposed to aircraft-related noise.

In summary, the No Project Alternative would reduce some noise impacts by allowing less development and not including the CAP strategies that promote alternative energy development, but this benefit would be offset by the increased exposure of residential uses to industrial, railroad, and airport noise and vibration described above. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

k. Population and Housing

The No Project Alternative would allow slightly less development than the Modified Project, which would reduce potential impacts related to population growth. Neither the No Project Alternative nor the Modified Project would displace housing or people. Because the No Project Alternative would reduce the development potential and associated population growth, it would cause an insubstantial improvement compared to the Modified Project.

l. Public Services and Recreation

The No Project Alternative would allow slightly less development than the Modified Project, which would reduce demands on public service providers, including police, fire, schools, libraries, and parks and recreation, and would thus reduce the demand for new or expanded facilities associated with these services. In addition, the associated reduction in population would reduce the use of existing

parks and recreational facilities that can contribute to their deterioration. Furthermore, the No Project Alternative would maintain the City's existing parkland service ratio of 3 acres of parkland per 1,000 residents, while the Modified Project would increase it to 5 acres. With the reduced population and lower parkland ratio, the No Project Alternative would be able to meet the parkland requirements based on existing parkland without requiring the development of new parkland.

However, the No Project Alternative would lack the components of the Modified Project that would improve public services and recreation in Oroville, including:

- A new Municipal Code section on Crime Prevention Through Environmental Design (CPTED) that would help to prevent crime by delineating private and public spaces, enhancing visibility, controlling property access, and ensuring adequate property maintenance, and, in turn, reduce demands on police services.
- New Safety Element policies that improve fire safety in areas that are susceptible to wildland fire hazards and ensure regular training for Oroville Fire Department staff for wildland fire-fighting conditions.
- A new Municipal Code chapter that would require new development to provide parkland at the 5-acre ratio and/or to pay in-lieu fees.

In summary, the No Project Alternative would reduce some public services and recreation impacts by allowing less development and maintaining the lower parkland service ratio, but this benefit would be offset by the lack of proposed regulations and policies that improve public services and recreation in Oroville. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

m. Transportation and Circulation

The No Project Alternative would allow slightly less development than the Modified Project, which would reduce traffic and airport activity. However, the No Project Alternative would maintain the City's existing level of service (LOS) policy, under which the existing 2030 General Plan would cause a significant and unavoidable traffic impact, as described on pages 4.12-49 to 4.12-50 of the 2008 Draft EIR for the Approved Project. The Modified Project would avoid this impact by allowing exceptions to the LOS policy to balance the needs of all transportation system users and community values, as described in Chapter 4.13.

In addition, the No Project Alternative would not include the proposed Balanced Mode Circulation Plan and other Modified Project components discussed in Chapter 4.13 that promote consistency with adopted policies, plans, and programs supporting alternative transportation, including the City's Bicycle Transportation Plan.

Because the No Project Alternative would cause a significant traffic impact that would be avoided by the Modified Project, and it would exclude the other Modified Project components that support alternative transportation, it would cause a substantial deterioration compared to the Modified Project.

n. Utilities and Infrastructure

The No Project Alternative would allow slightly less development than the Modified Project, which would reduce demands on utilities and infrastructure, including water supply and infrastructure, wastewater treatment capacity and infrastructure, stormwater drainage facilities, solid waste generation and landfill capacity, and energy consumption. In addition, the No Project Alternative would allow less industrial development than the Modified Project, which would improve the quality of runoff water entering the wastewater treatment plant, helping to comply with Regional Water Quality Control Board (RWQCB) permit requirements.

However, the No Project Alternative would lack the Modified Project components that, as described in Chapter 4.14, reduce demands on utilities and infrastructure, including:

- Climate change adaptation strategies to improve the resiliency of the water system and decrease the magnitude of climate change impacts.
- New design guidelines that promote natural stormwater management and improve overall water quality from runoff.
- New design guidelines and CAP actions that reduce solid waste generation.
- New CAP actions, Municipal Code requirements, and design guidelines that conserve water and energy.

In summary, the No Project Alternative would reduce some utilities and infrastructure impacts by allowing less development, but this benefit would be offset by the lack of proposed policies, regulations, strategies, and guidelines that

reduce demands on utilities and infrastructure. Therefore, the No Project Alternative would have about the same impact as the Modified Project.

D. Existing General Plan Land Use Map Alternative

This section analyzes the Existing General Plan Land Use Map Alternative against the Modified Project.

1. Principal Characteristics

Under this alternative, the proposed Oroville Sustainability Updates would be adopted, with the exception of the proposed changes to the General Plan Land Use Map. The rest of the proposed 2030 General Plan changes would be adopted, including the Circulation and Transportation Element revisions, the new Economic Development Element, updates to reflect State statutes, and other policy revisions. The zoning map would be updated to reflect the current adopted 2030 General Plan land use map. Therefore, similar to the No Project Alternative, new development would occur according to the existing 2030 General Plan land use designations, but, different from the No Project Alternative, the zoning map would be consistent with the General Plan land use map. The remaining Sustainability Updates would occur, including the Municipal Code Updates, Design Guidelines Updates, CAP, and Balanced Mode Circulation Plan.

As shown in Table 5-1, the Existing General Plan Land Use Map Alternative would allow the same amount of anticipated development as the No Project Alternative because they would both include the same General Plan land use map. As with the No Project Alternative, the Existing General Plan Land Use Map Alternative would allow slightly more commercial development and slightly less residential and industrial development by 2030 than the Modified Project. The expected 2030 development under the Existing General Plan Land Use Map Alternative, which is based on the 2030 General Plan, is equivalent to that of the Approved Project, which is approximately:

- 27,600 dwelling units
- 21.2 million square feet of retail/office space
- 8.7 million square feet of industrial space

2. Impact Analysis

The Existing General Plan Land Use Map Alternative would have the following impacts relative to the Modified Project.

a. Aesthetics

The Modified Project would not allow new development in areas that were previously designated for open space, so it would result in the same level of conversion of undeveloped land, which can have aesthetics impacts, as the Existing General Plan Land Use Map Alternative. Both the Modified Project and the Existing General Plan Land Use Map Alternative would promote solar panels and other sustainable design features, which could affect the character of existing neighborhoods and/or affect scenic vistas through solar energy facilities. In addition, both the Modified Project and the Existing General Plan Land Use Map Alternative would include strategies and guidelines that have the potential to increase light or glare, as summarized in Section C.2.a.

However, the Existing General Plan Land Use Map Alternative would not allow the increased density and intensity of development in the Downtown and mixed use areas proposed by the Modified Project, which could affect the character of existing neighborhoods and/or affect scenic vistas through tall buildings.

Both the Existing General Plan Land Use Map Alternative and the Modified Project would be subject to the same set of 2030 General Plan policies regarding aesthetics, which would help to mitigate potential visual impacts. In addition, the Existing General Plan Land Use Map Alternative would include the Modified Project's proposed development and landscape design standards that would reduce potential visual impacts, as summarized in Section C.2.a.

Because the Existing General Plan Land Use Map Alternative would not increase the allowed density and intensity of development in the Downtown and mixed use areas, it would cause an insubstantial improvement compared to the Modified Project.

b. Air Quality

As discussed in Section C.2.b, the most recent AQAP is based on the land use designations in the adopted 2030 General Plan, and the Modified Project would not conflict with the AQAP. The air quality plan consistency impact would be the same under the Existing General Plan Land Use Map Alternative, since it would include the adopted 2030 General Plan land use map.

The Existing General Plan Land Use Map Alternative would allow less development than the Modified Project, so it would reduce construction-related and operational air pollutant emissions. This alternative would include the Modified

Project's policies and actions to reduce emissions and ambient human health risks throughout the community, which are summarized in Section C.2.b.

However, the Existing General Plan Land Use Map Alternative would maintain the Mixed Use designation along Ophir Road, which could expose new residential sensitive receptors to existing industrial sources of TACs in this area.

Both the Existing General Plan Land Use Map Alternative and Modified Project could increase the number of animals kept on public and private properties through changes to animal keeping restrictions, which could increase odors, but, as described in Section C.2.b, such odors would be mitigated by the City's use permit and BCAQMD requirements.

In summary, the Existing General Plan Land Use Map Alternative would generate fewer construction-related and operational air pollutant emissions based on development levels, but this benefit would be offset by exposing more sensitive receptors to TACs in the Ophir Road area. Therefore, the Existing General Plan Land Use Map Alternative would have about the same impact as the Modified Project.

c. Biological Resources

The Existing General Plan Land Use Map Alternative would have the same overall urban footprint as the Modified Project, so it would have similar impacts on biological resources as the Modified Project with respect to the land use map. In addition, in comparison to the Modified Project, the Existing General Plan Land Use Map Alternative would have similar adverse impacts associated with the Balanced Mode Circulation Plan, as well as similar beneficial impacts associated with the Design Guidelines Updates and Oak Tree Loss Mitigation Ordinance, which are all discussed in Section C.2.c. Therefore, the Existing General Plan Land Use Map Alternative would have essentially the same impact as the Modified Project.

d. Cultural Resources

The Existing General Plan Land Use Map Alternative would have the same overall urban footprint as the Modified Project, so it would have similar impacts on buried cultural resources as the Modified Project. In addition, the Existing General Plan Land Use Map Alternative would include some of the same components of the Modified Project that have the potential to impact historic resources in the built environment, as discussed in Chapter 4.4, including:

- Promoting a diversity of housing types in the Downtown Historic Overlay.

- Facilitating the development of solar energy facilities.
- Promoting green building design.

The Existing General Plan Land Use Map Alternative would avoid potential impacts to historic resources in the Downtown caused by the proposed Professional Office Overlay, which would allow professional office uses in the homes along Montgomery Street, and the proposed increase in the allowed density and intensity of development in the Downtown. However, the Existing General Plan Land Use Map Alternative would lack the Arts, Culture, and Entertainment Overlay and associated land use map changes that overall support historic resources in the Downtown and help to establish the Historic Downtown as an arts, culture, entertainment, and employment center for the region. Therefore, the Existing General Plan Land Use Map Alternative would have about the same impact as the Modified Project.

e. Geology, Soils, and Mineral Resources

The Existing General Plan Land Use Map Alternative would allow less development than the Modified Project, which would expose fewer people to risks from geologic and seismic hazards, including ground rupture, ground shaking, liquefaction, landslides and mudslides, unstable soils, and expansive soils. This reduction in development potential could also reduce soil erosion, use of septic tanks or alternative wastewater disposal systems, and mineral resource impacts. Although compliance with 2030 General Plan policies and State requirements would mitigate the Modified Project's potential impacts, the reduction in development potential under the Existing General Plan Land Use Map Alternative would still reduce impacts, causing an insubstantial improvement compared to the Modified Project.

f. Greenhouse Gas Emissions

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, which could reduce GHG emissions in Oroville. In addition, the Existing General Plan Land Use Map Alternative would include the proposed CAP, which, as discussed in Section C.2.f, sets a GHG reduction target and establishes strategies and actions to meet that target, consistent with AB 32 and the AB 32 Scoping Plan. The Existing General Plan Land Use Map Alternative would also include the other project components that would increase the city's resiliency and ability to adapt to changing climatic conditions, thus reducing risk of harm from climate change effects, as discussed in Section C.2.f. Given the slight reduction in development potential and the inclusion of other

project components that address GHG emissions and climate change, the Existing General Plan Land Use Map Alternative would cause an insubstantial improvement compared to the Modified Project.

g. Hazards and Hazardous Materials

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, including less industrial development, which could reduce potential hazards related to the transport, use, disposal, or accidental release of hazardous materials. This reduction in development potential could also reduce potential impacts related to the implementation of an adopted emergency response or evacuation plan, as well as reduce exposure to wildland fire hazards. In addition, the Existing General Plan Land Use Map Alternative would include the Modified Project's proposed policies that address wildland fire hazards, as discussed in Section C.2.g. However, as discussed in Section C.2.g, the Existing General Plan Land Use Map Alternative would allow more residential development within the Oroville Airport Land Use Compatibility Plan area, thus exposing more residents to airport hazards.

In summary, the Existing General Plan Land Use Map Alternative would reduce some hazards and hazardous materials impacts by allowing less development overall, but this benefit would be offset by the increased amount of residential development near the airport. Therefore, the Existing General Plan Land Use Map Alternative would have about the same impact as the Modified Project.

h. Hydrology and Water Quality

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, which could reduce groundwater demands and reduce impacts on groundwater recharge, drainage patterns, and surface runoff from less impervious surface area overall. The reduction in industrial development under the Existing General Plan Land Use Map Alternative could improve water quality. Both the Existing General Plan Land Use Map Alternative and the Modified Project would allow development, including housing, in areas that are subject to flooding. In addition, the Existing General Plan Land Use Map Alternative would include the Modified Project components that help to mitigate hydrology and water quality impacts, as described in Section C.2.h. Therefore, the Existing General Plan Land Use Map Alternative would create an insubstantial improvement compared to the Modified Project.

i. Land Use

Neither the Existing General Plan Land Use Map Alternative nor the Modified Project would physically divide established communities or conflict with applicable plans that avoid or mitigate environmental effects. The Existing General Plan Land Use Map Alternative would maintain the Mixed Use designation in the Ophir Road area, which could increase potential land use conflicts between new residential uses and existing industrial uses.

The Existing General Plan Land Use Map Alternative and the Modified Project would impact the same amount of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, and they would impact the same amount of forest land. Also, they would both include the proposed Oak Tree Loss Mitigation Ordinance, which, as discussed in Section C.2.i, would reduce forest land impacts.

Overall, because the Existing General Plan Land Use Map Alternative would increase potential land use conflicts in the Ophir Road area, it would cause an insubstantial deterioration compared to the Modified Project.

j. Noise

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, which could reduce the exposure of sensitive uses to noise and vibration and decrease the generation of noise and vibration from construction and demolition activity and stationary noise sources such as industrial facilities, as described in Section C.2.j. In addition, the Existing General Plan Land Use Map Alternative would slightly reduce traffic-related noise by allowing less development than the Modified Project, while also including the Modified Project components that would reduce VMT, as described in Chapter 4.10.

However, the Existing General Plan Land Use Map Alternative would increase exposure of residential uses to noise and vibration in the Ophir Road area by allowing residential uses in an area with existing sources of industrial and railroad noise and vibration. In addition, the Existing General Plan Land Use Map Alternative would maintain the Mixed Use designation along Highway 162 in the Thermalito area, which would allow more development within the Oroville Airport Land Use Compatibility Plan area, increasing the number of residents and workers that could be exposed to aircraft-related noise.

In summary, the Existing General Plan Land Use Map Alternative would reduce some noise impacts by allowing less development, but this benefit would be offset

by the increased exposure of residential uses to industrial, railroad, and airport noise vibration described above. Therefore, the Existing General Plan Land Use Map Alternative would have about the same impact as the Modified Project.

k. Population and Housing

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, which would reduce potential impacts related to population growth. Neither the Existing General Plan Land Use Map Alternative nor the Modified Project would displace housing or people. Because the Existing General Plan Land Use Map Alternative would reduce the development potential and associated population growth, it would cause an insubstantial improvement compared to the Modified Project.

l. Public Services and Recreation

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, which would reduce demands on public service providers, including police, fire, schools, libraries, and parks and recreation, and would thus reduce the demand for new or expanded facilities associated with these services. In addition, the associated reduction in population would reduce the use of existing parks and recreational facilities that can contribute to their deterioration. As with the Modified Project, the Existing General Plan Land Use Map Alternative would increase the City's parkland service ratio to 5 acres per 1,000 residents. The reduced population under this alternative would require 323 acres parkland, compared to the 328 required by the Modified Project. Both scenarios would require the development of additional parkland to meet this new parkland service ratio.

The Existing General Plan Land Use Map Alternative would include the other Modified Project components that would improve public services and recreation in Oroville, as summarized in Section C.2.l.

Overall, the Existing General Plan Land Use Map Alternative would cause an insubstantial improvement compared to the Modified Project.

m. Transportation and Circulation

Both the Existing General Plan Land Use Map Alternative and the Modified Project would change the City's LOS policy to balance the needs of all transportation system users and community values. The Existing General Plan Land Use Map Alternative would also include the proposed Balanced Mode Circulation Plan and other Modified Project components discussed in Chapter 4.13

that promote consistency with adopted policies, plans, and programs supporting alternative transportation, including the City's Bicycle Transportation Plan. Therefore, the Existing General Plan Land Use Map Alternative would have essentially the same impact as the Modified Project.

n. Utilities and Infrastructure

The Existing General Plan Land Use Map Alternative would allow slightly less development than the Modified Project, which would reduce demands on utilities and infrastructure, including water supply and infrastructure, wastewater treatment capacity and infrastructure, stormwater drainage facilities, solid waste generation and landfill capacity, and energy consumption. In addition, the Existing General Plan Land Use Map Alternative would allow less industrial development than the Modified Project, which would improve the quality of runoff water entering the wastewater treatment plant, helping to comply with RWQCB permit requirements.

In addition, the Existing General Plan Land Use Map Alternative would include the Modified Project components that reduce demands on utilities and infrastructure, as summarized in Section C.2.n.

Therefore, the Existing General Plan Land Use Map Alternative would cause an insubstantial improvement compared to the Modified Project.

E. Open Space Alternative

This section analyzes the Open Space Alternative against the Modified Project.

1. Principal Characteristics

Under this alternative, the General Plan land use map would be revised as proposed by the Oroville Sustainability Updates, except that the two Mixed Use areas would change to an open space designation instead of the proposed Medium Density Residential and Industrial designations. To allow economic use of the property, the open space designation would still allow a single family home on each existing parcel, but overall the area of land that could be developed would be reduced. In addition, given that this would be applied in an existing industrial area, a 300-foot buffer would be required between a new home and an existing adjacent industrial use. All other proposed General Plan land use map and designation changes would be adopted, and all other proposed 2030 General Plan Updates would be adopted, including the Circulation and Transportation Element revisions, the new Economic Development Element, updates to reflect State statutes, and

other policy revisions. The zoning map would be updated to reflect this revised General Plan land use map. All other components of the Oroville Sustainability Updates would be adopted, including the Municipal Code Updates, Design Guidelines Updates, CAP, and Balanced Mode Circulation Plan.

As shown in Table 5-1, the Open Space Alternative would allow slightly less residential development than the Modified Project, but slightly more than the No Project Alternative. It would allow the least amount of non-residential development among all the alternatives, including the same level of commercial development as the Modified Project and the same level of industrial development as the No Project Alternative. The expected 2030 development under the Open Space Alternative is approximately:

- 27,940 dwelling units
- 21.17 million square feet of retail/office space
- 8.7 million square feet of industrial space

2. Impact Analysis

The Open Space Alternative would have the following impacts relative to the Modified Project.

a. Aesthetics

The Open Space Alternative would only allow a single family home per existing parcel in areas that would be designated for denser residential and industrial uses under the Modified Project. Therefore, the Open Space Alternative would result in less land conversion, which could reduce aesthetics impacts.

Both the Modified Project and the Open Space Alternative would allow the increased density and intensity of development in the Downtown and mixed use areas, as well as the project components that promote solar panels and other sustainable design features, both of which could affect the character of existing neighborhoods and/or affect scenic vistas through tall buildings and solar energy facilities. In addition, both the Modified Project and the Open Space Alternative would include strategies and guidelines that have the potential to increase light or glare, as summarized in Section C.2.a.

Both the Open Space Alternative and the Modified Project would be subject to the same set of 2030 General Plan policies regarding aesthetics, which would help to mitigate potential visual impacts. In addition, the Open Space Alternative would include the Modified Project's proposed development and landscape design

standards that would reduce potential visual impacts, as summarized in Section C.2.a

Overall, while many of the Open Space Alternative's components and features would have similar aesthetics impacts as the Modified Project, the Open Space Alternative would allow less land conversion, causing an insubstantial improvement compared to the Modified Project.

b. Air Quality

As discussed in Section C.2.b, the most recent AQAP is based on the land use designations in the adopted 2030 General Plan. Neither the Open Space Alternative nor the Modified Project would conflict with the AQAP given the nominal increase in population and employment coupled with proposed policies to reduce VMT and associated mobile source emissions.

The Open Space Alternative would allow less development than the Modified Project, which would reduce construction-related and operational air pollutant emissions. Both the Open Space Alternative and Modified Project would reduce TAC exposure to sensitive receptors by changing the Mixed Use designation along Ophir Road because Mixed Use allows a high number of dwelling units in an existing industrial area. However, the Open Space Alternative would still allow some limited residential development; although a 300-foot buffer would be required, this alternative would expose more sensitive receptors to TACs than the Modified Project. The Open Space Alternative would include the Modified Project's policies and actions to reduce emissions and ambient human health risks throughout the community, which are summarized in Section C.2.b.

Both the Open Space Alternative and Modified Project could increase the number of animals kept on public and private properties through changes to animal keeping restrictions, which could increase odors, but, as described in Section C.2.b, such odors would be mitigated by the City's use permit and BCAQMD requirements.

Overall, the Open Space Alternative would generate fewer construction-related and operational air pollutant emissions based on less development, but it would expose more sensitive receptors to TACs in the Ophir Road area. Therefore, the Open Space Alternative would have about the same impact as the Modified Project.

c. Biological Resources

The Open Space Alternative would reduce the overall urban footprint compared to the Modified Project, which would reduce impacts on biological resources,

although it would not avoid the significant impact on the California black rail discussed in Section 4.3.

In comparison to the Modified Project, the Open Space Alternative would have similar adverse impacts associated with the Balanced Mode Circulation Plan, as well as similar beneficial impacts associated with the Design Guidelines Updates and Oak Tree Loss Mitigation Ordinance, which are all discussed in Section C.2.c.

Because of the reduction in the urban footprint, the Open Space Alternative would cause an insubstantial improvement compared to the Modified Project.

d. Cultural Resources

The Open Space Alternative would reduce the overall urban footprint compared to the Modified Project, which would reduce impacts on buried cultural resources.

The Open Space Alternative would include the same components of the Modified Project that have the potential to adversely impact historic resources in the built environment that are discussed in Section C.2.d. It would also include the proposed Arts, Culture, and Entertainment Overlay and associated land use map changes that support historic resources in the Downtown.

Because of the reduction in the urban footprint, the Open Space Alternative would cause an insubstantial improvement compared to the Modified Project.

e. Geology, Soils, and Mineral Resources

The Open Space Alternative would allow less development than the Modified Project, which would expose fewer people to risks from geologic and seismic hazards, including ground rupture, ground shaking, liquefaction, landslides and mudslides, unstable soils, and expansive soils. This reduction in development potential could also reduce soil erosion, use of septic tanks or alternative wastewater disposal systems, and mineral resource impacts. Although compliance with 2030 General Plan policies and State requirements would mitigate the Modified Project's potential impacts, the reduction in development potential under the Open Space Alternative would still reduce impacts, causing an insubstantial improvement compared to the Modified Project.

f. Greenhouse Gas Emissions

The Open Space Alternative would allow slightly less development than the Modified Project, which could reduce GHG emissions in Oroville. In addition, the Open Space Alternative would include the proposed CAP, which, as discussed in

Section C.2.f, sets a GHG reduction target and establishes strategies and actions to meet that target, consistent with AB 32 and the AB 32 Scoping Plan. The Open Space Alternative would also include the other project components that would increase the city's resiliency and ability to adapt to changing climatic conditions, thus reducing risk of harm from climate change effects, as discussed in Section C.2.f. Given the slight reduction in development potential and the inclusion of other project components that address GHG emissions and climate change, the Open Space Alternative would cause an insubstantial improvement compared to the Modified Project.

g. Hazards and Hazardous Materials

The Open Space Alternative would allow slightly less development than the Modified Project, including less industrial development, which could reduce potential hazards related to the transport, use, disposal, or accidental release of hazardous materials. This reduction in development potential could also reduce potential impacts related to the implementation of an adopted emergency response or evacuation plan, as well as reduce exposure to wildland fire hazards. In addition, the Open Space Alternative would allow less residential development in the Oroville Airport Land Use Compatibility Area by designating the area along Highway 162 near Thermalito for open space. Although this alternative would still allow a single-family home per existing parcel, the Modified Project would allow significantly more residential development in this area through the Medium Density Residential designation that allows 6 to 14 units per acre. Therefore, the Open Space Alternative would expose fewer residents to airport hazards. The Open Space Alternative would also include the Modified Project's proposed policies that address wildland fire hazards, as discussed in Section C.2.g. Therefore, the Open Space Alternative would cause an insubstantial improvement compared to the Modified Project.

h. Hydrology and Water Quality

The Open Space Alternative would allow slightly less development than the Modified Project, which could reduce groundwater demands and reduce impacts on groundwater recharge, drainage patterns, and surface runoff from less impervious surface area overall. The reduction in industrial development under the Open Space Alternative could improve water quality. In addition, the Open Space Alternative would change the designation along Highway 162 in Thermalito to an open space designation, which would reduce development potential in the small area that is within the 100-year flood zone. Finally, the Open Space Alternative would include the Modified Project components that help to mitigate hydrology and water quality impacts, as described in Section C.2.h. Therefore, the Open Space

Alternative would create an insubstantial improvement compared to the Modified Project.

i. Land Use

Neither the Open Space Alternative nor the Modified Project would physically divide established communities or conflict with applicable plans that avoid or mitigate environmental effects. The Open Space Alternative could increase potential land use conflicts by allowing single family homes in an existing industrial area.

The Open Space Alternative and the Modified Project would impact the same amount of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, and they would impact the same amount of forest land. Also, they would both include the proposed Oak Tree Loss Mitigation Ordinance, which, as discussed in Section C.2.i, would reduce forest land impacts.

Overall, because the Open Space Alternative would increase potential land use conflicts in the Ophir Road area, it would cause an insubstantial deterioration compared to the Modified Project.

j. Noise

The Open Space Alternative would allow slightly less development than the Modified Project, which could reduce the exposure of sensitive uses to noise and vibration and decrease the generation of noise and vibration from construction and demolition activity and stationary noise sources such as industrial facilities, as described in Section C.2.j. In addition, the Open Space Alternative would slightly reduce traffic-related noise by allowing less development than the Modified Project, while also including the Modified Project components that would reduce VMT, as described in Chapter 4.10. However, the Open Space Alternative would allow limited residential uses in the Ophir Road area, which could expose sensitive receptors to existing industrial and railroad noise and vibration sources.

Overall, the Open Space Alternative would generate less noise and vibration from less development, but it would expose more sensitive receptors to noise and vibration in the Ophir Road area. Therefore, the Open Space Alternative would have about the same impact as the Modified Project.

k. Population and Housing

The Open Space Alternative would allow slightly less development than the Modified Project, which would reduce potential impacts related to population

growth. Neither the Open Space Alternative nor the Modified Project would displace housing or people. Because the Open Space Alternative would reduce the development potential and associated population growth, it would cause an insubstantial improvement compared to the Modified Project.

l. Public Services and Recreation

The Open Space Alternative would allow slightly less development than the Modified Project, which would reduce demands on public service providers, including police, fire, schools, libraries, and parks and recreation, and would thus reduce the demand for new or expanded facilities associated with these services. In addition, the associated reduction in population would reduce the use of existing parks and recreational facilities that can contribute to their deterioration. As with the Modified Project, the Open Space Alternative would increase the City's parkland service ratio to 5 acres per 1,000 residents. The Open Space Alternative would reduce the residential population by about 120 residents compared to the Modified Project, which would decrease the parkland requirement by less than an acre. Both scenarios would require the development of additional parkland to meet this new parkland service ratio.

The Open Space Alternative would include the other Modified Project components that would improve public services and recreation in Oroville, as summarized in Section C.2.l.

Overall, the Open Space Alternative would cause an insubstantial improvement compared to the Modified Project.

m. Transportation and Circulation

Both the Open Space Alternative and the Modified Project would change the City's LOS policy to balance the needs of all transportation system users and community values. The Open Space Alternative would also include the proposed Balanced Mode Circulation Plan and other Modified Project components discussed in Chapter 4.13 that promote consistency with adopted policies, plans, and programs supporting alternative transportation, including the City's Bicycle Transportation Plan. Therefore, the Open Space Alternative would have essentially the same impact as the Modified Project.

n. Utilities and Infrastructure

The Open Space Alternative would allow slightly less development than the Modified Project, which would reduce demands on utilities and infrastructure, including water supply and infrastructure, wastewater treatment capacity and

infrastructure, stormwater drainage facilities, solid waste generation and landfill capacity, and energy consumption. In addition, the Open Space Alternative would allow less industrial development than the Modified Project, which would improve the quality of runoff water entering the wastewater treatment plant, helping to comply with RWQCB permit requirements.

In addition, the Open Space Alternative would include the Modified Project components that reduce demands on utilities and infrastructure, as summarized in Section C.2.n.

Therefore, the Open Space Alternative would cause an insubstantial improvement compared to the Modified Project.

F. Environmentally Superior Alternative

CEQA requires the identification of an environmentally superior alternative in an EIR. Based on the above analysis, which is summarized in Table 5-2, the Open Space Alternative is the Environmentally Superior Alternative. By reducing the amount of land available for development, while also adding the Modified Project components that provide beneficial impacts, the Open Space Alternative would be an improvement over the Modified Project in all topic areas except air quality, land use, noise, and transportation and circulation.

6 CEQA REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter provides an overview of the impacts of the Modified Project based on the technical analyses presented in this SEIR. The topics covered in this chapter include growth inducement, unavoidable significant impacts, expected significant irreversible environmental changes, and cumulative impacts. A more detailed analysis of the project-level and cumulative effects of the proposed project on the environment is provided in Chapter 4 of this report.

A. Growth Inducement

A project is typically considered to be growth-inducing if it fosters economic or population growth. Typical growth inducements might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or removal of major barriers to development. Not all growth inducement is necessarily negative. Negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct and indirect. Direct growth-inducing impacts generally result from the extension of urban services to an undeveloped area, which can serve to induce landowners in the vicinity to convert their properties to urban uses. Indirect, or secondary, growth-inducing impacts, refer to growth induced by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

1. Direct Impacts

The proposed Oroville Sustainability Updates would slightly increase the development potential in the city, which could increase the potential for direct population, employment, and economic growth. However, as described on pages 6-2 to 6-3 of the 2008 Draft EIR for the Approved Project, the 2030 General Plan goals and policies would minimize direct growth-inducement impacts by controlling how growth occurs within Oroville and the SOI in order to ensure that it is well-managed, focusing new development within the existing city limits, and encouraging patterns of development that minimize environmental impacts. The Modified Project would maintain these goals and policies, and it would help to focus development in existing urbanized areas by increasing the allowed development intensity in the Downtown area. Therefore, the direct growth-inducement impact would remain *less than significant*.

2. Indirect Impacts

As described above, indirect growth-inducing impacts would be growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by a new project. Although the Modified Project would increase the development potential in the Project Area, as described in Section A.1, it would maintain the 2030 General Plan goals and policies described on pages 6-2 to 6-3 of the 2008 Draft EIR for the Approved Project and it would promote development in existing urbanized areas. Therefore, the indirect growth-inducement impact would remain *less than significant*.

B. Unavoidable Significant Impacts

As explained in Chapter 4, the Modified Project would not generate any new significant impacts, nor would it increase the severity of any significant and unavoidable impacts from the Approved Project.

C. Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires a discussion of the extent to which a proposed project will commit nonrenewable resources to uses that future generations will probably be unable to reverse. An example of such an irreversible commitment is the construction of highway improvements that would provide public access to previously inaccessible areas.

A project would generally result in a significant irreversible impact if:

- Primary and secondary impacts would commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

1. Changes in Land Use that Commit Future Generations

Development allowed by the Approved and Modified Projects would result in the conversion of vacant land to residential, commercial, and industrial uses, and the intensification of underutilized areas. This development would constitute a long-

term commitment to residential, commercial, industrial, parking, and other urban uses.

2. Commitment of Resources

Development allowed by the Approved and Modified Projects would irretrievably commit nonrenewable resources to the construction and maintenance of buildings, infrastructure, and roadways. These non-renewable resources include mined materials such as sand, gravel, steel, lead, copper, and other metals. Buildout of the Approved and Modified Projects also represents a long-term commitment to the consumption of fossil fuels, natural gas, and gasoline. Increased energy demands would be used for construction, lighting, heating, and cooling of residences, and transportation of people within, to, and from the planning area. The Modified Project would be subject to the 2030 General Plan goals, policies, and actions that are described on page 6-7 of the 2008 Draft EIR for the Approved Project, which would promote energy conservation and minimize or incrementally reduce the consumption of these resources. The Modified Project would also add new energy conservation, fuel reduction, and resource efficiency policies, actions, requirements, and guidelines, as illustrated in Chapter 3, Project Description, of this Draft SEIR, primarily through CAP actions and low-impact development and resource-efficient design guidelines.

Implementation of the Approved and Modified Projects would also result in an irreversible commitment of limited, renewable resources such as lumber and water. The 2030 General Plan policies and Modified Project components discussed above, as well as proposed CAP actions and design guidelines that conserve water, would also result in some savings of renewable resources.

3. Irreversible Damage from Environmental Accidents

Irreversible changes to the physical environment could occur from accidental release of hazardous materials associated with development activities. However, compliance with State and federal hazardous materials regulations and the countywide response plan, as discussed in Chapter 4.7, Hazards and Hazardous Materials, would reduce this potential impact to a *less-than-significant* level. No other irreversible changes are expected to result from the Modified Project.

D. Cumulative Impacts

CEQA Guidelines require consideration of the potential cumulative impacts that could result from a proposed project in conjunction with other projects in the

vicinity. Such impacts can occur when two or more individual effects create a considerable environmental impact or compound other environmental consequences. In the case of citywide planning documents such as the Modified Project components, cumulative effects are effects that combine impacts from implementation of the plans in the Project Area with effects of development in other portions of the region.

In addition to development within the Project Area as evaluated in this SEIR, the cumulative analyses evaluate aggregated impacts from projected development elsewhere in Butte County and adjacent counties. Several jurisdictions and agencies were consulted as part of this analysis to identify current growth, where most intensive growth was occurring within respective jurisdictions, and whether a substantial increase in the amount of growth was expected in the foreseeable future. The jurisdictions consulted include the following:

- Colusa County
- Glenn County
- Tehama County
- Plumas County
- Yuba County
- Sutter County
- City of Colusa
- City of Marysville
- Sacramento Area Council of Governments (SACOG)

While each jurisdiction and SACOG projected a continued trend of population growth and urbanization into the foreseeable future, most of the jurisdictions expected growth to be moderate and they did not expect a substantial increase in their overall level of development in relation to existing conditions. An exception to this trend is southern Yuba County, where a comparatively higher level of growth is occurring and expected to continue into the future.

The potential cumulative effects of the proposed project are discussed at the regional level within each section of Chapter 4, Environmental Evaluation.

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