LIVE OAK CALIFORNIA

Regular Meeting of the
Live Oak Planning Commission
Live Oak City Hall
9955 Live Oak Blvd., Live Oak, CA 95953

Commissioner Perminder Bains, Chair

Commissioner Christine Alcocer

Commissioner Robert Norton, Vice-Chair — Commissioner Aaron Eller

Commissioner Malcolm Weston — Commissioner Donald Albers

February 7, 2017 7:00 PM

A. CALL TO ORDER

B. ROLL CALL

Commissioners Albers, Weston, Eller, Alcocer, Vice-Chair Norton and Chair Bains

C. PLEDGE OF ALLEGIANCE

D. APPEARANCE OF INTERESTED CITIZENS*
To address the Commission please step to the rostrum and state your name and address

E. APPROVAL OF MINUTES

1. Approval of Minutes from September 6, 2016, regular meeting

F. PUBLIC HEARING

2. **Amendment of the Live Oak General Plan in Accordance with Senate Bill 5 and Assembly Bill 162, 200-Year Floodplain Requirements;** Adopt the Resolution approving General Plan Amendments to modify existing and incorporate new goals, policies, and implementation measures related to 200-year flood risk and protection to comply with state law requirements.

3. **Tentative Subdivision Map Extension No. 17-1;** Approve a 3-year extension request to February 2, 2020 of Tentative Subdivision Map Extension Request No. 17-1, subject to the required Findings and report Conditions of Approval.

G. ADJOURNMENT

Persons dissatisfied with any decision of the Planning Commission may appeal such action to the City Council. Appeals, accompanied by a fee of $733, must be filed with the City Clerk, 9955 Live Oak Blvd., Live Oak, CA 95953, within 10 days of such action. If no appeal is filed within this time limit, the Commission action becomes final. The exception to this is rezonings – please check with the Planning Department, 9955 Live Oak Blvd., Live Oak, CA 95953, for the

procedure. Mailed notices of the Council hearings will be accomplished in the same manner as the Planning Commission hearings unless additional notice is deemed necessary.

If you require auxiliary aids or services (e.g., signing services) to make a presentation to the Planning Commission, the City will be glad to assist you. Please contact the City offices (530) 695-2112 at least 72 hours in advance so such aids or services can be arranged.

*Members of the public may address the Planning Commission on items of interest that are within the City's jurisdiction whether or not such items of interest are on the agenda for this meeting. Members of the Commission will respond as best as they can to public comments but cannot take action or enter into a discussion on items not contained on the agenda. Public comment on public hearing agenda items will be permitted during the hearing.

LIVE OAK PLANNING COMMISSION MINUTES
REGULAR MEETING OF SEPTEMBER 6, 2016
City Hall – 9955 Live Oak Boulevard, Live Oak, CA 7:00 PM

A. CALL TO ORDER

The meeting was called to order at 7:00 p.m.

B. ROLL CALL

Commissioners Weston, Eller, Albers, Alcocer, and Chair Bains were present.
Commissioner Norton was absent.
Commissioner Repka arrived after the Pledge.

C. PLEDGE OF ALLEGIANCE

Commissioner Ellers led the Pledge of Allegiance

D. APPEARANCE OF INTERESTED CITIZENS

None were present

E. APPROVAL OF MINUTES

1. The minutes of August 16, 2016 regular meeting were approved with 1 revision;
    - Motion to approve with the correction for the Myrtle Street CUP as a motion was stated to" approve the Myrtle St. CUP for a residential unit within the Commercial Zoning District."

Motion made to approve the August 16, 2016 Planning Commission meeting minutes with the 2 noted corrections. Seconded by Commissioner Albers.

AYES: 5
NOES: 0
ABSTAIN:1
Chairman Bains abstained as he was not at the August 16th meeting.

F. PUBLIC HEARINGS

2. Recommendation of the City of Live Oak Bicycle, Pedestrian, and Trails Plan

Staff gave the staff report presentation for the City of Live Oak Bike, Pedestrian, and Trails Plan. Introduced the Consultant from Alta, Rory Renfor. The Consultant gave a power point presentation on the Bike, Pedestrian, and Trails Plan.

Commissioner Weston asked about the regional plan looking outside the immediate area for connections.

Rory Renfor stated that the Plan did include a map showing the regional plan. However, the plan needed to focus on the immediate area as the Plan needed to have a set geographic area.

Commissioner Weston stated that on pg. 2-5 the direction needed to be corrected to "East" as the River park is east of the Town. He added that he liked the vision.

Commissioner Eller stated he takes several walks with his wife in the evening and he would like to see trails be connected as of right now there are trails that end and then pick up somewhere else.

Rory Renfor stated that the Plan helps with that regarding showing the big picture and helping to be a catalyst towards winning grants to complete trails.

Chairman Bains asked about Pennington Road, do we need to work with other jurisdictions?

Rory Renfor stated yes, we will need to work with other jurisdictions.

Chairman Bains stated that on Table 5-4 it does not list one of the streets, Elm St as it show is in Figure 5-5.

Commissioner Albers asked about future modes of transportation, does the plan include that discussion?

Rory Renfor stated the plan does not discuss future mode of transportation and stated his guess it would actually be a City Code issue.

With no further questions, a Motion was made.

Motion: Commissioner Weston made a motion to approve with the noted changes of the City of Live Oak Bike, Pedestrian, and Trail Plan

Second: Commissioner Eller

AYES: 6
NO: 0

G. ADJOURNMENT

The meeting was adjourned at 8:15 pm.

LIVE OAK
CALIFORNIA

DATE:	February 7, 2017
TO:	City of Live Oak Planning Commission
FROM:	June Cowles, Contract City Planner
Project:	Amendment of the Live Oak General Plan Safety Element in accordance with Senate Bill 5 and Assembly Bill 162, 200-Year Floodplain Requirements
Applicant:	City of Live Oak
Environmental:	Addendum to the General Plan Environmental Impact Report

RECOMMENDED ACTION:
Staff recommends that the Planning Commission make a recommendation to City Council to adopt the Resolution approving General Plan Amendments to modify existing and incorporate new goals, policies, and implementation measures related to 200-year flood risk and protection to comply with state law requirements.

SENATE BILL 5:
The Central Valley Flood Protection Act of 2008, enacted by Senate Bill 5 (SB 5), was approved in 2007. This legislation focused on flood requirements for the Sacramento-San Joaquin Valley, which includes the City of Live Oak. Flood requirements are primarily tied to land use planning decisions and the consideration of potential flood risk related to the occurrence of a 200-year flood event. Local cities and counties, including Live Oak, are required to amend General Plans to address development within 200-year floodplains.

BACKGROUND:
The California Legislature enacted six interrelated flood management bills in 2007 to improve flood management in a sustainable way. Four of these bills (SB 5, AB 70, AB 156, and AB 162) affect the responsibility of cities and counties to address flood risks as part of local land use planning processes. The Central Valley Flood Protection Act of 2008 (SB 5), contained provisions for local agencies to incorporate flood risk consideration into land use planning and ensure that the General Plan Safety Element includes goals, policies, and implementation measures that reflect current statewide flood protection strategies.

SB 5 requires that the Safety Element for each city and county within the Sacramento-San Joaquin Valley establish goals and policies for the protection of lives and property that will reduce the risk of flood damage. Cities and counties are required to make findings related to urban level of flood protection (200-year flood event) based on substantial evidence in the record for one of the following;

1. That flood management facilities protect the property to the 200-year flood event standard; or

2. That the imposed conditions by a city or county on a property, development project or subdivision are sufficient to provide the required level of flood protection; or
3. That the local flood management agency has made adequate progress on the construction of a flood protection system that will result in the required level of flood protection. Construction of the flood protection system for areas protected by State and Federal levees shall be achieved by 2025; or
4. That for urban and urbanizing areas, the property in an undetermined risk area has met the urban level of flood protection on substantial evidence in the record.

It will be the responsibility of the development project proponent to prepare and submit substantial evidence for the record to support the local agency findings.

SB 5 GENERAL PLAN AMENDMENT:
The City of Live Oak's 2030 General Plan was adopted in 2010 and therefore preceded the requirements of the SB 5 and at the time the FEMA 100-year flood protection was the accepted flood protection standard.

The SB 5 bills provide Safety Element requirements that include the establishment of goals, policies, and implementation measures that reflect current state flood protection strategies and feasible implementation measures.

Regional Flood Protection
The primary tributary to the Sacramento River upstream of the Live Oak area is the Feather River. The Feather River West Levee system protects the 326 square mile Sutter Basin area, which includes the Cities of Live Oak, Yuba City, Biggs, and Gridley. In 1911 the State adopted the plan consisting of levees, weirs, and bypasses to reduce the risk of flooding in the Sacramento Valley. Since then the United States Army Corps of Engineers, the State, and local communities continue to extend the system and improve the existing levees. In addition, reservoirs have been constructed since 1911 to include Oroville Dam and Reservoir and New Bullards Bar, which provide a level of flood protection.

Federal Levees
Flood management facilities protecting the City of Live Oak consist of federal project levees along the west side of the Feather River. All levees on the Feather River within the Sutter Basin are part of the Sacramento River Flood Control Projects that was constructed by United States Army Corps of Engineers (USACE). Under long-term federal-State agreements, the State commits to the maintenance of federally constructed flood protection facilities, which are part of the State Plan of Flood Control (SPFC). The Feather River Region includes areas protected by SPFC levees. This region's land uses are primarily rural, but does include several urban areas, including Biggs, Gridley, Live Oak, Marysville, Yuba City, Olivehurst, and Linda.

ANALYSIS:

Sutter Butte Flood Control Agency (SBFCA)

The SBFCA is a joint powers agency formed in 2007 by the Counties of Butte and Sutter, the Cities of Biggs, Gridley, Live Oak, and Yuba City, and Levee Districts 1 and 9. The agency has the authority to finance and construct regional levee improvements. SBFCA conducted an evaluation of the Feather River West Levee system and identified the deficiencies, their magnitude and severity, and the remedial measures required to bring the system up to the current federal and state flood protections standards. SBFCA's goal is to achieve a minimum 200-year level of flood protection for urbanized and urbanizing areas within the Sutter Basin, as much of the County was considered vulnerable to flooding from levee failure. In 2013, the SBFCA started construction on the required state 200-year flood protection improvements. Construction is expected to be completed in 2017 for Project Areas B, C, and D (See Appendix C Figure 4). As shown in Appendix C Figure 5, under the flooding scenarios and with the completion of the Feather River Levee Project, it is unlikely that 200-year flooding would reach the Live Oak 2030 General Plan Area. Based on recent analysis, the Feather River West Levee Project improvements will provide 200-year flood protection for population and assets within the City of Live Oak.

A key requirement of SB 5 is for certain urban and urbanizing areas within the Sacramento-San Joaquin Valley to provide ULOP. The ULOP is defined as the "level of protection that is necessary to withstand flooding that has a 1-in-200 chance of occurring in any given year using criteria consistent with, or developed by, the Department of Water Resources." ULOP does "not mean shallow flooding or flooding from local drainage that meets the criteria of the national Federal Emergency Management Agency standard for flood protection." (CGC §6507[n]) Levees that are intended to provide ULOP must conform to State-defined Urban Levee Design Criteria (i.e., 200-year flood protection).

There are five locational criteria for the ULOP to apply, an SB 5 affected city or county must meet all criteria. The City of Live Oak meets three criteria (the City is an urban or urbanizing area that is planned or anticipated to have 10,000 residents within the next ten years, the City is within the Sacramento-San Joaquin Valley, and the City is located within a watershed with a contributing area of more than 10 square miles). The City does not meet the remaining two criteria: 1) is located within a flood hazard zone that is mapped as either a special hazard area or an area of moderate hazard on Federal Emergency Management Agency's (FEMA) official (i.e., effective) Flood Insurance Rate Map for the National Flood Insurance Program (NFIP) and 2) is located within an area with a potential flood depth above 3 feet from sources other than localized conditions. Localized conditions include localized rainfall, water from stormwater and drainage problems, and temporary water and wastewater distribution system failure. Therefore, the City of Live Oak is not subject to the ULOP standard.

Flood Protection Goals, Policies, and Implementation Programs:
The 2030 General Plan Public Safety Element, Public Utilities, Services and Facilities Element, and the Conservation and Open Space Element include goals, policies, and implementation programs that meet the Safety Element requirements related to flood protection and management. These goals, policies, and implementation programs, with the addition of the proposed amended Safety Element policies PS-3.6 and PS-3.7, meet the SB 5 and AB 162 requirements. The proposed Safety Element policies PS-3.6 and PS-3.7 are shown in underline text in **Attachment 2; Appendix C** "Background Information SB 5 General Plan Amendment for 200-Year Flood Protection" starting on page 4-1.

The proposed General Plan Amendments that include the following Elements are stated in **Exhibit 1A** and as follows;

1. Conservation and Open Space Element
2. Land Use Element
3. Public Safety Element
4. Public Utilities, Services and Facilities Element

Summary of Proposed Amendments to the Live Oak 2030 General Plan:
Upon adoption of the SB 5 GPA, amendments to the existing Live Oak 2030 General Plan are explicitly amended, as follows:

Conservation Element:

On page CO-34, add sentence to end of paragraph under Groundwater Resources heading, as follows:

Detailed information about groundwater recharge sources and about flood protection can be found in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

Land Use Element:

On page LU-1, revise last sentence in second paragraph under Introduction heading, as follows:

Also per State law, this Land Use Element establishes allowable densities and intensities for different land uses and identifies areas subject to flooding. The land within the Planning Area is not subject to 200-year flooding as defined by SB 5 and related legislation. A complete discussion and specific areas potentially subject to flooding as identified by the Federal Emergency Management Agency (FEMA) and the California Department of Water Resources (DWR) is provided in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

Public Safety Element:

On page PS-1, a new sentence was added to the end of the Introduction, as follows:

Live Oak was a participant in the development of the Sutter County Multi-Hazard Mitigation Plan and adopted this plan in 2007. This plan is hereby incorporated by reference. The Sutter County Local Hazard Mitigation Plan was updated in August 2013.

On page PS-1, under Key Issues, the following text has been deleted as follows:

~~The Feather River levee system poses a flood hazard within the vicinity of Live Oak.~~

On page PS-4, under section titled Floodplain, revise the paragraph as follows:

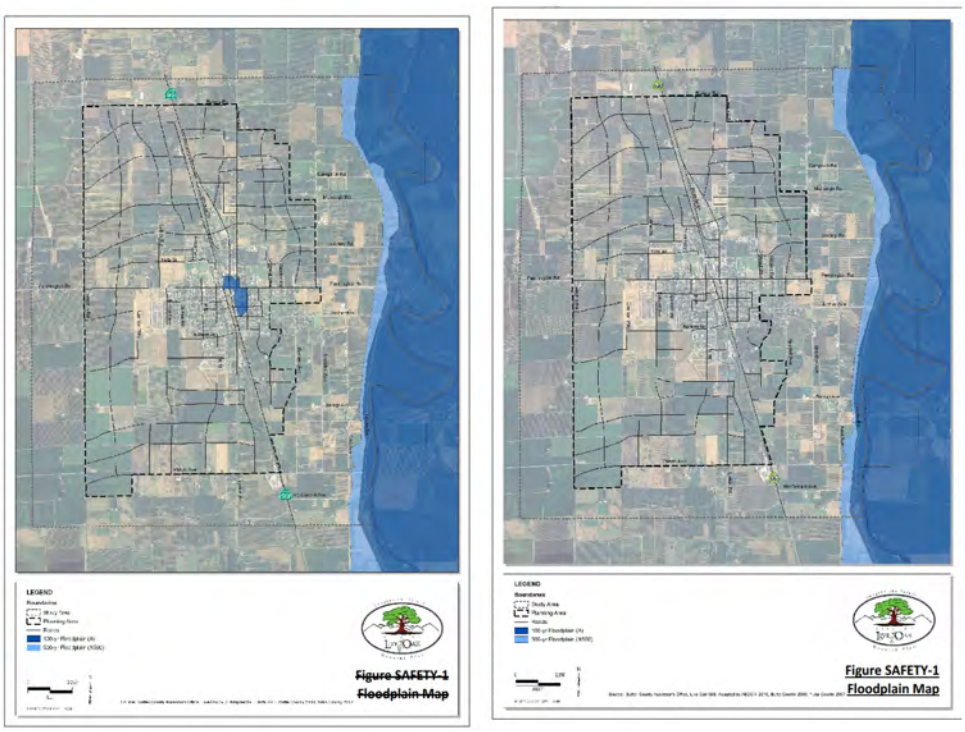
The Live Oak General Plan encompasses a relatively flat area. The drainage pattern of the city is split into two drainage sheds. The majority of the land west of the Southern Pacific Railroad drains south to Reclamation District (RD) No. 777 drainage canal Lateral No. 1. The land east of the railroad drains south and is collected in Live Oak Slough, which is the main canal for RD 777. Live Oak is susceptible to localized flooding by Live Oak Slough, which runs along the east side of the City. ~~The 100-year flood zone (Federal Emergency Management Agency [FEMA] Flood Insurance Rate Map Panel 060395 0001 C) occurs on the east side of State Route (SR) 99 from just south of Juniper Street to Date Street and to L Street to the east (Figure SAFETY-1).~~ The potential for major flooding in Sutter County, including the Live Oak Planning Area, is primarily a function of the integrity of the reservoir, levee, and bypass systems that provide flood protection (Figure SAFETY-1).

On page PS-4, revise section titled Floodplain Issues, as follows:

The primary method of flood control in Sutter County is a system of levees along the Sacramento and Feather Rivers. There are approximately 280 miles of levees within the County. Both urban and agricultural areas are protected by these levees. However, ~~R~~recent ~~and ongoing~~ studies ~~have~~ found that some of these levees ~~do~~ did not meet, or ~~have not been~~ were not certified as meeting, the current levee design criteria for protection against the 2~~1~~00-year flood. As a result, much of the county was ~~is~~ considered vulnerable to flooding from levee failure.

~~It is anticipated that t~~The Sutter County Pilot Feasibility Study (SCPFS), ~~being~~ conducted by the Army Corps of Engineers, ~~will~~ produced a plan to provide 2~~1~~00-year flood protection to the major urban areas within the county,~~. Although it will be several years before this study is complete, the planning objective is to achieve 200-year flood protection to the major urban areas within the county,~~ pursuant to Senate Bill (SB) 5 requirements, and to obtain FEMA levee certification. ~~By 2015, F~~for areas with an existing or projected (within next 10 years) ~~a~~ population of 10,000 or greater ~~or expected population of 10,000 within the next 10 years~~, local governments cannot approve new developments unless the land under review has 200-year flood protection, or efforts are in place to provide that level of protection by 2025. The Feather River West Levee Project (FRWLP), began construction of the most critical sections of the existing levees, and is expected to be completed in 2017. Post-FRWLP mapping based on completion of these improvements shows that the City's Planning Area is outside the 200-year floodplain. A complete discussion is provided in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."~~For areas with a population of less than 10,000, new development cannot be approved unless the area has 100-year flood protection.~~

On page PS-5, replace Floodplain Map (Figure Safety-1) with Floodplain Map that incorporates FEMA LOMR, as follows:



On page PS-10, add policy:

Policy PS-2.8: If any project, including the modification of an existing project, falls within the jurisdiction regulated by the Central Valley Flood Protection Board (CVFPB) (e.g., levees, regulated streams, and designated floodways), the City must apply for an encroachment permit from the CVFPB.

On page PS-11, add policies:

Policy PS-3.6: As feasible, locate new essential facilities outside of flood hazard zones, including hospitals and healthcare facilities, emergency shelters, fire stations, emergency response centers and emergency communication facilities.

Policy PS-3.7: Essential facilities that must be located within flood hazard zones should incorporate feasible site design or building construction features that will minimize flood damage and increase functionality during flooding events.

Public Utilities, Services, and Facilities Element:

On page Public-12, revise the last sentence in the first paragraph under the heading Drainage and Flood Protection - Context, as follows:

Please refer to the Public Safety Element for information on flood hazards. Additional information is included in **Attachment 2**; Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

CONSISTENCY WITH THE LIVE OAK 2030 GENERAL PLAN:

The Live Oak 2030 General Plan was reviewed during the preparation of the SB 5 General Plan Amendment for internal consistency. The major sections and any content that might involve conflict with the SB 5 General Plan Amendment (SB 5 GPA) is identified and discussed in the below sections.

Circulation, Community Character, Economic Development, Housing, Noise, and Parks and Recreation Elements:

The Circulation (Pages CIRC-1 to CIRC-35), Community Character (Pages Design-1 to Design-34), Economic Development (Pages ED-1 to ED-8), Housing (Pages Housing 1 to Housing-19), Noise (Pages Noise-1 to Noise-7), and Parks and Recreation (Parks-1 to Parks-12) Elements do not contain discussions related to flooding. The Housing Element includes a policy related to the provision of drainage services for expected housing growth. The Recreation Element references drainage and includes a policy related to dual-use drainage areas, and the Circulation Element includes a peripheral mention about overall General Plan encouragement of multi-use drainage. None of the goals, policies, implementation programs, or statements within these Elements conflict with the SB 5 GPA.

Land Use Element

The Land Use Element (Pages LU-1 to LU-27) contains references to drainage. A sentence in this Element was revised in this section (Page LU-1) as described in this staff report above. Otherwise, none of the goals, policies, implementation programs, or statements in the Land Use Element conflict with the SB 5 GPA.

Public Utilities, Services, and Facilities Element

The Public Utilities, Services, and Facilities Element (Pages Public 1 to Public-42) contains a discussion, as well as goals, policies, and implementation programs related to drainage and flood protection. A sentence in this Element (on Page Public-12) was revised as described in this staff report above. Otherwise, no goals, policies, implementation programs, or statements conflict with the SB 5 GPA.

Conservation and Open Space Element

AB 162 requires that the Conservation Element (Pages CO-1 to CO-37) identify "rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and storm water management," upon the next revision of the housing element, on or after January 1, 2009. (CGC 65302 (d)(3)). A sentence in this Element (on Page CO-34) was revised as described in this staff report above. Otherwise, none of the goals, policies, implementation programs, or statements conflict with the SB 5 GPA.

Public Safety Element

The Public Safety Element (Pages PS-1 to PS-13) includes information, goals, polices, and implementation programs related to flooding. Several revisions were made to this Element as described in this staff report above, including:

- Adding a sentence on page PS-1 that indicates the Sutter County Local Hazard Mitigation Plan was updated in August 2013.

- Removing a sentence on page PS-1, under Key Issues, that states the Feather River levee system poses a flood hazard within the vicinity of Live Oak. The Feather River West Levee System has since undergone construction of the most critical sections of the existing levees to increase flood protection.

- Removing a reference to a small 100-year flood zone in the Planning Area (Page PS-4). The City received a LOMR from FEMA in January 2014 that changed the area from Zone A (100-year flood) to "Contained" (in storm drain), and indicated incorporation of the modification in an annotated FIRM panel map. The Floodplain Map (Figure Safety-1) on page PS-5 was also updated to reflect this change.

- Updating the discussion under the Floodplain Issues heading (Page PS-4) to reflect the SB 5 (200-year flood protection) requirements, the post-Feather River West Levee Project mapping that shows the City's Planning Area is outside the 200-year floodplain, and to reference Appendix C "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

- Adding Policies PS-2.8, PS-3.6, and PS-3.7, in compliance with SB 5 requirements (detailed in AB 162) to establish goals, policies, and objectives "for the protection of lives and property that will reduce the risk of flood damage."

CONSISTENCY WITH THE LIVE OAK ZONING ORDINANCE:
Government Code Section 65860 requires that the Zoning Ordinance is consistent with the General Plan. The City of Live Oak Title 17 Zoning Ordinance was reviewed and found consistent with the SB5 General Plan Amendments and therefore a zoning update is not required.

General Plan Amendments Agency Consultation and Review:
Government Codes §65302(g) (5) and 65302.7 require agency consultation and review. Prior to amending the safety element, cities and counties are required to consult with the CVFPB, the California Office of Emergency Services (Cal OES), and the California Geological Survey of the Department of Conservation. Cities and counties must also submit the draft safety element for review by CVFPB, and "every local agency that provides flood protection to the city or county." For the City of Live Oak, this agency is the Sutter Butte Flood Control Agency (SBFCA) Documentation of the City's consultation and agency review are found in Section 5.0. The Consultation letters were sent to the appropriate agencies for review. Copies of the letters are shown in **Attachment 2; Appendix C**.

Sutter Butte Flood Control Agency (SBFCA):
Urban Level of Protection (ULOP) or FEMA "findings" by land use agencies must be supported by "substantial evidence in the record". Refer to page 3 of this staff report for the determination that the City of Live Oak is subject to the FEMA level of protection (100 year level of protection) and not the ULOP standard. SBFCA has assembled an evidence package that each member land use agency can reference in making their findings. The Feather River West Levee Project is not yet complete, therefore the evidence package is be based on "adequate progress toward an Urban Level of Protection", which is technically referred to as an "EVD-3" package in DWR's ULOP guidance document. It consists of 4 separate reports:

1. Engineer's Report (this will be a physically large group of binders)
2. Report from the Independent Panel of Experts (IPE)
3. Engineer's Response to the IPE

SBFCA will have to prepare a fourth report annually—the Adequate Progress Report--until the project is completed, anticipated to be next year. After that, the first 3 reports will be retained as an "EVD-1" package, which asserts that an ULOP exists.

For the short segment of the completed Star Bend project, an EVD-1 package has been completed, consisting of items 1-3 above.

The SBFCA Board has accepted and transmitted EVD packages for the completed Star Bend Project and the larger FRWLP to the Central Valley Flood Protection Board. SBFCA has posted the EVD packages on their website (http://sutterbutteflood.org/notices-documents/).

Public Notice:
The proposed General Plan Amendment notice was advertised in The Appeal Democrat newspaper on January 24, 2017 and posted on the City of Live Oak website. In addition, Government Codes 65302 (g)(5) and 65302.7 require agency consultation and review. SBFCA and CVFPB letters were sent out for review of the proposed amendments.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):
The Live Oak 2030 General Plan adopted in 2010 preceded the requirements of Senate Bill (SB) 5 and related flood protection bills. The SB 5 General Plan Amendment (GPA) incorporates additional flood protection and management information and 200-year flood protection goals, policies, and implementation programs in Live Oak's 2030 General Plan. The addendum provides an environmental analysis of the SB 5 GPA to the 2030 General Plan project compared to the adopted 2030 General Plan EIR (SCH# 2008092050). California Environmental Quality Act (CEQA) Guidelines Section 15164 allows an addendum to a previously certified or adopted environmental document to be prepared when only minor technical changes or changes that would not result in new significant impacts are proposed in a project. The changes to the 2030 General Plan include the addition of specific information, goals, policies, and programs that reflect current statewide flood protection strategies.

The City as the lead agency prepared an addendum to the 2030 General Plan EIR in conjunction with the SB 5 General Plan Amendment. Prior to adoption of the SB 5 GPA, and after the

required agency review of the SB 5 GPA, the City Council will consider whether the amendment would have a significant effect on the environment, and consider adopting the 2030 General Plan EIR Addendum. The Addendum is provided as **Exhibit 1B.**

Attachments:

1. **Resolution No.12-2017 Amending the City's General Plan as shown in Exhibit 1A and Adopting the 2030 General Plan EIR Addendum as shown in Exhibit 1C**
2. **Appendix C; Background Information SB 5 General Plan Amendment for 200-Year Flood Protection**
3. **Safety Element Review Crosswalk**

ATTACHMENT 1

CITY OF LIVE OAK

RESOLUTION NO. 12-2017

A RESOLUTION OF THE CITY COUNCIL AMENDING THE CITY'S GENERAL PLAN: CONSERVATION AND OPEN SPACE; LAND USE; PUBLIC SAFETY; PUBLIC UTILITIES, SERVICES, AND FACILITIES ELEMENTS IN COMPLIANCE WITH THE CENTRAL VALLEY FLOOD PROTECTION ACT OF 2008 (SENATE BILL 5); ADOPTING THE 2030 GENERAL PLAN EIR ADDENDUM

WHEREAS, the proposed action includes amendments to the City's General Plan Conservation, Land Use, Public Safety, Public Utilities, Services, and Facilities Elements for compliance with the Central Valley Flood Protection Act of 2008 (Senate Bill 5); and

WHEREAS, The California Legislature enacted six interrelated flood management bills in 2007 to improve flood management in a sustainable way. Four of these bills (SB 5, AB 70, AB 156, and AB 162) affect the responsibility of cities and counties to address flood risks as part of local land use planning processes. Senate Bill 5 contained provisions for local agencies to incorporate flood risk consideration into land use planning and ensure that the General Plan Safety Element includes goals, policies, and implementation measures that reflect current statewide flood protection strategies; and

WHEREAS, SB 5 requires that the Safety Element for each city and county within the Sacramento-San Joaquin Valley establish goals and policies for the protection of lives and property that will reduce the risk of flood damage; and

WHEREAS, the 2030 General Plan Public Safety Element, Public Utilities, Services and Facilities Element, and the Conservation and Open Space Element include goals, policies, and implementation programs that meet the Safety Element requirements related to flood protection and management. These goals, policies, and implementation programs, with the addition of the proposed amended Safety Element policies PS-3.6 and PS-3.7, meet the SB 5 and AB 162 requirements; and

WHEREAS, the Planning Commission held a duly noticed public hearing on February 7, 2017 and the City Council held a duly noticed public hearing on February 15, 2017 as required by law to consider all of the information presented by staff and public testimony presented in writing and at the meeting.

NOW, THEREFORE, BE IT HEREBY RESOLVED THE CITY COUNCIL OF THE CITY OF LIVE OAK does approve the Conservation and Open Space; Land Use; Public Safety, Public Utilities, Services, and Facilities Elements General Plan Amendment as described in **Exhibit 1A** and incorporated herein by reference and based on the following findings:

1. Recitals. The foregoing recitals are true and correct and made a part of this Resolution.

2. Findings. The City Council hereby finds that:

A. **General Plan Amendments.** In order for a General Plan Amendments to be approved, the project must meet the required findings. The following are each of the required findings and the evidence to support them:

a. Finding: The proposed amendment is internally consistent with the General Plan.

Evidence: The proposed amendments to the General Plan were reviewed and are not in conflict with any existing provision within the General Plan.

b. Finding: The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or welfare of the city.

Evidence: The proposed amendments in support of SB5 would not be detrimental to public health and safety. Rather, the amendments would provide improved safety and quality of life for persons throughout the region by providing additional Safety Element policies related to flood control.

c. Finding: The proposed amendments has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA) A 2030 General Plan EIR Addendum was prepared and the General Plan Amendments to the 2030 General Plan does not involve any new impacts or substantially increase impacts compared to that analyzed as a part of the adopted 2030 General Plan EIR. The EIR Addendum reflects the lead agency's independent judgement and analysis.

Evidence: An addendum was prepared and provides an environmental analysis of the SB 5 GPA to the 2030 General Plan project compared to the adopted 2030 General Plan EIR (SCH# 2008092050). California Environmental Quality Act (CEQA) Guidelines Section 15164 allows an addendum to a previously certified or adopted environmental document to be prepared when only minor technical changes or changes that would not result in new significant impacts are proposed in a project. The changes to the 2030 General Plan include the addition of specific information, goals, policies, and programs that reflect current statewide flood protection strategies.

d. Finding: Government Codes §65302(g) (5) and 65302.7 require agency consultation and review. Prior to amending the safety element, cities and counties are required to consult with the CVFPB, the California Office of Emergency Services (Cal OES), and the California Geological Survey of the Department of Conservation. Cities and counties must also submit the draft safety element for review by CVFPB, and "every local agency that provides flood protection to the city or county." For the City of Live Oak, this agency is the Sutter Butte Flood Control Agency (SBFCA).

Evidence: The City has consulted with the above agencies and provided the proposed amendments to the SBFCA for review prior to amending the General Plan.

e. Finding: Urban Level of Protection (ULOP) or FEMA "findings" by land use agencies must be supported by "substantial evidence in the record". It has been

determined that the City of Live Oak is subject to the FEMA level of protection (100 year level of protection) and not the ULOP standard.

Evidence:

There are five locational criteria for the ULOP to apply, an SB 5 affected city or county must meet all criteria. The City of Live Oak meets three criteria (the City is an urban or urbanizing area that is planned or anticipated to have 10,000 residents within the next ten years, the City is within the Sacramento-San Joaquin Valley, and the City is located within a watershed with a contributing area of more than 10 square miles). The City does not meet the remaining two criteria: 1) is located within a flood hazard zone that is mapped as either a special hazard area or an area of moderate hazard on Federal Emergency Management Agency's (FEMA) official (i.e., effective) Flood Insurance Rate Map for the National Flood Insurance Program (NFIP) and 2) is located within an area with a potential flood depth above 3 feet from sources other than localized conditions. Localized conditions include localized rainfall, water from stormwater and drainage problems, and temporary water and wastewater distribution system failure. Therefore, the City of Live Oak is not subject to the ULOP standard.

SBFCA has assembled an evidence package that each member land use agency can reference in making their findings. Because we are not yet finished with Tthe Feather River West Levee Project is not yet complete, therefore the evidence package will is be based on "adequate progress toward an Urban Level of Protection", which is technically referred to as an "EVD-3" package in DWR's ULOP guidance document. It will consists of 4 separate reports:

1. Engineer's Report (this will be a physically large group of binders)
2. Report from the Independent Panel of Experts (IPE)
3. Engineer's Response to the IPE

SBFCA will have to prepare a fourth report annually—the Adequate Progress Report--until the project is completed. After that, the first 3 reports will be retained as an "EVD-1" package, which asserts that an ULOP exists. For the short segment of the completed Star Bend project, an EVD-1 package has been completed, consisting of items 1-3 above.

The SBFCA Board has accepted and transmitted EVD packages for the completed Star Bend Project and the larger FRWLP to the Central Valley Flood Protection Board. SBFCA has posted the EVD packages on their website (http://sutterbutteflood.org/notices-documents/).

f. Finding: The City of Live Oak Title 17 Zoning Regulations (amended December 21, 2011) was reviewed and found consistent with the SB5 General Plan Amendments and therefore a zoning update is not required.

Evidence: Government Code Section 65860 requires that the Zoning Ordinance is consistent with the General Plan. The proposed General Plan Amendments were reviewed and found to be consistent with the City of Live Oak Title 17 Zoning Requirements.

3. Public Interest. Adoption of the amendments is in the public interest of the City. The amendments will protect the public and the General Plan will be consistent with the Central Valley Flood Protection Act of 2008 (Senate Bill 5).

4. CEQA Compliance. The proposed amendments are in compliance with the provisions of the California Environmental Quality Act (CEQA) because an EIR Addendum was prepared, which found that the project would have less than significant environmental impacts and no mitigation measures were required. The Live Oak 2030 General Plan adopted in 2010 preceded the requirements of Senate Bill (SB) 5 and related flood protection bills. The SB 5 General Plan Amendment (GPA) incorporates additional flood protection and management information and 200-year flood protection goals, policies, and implementation programs in Live Oak's 2030 General Plan. The addendum provides an environmental analysis of the SB 5 GPA to the 2030 General Plan project compared to the adopted 2030 General Plan EIR (SCH# 2008092050). California Environmental Quality Act (CEQA) Guidelines Section 15164 allows an addendum to a previously certified or adopted environmental document to be prepared when only minor technical changes or changes that would not result in new significant impacts are proposed in a project. The changes to the 2030 General Plan include the addition of specific information, goals, policies, and programs that reflect current statewide flood protection strategies.

The City as the lead agency prepared an addendum to the 2030 General Plan EIR in conjunction with the SB 5 General Plan Amendment. Prior to adoption of the SB 5 GPA, and after the required agency review of the SB 5 GPA, the City Council considered whether the amendment would have a significant effect on the environment, and adopted the 2030 General Plan EIR Addendum. The Addendum is provided as **Exhibit 1B**.

5. **Amendments.** The proposed amendment does not result in a mandatory element of the General Plan being amended more than four times during any calendar year (Government Code Section 65358). City Council hereby amends the City's General Plan by making the revisions as shown in **Exhibit 1A**.

PASSED AND ADOPTED by the City Council of the City of Live Oak on the ___ day of _____, 2017 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jason Banks, Mayor

ATTEST:

_____
Hope Ithurburn, Assistant City Clerk

LAND USE ELEMENT

INTRODUCTION

The Land Use Element summarizes key land use issues for Live Oak, describes existing and planned land uses in the Planning Area, and outlines the goals and policies that will be used to implement the City's development and conservation objectives through the year 2030. New development proposed within the Planning Area is compared to the goals and policies found in the General Plan to determine whether it is consistent with the City's vision.

The Land Use Element has been prepared consistent with Government Code Section 65302(a), describing the distribution and general location and extent of land for several types of uses, including housing, commercial development, public uses, open space, and recreation uses. Also per State law, this Land Use Element establishes allowable densities and intensities for different land uses and identifies areas subject to flooding. The land within the Planning Area is not subject to 200-year flooding as defined by SB 5 and related legislation. A complete discussion and specific areas potentially subject to flooding as identified by the Federal Emergency Management Agency (FEMA) and the California Department of Water Resources (DWR) is provided in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

Although each element of a general plan is intended to have equal weight and force of law under Government Code, Sections 65300–65303.4, the land use element is often considered the most fundamental chapter of most local general plans, since the establishment of standards for land use and development intensity can have substantial effects on the remaining elements of the plan.

KEY ISSUES

During a series of General Plan Visioning Workshops, residents of Live Oak identified key issues facing the City of Live Oak. The following issues are related to land use:

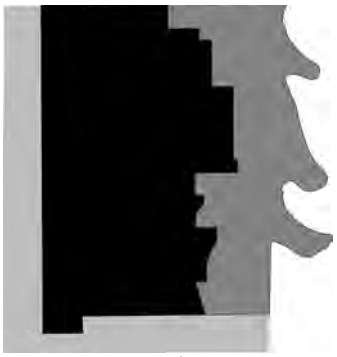
- ✓ With recent land use change, Live Oak is at risk of becoming a "bedroom community" for distant employment centers like Sacramento, Yuba City, and Chico.
- ✓ The City needs to provide opportunities for economic development in the industrial, agricultural related, professional and service sectors, so that there are jobs within the community for current and future residents.
- ✓ More retail and services for Live Oak residents are needed. Currently, businesses are focused along the State Route (SR) 99 corridor, which is convenient to drivers along SR 99, but not for the community itself.
- ✓ The City needs to provide a variety of housing types to meet the needs of a diverse population.

- ✓ Pedestrian-friendly neighborhood-scale shops and activity centers should be incorporated into residential areas in order to create vibrant neighborhoods.
- ✓ The City should work with property owners on revitalization and reinvestment to create a downtown core area that could serve as the civic and cultural heart of the community.
- ✓ Civic, recreational, and cultural opportunities need to be provided throughout the community.

BACKGROUND AND CONTEXT

The majority of land in Live Oak today is in residential use. Commercial uses are focused along the SR 99 corridor. The historic commercial district is located along Broadway, one block west of SR 99 and just south of Pennington Road. Newer commercial development is located along SR 99 in the northern and southern portions of the city. Small amounts of industrial development exist within the city core and at the southern end of the city, along Larkin Road. The city has parks and a variety of civic land uses (schools, churches, government offices and other public facilities, for example) scattered throughout the community. A small amount of orchards, farmland, open space, and rural residential uses remain within the existing City limits.

 Study Area (highlighted in black)	The General Plan Study Area represents lands that most affect, and are most affected by, the implementation of the General Plan. The Study Area is used merely for the purposes of study and analysis.
 Sphere of Influence (highlighted in black)	The Sphere of Influence (SOI) represents the future probable physical boundary and service area of the City. The SOI identifies future growth areas so that the City may plan for efficient and orderly expansion of public services and facilities.



Planning Area (highlighted in black)

The Planning Area represents lands with City General Plan Land Use Designations.

Figure LU-1
Live Oak General Plan Study Area, Sphere of Influence, and Planning Area

The City's sphere of influence (SOI) is bounded by the Sutter/Butte county line to the north, the Feather River (also the county line) to the east, Paseo Road to the south, and Township Road to the west (see Figure LU-1). The City's Planning Area includes lands with City land use designations under this General Plan, not including the Urban Reserve Designation. The General Plan Study Area includes lands that most affect, and are most affected by the General Plan. The Study Area includes the existing city and SOI, as well as additional lands to the south of Paseo Road and west of Township Road. The majority of lands outside city limits are orchards, farmland, open space, and rural residential uses.

GENERAL PLAN BUILD-OUT ESTIMATES

This section describes the total estimated number of housing units, commercial square footage, and acres of different land uses at build-out of this General Plan. The City has provided sufficient land to accommodate housing and job growth through 2030, as well as parks, open space, civic uses, and other required elements of a complete community.

The Live Oak Planning Area is estimated to accommodate a total population of between 45,000 and 53,000 at buildout of the General Plan (Table LU-1). If all land uses were fully developed as designated under this General Plan, the City would have between 3 and 3.5 million square feet of building space in Commercial Mixed Use development, between 2.3 and 2.9 million square feet of Downtown Mixed Use development, between 500,000 and 750,000 square feet of Community Commercial development, and 2 to 2.5 million square feet of building space devoted to Employment development. At build-out of the General Plan, Live Oak is estimated to have roughly 160 to 200 acres of parkland, 140 to 180 acres of civic uses, and 60 to 70 acres of open space for buffering between incompatible land uses.

TABLE LU-1
LAND USE ACREAGES, HOUSING UNITS, AND COMMERCIAL SQUARE FOOTAGE AT 2030 GENERAL PLAN BUILD-OUT

Designation	Acres	Housing Units	Square Footage
Low-Density Residential	1,610–1,970	5,290–6,460	
Smaller-Lot Residential	1,310–1,610	6,190–7,570	
Medium-Density Residential	160–200	1,200–1,460	
Higher-Density Residential	100–130	1,410–1,720	
Commercial Mixed Use	190–230		3,063,000–3,438,000
Downtown Mixed Use	70–90		2,329,000–2,846,000

Community Commercial	60–70		500,000–750,000
Employment	190–230		2,042,000–2,495,000
Civic	140–180		
Park	160–200		
Buffer	60–70		

The land use designations described in this General Plan are intended to be flexible in order to accommodate changes in trends, demands, and the economy. Although the land use designations provide broad, flexible ranges to suit this purpose, average densities and intensities are the most appropriate method for determining build-out estimates. Actual population, square footage, or number of dwelling units could be lower or higher than these estimates. The averages represent the best possible estimates and are meant to provide guidance to City decision makers for planning purposes, rather than set out mandated policies. Policies covering these topics are presented later within this Land Use Element. It is important to note that although these estimates are based on the best available assumptions, changes in the local economy and demographic trends will ultimately determine actual future development and population. It is possible that these factors could prevent the development of some areas that are slated for future urban development by 2030, as well as result in actual development scenarios that vary from the assumed averages (i.e., housing units within a particular area are developed at either the high or low ends of the density ranges). Because of changing conditions, it may be necessary for the City to periodically amend this General Plan prior to subsequent comprehensive general plan updates. For this reason, the City will continually monitor its progress toward achieving the goals set forth in this General Plan and determine when amendments and updates are necessary.

LAND USE FRAMEWORK

The following sections describe land use within Live Oak's Planning Area.

LAND USE DISTRIBUTION

The 2030 General Plan envisions the expansion of Live Oak, the revitalization and redevelopment of the existing City, establishing a downtown core area centered on the Pennington Road/Live Oak Boulevard intersection, and the preservation of agricultural lands and other open space around the City. A balance of new growth and revitalization of the existing developed City is crucial for a strong and sustainable economy and high quality of life.

Although downtown revitalization and infill is important to the city's future, most growth during this General Plan time horizon would occur through new growth on undeveloped lands. New growth areas occur in the northeast, northwest, and southwest quadrants of the Planning Area. New development will provide a diversity of housing choices, retail, commercial and public services, schools, parks, trails, and amenities for new and existing residents.

This General Plan provides large land areas for single-family residences at a variety of densities. The General Plan also provides for other housing types that will be needed to serve local needs, including higher-density housing options. To create complete and vibrant neighborhoods, the City integrates nonresidential uses into each neighborhood, including neighborhood-serving retail and commercial services, and public and civic uses. A variety of parks will meet recreation needs, and a pedestrian/bicycle

network will connect neighborhoods, schools, and commercial areas. Neighborhood-scaled commercial opportunities will be integrated into new neighborhoods, while communitywide and regional commercial and employment uses will be located near SR 99 and other regional transportation corridors.

NEIGHBORHOOD CENTERS AND CIVIC CENTERS

One centerpiece of the 2030 General Plan is the development of "Centers." This General Plan includes two types of Centers:

- ✓ Neighborhood Center
- ✓ Civic Center

Each Center has a slightly different combination of land uses. Land uses in these Centers are described in more detail in the section "Descriptions of Land Use Designations" below.

The intent of Live Oak's Centers is to ensure that new neighborhoods have a mix of uses and that higher-activity land uses (such as schools, parks, shopping, civic facilities, and medium- and higher-density housing) are located near the core of each neighborhood. Neighborhood Centers will be designed to be comfortable, convenient, and safe for pedestrians and bicyclists, and located within walking or biking distance of the surrounding neighborhood.

Residential density and nonresidential development intensity will be highest at the core of Centers. Each of the Centers will have one or more important public spaces, such as a town square, park, or plaza. In addition to this central civic feature, Neighborhood Centers could accommodate shops, commercial services, cafés or restaurants, professional offices, civic uses (such as community buildings, post office, police or fire station), and other neighborhood-serving amenities. The number, spacing, high degree of access to and from the surrounding neighborhood, and the number of households around each Neighborhood Center is designed to ensure their economic viability.

ESTABLISHING A DOWNTOWN CORE

The 2030 General Plan envisions revitalization and redevelopment of property in the central portion of Live Oak to create a downtown core. The historic downtown today consists of a three-block-long section with one- and two-story buildings fronting Broadway and the Union Pacific railroad line. These attractive historic buildings are prominently visible from SR 99, which is located just one block to the east. The City envisions establishing a downtown core area centered on the historic downtown, but including many other areas to the north, south, and east, as well. Today, the downtown core area lacks pedestrian amenities that are important to the proper function of this area, such as sidewalks, benches, textured crosswalks, and pedestrian-scale lighting. SR 99 and the Union Pacific railroad line are two physical barriers that divide the community and create safety hazards for people downtown and in surrounding neighborhoods. The community strongly supports redevelopment and revitalization to establish a downtown core area, including public and private investment in buildings, streetscape elements, transportation facilities, and other changes to create a more vibrant downtown (Figure LU-2).

Figure LU-2
Community Workshop Addressing Downtown Live Oak

The City will concentrate its efforts on potential redevelopment sites located within the downtown core area (Figure LU-3). Vacant and underutilized sites in strategic locations will provide opportunities for future housing, retail services, restaurants, parks and entertainment, and civic uses. The strategic selection and development of catalyst sites, as well as public investment in streetscape and infrastructure improvements in the downtown core area, will be intended to leverage private investment in the area.

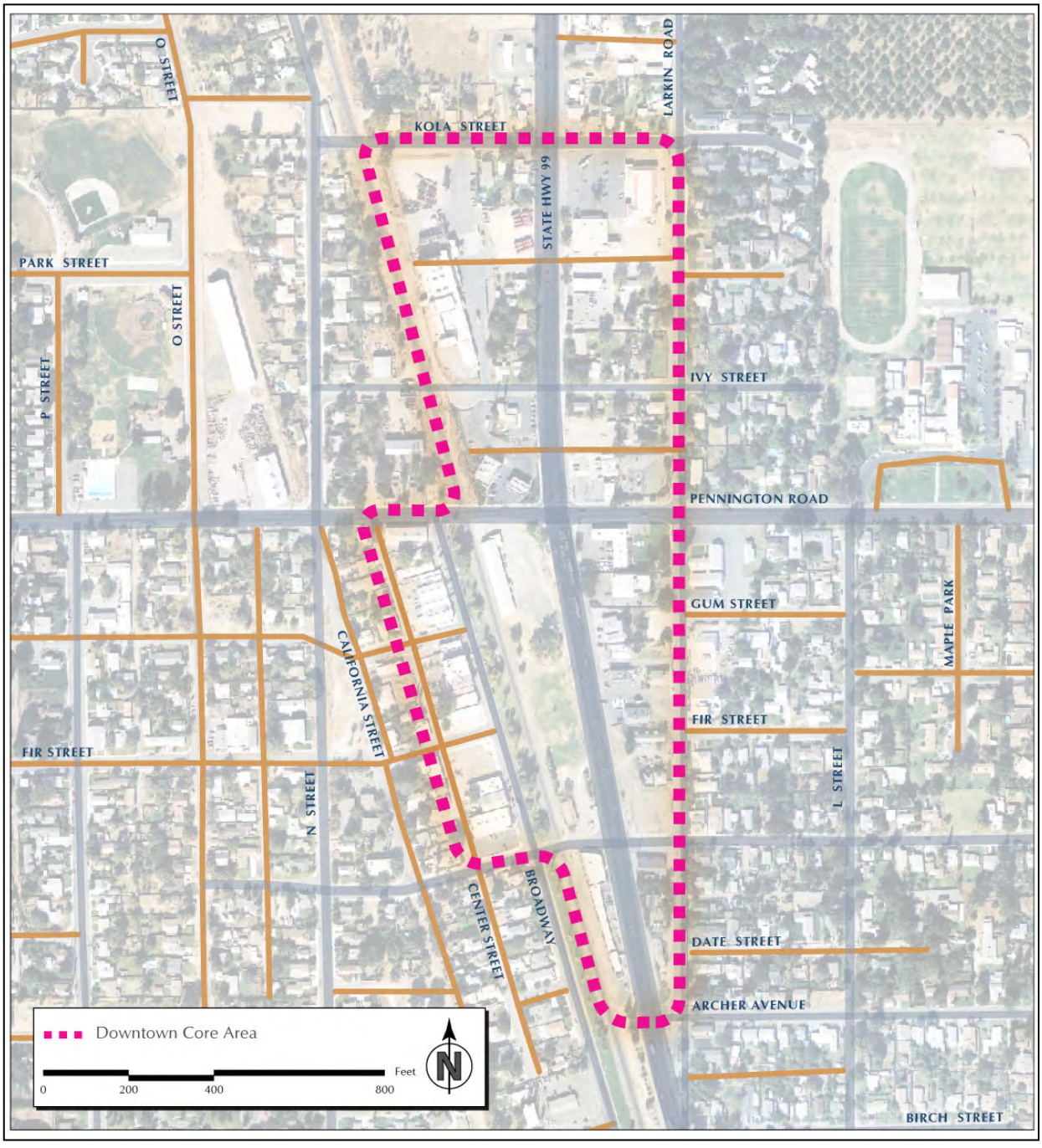


Figure LU-3
Downtown Core Area

LAND USE DESIGNATIONS

The following discussion defines land use designations in Live Oak (Table LU-2), describes the allowable development and density, and illustrates the location of allowable land use within the Live Oak Planning Area.

DESCRIPTIONS OF LAND USE DESIGNATIONS

Following are descriptions of the City's land use designations. The designations are written to be broad enough to provide the City flexibility in implementation, but clear enough to provide sufficient direction to carry out the General Plan.

Inquiries regarding the development potential of a specific property should be determined by consulting the City's Zoning Map and Development Code. More than one zoning district may be consistent with a General Plan land use designation. Development of a land use that is not consistent with the following land use designations as specified on the Land Use Diagram would require a General Plan Amendment.

TABLE LU-2
LAND USE DESIGNATIONS

	**Low-Density Residential** Allows single-family, detached residences, second units, and other compatible uses. This designation applies to many areas throughout the City.
	**Smaller-Lot Residential** Allows single-family, detached homes, second units, and other compatible land uses. In general, the SLR land use designation occurs in areas immediately surrounding Centers and near the downtown core area, although this land use could occur in other compatible areas within Live Oak.
	**Medium-Density Residential** Allows small-lot and zero-lot line single-family homes, 'pull-apart' style and attached townhomes, garden apartments, and other types of single-family homes and multi-family housing and second units. The MDR designation occurs within Neighborhood and Civic Centers and in and around the downtown core area.
	**Higher-Density Residential** Allows townhomes and other types of single-family housing, as well as apartments, condominiums, and other types of multi-family housing. This designation occurs within Neighborhood and Civic Centers and within and near the downtown core area.

TABLE LU-2
LAND USE DESIGNATIONS

	**Community Commercial** Allows retail, various commercial services, restaurant, entertainment, office uses, and other compatible uses. This designation could accommodate regional-serving retail or entertainment centers. Areas designated for this purpose are located near SR 99 corridor and other major transportation routes.
	**Commercial Mixed Use** Allows commercial retail, service, office, and other compatible uses. Allows higher-density residential uses in a mixed-use setting. Residential use can account for up to 50% of the total building square footage for projects developed on lands with this designation. Ideally, mixed-use projects would integrate the commercial and residential uses in a vertical configuration, where commercial/office uses are on the first floor and residential uses are located on higher floors. Horizontal configurations, where commercial/office and residential uses are located within different buildings on the same property, are also allowed.
	**Downtown Mixed Use** Allows retail uses, commercial service, office, residential, civic, and other compatible uses. Ideally, projects would combine one or more of the allowed uses in one or more buildings, with retail uses on the ground floor fronting the street, and other uses on upper floors or in areas not fronting the street. Horizontal configurations, where different uses are located within different buildings on the same property, are also allowed. Single-use projects are also allowed.
	**Employment** Allows professional office, light industrial, industrial, and other job-creating land uses. This land use designation does not allow retail establishments as a primary use. However, secondary retail sales are allowed, so long as the primary land use is allowed under this designation.
	**Civic** Allows a variety of public facilities, such as schools, child care, agency offices and service centers, health clinics, fire stations, police stations, and infrastructure, as well as places of worship, community halls and centers, and other cultural and civic land uses. These uses would ideally occur within Centers and in and around the downtown core area, where residents of the surrounding neighborhood would have best access. The City will encourage civic uses in these areas, but does not directly control the location of churches, schools, or other similar civic uses.

TABLE LU-2
LAND USE DESIGNATIONS

	**Park** Allows active and passive parkland, linear parks, and associated recreation facilities and services. Land within this designation may also be used for stormwater management, natural areas, and buffering between incompatible uses. Open field portions of Parks may be designed to be used as stormwater detention basins directly following storm events and for recreation during dry periods. The City and Live Oak Unified School District may share certain parks using a joint-use agreement. Please refer to the Parks and Recreation Element for more information.
	**Urban Reserve** This area is not anticipated to be developed in the city through build-out of this General Plan. When other planned development areas of the City approach build-out, the City will comprehensively plan the Urban Reserve area.
	**Buffers** The Buffer land use designation identifies open space areas designed to separate potentially incompatible land uses and activities from SR 99 and the Union Pacific mainline railroad. The City's intent is to set back future residential development from these sources of noise and air pollution. Buffer areas would include landscaping and earthen berms designed for noise attenuation, and could also include other compatible land uses, such as drainage swales, and community gardens.

LAND USE DENSITY AND INTENSITY STANDARDS

California planning law requires that density and intensity standards are presented for each land use designation contained within a general plan. These standards simply describe the desired size of buildings compared to the size of parcels of property.

Residential development is regulated according to density, which is expressed in the number of units per gross acre. Nonresidential development is regulated according to development intensity. For Live Oak, nonresidential development intensity standards use a combination of maximum lot coverage and building height. Lot coverage is a comparison of the square footage of the footprint of proposed buildings and parking areas to the square footage of the property as a whole. For example, if a parcel is 200,000 square feet in area, the proposed building footprint is 120,000 feet, and the proposed parking area is 20,000 square feet, then the lot coverage of the parcel is 70 percent (120,000 + 20,000 = 140,000. 140,000 divided by 200,000 = 0.7, or 70 percent).

Although this General Plan presents standard for allowable density and development intensity, the actual achievable development density and intensity will be contingent on City's development standards, which establish minimum setbacks, minimum lot sizes, maximum lot coverage, building height, and other requirements.

Allowable density and intensity for each relevant General Plan land use designation is described in Table LU-3.

TABLE LU-3
ALLOWABLE DENSITY AND INTENSITY

Land Use Designation	Residential Density 1	Nonresidential Intensity 2	
		Maximum Lot Coverage	Maximum Building Height
Low-Density Residential	2 to 6 units per gross acre		
Smaller-Lot Residential	4 to 10 units per gross acre		
Medium-Density Residential	8 to 15 units per gross acre		
Higher-Density Residential	15 to 25 units per acre		
Community Commercial		90%	60 feet
Commercial Mixed Use	Residential allowed (up to 50% of building square footage) and regulated according to intensity (lot coverage and building height) rather than density.	90%	48 feet
Downtown Mixed Use	18 to 25 units per gross acre for residential-only project. Regulated according to intensity (lot coverage and building height) for mixed-use (with residential) projects and nonresidential projects.	100%	72 feet
Employment		90%	72 feet
Civic		90%	48 feet
Park		70%	48 feet

Notes:

1 Gross acreage and net acreage are commonly used measurements of area in planning and zoning. A gross acre is all land (including streets and rights-of-way) designated for a particular use, while net acreage excludes streets, rights-of-way, and other areas not included within lots. Gross acreages are more often used in general plan land use designations, and net acreages are typically used in zoning codes and other types of development standards. This General Plan uses gross acreage to regulate residential density.

2 In part because nonresidential developments do not usually construct and dedicate internal public streets, the difference between gross and net acreage is not as important for nonresidential development as it is with residential development. The City has included flexible standards for nonresidential development intensity in this table that can be applied before or after public streets or other non-developed areas are considered. The building height standards presented in this table apply to the main portion of the proposed building, and not to antennae, spires, or other similar architectural features or equipment. Please refer to the City's Zoning Ordinance, which provides much more specific guidance on lot size, lot coverage, building height, and other development standards.

3 The effective building intensity for Employment-designated areas can vary, depending on the specific uses that are developed. In addition to the standards in this table, the allowable development intensity is contingent on performance of the proposed uses relative to water demand, wastewater demand, drainage, electricity, and other public infrastructure and service characteristics. The allowable intensity, use, and project configuration is also dependent on demonstration of compatibility with surrounding uses relative to light, glare, noise, air pollutant emissions, truck traffic, and other factors. Policies addressing these environmental issues are included in the balance of the General Plan.

OVERLAY DESIGNATIONS

Two overlay designations are used in the 2030 General Plan. These include:

- ✓ Neighborhood Center
- ✓ Civic Center

These Center overlay designations are not, in and of themselves, land use designations. Rather, Centers are a tool to guide the distribution of land uses.

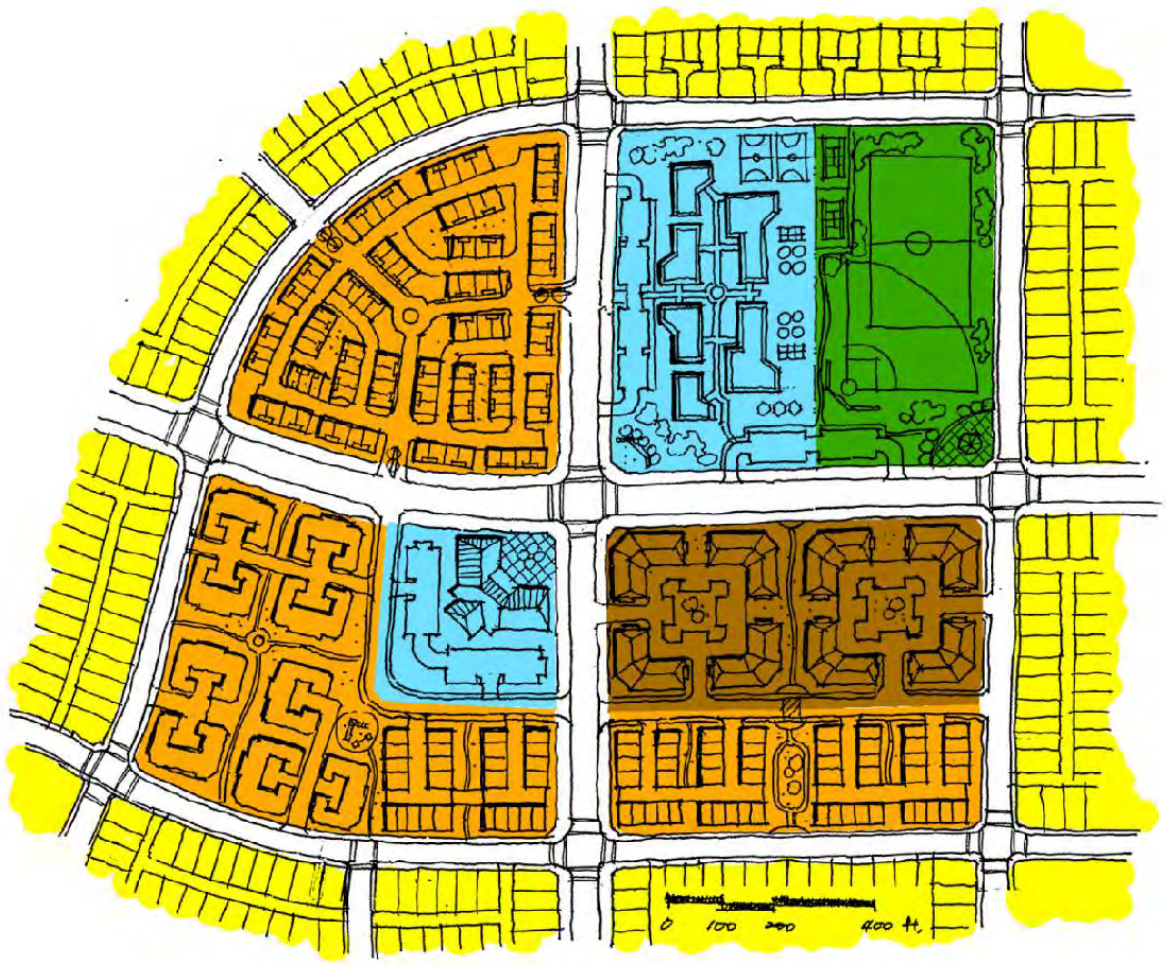
A mix of commercial, residential, and civic land uses will be provided within Centers, with a focus on "higher-activity land uses" (Table LU-3). Higher-activity land uses are described throughout the General Plan. They include small parks, shops and offices, schools, civic uses, and medium- and higher-density housing. [1]

The City requires these higher-activity land uses to be provided within Centers in the amounts specified below, but provides great flexibility as to the exact arrangement and location of these land uses. Each Center is shown graphically on the Land Use Diagram as having a 1/8th-mile radius, representing a total land area of roughly 31 acres. Center land uses are to be provided on the parcel or parcels identified in the Land Use Diagram, but can be anywhere within 1/4th mile of the middle of the Center, as shown on the Land Use Diagram. The underlying land use for parcels with a Center is Small Lot Residential. Therefore, areas in and around the Centers that are not developed with one of the specified higher-activity Center land uses shall be developed with uses consistent with the Small Lot Residential land use designation.

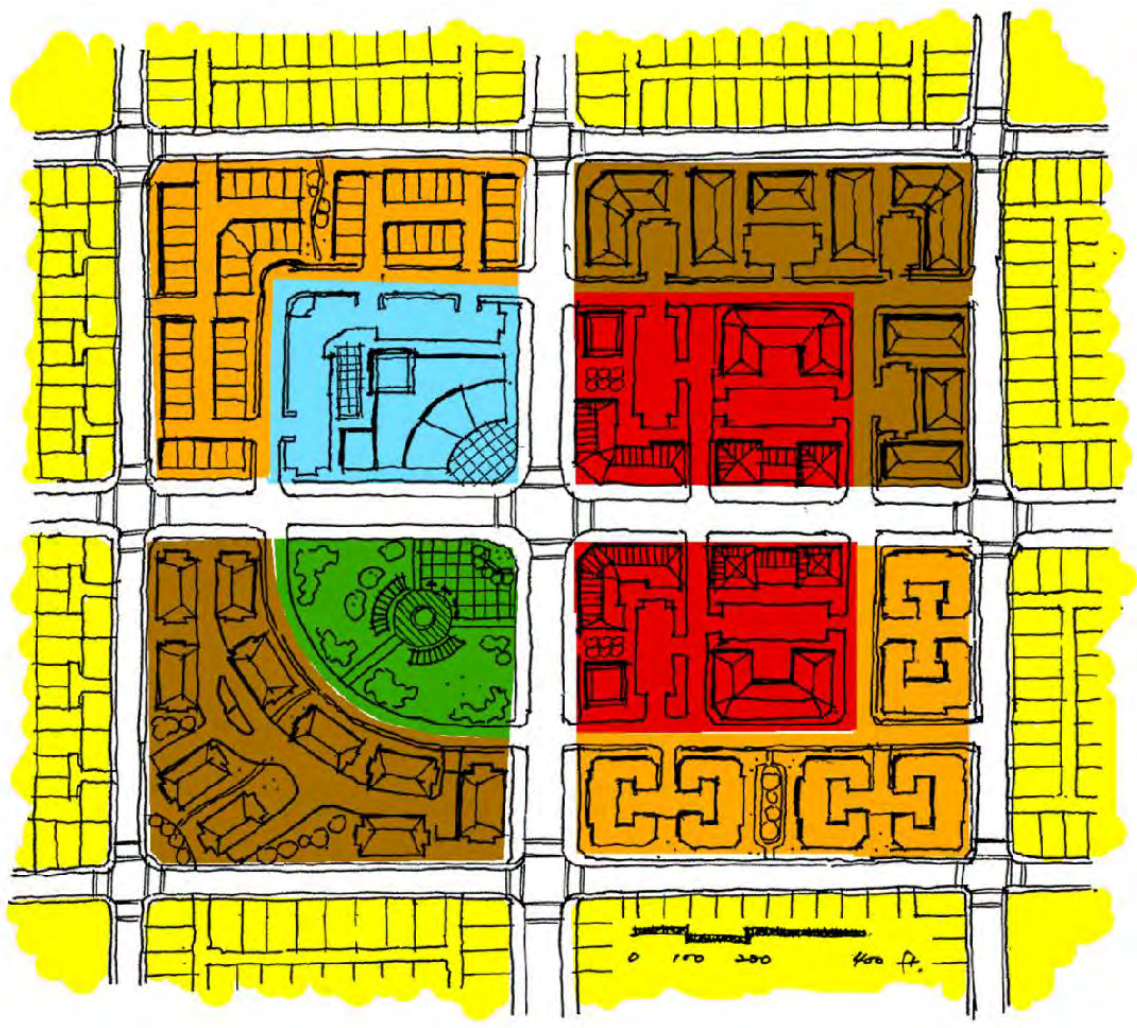
The design of the Centers is not specifically prescribed by the General Plan, but guidance is provided in this Land Use Element, the Community Character Element, and the Circulation Element. Example layouts for these Centers are illustrated conceptually in Figure LU-4. Applicants for projects that include a Neighborhood or Civic Center will simply submit proposed maps or development plans showing compliance with the flexible land use allotments presented in Table LU-4. There are a wide variety of feasible layouts for Centers that would be consistent with General Plan policy.

Civic Centers are designed to accommodate a joint-use park adjacent to a public school. The City, however, does not control the location of schools. Rather, the General Plan provides for viable locations for schools in areas central to surrounding new neighborhoods, and where the City will ensure high-quality pedestrian and bicycle connections. Development of Civic Centers requires coordination between the City and the Live Oak Unified School District (the District). At the time development is proposed, the City will offer the school site to the District. The District can require the site be set aside for future school development by a specified date, or can identify other locations nearby that will be used instead. If the schools sites identified in the Civic Centers are not required by the District, then uses consistent with the underlying Small Lot Residential land use designation would be allowed.

[1] As noted throughout this General Plan, the City does not directly control the location of schools, but has nonetheless provided for potential school sites of appropriate sizes and in appropriate locations.



Example Civic Center



Example Neighborhood Center

LEGEND

LAND USE DESIGNATIONS

- Smaller Lot Residential (4-10 units per acre)
- Medium-Density Residential (8-15 units per acre)
- Higher-Density Residential (12-25 units per acre)
- Neighborhood Commercial Mixed Use
- Civic
- Park
- Reserve

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Figure LU-4
Example Layouts for Centers

TABLE LU-4
NEIGHBORHOOD CENTER AND CIVIC CENTER LAND USES

Center	Intent	Allowable Land Uses	Allowable acreage
Neighborhood Center 	Accommodate businesses, civic institutions, and service organizations providing for daily needs of nearby residents, as well as higher- and medium-density housing options.	Commercial Mixed-Use	3 to 7 acres
		Higher-Density Residential	2 separate areas of between 5 and 7 acres each
		Park	2 to 3 acres
		Civic	1 to 3 acres
		Medium-Density Residential	10 to 15 acres
Civic Center 	Establish an identifiable neighborhood core focused around civic uses, including a school, park, and other public services, such as fire station, library, or post office. If the school district chooses not to locate a school within the Center, the required school acreage will be developed as Small-Lot Residential. The Center would still provide a Neighborhood Park, even without school development. Accommodate higher- and medium-density housing.	Higher-Density Residential	5 to 7 acres
		Civic	1 to 2 acres
		Civic/Park (joint-use school and neighborhood park)	10–12 acres
		Medium-Density Residential	10 to 15 acres

LAND USE DIAGRAM

The Land Use Diagram (Figure LU-5) visually represents the general location, distribution, and extent of land uses through build-out of the 2030 General Plan. The diagram identifies the distribution of residential, commercial, industrial, civic, park, agricultural, and other open space uses within the City and the Planning Area. While this information is useful for determining the future development patterns and infrastructure needs of the City, the Land Use Diagram is general in nature, providing a somewhat conceptual representation of the future distribution of land uses. The Diagram will be used and interpreted in combination with the narrative policies and other information presented throughout the General Plan in making decisions on land use change.

JOBS AND HOUSING

As stated at the beginning of this Element, one of the key land use issues facing Live Oak is the need to create employment opportunities for residents. The City would like to match the number and types of jobs available in the community with the size and skills of Live Oak's labor force.

There are many benefits to having a balance between local jobs and housing. Matching jobs and housing, as described in this General Plan, will provide a vibrant local economy, sustainable fiscal

conditions for City finances, and improved quality of life for local residents by reducing commuting time, traffic congestion, and air pollution, among other benefits.

Providing jobs along with residential growth does not guarantee that all residents will chose to work within Live Oak. Nevertheless, the City wants to provide for this opportunity, and will encourage employment growth with residential growth, to the extent market conditions allow, increasing the likelihood that more residents will work locally.

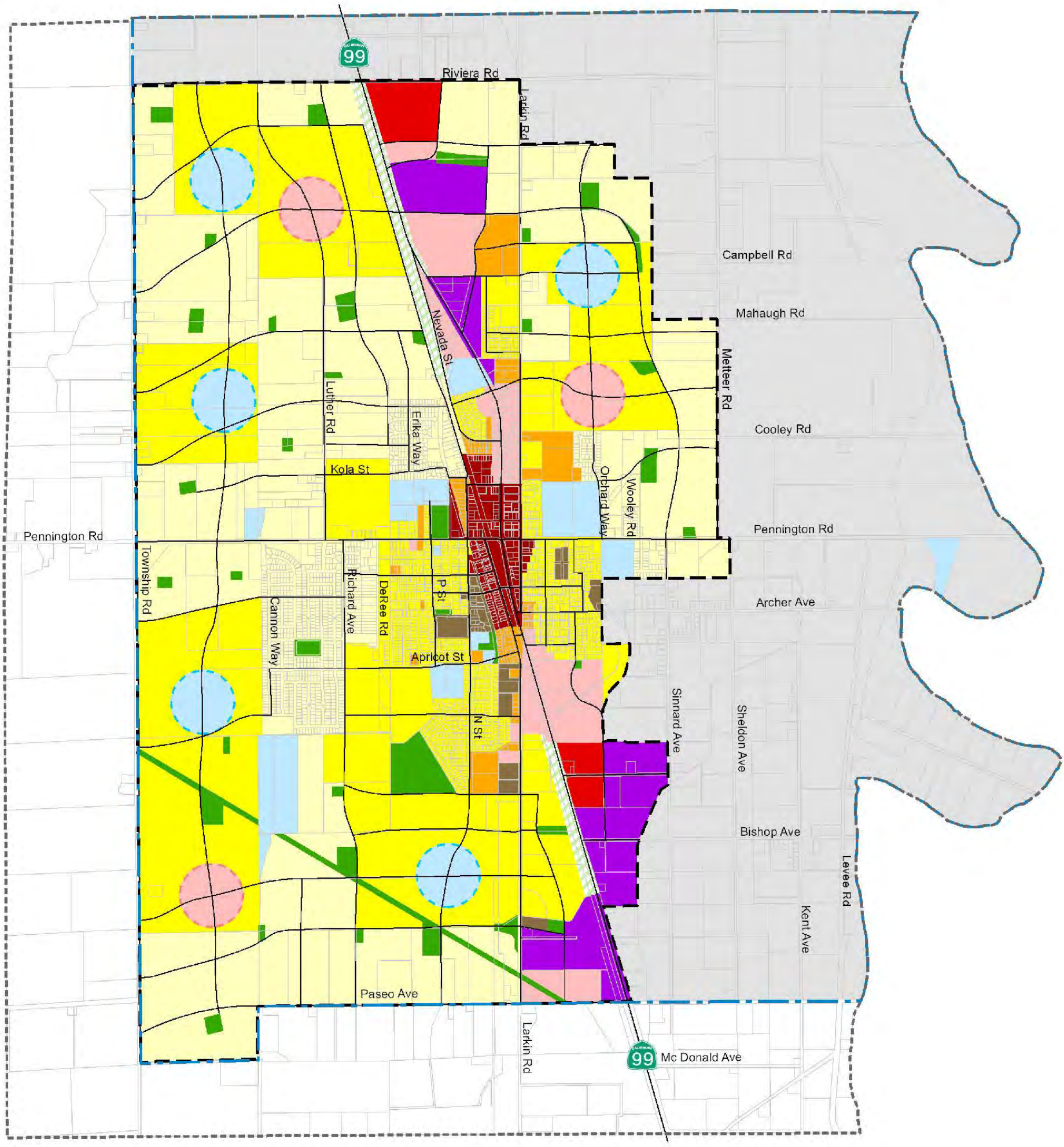
Many communities establish a numeric goal for jobs-housing balance. Sometimes the target is one job for every employed resident. Since different cities have different labor-force participation rates, this theoretical jobs-housing balance would vary. This target could also change over time, especially in a community expected to grow as much as Live Oak.

Many other communities construct a jobs-housing goal based on the number of jobs-to-housing units. Some cities target one job for each housing unit, while communities on the metropolitan fringe, such as Live Oak, set lower goals under the assumption that they will continue to be bedroom communities in the future. Even so, the tools available to the City through state planning and zoning law do not allow for precise targeting and administration of a numeric jobs-to-housing match.

ESTIMATES OF JOBS AND HOUSING AT BUILD-OUT

The City could have as many as 17,000 to 21,000 housing units at full build-out of the General Plan. Full build-out could add roughly 15,000 to 18,000 housing units between the present and 2030. The Land Use Diagram provides various employment development opportunities in the Civic, Community Commercial, Commercial Mixed Use, Downtown Mixed Use, and Employment land use designations located throughout the Planning Area. Sufficient land is provided for the City to achieve an approximately one-to-one relationship between new houses and new jobs.

In 1999, the city was estimated to have approximately 1,000 jobs and 2,800 housing units. Live Oak's jobs-to-housing ratio was approximately 0.5. Sutter County's jobs-to-housing ratio in 1999 was also 0.5, while Yuba City's was higher—roughly 1.14 jobs per housing unit. The General Plan seeks to improve the City's jobs-housing balance through a diversity of employment options.



LEGEND

Boundaries
- Study Area
- Planning Area
- Sphere of Influence
- Parcels
- Roads

Land Use Designations
- Low-Density Residential
- Smaller-Lot Residential
- Medium-Density Residential
- Higher-Density Residential
- Commercial Mixed Use
- Downtown Mixed Use
- Community Commercial
- Park
- Civic
- Employment
- Urban Reserve
- Buffer
- Neighborhood Center
- Civic Center

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Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2009

Imagine the future... City of Live Oak General Plan

Figure LU-5
Land Use Diagram

Employment estimates vary depending on the type of land use and the intensity of site development. For example, large-scale retail and industrial development tend to have lower employment densities, while office uses generally have higher employment densities.

Following are estimates of the jobs that could be added locally through build-out of the General Plan. These estimates are based on development of both greenfield and infill sites between the present and 2030. The actual numbers of jobs produced depends on the types of businesses or agencies that locate in the City, the intensity of this development, and employment densities (Table LU-5).

TABLE LU-5
NEW EMPLOYMENT DEVELOPMENT

Land Use	New Jobs (Estimated Range)	
Commercial Mixed Use	4,700	5,800
Downtown Mixed Use	860	1,100
Community Commercial	1,100	1,500
Employment	6,500	8,000
Civic	250	300
Total	**13,700**	**16,800**

CITY'S INTENT FOR JOBS AND HOUSING RELATIONSHIP

Live Oak does not have a numeric jobs-housing target. Rather, the City's *qualitative* goal is to manage growth in a way that matches the types of jobs likely to be available with the skills and interests of the labor force.

The City will provide opportunities for development of housing that is priced, sized, and located to serve the needs of local employers and employees. The City will provide for varied housing opportunities for the sorts of workers that industries of the future will require. The City will encourage a diversity of local housing stock appropriate for local jobs and incomes, rather than housing built strictly for employees working elsewhere. Where possible, the City will manage growth so that residential and job growth occurs together, providing a better match between the number of employed residents with the number of local jobs as the City builds out.

The City's jobs-housing goals will require proactive monitoring by the City and updates to the Housing Element, as necessary, to ensure this consistency. The City will make revisions to the Land Use Diagram and zoning, as necessary, during build-out to improve the match.

The City will encourage employment development strategically, through coordinated use of:

- ✓ regulations (and policies);
- ✓ acquisition of property and investment in public infrastructure;
- ✓ fee programs and public facility financing; and,
- ✓ subsidies for job-creating projects.

As the City's residential population grows, retail and services will be developed to serve local needs. Although these uses will provide jobs, the City cannot rely on service sector job growth exclusively. To adequately provide for the local workforce, the City will need to target and attract local industries that *export* products and services. The City, through its economic development strategy (see the Economic Development Element), will identify and target employers that could thrive, based on Live Oak's locational advantages, such as:

- ✓ the rich agricultural lands that surround the city;
- ✓ the proximity to open space and recreational areas; and,
- ✓ the city's proximity to SR 99 and the Union Pacific mainline, among other emerging advantages.

The City will identify nascent industries that could create, or be tied in with, new clusters of economic activity.[2] The City will encourage complete and intensive development of the areas designated as Employment on the Land Use Diagram at relatively high development intensities (larger buildings developed relative to parcels). The City will also help existing export businesses to expand within Live Oak. Please refer to the Economic Development Element for more information.

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The goals and policies found in this section address the arrangement, orientation, and management of land use change through buildout of the Live Oak General Plan in 2030.

Goal LU-1. **Ensure orderly growth that provides homes and jobs for future residents.**

Policy LU-1.1 New development shall be phased and financed consistent with the City's master infrastructure plans, capital fee programs, and operations and maintenance financing programs.

Policy LU-1.2 The City will favor single annexation proposals involving relatively large land areas that can be developed in a coordinated fashion.

Policy LU-1.3 Incremental, multiple annexations involving smaller areas of land will not be prohibited, although in such cases, the City will encourage that adjacent properties be annexed concurrently through collaboration with other property owners.

Policy LU-1.4 Lands within Centers should be developed in a coordinated fashion where multiple landowners are involved, wherever possible.

Policy LU-1.5 Development shall not occur within the Urban Reserve area until the City conducts a comprehensive planning and environmental review.

[2] "Nascent" industries are those that might have a small presence but could expand in the future. "Clusters" of economic activity are related industries that can tend to co-locate.

Policy LU-1.6 New development requiring annexation shall provide for ongoing operational funding of public services and facilities through participation in a community facility district or similar funding mechanism, as directed by the City.

Implementation Program LU-1.1

The City's zoning, subdivision, and other aspects of the City's Municipal Code will be revised following this General Plan update. As a part of these revisions, the City will specify the process for development of the Neighborhood Centers and Civic Centers (Centers). The City will create two or more zoning districts for Neighborhood Centers and Civic Centers. Projects within properties that have a Center will be required to show the required range of land uses on submitted plans and/or proposed subdivision maps. Uses consistent with the Small Lot Residential land use designation are allowed for land not covered by the specified Center land uses. Consultation with the Live Oak Unified School District will also be required during the entitlement process for Civic Centers, which are identified as locations for joint-use schools and neighborhood parks.

Goal LU-2. Make improvements to existing developed areas as the city grows.

Policy LU-2.1 The City will encourage the redevelopment of vacant and underutilized properties within the City.

Policy LU-2.2 The City will encourage infill development, which is defined as development that has access to water and wastewater infrastructure in adjacent existing streets, by:

- ✓ analyzing infrastructure deficiencies in the existing City;
- ✓ identifying infrastructure investment priorities needed to encourage reinvestment in the existing city;
- ✓ coordinating infill infrastructure priorities with redevelopment planning and capital improvements planning; and,
- ✓ exploring opportunities to provide incentives for infill development, such as lower impact fees.

Implementation Program LU-2.1

The City will maintain water, wastewater, and drainage master plans that identify and prioritize infrastructure improvements to the City. The City will incorporate improvements to existing City infrastructure in capital improvements planning, consistent with these master plans. The City also will identify federal, state, and regional grant and loan programs for infrastructure improvements in the existing developed City.

Implementation Program LU-2.2

The City will update development impact fees, following the adoption of the 2030 General Plan update. The fees developed as a part of this update will take into account existing infrastructure availability. Infill development will have lower fees, where it is shown to have lower costs. Infill

development is defined as development that has access to water and wastewater infrastructure in adjacent existing streets.

Goal LU-3. **Provide a full-service community with a variety of employment, shopping, services, housing, and recreational opportunities.**

Policy LU-3.1 The City will encourage existing businesses to expand and new businesses to locate in Live Oak that provide high-quality employment opportunities for residents.

Policy LU-3.2 The City will encourage a wide range of employment-generating land uses, such as business parks, office complexes, and other types of commercial, retail, and industrial facilities, to encourage the creation of jobs in the service, industrial, and professional sectors.

Policy LU-3.3 New residential development shall provide for a broad range of housing types, including multi-family housing, attached single-family housing, small-lot single family detached housing, and larger-lot single-family detached housing in order to meet the needs of a diverse labor force and to improve the City's ability to attract future employers.

Policy LU-3.4 A variety of housing sizes targeting different income and age groups should be encouraged in each neighborhood.

Policy LU-3.5 Developments in areas designated for single-family development should provide a variety of lot sizes, while still accommodating production home development.

Policy LU-3.6 Development in the downtown core area and in Neighborhood Centers should include a mix of office, retail, and commercial and public services.

Policy LU-3.7 Light industrial developments, office parks, research and development flex-space, and other employment-generating uses should be developed along the SR 99 corridor, the Union Pacific railroad line, or other major transportation corridors.

Policy LU-3.8 Community- and regional-serving commercial development should occur in proximity to the SR 99 corridor and other major transportation corridors.

Implementation Program LU-3.1

The City has provided adequate lands in the 2030 General Plan for Employment development during this General Plan time horizon. The City, however, will monitor build-out of areas designated for commercial and employment development during this General Plan time horizon. Should additional land be required to meet the needs of future employers in Live Oak, the City will consider designating lands in the Urban Reserve area for Employment use, subject to City-initiated planning and environmental analysis and mitigation.

Implementation Program LU-3.2

Following the 2030 General Plan update, the City will comprehensively update the Zoning Code. The Code will be revised to ensure consistency with the Land Use Element's land use designations, the Community Character and Design Element's aesthetic policies, as well as the balance of the General Plan. As a part of these revisions, the City will provide land with zoning, as needed, to comply with lower-income regional housing allocations from the Sacramento Area Council of Governments and pursuant to state housing law.

Goal LU-4. Revitalize downtown with a variety of options for residents and visitors to gather, shop, eat, work, live, obtain commercial and public services, and recreate.

Policy LU-4.1 The City will encourage mixed-use development in the downtown core area, with design elements intended to provide a comfortable and safe pedestrian environment.

Policy LU-4.2 The City will encourage and provide incentives for redevelopment of the downtown core area with high-activity uses such as retail, public services, parks, professional offices, and high-density residential development.

Policy LU-4.3 The City will encourage the development of visitor-oriented uses downtown that are also attractive to residents. These uses should be visible and easily accessible to visitors and residents alike.

Policy LU-4.4 To extent feasible, the City will provide on-street parking to serve the needs of downtown establishments and will minimize off-street parking requirements for downtown core area businesses and new high-density housing.

Policy LU-4.5 The City will construct its new administrative facilities in the downtown core area, and other public agencies should construct any new administrative facilities in the downtown core area or in Centers.

Policy LU-4.6 The City will encourage affordable housing development around the downtown core area and in Centers, where people without a car can access services.

Implementation Program LU-4.1

The City's water, wastewater, and drainage master plans will provide for infrastructure improvements designed to induce redevelopment in the downtown core area. The City will incorporate downtown infrastructure in capital improvements planning. The City will identify federal, state, and regional grant and loan programs for design, planning, and implementation of the City's polices for downtown core area redevelopment and revitalization, including infrastructure improvements. The City will consult with Sacramento Area Council of Governments to identify priority transit projects that serve development downtown.

Implementation Program LU-4.2

The City will update the Zoning Code comprehensively following the 2030 General Plan update. As a part of these revisions, the City will identify flexibility in development standards in the downtown core area needed to encourage full redevelopment of targeted revitalization areas. For example, the City will reduce or eliminate off-street parking requirements, open-space requirements, off-street loading area requirements, and also will eliminate minimum parcel sizes and make other changes that may be needed to induce downtown development.

Goal LU-5. Establish environmentally and economically sustainable land-use patterns.

Policy LU-5.1 Neighborhood Centers and Civic Centers will include higher-activity land uses, such as neighborhood retail and commercial services, offices, parks, civic buildings, schools, and higher-density housing, in order to accommodate walking, bicycling, and viable transit provision.

Policy LU-5.2 The City will promote redevelopment of already-developed areas, such as downtown and properties along SR 99, where there is existing infrastructure, and where development can be accommodated without losing agricultural land to urban use.

Policy LU-5.3 New developments shall be designed to be compact and make efficient use of land in order to reduce up-front and ongoing infrastructure and service costs, minimize environmental impacts, and enhance the livability of the community. This may include, but will not necessarily be limited to:

- ✓ The amount of land required to meet parking, internal circulation, and delivery/loading needs should be minimized.
- ✓ Land uses with different parking needs at different times of day should locate close to one another in Neighborhood Centers to reduce land used for parking.
- ✓ Two-story construction of public and private buildings, including schools, and smaller, neighborhood-oriented school sites should be encouraged, where feasible.
- ✓ Buildings in new developments should be built close to the sidewalk and front property line, where feasible.
- ✓ New development shall contribute toward meeting areawide drainage needs in public rights-of-way and neighborhood and community parks, to reduce the amount of land that must be devoted to stormwater management.
- ✓ New development (public and private) should use Low Impact Development stormwater management methods, so that less land is needed for drainage conveyance and detention.

- ✓ The City will promote joint-use of lands and facilities for multiple public purposes, to promote land efficiency, including joint-use of drainage corridors for linear parkland, joint-use of neighborhood parks and libraries for school and community use, joint-use of land and facilities for law enforcement/fire/civic uses, and other joint-use opportunities, as feasible.

Policy LU-5.4 Commercial or industrial uses that create noise, air pollution, or other substantial impacts for existing or planned residential uses shall be located, buffered, or otherwise designed to minimize such impacts.

Policy LU-5.5 New residential projects near the Union Pacific railroad line and SR 99 will provide buffering and/or other mitigation from these rights-of-way, to avoid adverse air quality, noise, and aesthetic issues.

Policy LU-5.6 New residential development proposed adjacent to cultivated agricultural lands outside the City's Sphere of Influence shall provide buffers to reduce potential conflicts. The width of such buffers will be determined on a case-by-case basis, considering prevailing winds, crop types, agricultural practices, and other relevant factors. Buffers should be designed to minimize adverse dust, spraying, and noise impacts to newly established residents near ongoing agricultural operations and to avoid nuisance complaints from these newly established residents against farmers in the area. The width of public rights-of-way, drainages, and easements may count as part of the buffer. Within agricultural buffer areas, allowed land uses include drainage swales, trails, other infrastructure, community gardens, landscaped areas, linear parks, roads, and other uses that would be compatible with ongoing agricultural operations (Figure LU-6).

Implementation Program LU-5.1

Following adoption of the 2030 General Plan, the City will adopt changes to Municipal Code and Public Works Improvements Standards to accommodate more efficient use of land, consistent with the General Plan. For example, the City may revise the portion of the Municipal Code on Park Land Dedications/Fees to account for joint-use of parks for school and drainage. School impact fees and drainage impact fees should account for the cost savings related to joint-use of public lands and facilities, to the extent that these joint-use opportunities are realized.

Implementation Program LU-5.2

The City will update development impact fees following the 2030 General Plan update. As a part of this update, the City will ensure that compact development has lower fees where it is shown to have lower costs.

Implementation Program LU-5.3

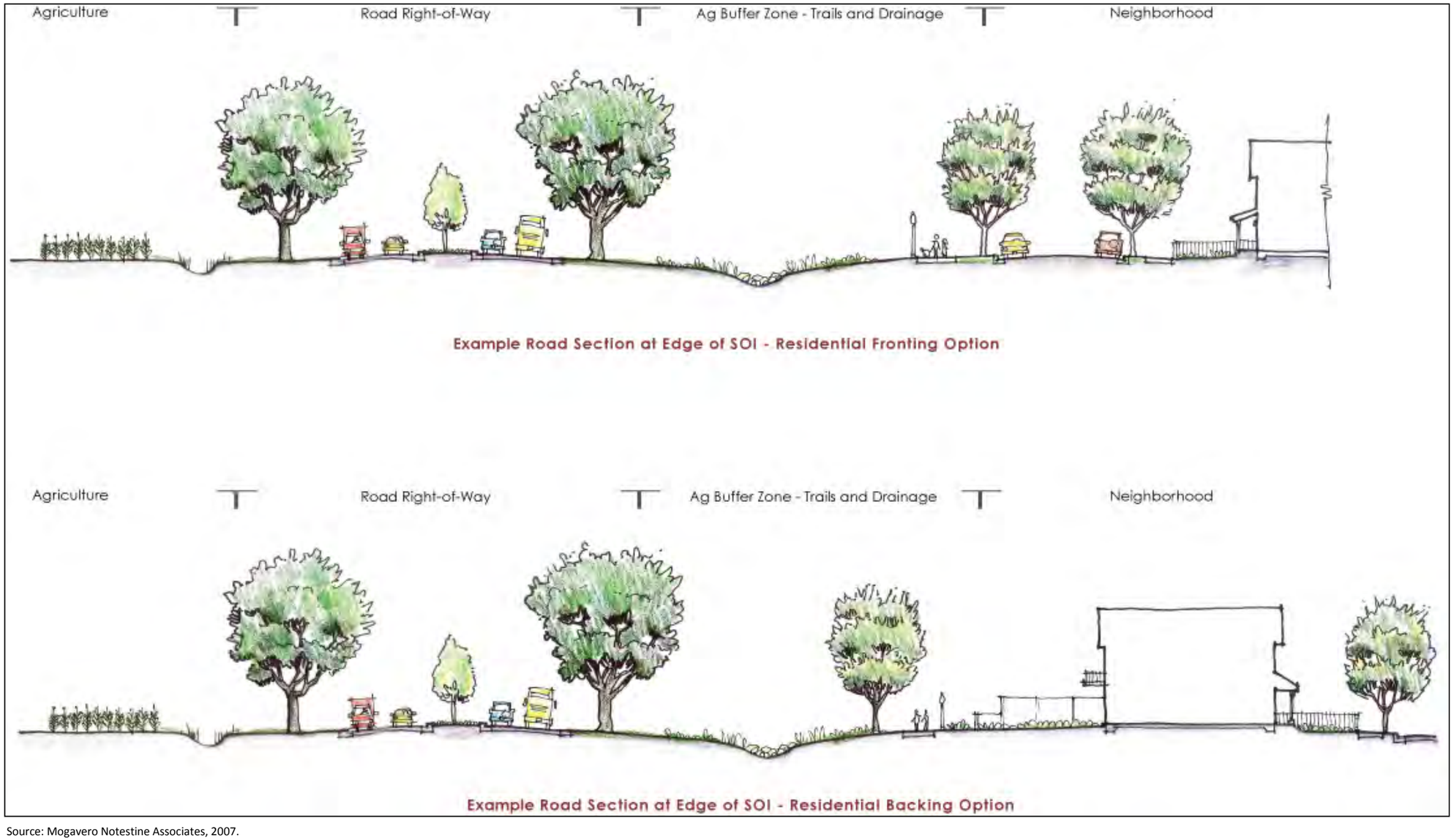
The Planning Department will consult with Sutter County to determine the specific application of the City's agricultural buffer policy. The City will consider developing an ordinance to apply

this policy in areas adjacent to long-term ongoing agricultural operations in the County unincorporated area.

REFERENCES

California Department of Finance. 2000 (April 1). Demographics Unit, Table 2: E-5 City/County Population and Housing Estimates, 4/1/2000 Benchmark.

California Department of Finance. 2008 (January 1). Demographics Unit, Table 2: E-5 City/County Population and Housing Estimates.



Source: Mogavero Notestine Associates, 2007.

Figure LU-6
Example Agricultural Buffer at the SOI Edge with Roadway

CONSERVATION AND OPEN SPACE ELEMENT

INTRODUCTION

This Element combines two mandatory General Plan Elements: Conservation and Open Space. This Element describes the conservation, development, and use of natural resources. Management strategies for water, energy, and air quality and for biological, mineral, farmland, and cultural resources are identified. This Element also describes the City's strategies for preservation and conservation of open space lands. Important open spaces are identified and policies designed to protect these valued landscapes.

The Conservation and Open Space Elements are combined due to the close connection in the Live Oak Study Area between the location and the use of many of the important resources addressed in this Element. In other words, the need to conserve these resources and their location on undeveloped lands are directly linked.

The purpose of this Element is to identify the goals, policies, and implementation programs that will be used by the City to protect natural, cultural, and open space resources. The chapter focuses on conserving, preserving, and enhancing these resources to ensure a high quality of life for current and future residents. Specifically, the Element provides policies and programs that cover the following conservation topics:

- ✓ protection or improvement of water quality;
- ✓ conservation of farmland;
- ✓ preservation of wetlands consistent with federal and state requirements;
- ✓ protection of special-status species and their habitats;
- ✓ implementation of water conservation programs;
- ✓ promotion of energy conservation and renewable energy;
- ✓ improvement of air quality and reduction of the City's greenhouse gas emissions; and,
- ✓ conservation of important mineral and soil resources.

California Government Code Section 65560 stipulates that open space be maintained for the preservation of natural resources, managed production of resources, recreation, and public health and safety. This Element provides policies and programs to fulfill the following open space goals:

- ✓ preservation of existing agricultural, biological, and recreation resources; and,
- ✓ protection of archaeological sites and historically or culturally important sites.

Other required conservation and open space topics are addressed in the Land Use, Public Safety, and Park and Recreation Elements. The Land Use Diagram in the Land Use Element identifies Buffer areas to remain in open space between State Route (SR) 99 and the railroad and adjacent residential development to ensure public health and safety. Open space is addressed in other ways in the Land Use Element, including policies that promote efficient use of land. Using land more efficiently ensures that the City can provide for growth needs without unnecessarily converting agricultural land and other important open spaces to urban use. Open space for the purpose of recreation and the development

and improvement of recreational trails and related facilities are addressed in the Land Use and the Parks and Recreation Elements. Policies addressing water supply are addressed in the Public Services and Facilities Element. Policies concerning open space for public health and safety are also included in the Public Safety Element. Taken together, the General Plan Background Reports, various elements of the General Plan, and the policy diagrams address all state law–required topics for open space and conservation that are relevant to Live Oak.

KEY CONSERVATION AND OPEN SPACE ISSUES

During a series of General Plan workshops, residents of Live Oak identified several key issues facing the City. The following issues are related to conservation and open space:

- ✓ Farmland surrounds Live Oak, provides scenic open space, and contributes substantially to the local and regional economy. This valuable resource should be protected even as the City accommodates outward growth.
- ✓ Water supply and quality is a precious resource. Water, stormwater, and wastewater should be managed in an environmentally effective and cost-efficient manner.
- ✓ The Sutter Buttes are a globally unique natural feature, views of which should be provided and protected as the city grows.
- ✓ The City's urban tree canopy is important to our air quality, climate, and aesthetic enjoyment. Maintaining and improving this resource will improve the overall quality of life in Live Oak.
- ✓ Air quality in the region does not meet State of California standards. Additionally, the state has established a mandate to reduce total statewide greenhouse gas emissions generated to 1990 levels by 2020.
- ✓ Energy prices are expected to increase substantially over the time horizon of this General Plan. These increases will challenge residents and the City's growth objectives. Live Oak must embrace energy conservation and alternative transportation strategies to remain an economically competitive and livable community.
- ✓ The City will need to protect species and their habitats in compliance with federal and state laws.

CONTENTS OF THIS ELEMENT

As stated above, this Element describes both the City's approach to the conservation of natural resources and the management of open spaces. Conservation strategies are presented first and are divided into eight separate topic areas; open space management is discussed later in the Element. The discussion includes the following topic areas:

- ✓ biological resources;
- ✓ air quality/climate change;
- ✓ cultural resources;
- ✓ energy resources;

- ✓ agricultural resources;
- ✓ mineral/soil resources; and,
- ✓ water resources.

Each topic area includes a description of the context, identification of key issues, and a presentation of goals, policies, and implementation programs.

BIOLOGICAL RESOURCES

BIOLOGICAL CONTEXT

The majority of the land within the Study Area either has been converted to agricultural or urban uses or has experienced some level of disturbance that has compromised its habitat value. While these land uses dominate the area, isolated pockets of native and nonnative vegetation do provide limited habitat for wildlife species (Figure CO-1). Riparian areas along the west bank of the Feather River contain most of the native plant species within the Study Area. Irrigation canals and the Live Oak Slough provide habitat for other important species. A limited number of valley oak trees are found along these canals.

The biological resources setting of the Environmental Impact Report prepared to evaluate this General Plan update identified 27 special-status plant and wildlife species that have potential, or are known to occur in the Study Area. The observed or potential locations of these species are illustrated in Figure CO-2.

Pasture supports a variety of wildlife, particularly ground-nesting birds such as killdeer and western meadowlark. Birds that forage in open grasslands, including raptors, horned lark, northern mockingbird, loggerhead shrike, black phoebe, American crow, blackbirds, and finches, may also use pastures. Croplands generally provide less suitable habitat for wildlife than do pastures because of weed control, tilling, and insect control practices. Amphibians, reptiles, birds, and mammals may disperse across croplands on a seasonal basis. Most notably, rice fields that become flooded during winter rains may provide foraging habitat for herons, egrets, white-faced ibis, sandhill crane, and other wading birds and shorebirds. Most orchards provide minimal habitat. Irrigation channels provide water, cover, and foraging habitat for wildlife in adjacent habitats. These canals provide habitat for mammals, including raccoon, river otter, striped skunk, and muskrat. Aquatic species include mosquito fish, carp, and common garter snake. It is possible that the federally listed giant garter snake exists in the channels anywhere within the Study Area, but particularly on the west side of the Study Area. Red-winged blackbirds and tricolored blackbirds may also nest along these irrigation channels, in stands of hard-stemmed bulrush, cattails, or Himalayan blackberry.

Riparian habitat along the Feather River provides extensive habitat. Wildlife species occurring in this habitat type include white-tailed deer, coyote, wild turkey, opossum, striped skunk, beaver, western gray squirrel, screech owl, great horned owl, red-tailed hawk, Swainson hawk, California quail, and valley elderberry longhorn beetle.

Native trees and large nonnative trees scattered throughout the Study Area, and growing along roadsides and on the edges of agricultural fields, provide habitat for both sensitive and common wildlife species.

KEY ISSUES

The following key issues related to biological resources in the Study Area were identified in the Background Biological Resources Inventory report (City of Live Oak 2006).

- ✓ Special-status species are those plant and animal species that are designated by federal or state regulatory agencies as needing protection due to rarity or threats to their existence. A number of special-status plant and wildlife species, such as Swainson's hawk, giant garter snake, valley elderberry longhorn beetle, and bank swallow, have the potential to occur or are known to occur within the Study Area.
- ✓ Sensitive habitats are those designated by federal or state agencies as such because they are either rare or play an especially valuable role in the larger ecosystem. Sensitive habitat areas within the Study Area include riparian forest habitat along the Feather River and portions of Live Oak Slough and wetlands along waterways in the Study Area.
- ✓ In addition to the large native trees found with the riparian forest habitat along the Feather River, there are scattered native trees and large nonnative trees along roadsides and agricultural fields throughout the Study Area. These trees provide not only habitat for wildlife species, but also have important historic and aesthetic value for city residents.

BIOLOGICAL GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

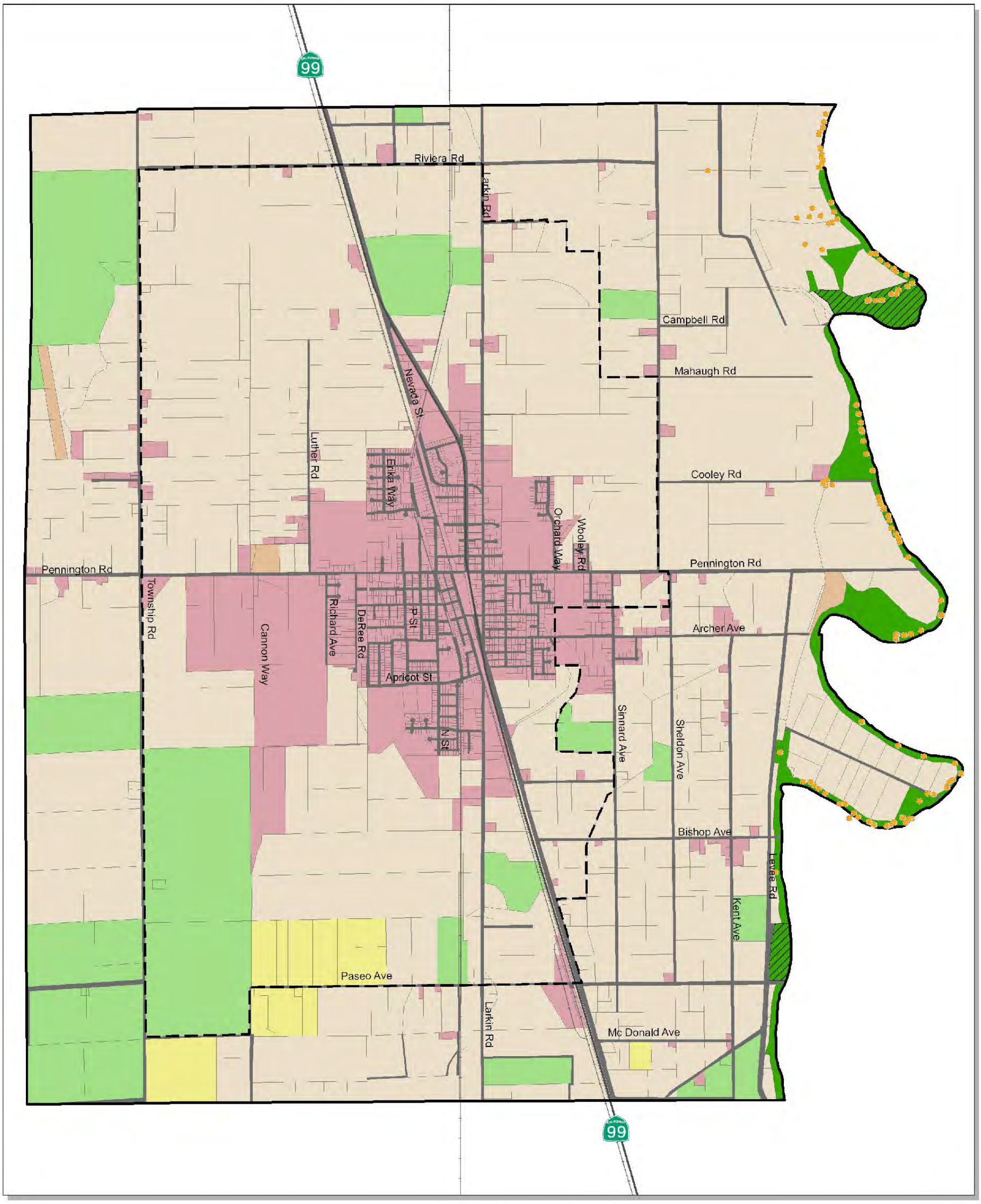
Goals and policies for the Open Space and Conservation Element, aimed at protecting significant biological resources present within the Study Area boundaries, include the following:

Goal BIOLOGICAL-1. Protect and enhance habitat suitable for special-status species that can occur in the Study Area.

Policy Biological-1.1 Applicants of projects that have the potential to negatively affect special-status species or their habitat shall conduct a biological resources assessment and identify design solutions that avoid such adverse effects. If adverse effects cannot be avoided, then they shall be mitigated in accordance with guidance from the appropriate state or federal agency charged with the protection of these species.

Goal BIOLOGICAL-2. Protect native oak and other large tree species occurring throughout the Study Area that provide valuable habitat for wildlife species and contribute to the historic and aesthetic character of the city.

Policy Biological-2.1 New developments shall preserve all native oaks with a diameter at breast height (dbh) of 6 inches or greater and all other trees that have a dbh of 30 inches or greater, to the maximum extent feasible.



LEGEND

- Planning Area
- Study Area
- Elderberry Shrubs

Agricultural Land

- Cropland
- Orchard
- Pasture
- Ruderal

Riparian

- Great Valley Cottonwood Riparian Forest
- Other Riparian

- Urban/Developed

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Source: Sutter County Assessor's Office, CNDDB 2009, SCWA 2005 and 2006, adapted by EDAW 2009

Imagine the future... City Of Live Oak General plan

Figure CO-1
Land Cover

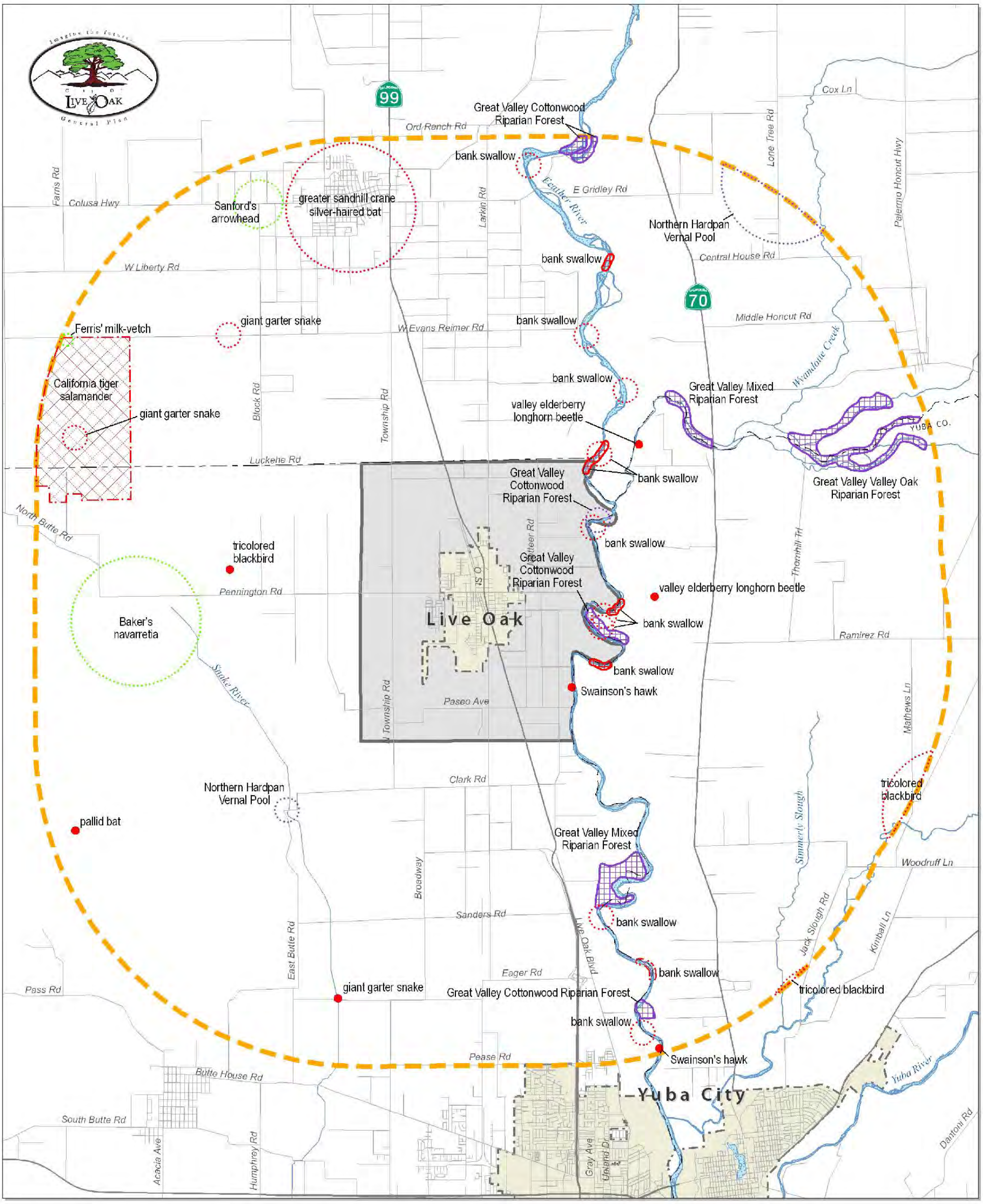

Figure CO-2
Locations of Special-Status Species and Sensitive Natural Communities in the Study Area

Goal BIOLOGICAL-3. Protect and enhance existing riparian habitat within the Study Area.

Policy Biological-3.1 Where feasible, the City will require that new developments avoid the conversion of existing riparian habitat and require that an adequate buffer of the associated riparian areas be established to protect this resource. Where feasible, the riparian buffers shall be incorporated into open space corridors, public landscapes, and parks. Riparian buffers shall be designed to preserve existing wildlife habitat; restore degraded habitat; provide habitat conditions favorable to native local wildlife; restrict activities that may adversely affect wildlife habitat quality within the established buffer zone; and provide interpretive features educating the public about the beneficial effects of native riparian habitat and activities that adversely affect wildlife.

Policy Biological-3.2 The City will take advantage of opportunities to enhance and restore existing riparian areas along Live Oak Slough and other drainage canals. Where feasible, these resources shall be incorporated into open space corridors, public landscapes, and park during the preparation of the Parks and Recreation Master Plan. [1]

Policy Biological-3.3 The City will require new developments to avoid the loss of federally protected and state-protected wetlands. If loss is unavoidable, the City will require applicants to mitigate the loss on a "no net loss" basis through a combination of avoidance, minimization, and/or compensation in accordance with federal and state law.

Policy Biological-3.4 If development or expansion of the Live Oak Park and Recreation Area on the Feather River occurs, the City will encourage designs, construction, and operation to protect sensitive riparian habitat.

Implementation Program Biological-1

The City's survey and mitigation requirements for special-status wildlife species shall be consistent with current guidance from the California Department of Fish and Game and the U.S. Fish and Wildlife Service. For federally listed wildlife species with potential to occur in the vicinity of proposed projects, the following guidelines are provided (project applicants will be required to use the most current version of survey protocol available at the time of project-level environmental review):

- ✓ Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999)
- ✓ Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans Within the Jurisdiction of the Sacramento Field Office, California (USFWS 1996)
- ✓ Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno,

[1] Please refer to the Parks and Recreation Element for more detail.

Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter and Yolo Counties, California (USFWS 1997).

- ✓ Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California (CDFG 1994).
- ✓ Staff Report on Burrowing Owl Mitigation (CDFG 1995 as updated)

For other wildlife species, the following guidance is recommended for pre-construction surveys:

- ✓ Raptors (including long-eared owl, northern harrier, white-tailed kite): for activities in suitable habitat during the breeding season (March through August), pre-construction nest surveys with minimum buffers of 250 feet on active nests.
- ✓ Tricolored blackbird: for activities in suitable habitat during the breeding season (March through August), pre-construction nest surveys with minimum buffers of 250 feet on active nests.
- ✓ Other migratory birds (loggerhead shrike, Song Sparrow "Modesto population"), for activities in suitable habitat during the breeding season (March through August), pre-construction nest surveys with minimum buffers of 10 feet on active nests.
- ✓ Northwestern pond turtle: pre construction surveys in suitable aquatic habitat with relocation of turtles found in the work area into nearby suitable aquatic habitat.
- ✓ Special-status mammals (pallid bat, ringtail, silver-haired bat, western red bat, and American badger): for activities in suitable habitat, pre-construction surveys with minimum buffers of 10 feet on occupied habitat.

Implementation Program Biological-2

The City will develop and adopt an ordinance requiring preservation of all heritage trees within the Study Area. Heritage trees will include native oak trees greater than 6 inches dbh and all other trees greater than 30 inches dbh. The ordinance shall require a certified arborist to evaluate any trees proposed to be removed or disturbed and work with the City to develop measures to preserve the trees or mitigate their loss. The ordinance will provide an exception to projects where any economically viable development is precluded by the existence of a heritage tree.

Implementation Program Biological-3

The City will adopt development standards that require a riparian protection buffer (RPB) specifying an appropriate setback distance from existing riparian habitat or natural water bodies for development or other significant disturbance. This habitat is known to occur near the west bank of the Feather River. In areas with existing development, the RPB shall not be less than 25 feet, measured from top of the bank. In all other areas, the RPB shall not be less than 100 feet, measured from top of bank. If existing riparian vegetation is greater than 100 feet in width, the RPB shall encompass all of the riparian habitat; however, in no case shall the RPB be required to exceed 250 feet. Where feasible, the riparian buffers shall be incorporated into open space

corridors, public landscapes, and parks. Trails and other recreation development should be designed and constructed to be compatible with riparian ecosystem.

AIR QUALITY

AIR QUALITY CONTEXT

Air pollution affects human health, harms the natural and the built environment, damages crops, and changes the climate of the earth. Air pollution can have localized, regional, and global sources and effects.

Toxic air contaminants (TACs) are airborne substances that can cause acute (short-term) and chronic (long-term) health problems, including cancer. TACs include a variety of substances from many different sources, such as gasoline stations, highways and railroads, dry cleaners, industrial operations, power plants, and painting operations. The effects of TACs are mostly experienced locally (close to the source).

Particulate matter (dust) and ozone ("smog") can also have adverse human health effects. The Live Oak area experiences exceedances of California ambient air-quality standards for concentrations of these pollutants, and is classified as nonattainment for ozone and particulate matter of less than 10 micrometers in diameter (PM_{10}) (ARB 2008a).

In addition, emissions of greenhouse gases (GHGs) could have catastrophic impacts related to flooding, habitat suitability, agriculture, and the global economy. The primary GHGs of concern include carbon dioxide, methane, nitrous oxide, and fluorinated compounds. GHGs emitted around the world all contribute to global climate change. [2] In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. [3]

Addressing the public and environmental health issues related to air quality requires not only conservation policies, but coordination between land use, circulation, health and safety, and community design policies. The location of highways, railroads, and industrial sources compared to houses, schools, and other sensitive land uses is an important consideration in land use planning. Since transportation is the largest source of ozone precursors in the region and of GHGs in California, land use and transportation planning to reduce the need for driving is a fundamental focus for jurisdictions that have air quality goals (ARB 2008b, 2008c). [4]

There are a variety of feasible and routinely used land use, transportation, and design approaches that reduce vehicular travel (and thus preserve air quality). For example:

[2] Please refer to the "Air Quality" section of the General Plan Environmental Impact Report, under separate cover, for more detailed information on climate change-related legislation, emerging climate change-related regulations, climate change science, detailed presentation of primary sources of greenhouse gas emissions, and related topics.

[3] California Air Resources Board. California Greenhouse Gas Emissions Inventory. Available at: <http://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed February 9, 2009.

[4] Please refer to the California Air Resources Board Web sites for more information on sources of air pollution: http://www.arb.ca.gov/cc/inventory/data/data.htm and http://www.arb.ca.gov/aqd/almanac/almanac08/almanac2008all.pdf.

- ✓ **Placing residential development within walking distance of daily destinations**, such as schools, jobs, shops, parks, and where public transit is available reduces reliance on cars and makes vehicle trips shorter.
- ✓ **Connected street networks** (those that provide many route choices for each destination) also encourage walking and bicycling and reduce trip lengths.
- ✓ The City can **coordinate with Yuba-Sutter Transit** and other transit providers to make public transit a more viable option for commuting in the short term (see the Circulation Element).
- ✓ The City can **identify and work to attract employers** to Live Oak in the future and better match the types of housing available locally with the jobs available locally (see the Land Use, Economic Development, and Housing Elements).

KEY ISSUES

The following key issues relate to air quality in the Study Area:

- ✓ Vehicle emissions are a primary source of air pollutants in Live Oak and the Sacramento region. By attempting to create a more balanced jobs-housing ratio, the City could reduce a large amount of commute-generated vehicle trips and emissions.
- ✓ A number of TAC sources exist within the city. Appropriate planning, design, and mitigation practices will need to be implemented to ensure residents are protected from these potentially hazardous land uses.
- ✓ California has passed legislation aimed at addressing the threat that climate change poses to California's economic, social, and environmental well-being. Live Oak, along with all other local jurisdictions, must coordinate land use and transportation planning according to the state's GHG reduction objectives.

AIR QUALITY GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goals, policies, and implementation programs included below have direct and indirect air quality benefits, and address a broad range of planning and air quality issues facing Live Oak. The Circulation Element, Land Use Element, and Community Character Element each have extensive policy that would also address air quality issues. There are also some air quality benefits to energy conservation strategies. Energy conservation is addressed later in this Element.

Goal AIR-1. **Plan and design the community to encourage walking, bicycling, and use of transit.**

Policy Air-1.1 New neighborhoods will include a mix of land uses, including pedestrian-friendly Civic Centers and Neighborhood Centers ("Centers") that accommodate destination land uses (e.g., local-serving retail, neighborhood services, employment uses, and entertainment uses) to allow neighborhood

residents to meet daily needs without the use of an automobile, and also to provide supportable locations for future transit stops. (See also the Land Use Element.)

Policy Air-1.2 New development shall provide highly connected street networks, which provide many route choices between any given origin and destination point, encourage alternatives to vehicular travel, and shorten trip lengths for vehicular travel. (See also the Circulation Element.)

Policy Air-1.3 City administrative facilities and other government offices established in Live Oak should be located downtown or in Centers, to be accessible by transit, walking, and bicycling.

Policy Air-1.4 The City will encourage and provide incentives for infill development, defined as development that has water and sewer infrastructure available in adjacent streets and does not require extension of such infrastructure to serve the subject project. (See also the Public Utilities, Services and Facilities Element and the Land Use Element.)

Goal AIR-2. Use construction practices and operational strategies that minimize air pollution.

Policy Air-2.1 New development shall implement standard emission control measures recommended by the Feather River Air Quality Management District for construction, grading, excavation, and demolition, to the maximum extent feasible.

Policy Air-2.2 The City will identify a preference for contractors that use low-emission equipment and other practices with air quality benefits (e.g., using locally produced and/or recycled construction materials, recovering demolition materials for reuse, or otherwise diverting refuse or waste from a landfill) for City-sponsored construction projects.

Policy Air-2.3 The City will encourage the prevailing local solid waste disposal provider to use low-emission vehicles and other equipment, and future contracting with solid waste handlers should identify a preference for solid waste contractors that use air quality best management practices.

Policy Air-2.4 City parks and open space will use low-maintenance, drought-tolerant landscaping, except in the case of playing fields. For landscape maintenance that is required, the City will encourage use of low-emission equipment.

Policy Air-2.5 The City will replace its fleet vehicles with low-emission vehicles, as funding is available and as fleet turnover warrants.

Policy Air-2.6 New development shall, as a condition of project approval, implement feasible elements from Feather River Air Quality Management District's standard and

supplemental mitigation measures, where required to reduce project level operational impacts to a less-than-significant level.

Goal AIR-3. Prevent local exposure to harmful and hazardous air pollutants and substantial exposure to odors.

Policy Air-3.1 Development of sensitive uses (such as residences and schools) shall be located an adequate distance from existing and potential sources of air pollutant emissions (including TACs), such as SR 99.

Policy Air-3.2 The City will ensure that industrial, manufacturing, and processing facilities that may produce toxic or hazardous air pollutants are located at an adequate distance from residential areas and other sensitive receptors, taking into consideration weather patterns, the quantity and toxicity of pollutants emitted, and other relevant parameters.

Policy Air-3.3 The City will coordinate with the Feather River Air Quality Management District to identify sources of TACs and determine the need for health risk assessments for proposed development.

Policy Air-3.4 The City will continue to work with local businesses and other agencies to monitor and provide rapid response and communication with the public in the event of an emergency involving air pollution.

Policy Air-3.5 Odor controls should be installed on new and existing sources, as feasible, to reduce exposure for existing and future residents.

Implementation Program Air-1

Following General Plan adoption, the City will develop a GHG reduction program. This program will be tied to estimates of existing and General Plan buildout GHG emissions presented and evaluated in the Live Oak 2030 General Plan EIR (under separate cover). The GHG reduction program will be structured to implement the Global Warming Solutions Act of 2006 (AB 32), as appropriate, within Live Oak.

Policies included in the Circulation, Land Use, Conservation and Open Space, Public Utilities, Services, and Facilities, and Community Character Elements of the 2030 General Plan that have GHG-reducing effects will be analyzed and considered as a part of the City's GHG reduction target. The GHG benefits of these policies are estimated at a programmatic level in the General Plan EIR.

The City may need to revise its quantified emissions reduction target as new information becomes available as a result of a Sustainable Communities Strategy, Alternative Planning Strategy, or other guidance from the State of California or the Regional Transportation Planning process related to Senate Bill 375 (signed September 2008). [5]

[5] SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) for that MPO's Regional Transportation Plan (RTP). ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks.

As more sophisticated transportation modeling becomes available (modeling is more sensitive to development density, urban design for pedestrian, bicycle, and transit accessibility, and other factors), the City may elect to re-analyze GHG emissions associated with General Plan buildout against the City's GHG reduction target.

In addition to policies included in the General Plan, future regulations would have the effect of reducing GHG emissions associated with General Plan implementation. [6] The effect of future regulations will be analyzed, quantified, and considered as a part of Live Oak's GHG reduction target through implementation of this GHG reduction program.

In addition to policies included in the General Plan and future state regulations, additional plans, projects, or regulations may be necessary to achieve the City's objective of consistency with AB 32. As necessary, the City will identify additional measures that are necessary to reduce GHG emissions and achieve the City's GHG reduction target. Each additional required measure should be enforceable, include a timeline, describe financing mechanisms, and assign responsibility to relevant agencies and departments. The City will consider a broad range of regulatory changes; infrastructure investment strategies; incentives for infill, residential and employment density, and mixing of land uses; contributions to carbon off-set programs; and other measures, as appropriate. The City could consider financing programs for installation and use of renewable energy infrastructure in new and/or existing development, green building codes to further increase energy efficiency in new buildings, travel demand management programs for new nonresidential projects, and other mechanisms that would reduce GHG emissions at General Plan buildout.

The City will identify periodic check-in points for monitoring the effectiveness of policies and measures relative to quantified targets. The first such check-in year shall be no later than 2015. The City will modify policies and measures, as necessary, to achieve the GHG reduction target.

Implementation of this program will require the cooperation of other agencies, private businesses, and residents, and will be implemented over a period of several years. The City will monitor changes in the regulatory and technological environments, as well as grant and other funding programs that could be used to fund this program or implement components of this program. The City will monitor and comply with relevant local, regional, statewide, and federal legislation related to GHG emissions, land use planning, and environmental review, and will make changes to its GHG reduction program accordingly.

Implementation Program Air-2

The City will identify, pursue, and use federal and state funds for bicycle and transit improvements, transit-oriented planning and development, and other planning and improvement grant programs intended to encourage alternatives to automobile transportation.

[6] For example, the California Air Resources Board has drafted an AB 32 Scoping Plan that identifies expected GHG emissions reductions from regulations, such as those that would reduce emissions from vehicles (e.g., AB 1493, Executive Order S-1-07 [i.e., the Low Carbon Fuel Standard]) and utilities (e.g., SB 1368 and companion legislation). If a low carbon fuel standard is implemented, this would reduce emissions associated with the General Plan, along with development throughout California. Other regulatory measures identified under the Scoping Plan could reduce emissions associated with the General Plan (as compared with what is estimated in the General Plan EIR).

Implementation Program Air-3

The City will require implementation of measures to reduce exposure of sensitive receptors to odorous emissions, where necessary, to avoid significant impacts. Odor controls will be required on existing and proposed major odor sources, as feasible, to reduce exposure to existing and future residents. The deeds to all properties of proposed residential uses located near substantial odors shall include a disclosure clause advising buyers and tenants of the potential adverse odor impacts from major sources of odors.

Implementation Program Air-4

The City shall continue to coordinate with FRAQMD to ensure that assumptions and control measures from new air quality plan updates are implemented, as appropriate, as part of General Plan implementation.

CULTURAL RESOURCES

Cultural resources are reminders of the history of the Live Oak area and can be important amenities for the present-day community. The adaptive re-use of buildings in Live Oak's Historic Commercial District demonstrates the community's interest in preserving the history of Live Oak. A review of known cultural resources is essential to understanding the City's history and to evaluating similar types of resources. This information will assist in land use planning, construction, and infrastructure planning. Knowing cultural resource site locations is the key to being able to develop or protect resources, as appropriate, to enhance knowledge and understanding of the City's past.

CULTURAL CONTEXT

During the prehistoric era, the Live Oak Study Area would have been a very productive environment, one well-suited to a hunting-gathering economy with a variety of water birds, small and large mammals, fish, reptiles and amphibians, and edible plant species. Live Oak is in an area historically occupied by two Native American groups: the Konkow (also known as the Northwestern Maidu) and the Valley Nisenan (also known as the Southern Maidu) (Kroeber 1925, Riddell 1978, Wilson and Towne 1978). Ethnographically known Konkow villages on the Feather River were south of the confluence with Honcut Creek (Riddell 1978:371). Valley Nisenan villages near the project area also have been found on the Feather River (Wilson and Towne 1978:388). More such sites could easily be located along the Feather River banks, where they would have been buried by flood deposits.

Before the construction of levees and ditches, the Sacramento Valley frequently turned into an inland sea during winter rainy periods and spring runoff. The Sutter Buttes, immediately southwest of the project area, was an island refuge for indigenous Californians (California Parks 2005). The Maidu called the Buttes "Histum Yani," which translates as "Middle Mountains of the Valley" or "Spirit Mountain." As an important part of their religious beliefs, the spirits of the Maidu people rest in the Buttes after death, before the journey to the afterlife.

During the Gold Rush, nearby Marysville became a large trading center because of its proximity to the gold fields and its accessibility on the Feather River. In 1848, Marysville became the third largest settlement in California. Although gold mining (placer, hydraulic, and dredging) continued for decades as a significant

economic activity in the area, the miners and immigrant families turned to farming for subsistence. Settlers began to farm the fertile agricultural lands along the west banks of the Feather River.

The town of Live Oak was settled in 1866 by A. M. McGrew, and was named for the local groves of oak trees by H. L. Gregory in 1871. Railroads established in the mid- to late 19th century helped Live Oak become a major shipping point for agricultural products.

The small settlement prospered after the California and Oregon Railroad laid tracks in the area in 1869, after which Live Oak became the main point in Sutter County for shipping agricultural produce (Napoli 1997). A store, railroad siding, warehouse, blacksmith shop, post office, and saloon had been constructed by 1874. Five years later, the town had many new businesses and a population of about 125, including 25 Chinese residents. During this period of commercial growth, the first railroad depot was constructed in 1876. This first depot was replaced by a second depot in 1882, which, along with Live Oak Hall (constructed in 1875), is still standing in today's Live Oak Historic Commercial District, a National Register Historic District listed in 1998 (Figures CO-3 and CO-4).

Figure CO-3
Historic Commercial District

The growth of the community slowed during the economic depression near the turn of the century, with the population of Live Oak at only about 400 in 1910 (Napoli 1997). With the construction of the Butte County Canal by Duncan McCallum and Thomas Fleming in 1905–1907, however, local agricultural practices flourished (Butte Creek Watershed Project 1998:150). Now known as the Sutter Butte Canal, this conduit brought water from the Feather River for irrigation. New settler-farmers arrived in the area, producing two agricultural colonies for Mormons and Germans (Napoli 1997). In addition, the arrival of the Northern Electric Railroad (later the Sacramento Northern) to Live Oak in 1906 and the paving of a state highway in 1915 (designated State Route 99 East) brought more settlers and commerce to the town. The community prospered again until the Great Depression of the 1930s. The Second World War revived the economy of Live Oak (Napoli 1997). After this period, businesses were constructed along SR 99. Live Oak was incorporated in 1947.

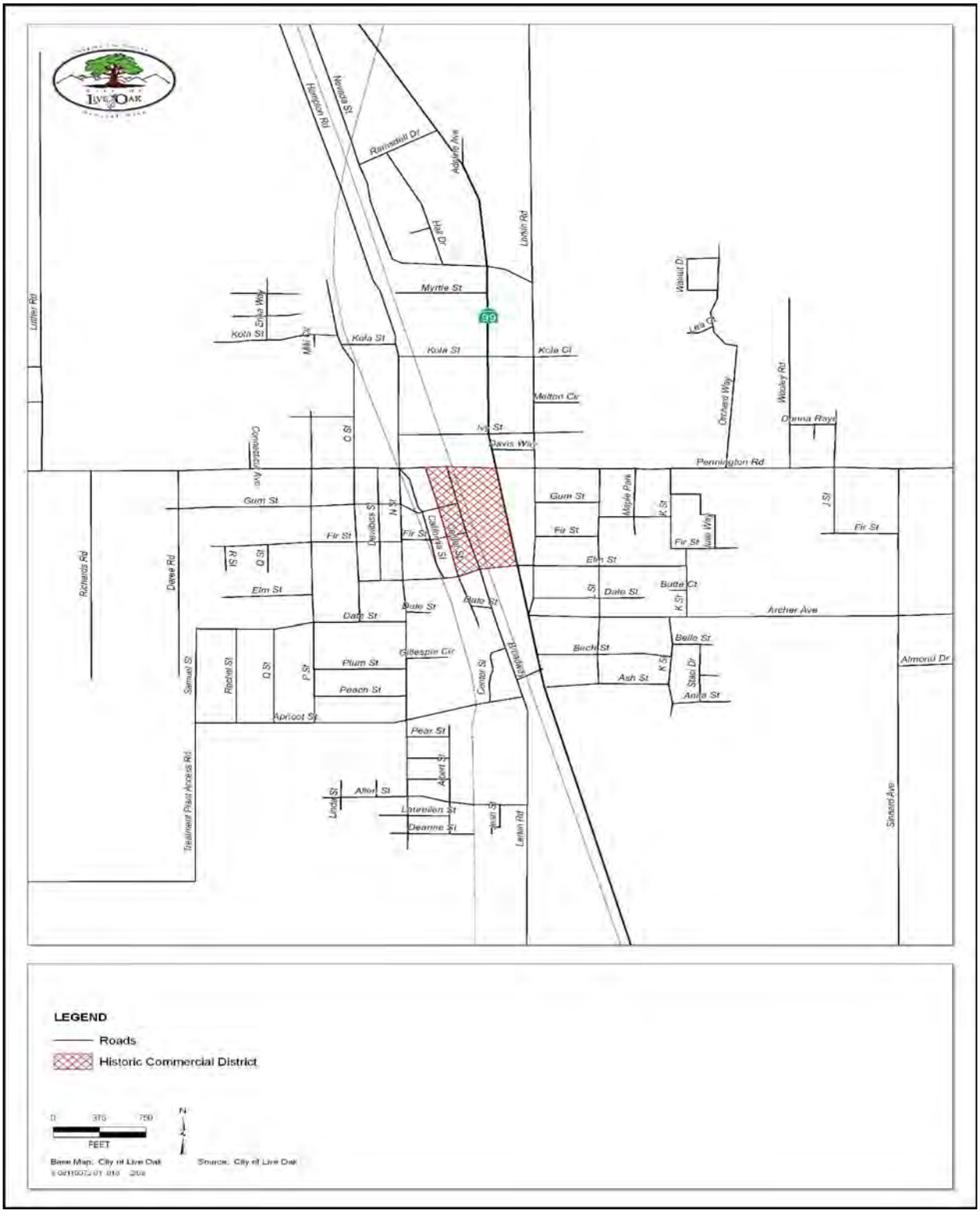

Figure CO-4
Live Oak Historic Commercial District

The history of Live Oak can be seen in the various buildings and sites scattered through the city. The Historic Commercial District, with its palm trees, is certainly the most visible, but historic houses, bridges, and canals also contribute to the landscape. The Live Oak Cemetery is located on Pennington Road, approximately 800 feet west of Luther Road. The cemetery was officially named in 1905 and is still in use today. The earliest tombstone recorded at this historic cemetery marks the grave of Katherine Kustokowick and is dated August 1858 (Sutter County 2005), 8 years prior to the settlement of Live Oak in 1866. In addition to the physical remnants of the past, Live Oak's history is also celebrated in events, such as the annual Peach Festival. This festival is held in the Live Oak Historic Commercial District and highlights the agricultural heritage of the city and Sutter County.

By definition, in order to be considered a fossil, an object must be more than 11,000 years old. Portions of the Planning Area are underlain by Holocene-age (less than 11,000 years old) basin geologic deposits, and do not have important paleontological resources. However, much of the Planning Area is underlain by Pleistocene-age sediments of the Modesto Formation, which is considered a paleontologically sensitive rock unit.

Numerous of vertebrate fossil specimens have been recorded from the Modesto Formation in Yuba City, Woodland, and Davis. Vertebrate fossils have been recovered near the Planning Area and other areas throughout the Sacramento and San Joaquin Valleys. Areas of important finds have sediments related to the Modesto Formation. This suggests that areas with the Modesto Formation have potential for additional fossil remains during construction-related earthmoving activities, including trenching for utilities and other types of earth disturbance and excavation.

KEY ISSUES

The following key issues relate to cultural resources in the Study Area:

- ✓ Along with substantial growth and change in the community is the opportunity to maintain links to the history of Live Oak, including its agricultural heritage.
- ✓ Live Oak does not have a large stock of historic buildings, but the historic buildings that do exist and their context should be preserved to maintain the character of the community.

CULTURAL GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following goals and policies are intended to protect historic and cultural resources within the boundaries of the City's Study Area.

Goal CULTURAL-1. Identify, protect, and preserve Live Oak's prehistoric resources.

Policy Cultural-1.1 New development projects involving the movement, scraping, or leveling of soil should conduct archeological background research to determine if the project is likely to disturb a prehistoric site or traditional-use area. [7] If disturbance is

[7] Traditional-use areas include important places to Native American people, such as spiritual sites, known seasonal gathering areas, and other places that may or may not have remnants.

likely, site analysis will be conducted to identify resources of concern. The project will make all reasonable efforts to use site design to avoid impacts to any prehistoric site or traditional-use area.

Policy Cultural-1.2 The City will use state legislation as a guideline for the identification and protection of prehistoric cultural resources or traditional-use areas.

Policy Cultural-1.3 The City will keep the locations of archaeological sites confidential in order to prevent vandalism and looting.

Policy Cultural-1.4 New developments shall be designed to provide view corridors to the Sutter Buttes by orienting major and minor collectors southwest to provide a valuable community aesthetic amenity and maintain vistas that were important to local Native American populations.

Policy Cultural-1.5 if potential paleontological resources are detected during construction, work shall stop and consultation with the City is required to avoid further impacts. Actions after work stoppage will be designed to avoid significant impacts to the greatest extent feasible. These measures could include construction worker personnel education, consultation with a qualified paleontologist, coordination with experts on resource recovery and curation of specimens, and/or other measures, as appropriate.

Goal CULTURAL-2. Identify, protect, and enhance Live Oak's historic resources and associations.

Policy Cultural-2.1 The City will encourage private property owners to preserve and maintain historic structures.

Policy Cultural-2.2 Roadway and other infrastructure shall be located to avoid taking any property within, or otherwise adversely affecting the Live Oak Cemetery.

Policy Cultural-2.3 The City will encourage adaptive reuse of historic structures where as much of the historic character as possible is preserved. Structures that are grouped in close proximity, particularly rural, agricultural, and structures associated with the railroad, will receive special emphasis.

Policy Cultural-2.4 Infill structures built in the Live Oak Historic Commercial District shall be designed so that their size, shape, design, color, and detail are architecturally compatible with the surrounding buildings.

Policy Cultural-2.5 The City should preserve views of the historic building frontages along SR 99.

Policy Cultural-2.6 The City will establish educational and awareness programs to promote understanding and foster support for preservation of important cultural resources.

Implementation Program Cultural-1

The City will require development projects to protect Native American and prehistoric resources through the following actions or those deemed equally effective by the City:

- ✓ Identify and protect significant archaeological or traditional sites.
- ✓ Request information from the Native American Heritage Commission and the North Central Information Center (NCIC) to determine if prehistoric sites or traditional use areas exist in the project site.
- ✓ Avoid potential impacts to significant cultural resources whenever possible. If impacts are unavoidable, mitigate to a less-than-significant level. Determination of impacts, significance, and mitigation shall be made by a qualified professional archaeologist or architectural historian, as appropriate.
- ✓ Involve the local Native American community in determining the appropriate mitigation of impacts to significant prehistoric sites.
- ✓ Provide the North Central Information Center with appropriate Department of Parks and Recreation site record forms and cultural resources reports.
- ✓ Require a professional archaeologist to monitor all City-sanctioned ground-disturbing activities proposed within 150 meters of the Feather River, (agricultural uses are exempted).

Implementation Program Cultural-2

The City will require development projects to preserve the community's historically significant sites and buildings, whenever feasible, through the following actions or those deemed equally effective by the City:

- ✓ Request information from the North Central Information Center about sites where the proposed development may disturb historic sites or structures.
- ✓ Protect historically significant structures by following state Historic Building Code for all retrofit, remodels or similar construction activities.
- ✓ Leave existing orchard trees in place wherever feasible; plant smaller in-fill trees so that as trees age they can be removed without leaving large gaps.
- ✓ Ensure that roads planned around the Live Oak Cemetery are located to avoid noise and visual impacts to the cemetery.

Implementation Program Cultural-3

The City will investigate and provide information to property owners regarding tax incentives and other federal and state programs that are offered for rehabilitation of historic structures. The City will explore opportunities to also participate financially or otherwise in historic rehabilitation projects consistent with General Plan policy, with the focus of such efforts being in the Live Oak Historic Commercial District.

Implementation Program Cultural-4

If potential paleontological resources are detected by construction workers or City staff during construction, work shall stop and consultation is required to avoid further impacts. Actions after work stoppage will be designed to avoid significant impacts to the greatest extent feasible. These measures could include construction worker personnel education, consultation with a qualified paleontologist, coordination with experts on resource recovery and curation of specimens, and/or other measures, as appropriate.

ENERGY

ENERGY CONTEXT

Energy used in Live Oak comes from several sources, including oil, natural gas, hydroelectric, solar, and wind. Major uses of energy in the city include transportation, building operations, and commercial, agricultural, and industrial production purposes. For much of Live Oak's history, energy has been relatively abundant, cheap, and hassle free. Today, non-renewable fossil fuels provide the majority of the energy required for the movement of goods and services, commuting, and many agricultural and industrial operations.

During the planning horizon of the 2030 General Plan, it is likely that a variety of energy-related challenges will face not only Live Oak, but also the State of California and the nation. How Live Oak plans for, and responds to, these potential challenges will influence the quality of life for its residents and competitiveness of local businesses.

Fossil fuel costs could increase substantially over the next three decades. The U.S. Department of Energy's 2004 report, "Long-Term World Oil Supply Scenarios," indicates that oil production will most likely peak by the middle of this century. Increasing global demand and market speculation can also raise prices. In addition to future price increases, regulatory changes will greatly affect energy use during buildout of this General Plan. Sources and uses of energy are being closely examined by the State of California and many other governments in relation to global climate change. In California, vehicle emissions are the largest contributor to regional air quality problems and climate changing GHG emissions. Energy use and associated greenhouse gas emissions related to building operations are secondary to those related to transportation, but still are important. The state has enacted numerous laws and regulations to clean the air and avoid economically and environmentally dangerous levels of climate change. The state's response to climate change is evolving as of the writing of this document, but there is enough information currently available to inform the City's land use, transportation, community design, conservation, and related policies.

Energy policies that relate to transportation are discussed in the Circulation and Land Use Elements and are highlighted in the "Air Quality" section of this Element. Policies and measures related to energy efficiency and renewable energy production are provided below.

Energy efficiency measures provide city residents and businesses substantial cost-saving opportunities with reduced energy consumption. Energy efficiency retrofits could substantially improve the energy performance of the city's existing building stock. State regulations will require new development to meet increasingly stringent energy efficiency requirements. The 2007 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11) is mandatory as of 2010 (Department

of General Services 2009). The amended code is expected to reduce building energy consumption by 15 percent, water consumption by 20 percent, and landscape water consumption by 50 percent. New residential buildings will be required to use zero net energy by 2020, and commercial buildings will need to achieve this target by 2030. In addition to buildings, there are a variety of strategies for design and construction of infrastructure and public facilities that can provide energy conservation benefits. Production and purchasing of renewable energy is another effective way for the community to reduce energy demand (and provide local cost savings). Recent advances in technology provide Live Oak with a variety of feasible options for renewable energy production. Technologies, such as solar photovoltaic, solar hot water, and geothermal systems, will play important roles in achieving this goal. By purchasing renewable energy, many utilities are increasing their renewable energy portfolios. The Pacific Gas & Electric Company, the City's primary energy supplier, offers renewable energy purchasing options to residential and commercial customers. Assembly Bill 2466 authorizes local governments to receive a utility bill credit for surplus renewable electricity generated at one site against the electricity consumption at other sites.

KEY ISSUES

The following key issues relate to energy use in the Study Area:

- ✓ Energy conservation strategies are a part of the state's greenhouse gas reduction legislation and will be a part of regulations for building construction;
- ✓ Energy conservation in the built environment will provide residents and businesses with long-term cost savings;
- ✓ There are widely available, widely used, and effective energy conservation strategies for building materials and design, as well as site planning measures that can feasibly be incorporated in Live Oak; and,
- ✓ Energy efficient practices can be accomplished with little additional up-front cost, which over the long term can be recovered.

Further discussion of the City's approach towards energy conservation, including additional goals and policies, can be found in the Land Use, Circulation, and Community Character Elements.

ENERGY GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following goals and policies are intended to provide for the conservation of energy within the City's Study Area.

Goal ENERGY-1. Pursue energy-efficient technology, best practices, and materials.

Policy Energy-1.1 The City will encourage new developments to use building orientation and site design that optimizes opportunities for on-site solar generation. The City will encourage new developments to use street and lot orientation and lot dimensions that facilitate the use of solar energy and climatically appropriate design.

Policy Energy-1.2 The City will encourage new developments to orient as many buildings as possible with the longer axis of the building, also known as the ridge line, oriented east-to-west, in order to maximize the potential for passive solar heating in the winter and to minimize heat gain from the afternoon summer sun.

Policy Energy-1.3 Shade trees or other appropriate plantings should be used in new lower-density residential development (e.g., trellises) to protect buildings from unwanted solar gain in summer months (see Figure CO-5). Trees and plantings should be located on the east and west sides of each home. Shade trees should be located at an appropriate distance from buildings to provide adequate shading, while reducing potential damage to buildings. Shade trees need to be located so that active and passive solar energy systems are not diminished. Using deciduous trees on the southern side of the structure is encouraged, to allow cooling in the summer and solar gain in winter.

Policy Energy-1.4 Development plans should demonstrate preservation of solar access for residential buildings within and adjacent to the project. The City will waive this requirement in medium-density and higher-density residential projects and mixed-use projects if needed to achieve the densities allowed by the General Plan.

Policy Energy-1.5 New buildings should enhance natural ventilation and promote effective use of daylight, to reduce use of energy. Designs should emphasize ventilation strategies such as natural convection and push-pull ventilators. Structures should be designed to provide abundant natural light through high-performance glazing systems, skylights, light ducts, light shelves, and other strategies (see Figure CO-6).

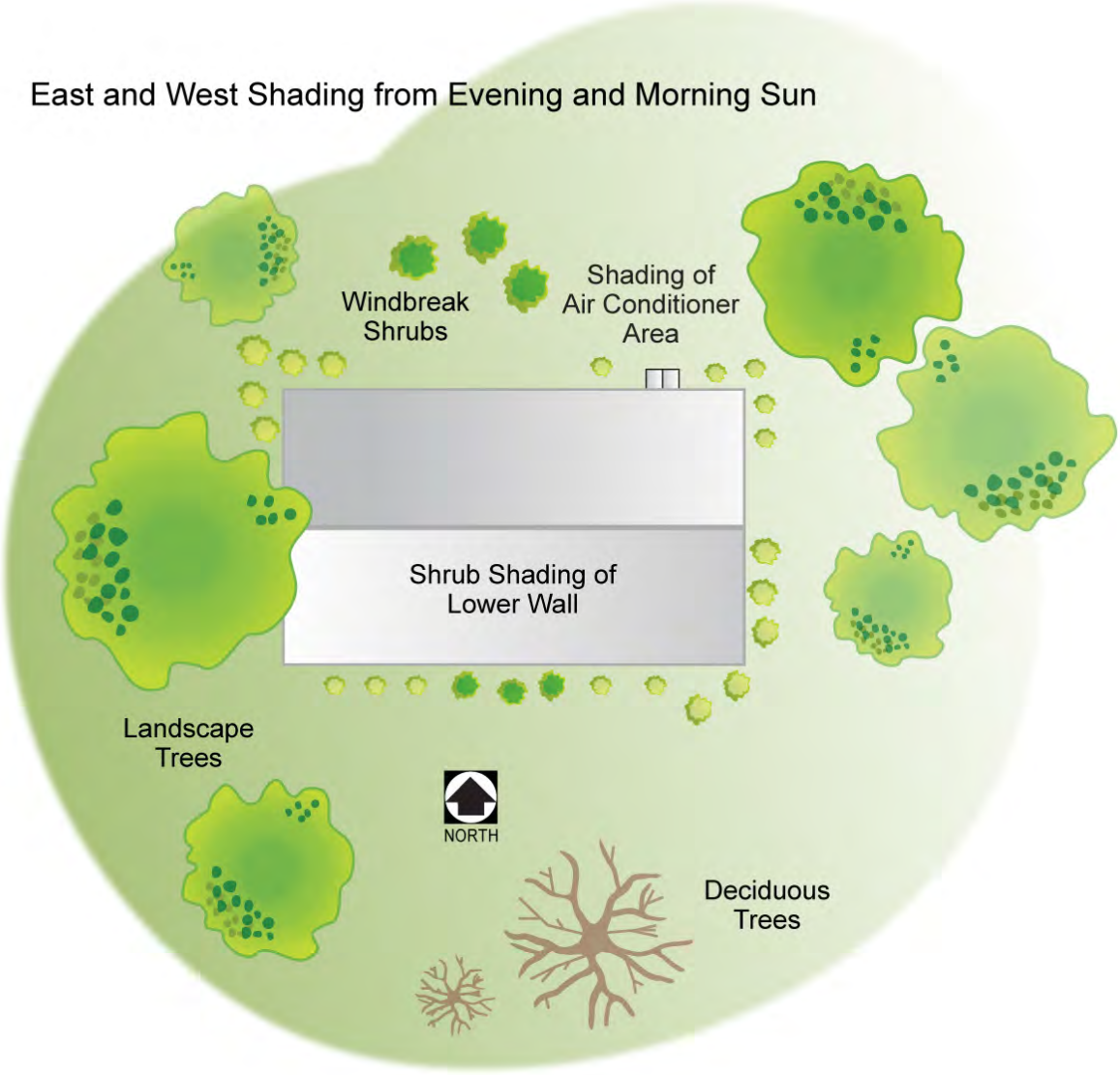

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Figure CO-5
Shading Orientation

Figure CO-6
Examples of skylights and the use of daylighting in building design

Policy Energy-1.6 The City will also provide incentives, such as expedited permitting or density bonuses to developers that design and construct net zero energy residential prior to 2020, and commercial and institutional buildings prior to 2030.

Policy Energy-1.7 New City-owned buildings and major remodels and additions should be designed to achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) certification or better, where funding allows. Financial analysis of both first costs and long-term operational costs should guide the City's evaluation of LEED certification.

Policy Energy-1.8 The City will promote Build-it-Green or LEED–Homes certification of new single-family properties.

Policy Energy-1.9 The City will promote LEED or equivalent certification of multiple-family, commercial, and industrial properties.

Policy Energy-1.10 The City will provide incentives, such as expedited permitting or density bonuses to development with over 75 percent of the units achieving LEED-certification or equivalent performance standards achieving these performance standards.

Policy Energy-1.11 The City will encourage energy efficiency audits of existing buildings and help facilitate the implementation of identified efficiency improvements. The City will conduct energy efficiency audits of all City-owned buildings.

Policy Energy-1.12 The City will encourage the retrofitting of existing buildings throughout Live Oak with energy efficient systems, energy-efficient appliances, insulation, energy-efficient doors and windows, and other elements that conserve resources.

Policy Energy-1.13 New commercial, institutional, and industrial development should reduce potential urban heat island effect by using U.S. Environmental Protection Agency–ENERGY STAR®-rated roofing materials and light colored paint, using light-colored paving materials for internal roads and parking, and by using shade trees to shade south and west sides of new or renovated buildings, to the greatest extent feasible.

Policy Energy-1.14 New commercial, institutional, and industrial development shall incorporate shade trees or shade structures in any newly constructed surface parking areas. The minimum requirement is 50 percent shading (at maturity where trees are used) for all new parking lots.

Goal ENERGY-2. Support the use of renewable energy technologies within the City.

Policy Energy-2.1 The City will explore the installation of renewable energy systems on City buildings and properties.

Policy Energy-2.2 New construction or major renovation of commercial and industrial buildings over 10,000 square feet shall incorporate renewable energy generation, where feasible, to provide for the project's energy needs.

Policy Energy-2.3 The City will maximize the use of renewable energy in meeting City building energy needs with a goal of 50 percent or more renewable energy by General Plan buildout.

Policy Energy-2.4 The City will evaluate the operational cost-savings and feasibility of installing solar hot water systems to heat the community swimming pool.

Implementation Program Energy-1

The City will create permitting-related and other incentives for energy-efficient building projects. These should include, but are not be limited to giving projects that exceed Title 24 Standard by 10 percent or more priority in plan review, priority in processing and field inspection services, and density bonuses.

Implementation Program Energy-2

Amend subdivision standards to ensure that street and lot orientation facilitates buildings that incorporate solar design and renewable energy systems. Street and lots shall be designed in a way that allows residential lots to accommodate a building's long axis in an east-west direction.

Implementation Program Energy-3

The City will amend the zoning and subdivision ordinances to provide regulatory guidance for lot and building orientation to allow passive solar and renewable energy systems use.

Implementation Program Energy-4

The City will proactive identify and take advantage, where possible, of state and federal grants, low-interest financing, and other funding mechanisms for energy efficiency retrofits and alternative energy projects for civic, residential, and commercial buildings.

Implementation Program Energy-5

The City will allow solar financing programs designed to facilitate the installation of solar energy systems on residents' homes. Such programs would establish a sustainable energy financing district and would allow property owners to borrow money from the City to install solar energy systems. Property owners would voluntarily participate in the program and would repay the cost of the solar energy system over a 20-year period through a special annual tax on their property tax bill. Only property owners who participate in the program will pay the sustainable energy financing district tax. Non-participants would experience no change in taxes due to the program.

Implementation Program Energy-6

The City will provide public outreach to support reduced energy consumption, the use of alternative and renewable energy sources, green building practices, recycling, and responsible purchasing.

AGRICULTURAL RESOURCES

AGRICULTURAL CONTEXT

Live Oak is located in the Sacramento Valley, an area renowned for the quality of its farmland (Figure CO-7). The City and the surrounding area contain some of the richest soils in California. Additionally, reliable water supplies and the long growing season make the City's farmland very productive and profitable.

Agriculture is a fundamental part of the landscape, economy, and culture of the Live Oak area. Orchards occur throughout much of the Study Area. Crops such as plums, peaches, apricots, almonds, walnuts, citrus, and alfalfa provide jobs and income for a number of Live Oak residents and businesses. Farmland frames the city and provides valued scenic vistas.

Eighty-three percent of Sutter County's land area is devoted to agricultural production, and the county is one of the state's premier agricultural counties. While agricultural production has fallen in many other counties in California, Sutter County farm production continues to rise. Local agricultural revenues continue to rise in the county. In 2006, agriculture generated $358,845,200 in revenue for county farmers and ranchers.

KEY ISSUES

The following key issues relate to agriculture in the Study Area:

- ✓ Agriculture is a vital component of the character, economy, history, and culture of Live Oak and Sutter County.
- ✓ Farmland and other open space around the edges of the community should be protected as the City accommodates new growth.
- ✓ Land-efficient development practices are needed to avoid unnecessary or premature conversion of agricultural lands to urban use.

AGRICULTURAL GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following goals and policies are intended to protect agricultural resources.

Goal AGRICULTURAL-1. Preserve agricultural resources and support the practice of farming.

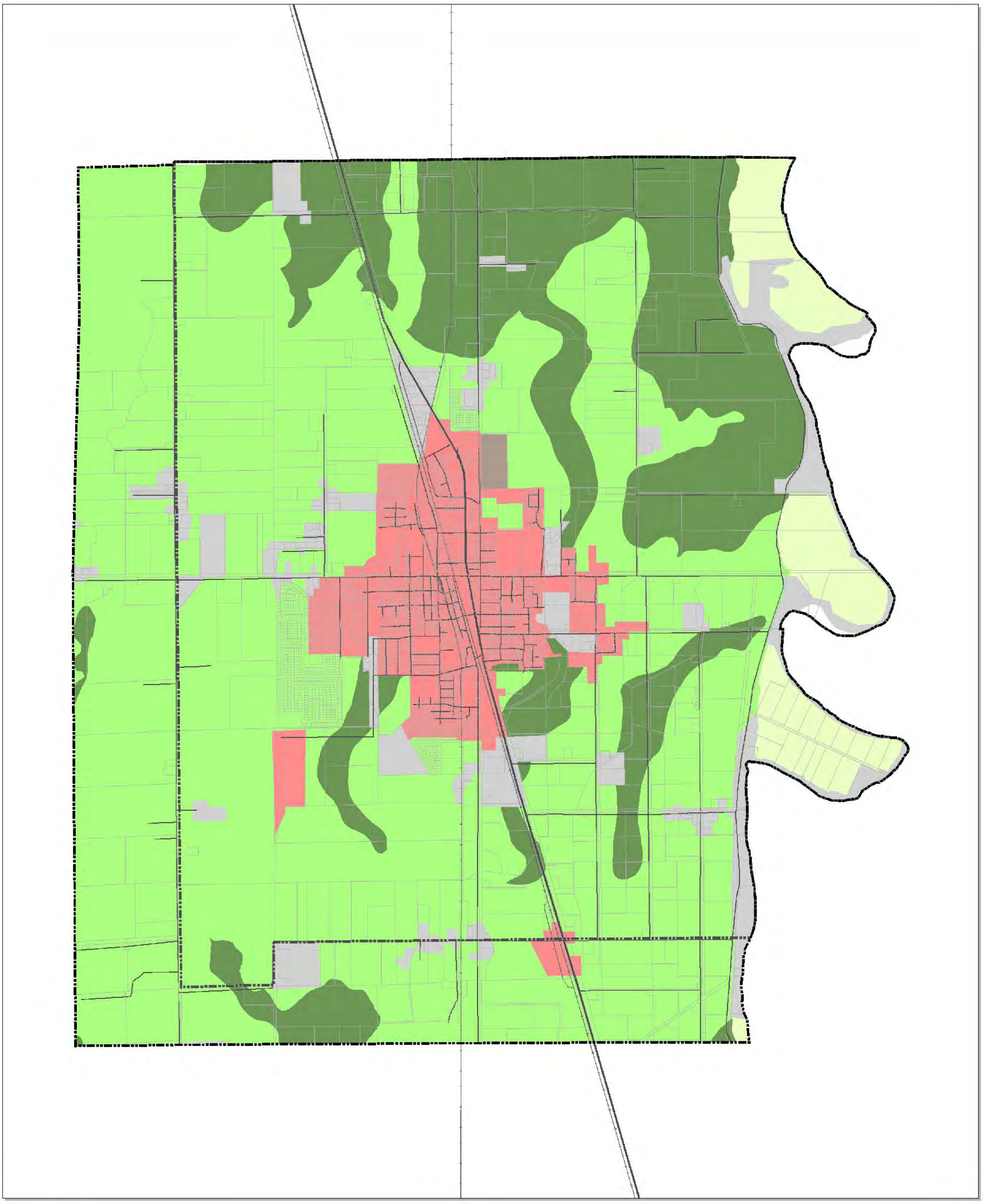
Policy Agriculture-1.1 Preserve agricultural enterprises by supporting right-to-farm policies.

Policy Agriculture-1.2 Ensure that residential development in the City is located and designed to be compatible with adjacent, ongoing agricultural activities.

Policy Agriculture-1.3 As a part of the City's economic development strategy, the City will focus on efforts to attract industries related to, and supportive of, the local agricultural economy.

Policy Agriculture-1.4 The City will coordinate with Sutter County in a way that provides mutual benefits regarding establishment of agriculture processing and handling industries in the Study Area that would not adversely affect residents and that could benefit local farm operations.

Policy Agriculture-1.5 The City will work with farmers, property owners, extensions, agencies, and agricultural organizations to enhance the viability of agricultural uses and activities.



LEGEND

- Study Area Boundary
- Sphere of Influence
- Parcels
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Grazing
- Urban and Built_Up Land
- Other Land

0 1,250 2,500
FEET

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Base map: CASIL Layers
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Source: FMMP 2006

Imagine the future... City of Live Oak General Plan

Figure CO-7
Farmland Classifications

Implementation Program Agriculture-1

The City will adopt and maintain a "right-to-farm" ordinance (or adopt appropriate portions of Sutter County's right-to-farm ordinance) to inform residents of ongoing agricultural practices and protect farmers and other agriculture interests from dumping, nuisance complaints, and other problems typically associated with new residents living in agricultural areas.

MINERAL AND SOIL RESOURCES

The Study Area does not contain any known mineral resource zones (MRZs). The California Surface Mining and Reclamation Act of 1975 (SMARA) requires cities to incorporate mapped mineral resource designations approved by the State Mining and Geology Board in their general plans. SMARA limits new development in areas with important mineral deposits. Due to lack of MRZs within Live Oak, the General Plan does not contain a mineral resource map.

The community's numerous orchards and farms are testament to the quality of Live Oak's soils. The Farmland Mapping and Monitoring Program of the California Department of Conservation classifies the majority of the city's soils as either Prime Farmland or Farmland of Statewide Importance. Soils in the Live Oak Study Area generally have a low risk of erosion because the city is mostly flat.

MINERAL AND SOIL GOALS AND POLICIES

Goal MINERAL-1. **Protect soil and mineral resources in the Live Oak Study Area consistent with other environmental, social, and economic goals.**

Policy Mineral-1.1 The City will coordinate with the state to incorporate, as necessary, any policies for conservation and possible future extraction of mineral or soil resources of regional or statewide significance.

WATER RESOURCES

WATER CONTEXT

Water is critical to the existence and vitality of any community. Live Oak recognizes the importance of this resource and seeks to ensure a reliable supply of high quality water for residents, businesses, agriculture, and ecosystems in the community. The development envisioned in the 2030 General Plan would result in increased water consumption, and wastewater and stormwater generation.

SURFACE WATER RESOURCES

Sutter County lies within the Feather River watershed, which in turn is located within the Sacramento River watershed. The most notable hydrologic feature in the Study Area is the Feather River, which borders the entire eastern boundary of the Study Area. Other notable hydrologic features within the Study Area are irrigation laterals, canals, and sloughs that are used for water supply and flood control.

The Feather River watershed is located in California's northern Sierra Nevada and encompasses a broad variety of terrain, climate, historic use, and flora and fauna. It drains 3,222 square miles of land base from the Sierra Nevada crest westward into the Sacramento River. Elevation ranges from 50 to over 10,000 feet, and annual precipitation varies broadly from more than 70 inches on the wet western slopes to less that 12 inches on the arid east side. The Plumas National Forest manages over 80 percent of the watershed, while alluvial valleys are predominantly privately owned and are grazed by livestock.

GROUNDWATER RESOURCES

The Live Oak Study Area lies within the Sacramento Valley groundwater basin. The Sacramento River, which forms the western border of Sutter County, the Feather River, which forms a portion of the eastern boundary, and the Bear River, which forms the border in the southeastern part of the county (between Yuba County and Sutter County), are sources of groundwater recharge for the groundwater basin. Other sources include deep percolation of precipitation and water applied for agriculture, and subsurface inflow from adjacent groundwater subbasins within the Sacramento Valley. Groundwater outflow from Sacramento Valley groundwater basin results from pumping and subsurface outflow to rivers and adjoining areas of the Sacramento Valley. The Sutter Buttes lie between the Sacramento River and Feather River in the northern part of the county, and form a barrier to groundwater flow.

In the Study Area, groundwater flows from north to south at a relatively flat gradient. The general direction of groundwater flow and the depth to groundwater have remained somewhat stable since the mid 1940s. Groundwater has been measured at a depths ranging from 1 to 5 feet near the west end of the Study Area, extending to approximately 16 to 20 feet below the surface. To the west of the current city of Live Oak, groundwater has been encountered at approximately 7.5 feet below the surface. Detailed information about groundwater recharge sources and about flood protection can be found in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

HYDROLOGY AND WATER QUALITY GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following goals and policies provide for the conservation and protection of water resources within the Study Area.

Goal WATER-1. Maintain and improve groundwater and surface water quality.

Policy Water-1.1 New development shall incorporate drainage system design that emphasizes infiltration and decentralized treatment (rather than traditional piped approaches that quickly convey stormwater to large centralized treatment facilities), to the greatest extent feasible.

Policy Water-1.2 Existing swales and sloughs should be preserved, restored, and used for stormwater drainage whenever possible.

Policy Water-1.3 The City will require developments to use best management and design practices to reduce stormwater runoff levels, improve infiltration to replenish

groundwater sources, and reduce pollutants close to their source. The City will require new development to use permeable surfaces for hardscape wherever possible. Impervious surfaces such as driveways, streets, and parking lots should be interspersed with vegetated areas that allow for infiltration of stormwater. LID techniques, such as rain gardens, filter strips, swales, and other natural drainage strategies, should be used to absorb stormwater, reduce polluted urban runoff, recharge groundwater, and reduce flooding (see Figure CO-8).

Policy Water-1.4 The City will require development projects to incorporate appropriately scaled stormwater facilities. The City will place emphasis on making these holding areas serve multiple functions, such as soccer fields or passive recreation areas.

Goal WATER-2. Ensure adequate and efficient long-term water supply.

Policy Water-2.1 The City will incorporate into its entitlement review process compliance with portions of state law that require demonstration of adequate long-term water supply for large development projects (Senate Bills 610 and 221).

Figure CO-8
Low-Impact Development Examples

Policy Water-2.2 The City will condition approval of new development on the availability of sufficient water supply, storage, and fire flow (water pressure), per City standards.

Policy Water-2.3 The City will encourage the use of native, drought-tolerant landscaping throughout the City to conserve water and filter runoff.

Policy Water-2.4 Native and drought-tolerant landscaping should comprise at least 50 percent of landscapes in commercial and industrial projects and 100 percent of all medians and right-of-way landscaped areas along public streets.

Policy Water-2.5 The City will require the use of water conservation technologies, such as low-flow toilets, efficient clothes washers, and more efficient water-using industrial

equipment, in all new construction and retrofitted and substantially remodeled buildings, consistent with building code requirements.

Policy Water-2.6 The City will support the retrofitting of existing buildings throughout Live Oak with water-saving fixtures.

Policy Water-2.7 The City will participate in regional groundwater basin planning and regional water-management planning efforts to ensure that future demand for water does not overdraft the groundwater supply.

Policy Water-2.8 The City will adopt water conservation pricing (e.g., tiered rate structures) to encourage efficient water use.

Implementation Program Water-1

The City will revise the Public Works Improvement Standards, as necessary, to encourage use of natural drainage systems and low impact development principles in order to reduce stormwater infrastructure costs and improve water quality. The City will make revisions required to emphasize the slowing down and dispersing of stormwater by using existing landscaped swales and constructing new swales to convey stormwater runoff, encouraging sheet flow and the use of landscaped infiltration basins in planter strips along roadways, and employing other best management practices, as appropriate. The City will establish standards and fee programs to require and/or provide incentives for methods to slow down and filter stormwater, as outlined in this Element. These measures include, but are not limited to, reduced pavement, permeable pavement, vegetation that retains and filters stormwater, and the use of drainage sheet flow and filtration.

Implementation Program Water-2

The City will revise landscaping requirements to include drought-tolerant, low-maintenance plants.

Implementation Program Water-3

The City will participate, as appropriate in the Sutter County Groundwater Management Plan to ensure perennial sustainable yield and avoidance of overdraft and long-term drawdown within and adjacent to the East Butte subbasin, while accommodating land use change as described in the 2030 General Plan.

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PUBLIC UTILITIES, SERVICES, AND FACILITIES ELEMENT

INTRODUCTION

The Public Utilities, Services, and Facilities Element of the General Plan establishes goals, policies, and implementation programs for planning, financing, and implementing City services, facilities, and utilities. These include, water, sewer, and drainage. This Element also provides direction for services, facilities, and utilities provided by other agencies within Live Oak: schools, libraries, and social services. Finally, this Element includes policies for fire protection and law enforcement, which are currently provided by other agencies under contract to the City. Delivery of public services requires construction and operation of facilities and infrastructure to accommodate new development, as well as the maintenance, expansion, and/or replacement of existing facilities to meet changing needs in developed neighborhoods.

To support the General Plan update, the City embarked on a parallel process to develop and adopt master plans for water, wastewater, and stormwater management. These master plans will implement the goals, policies, standards, and programs outlined in this Element, but will also provide more detailed criteria, standards, phasing, and cost information. Please refer to these master plans for more detailed information on infrastructure planning consistent with the General Plan. City facilities and utilities are also subject to the requirements of the City's Public Works Improvement Standards, which are revised following General Plan updates to ensure consistency.

Parks and recreation programs are addressed in their own Element. Please refer to the Circulation Element for information on streets and related infrastructure. The Safety Element contains information on emergency services and disaster preparedness. For additional information on public utilities, services, and facilities in Live Oak, please refer to the Public Services and Facilities General Plan Background Report, under a separate cover, and the Public Utilities and Public Services and Facilities section of the General Plan Environmental Impact Report (EIR).

KEY ISSUES

The City faces important issues that include the following:

- ✓ Storm drainage and sewer facilities in older parts of town are in need of repair.
- ✓ Water quality issues have arisen at the same time the City is expanding utilities to serve new growth.
- ✓ The wastewater treatment plant has experienced problems caused by high contamination levels in the effluent. The City will need to identify financing and phasing strategies for adding treatment capacity to serve new growth without affecting the sewer rates of existing residents.
- ✓ Live Oak residents are concerned about rising utility rates for water, sewer, and storm drainage, and the City should actively seek cost savings through efficiency in public provision and interagency funding for needed improvements.

- ✓ New development must be planned, phased, and financed to pay for itself so it does not adversely affect existing quality of public services.
- ✓ Barriers, such as Highway 99, the railroad, and a lack of street connectivity were identified by the General Plan steering committee as potential issues for emergency response. Therefore, emergency service responders should have multiple emergency access points within the city, even when Highway 99 is congested, to Live Oak neighborhoods and businesses.
- ✓ Increased gang activity, vehicle theft, violent crime, and traffic violations have put new demands on law enforcement personnel. Citizens of Live Oak are also feeling the effects of these increased criminal activities.
- ✓ Residents would benefit from additional social services, including child care facilities, senior centers, multicultural centers, a hospital, and other health care facilities.
- ✓ City schools are either at, or quickly approaching capacity.
- ✓ Existing library facilities are inadequate for projected populations.

PUBLIC SERVICES PLANNING FRAMEWORK

This General Plan anticipates substantial urban development in Live Oak over the next 20 years. The City has considered carefully in this General Plan the substantial natural resources (water, energy, etc) that will be devoted to building and maintaining public facilities and utilities over the long term. This Element highlights the City's philosophy that these public services should be planned and managed in the most environmentally and fiscally sustainable, efficient, and socially responsible way possible. To that end, this Element includes:

- ✓ goals for service provision;
- ✓ policies and standards used for service expansions, improvements, extensions, and other investments;
- ✓ general guidance on infrastructure and service planning, phasing, and financing to accommodate new development; and,
- ✓ programs to maintain and improve quality of public services in the existing developed city.

In particular, for the General Plan time horizon (between present and 2030), this Element establishes:

- ✓ how public services will be provided and prioritized;
- ✓ how public facilities and utilities are located, designed, and constructed; and,
- ✓ how public services will be financed on an ongoing basis.

New development will be managed to ensure adequate public services and to conserve resources associated with those services (such as water, energy, and natural areas). As described in this Element, the City will ensure that high quality public facilities and services are provided to new neighborhoods and existing residents and businesses. The City will actively seek to increase the quality of existing public services, facilities, and utilities, if needed, to match facilities and service levels in the new growth area.

There are important relationships between this Element and others in the General Plan. Concepts described here are related to policies in the Conservation and Open Space Element, Land Use Element, Circulation Element, and Community Character and Design Elements. For example, the City's approach to drainage is described here and in the Conservation and Open Space Element. Dual-use parks and drainage facilities are addressed in this Element, as well as in the Parks and Recreation Element. The City's preference for school sites with safe transportation routes is reflected in this Element and in the Circulation Element.

Rather than try to artificially separate inherently related policies, the City has intentionally provided some overlap on certain topics addressed in various related Elements. The City has prepared these polices carefully, to ensure horizontal consistency among General Plan Elements.

Following is contextual information, as well as goals, policies, and implementation programs that address public services, facilities, and utilities. Service standards are provided, where applicable. These goals and policies are grouped by topic as follows:

- ✓ Water
- ✓ Sewer
- ✓ Drainage and Flood Protection
- ✓ Schools
- ✓ Libraries
- ✓ Law Enforcement
- ✓ Fire Protection
- ✓ Social Services
- ✓ General Government Services
- ✓ Solid Waste Collection
- ✓ Private Utilities

WATER

CONTEXT

Water supply for domestic water service and fire flow is supplied from five wells owned and operated by the City. Pipeline diameters range from two to sixteen inches in diameter (see Figure PUBLIC-1). The City has a 1.4 million gallon ground level storage tank with a 4,200 gallons per minute (gpm) reliable capacity booster pump station. The water demand and water production has decreased after meters were installed on all water services in 2006. The water production in 2007 was 1,492 acre feet. The annual average demand was 1,015 gpm, and the maximum day plus fire flow demand was 6,769 gpm. The City's wells reliably produce 5,855 gpm. Future development anticipated under the General Plan will require additional water.

Wells 1 through 4, all meet new arsenic standards and meet or exceed standards for other pollutants. Well 5 is no longer in service. In the Background Report prepared for the General Plan update in 2005, Well 4 was identified as having odor issues. However, since the implementation of the arsenic removal program, this is no longer an issue and no more complaints regarding odor have been made to the City.

Future development will require additional water supply, which may need arsenic treatment, additional storage, and new distribution pipelines to distribute water to the new areas (see Figure PUBLIC-1).

WATER GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-1. **Provide a safe and reliable water supply and delivery system.**

Policy PUBLIC-1.1 The City will maintain a water master plan that provides for phased, efficient extension of water delivery and water quality infrastructure, including new wells, new pumping and storage capacity, and treatment systems, as necessary, to meet the needs of new development.

Policy PUBLIC-1.2 The City will maintain and improve water quality according to state and federal standards.

Policy PUBLIC-1.3 New development shall provide land for wells and other water infrastructure, and shall construct and dedicate water infrastructure as directed by the City.

Policy PUBLIC-1.4 New development shall contribute on a fair-share basis toward new groundwater wells, water treatment improvements, conveyance facilities, and water supply projects, consistent with the City's water master plan and City standards.

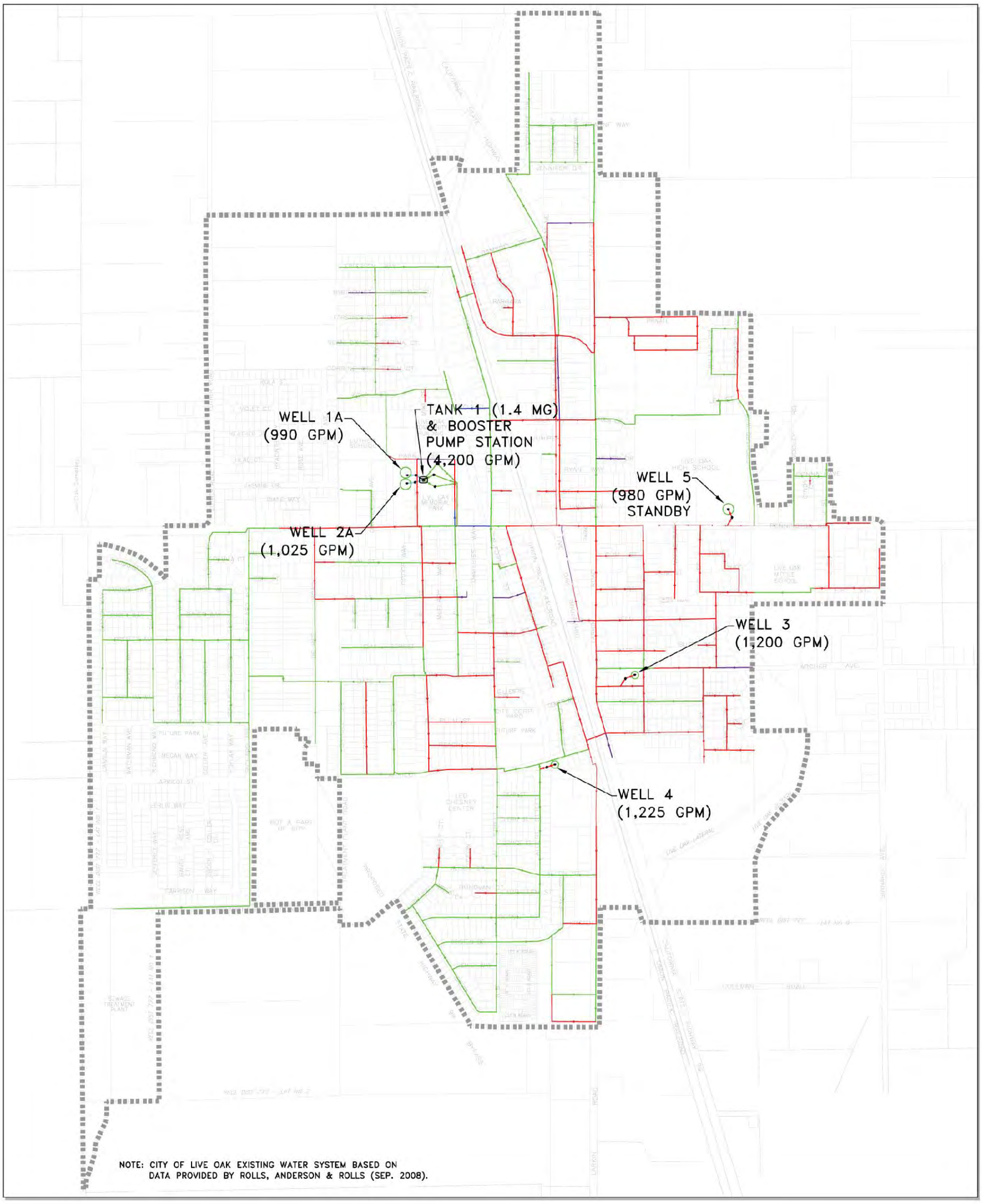
Policy PUBLIC-1.5 City approval of new development requires analysis and demonstration of secure and reliable water supply prior to approval. A formal water supply assessment, as defined in California Water Code Sections 10910–10912, will be required as part of City environmental review and project approval for projects that meet the minimum size requirements defined by this state law.

Policy PUBLIC-1.6 New development shall contribute on a fair-share basis toward City strategies to increase water storage capacity for domestic water supply, back-up emergency supply, and fire flow.

Policy PUBLIC-1.7 The City will improve water conveyance and fire flow in the existing city to encourage redevelopment, as necessary and as funding is available.

Policy PUBLIC-1.8 The City will proactively leverage state, regional, and federal funding for water supply and water quality improvements to serve developed areas.

Policy PUBLIC-1.9 When water delivery improvements are made in areas adjacent to developed areas, the City will identify opportunities for existing developed properties to connect into new City water systems.



LEGEND

Boundaries
- City Limit
- Parcels

Pipe Diameter (inches)
- 2-4
- 6
- 8
- 10
- 12
- 16

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Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008

Imagine the future...
City Of Live Oak
General Plan

Figure PUBLIC-1
Water System Map

Policy PUBLIC-1.10 The City will establish long-term financing mechanisms and phased improvements planning to improve water infrastructure in the existing developed city to induce infill development. The goal of the City's financing and capital improvements planning will be to fund improvement of water distribution infrastructure in developed city neighborhoods, without increasing service fees for existing customers.

Goal PUBLIC-2. Ensure reliability of the City's water supply through water conservation and an efficient water distribution system.

Policy PUBLIC-2.1 The City will ensure that new groundwater well sites are located where the aquifer is stable enough to avoid long-term drawdown.

Policy PUBLIC-2.2 The City will explore the use of recycled water from the City's wastewater treatment plant for landscape irrigation and other appropriate uses.

Policy PUBLIC-2.3 The City will plan for, and new development shall be consistent with state law requirements for water conservation through the City's Urban Water Management Plan (California Water Code sections 10630–10656).

Policy PUBLIC-2.4 New development should install water-conserving appliances and faucets, drought-tolerant landscaping, recycled water systems, and other water conservation improvements and programs, to the greatest extent feasible.

Policy PUBLIC-2.5 The City will encourage water conservation measures not required by state law, such as recycled water systems.

Policy PUBLIC-2.6 The City will establish use-based water rates. The City will consider adopting relatively low rates for a basic water allocation, and higher water rates beyond this basic allocation.

Policy PUBLIC-2.7 The City will provide education to residents and businesses on benefits and methods of water conservation.

Implementation Program PUBLIC-1.1

The City will adopt a water master plan that is consistent with the 2030 General Plan, to provide for phased improvements to meet future needs. The master plan will include an inventory of existing development, estimates of future demand within the existing city, and estimates of future growth within areas planned for annexation, consistent with the General Plan. The City will incorporate analysis from the water master plan into its capital and ongoing fee programs.

The master plan will identify improvements to serve the needs of new development and will also identify any deficiencies in the existing developed city. The master plan will provide a plan to address any such deficiencies.

The master plan will identify potential locations for new well sites where a stable and reliable supply should be available, and where City use would not cause long-term drawdown.

The City will also prepare and adopt an Urban Water Management Plan for water conservation in the City, consistent with state law requirements. The City will implement the Urban Water Management Plan through enforcement of standards for new growth. The City will identify improvements that should be made to the existing City to conserve water and will phase in these improvements, as feasible.

The City will explore opportunities in the water master plan, as well as the Urban Water Management Plan, to encourage water conservation measures not required by state law. The City will, if feasible, provide incentives that are substantial enough to encourage new and existing development to install and use recycled water systems and other water-conserving improvements. Incentives could include lower up-front water hookup fees and lower ongoing water rates, depending on the extent of water conservation measures included.

The City will update the water master plan, as necessary, to address growth needs, regulatory changes, and water quality issues.

Implementation Program PUBLIC-1.2

The City will continue the arsenic removal program, as necessary, in order to meet all federal and state standards for all groundwater wells in the city. The City will implement a study to investigate the need for additional programs for water treatment, monitoring, and cleanup of other constituents (pollutants), as necessary. The City will implement a nitrate monitoring program that will include periodic monitoring and impose time standards for any cleanup needed.

Implementation Program PUBLIC-1.3

The City will continue to develop and implement its hydrant valve maintenance program.

SEWER

CONTEXT

The City of Live Oak operates and maintains its own sewer system and wastewater treatment plant (WWTP). The Live Oak Wastewater Treatment Plant has a capacity of 1.4 million gallons per day (mgd) average dry weather flow. It provides secondary treatment of raw wastewater through a series of aerated ponds and lagoons, discharging disinfected effluent to an irrigation drain (Reclamation District 777 Lateral Drain Number 1). Current wastewater flows average 0.70 mgd. The WWTP was issued a Cease and Desist Order (Order No R5-2004-0097) by the Regional Water Quality Control Board (RWQCB) in 2004, due to high contaminant levels in the effluent. A new Cease and Desist Order was issued in February 2009 that rescinds the previous order, extends the time schedule for complying with Waste Discharge Requirements (WDR) Order N0 R5-2004-0096 Effluent Limitations B.2 and B.4 for some of the constituents, and issues new interim effluent limitations. The City designed a new activated sludge tertiary treatment plant to comply with water quality standards. Because extensive sewer inspection of the system has not yet been initiated by the City, the physical condition of the existing collection system is not well known. However, the system experiences excessive inflow and groundwater infiltration (I/I) and at least some parts of the collection system are in poor condition. Figure PUBLIC-2 illustrates the City's wastewater system.

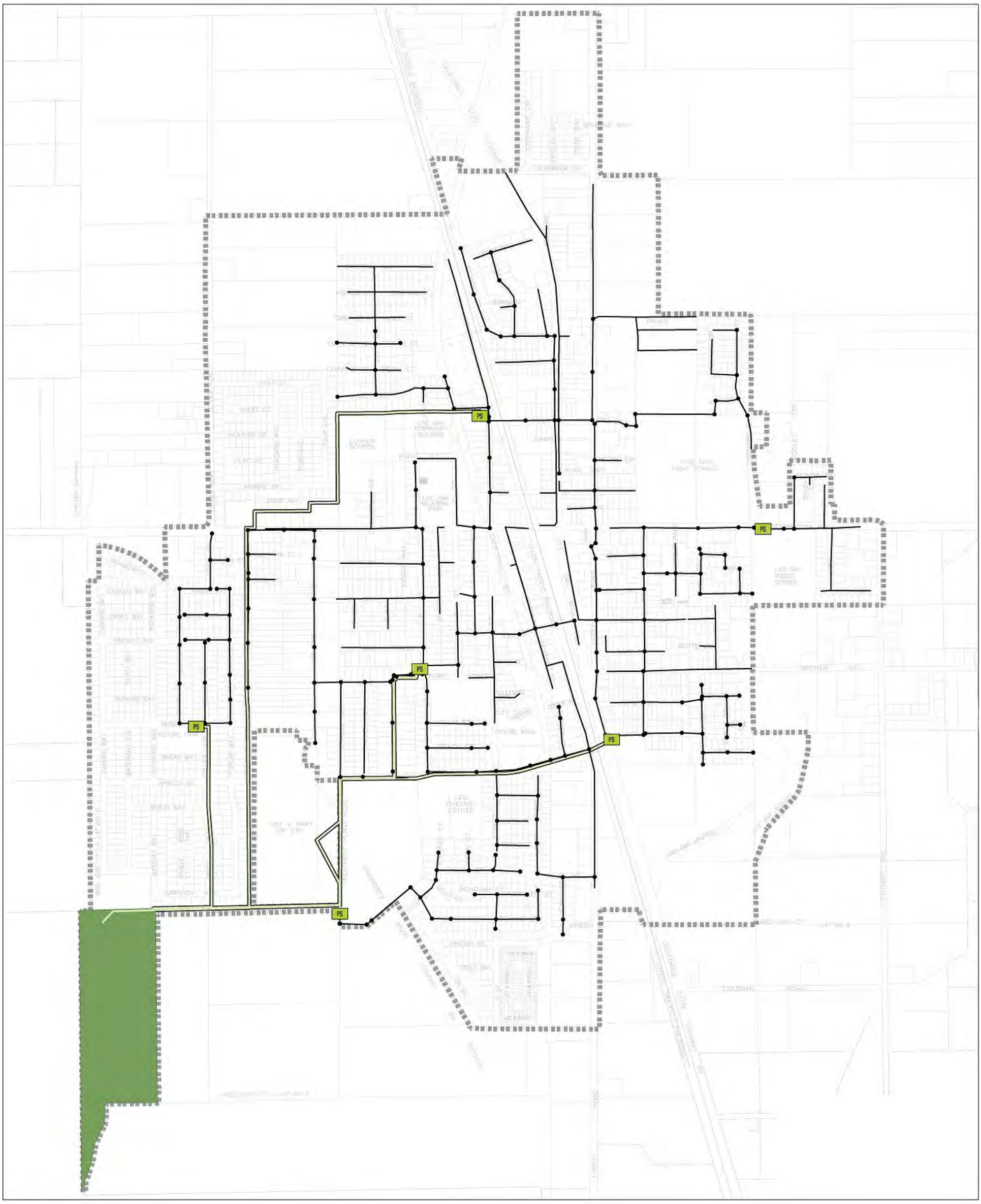


Figure PUBLIC-2
Wastewater System Map

SEWER GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-3. **Use environmental best practices and provide cost effective wastewater collection, conveyance, and treatment systems to serve new and existing portions of the city.**

Policy PUBLIC-3.1 The City will prepare a wastewater master plan that provides for phased, efficient extension of wastewater collection and improvements to wastewater treatment and disposal systems, to meet existing and future needs.

Policy PUBLIC-3.2 The City will investigate and identify, through the wastewater master plan process, cost-effective options for adding treatment capacity to serve new growth.

Policy PUBLIC-3.3 New development shall construct and dedicate wastewater collection facilities or pay in-lieu fees, and shall contribute on a fair-share basis to expanding treatment capacity to accommodate new growth anticipated under this General Plan, and as directed by the City's wastewater master plan.

Policy PUBLIC-3.4 City sewer connection fees and ongoing sewer rates should be proportionally lower for properties that fund and install recycled water systems and are able to reduce overall wastewater demand.

Policy PUBLIC-3.5 Expansion of wastewater treatment capacity to serve new growth should be financed and phased to avoid increasing sewer rates for existing residents and businesses.

Policy PUBLIC-3.6 Wastewater infrastructure extensions will be phased by the City as part of the City's overall growth. Wastewater infrastructure will generally be provided first to areas directly adjacent to City limits, and then infrastructure will be extended outward.

Policy PUBLIC-3.7 The City and Redevelopment Agency should ensure collection and wastewater treatment capacity is available for infill development needs. The Redevelopment Agency should consider using redevelopment tax increment funds to help finance infrastructure improvements for infill areas within the redevelopment project area.

Policy PUBLIC-3.8 The City will identify regional, state, or federal funding and will leverage this funding, as appropriate, to make improvements to the City's existing wastewater infrastructure in order to encourage infill development.

Policy PUBLIC-3.9 The City will ensure compliance with state and federal standards for wastewater disposal. Monitoring and reporting programs may be required, as appropriate.

Implementation Program PUBLIC-3.1

The City will adopt a wastewater master plan that is consistent with the 2030 General Plan, to provide for phased improvements to meet future needs. The master plan will include an inventory of existing development, estimates of future demand within the existing city, and estimates of future demand within areas planned for annexation. The wastewater master plan will provide cost-effective methods for expanding the system to meet future growth needs without raising sewer rates in the existing city. The master plan will identify deficiencies in the existing developed city that need to be addressed prior to, or in advance of infill development.

The Wastewater Master Plan will identify improvements and funding required to comply with Regional Water Quality Control Board and other applicable state and federal water quality standards.

The City will update the wastewater master plan, as necessary, to address growth needs, regulatory changes, technological innovations, and regional plans for wastewater treatment and disposal. As part of the wastewater master planning process, the City will identify improvements needed to meet applicable state and federal wastewater disposal standards. The City will incorporate analysis from the wastewater master plan into its capital and ongoing fee programs.

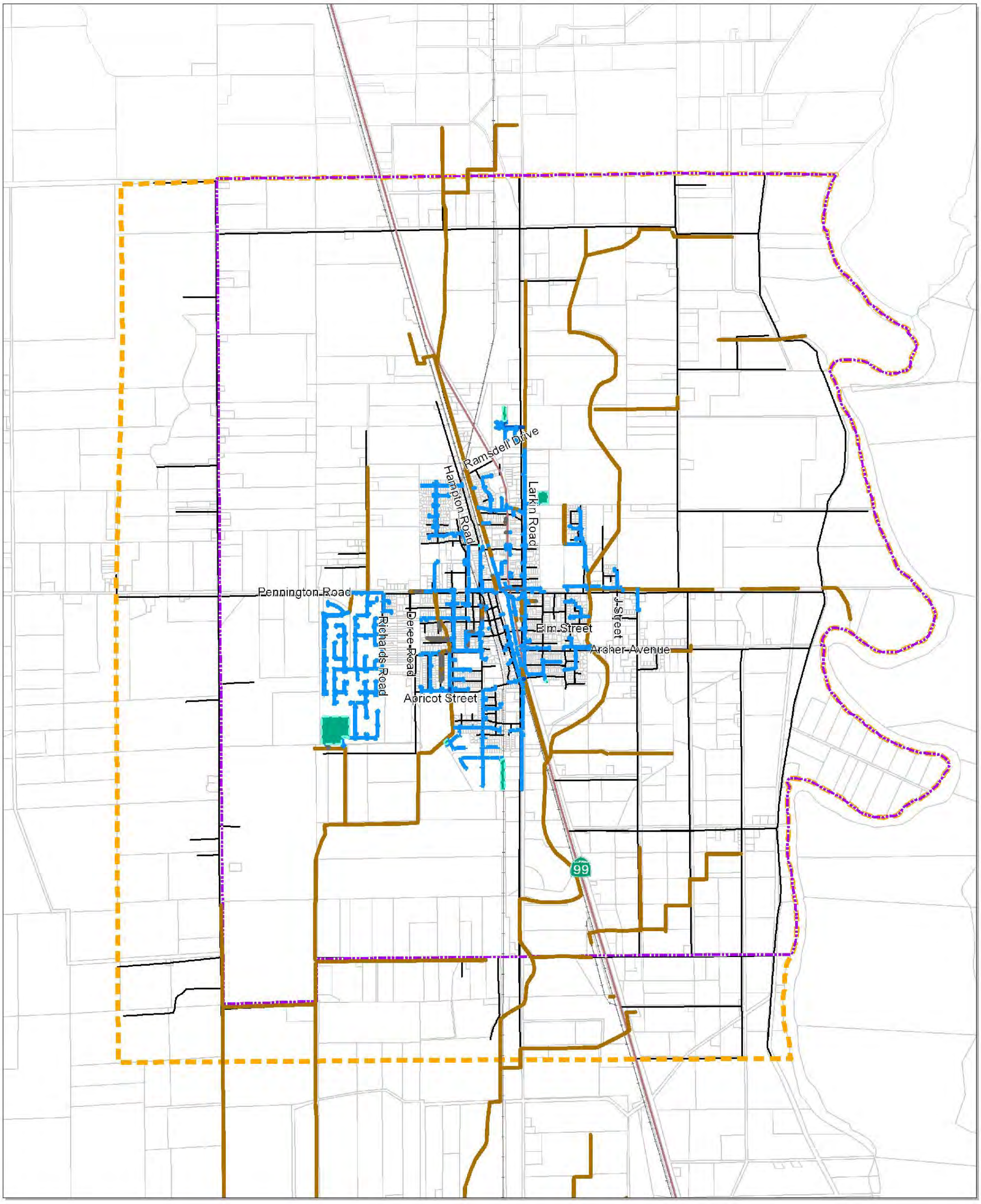
The City will examine whether installation of recycled water systems and/or installation of drought tolerant landscaping would substantially reduce the costs of wastewater treatment plant capacity upgrades and conveyance facilities compared to a scenario that does not use these water-saving features. The City will explore opportunities to pass savings related to wastewater infrastructure to properties that install and use recycled water and install drought tolerant landscaping, as feasible.

DRAINAGE AND FLOOD PROTECTION

CONTEXT

The City mostly has piped systems to convey stormwater runoff, although there are drainage ditches in certain developed areas. Within the Sphere of Influence and outside City limits, drainage is mainly via roadside ditches. The Live Oak Slough (Main Canal) is a main drain which collects runoff from Live Oak and outlying regions and transports the flow downstream to the East Interceptor Canal. Under current conditions, existing drainage facilities are at maximum capacity during large storm events (Figure PUBLIC-3). Please refer to the Public Safety Element for more information on flood hazards. Additional information is included in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection."

Reclamation District No. 777 provides drainage to the majority of the Live Oak Planning Area (Figure PUBLIC-4). This district operates Laterals 1, 2, 6, 6A, 14 and the Main Canal in the area in and around Live Oak. Reclamation District 2056 also provides service to a smaller portion of the Planning Area.



LEGEND

- Study Area Boundary
- Sphere of Influence
- Detention Basin
- Storm Drain
- Ditch
- Culvert
- Force Main

0 1,250 2,500
FEET

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Base map: CASIL Layers
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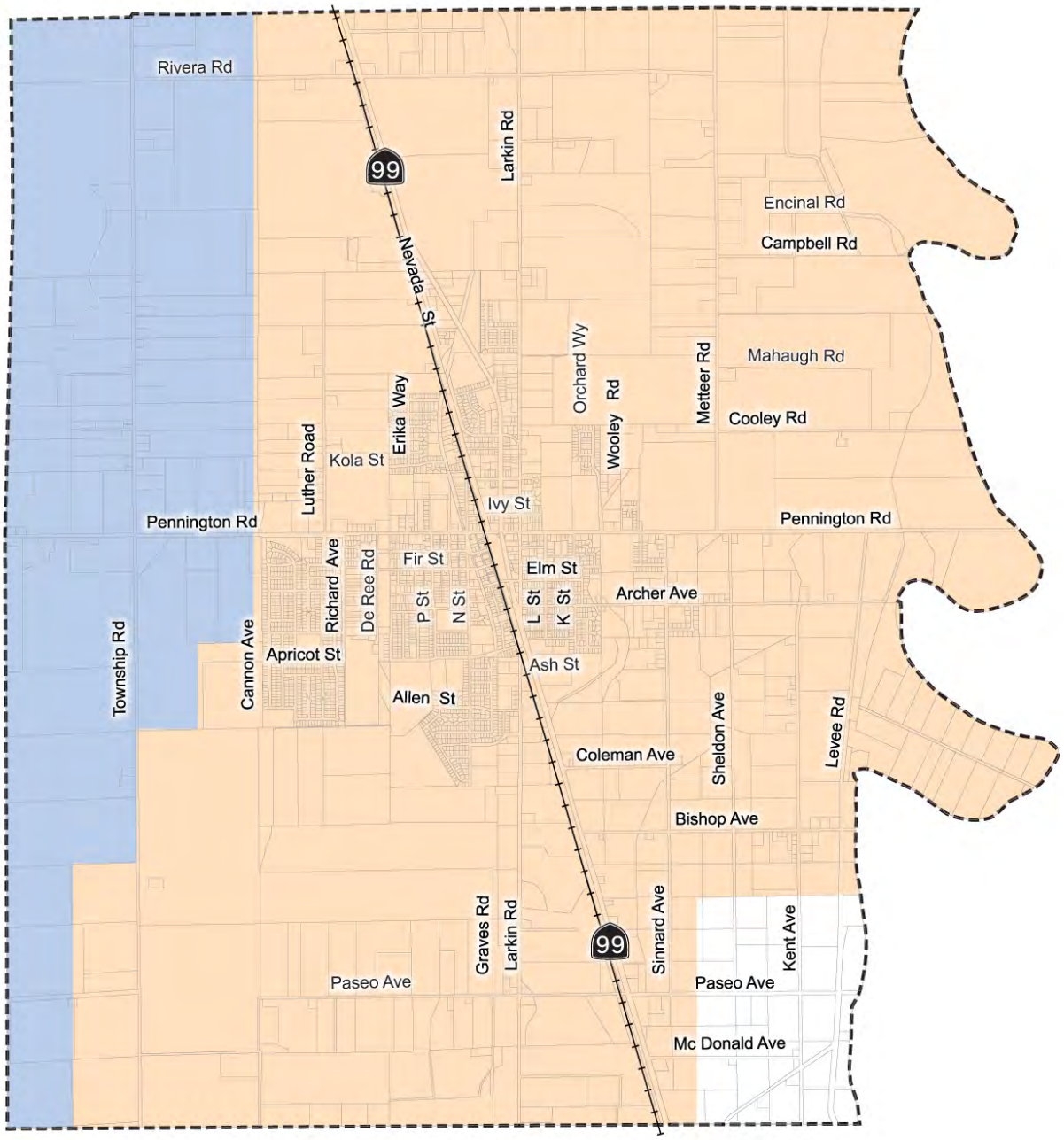
Source: City of Live Oak, 2008

Imagine the Future... City of Live Oak General Plan

Figure PUBLIC-3
Drainage Facility Map



LEGEND

Boundaries

- Study Area
- Parcels

- RD 777 Service Area
- RD 2056 Service Area

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Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008

Imagine the future... City of Live Oak General Plan

Figure PUBLIC-4
Reclamation District Service Areas

In addition to piping stormwater, many jurisdictions are considering the benefits of a more holistic approach to stormwater management. There are many different strategies that work in different climates and topographic contexts, but two general terms that are frequently used to describe current thinking in stormwater management are: natural drainage systems (NDS) and low-impact development (LID).

NDS and LID are stormwater management strategies that maintain or restore the natural hydrologic functions of a site to achieve natural resource protection objectives and fulfill environmental regulatory requirements. [1] NDS and LID employ a variety of natural and built features that reduce the rate of runoff, filter out its pollutants, and facilitate the infiltration of water into the ground. NDS and LID can mitigate both stormwater quality and quantity impacts of urban development.

Because NDS and LID have a variety of techniques for controlling runoff, designs can be customized according to local regulatory and resource protection requirements, as well as site constraints. New development, infill projects, and capital improvement programming can all use NDS and LID.

These systems can be less costly to construct and maintain, compared to a traditional piped system, while also providing water quality benefits and using stormwater as a community amenity. The City can decrease the amount of land needed for stormwater detention with designs that slow down and disperse runoff following a storm event.

Rather than collecting runoff in piped or channelized networks and controlling the flow downstream in a large stormwater management facility, NDS and LID take a decentralized approach to disperse flows and manage runoff closer to where it originates. LID incorporates a set of overall site design strategies and decentralized source control techniques that can be used in buildings, infrastructure, or landscape design. The goal of moving stormwater away from buildings is combined with strategies to slow down, disperse, and filter stormwater runoff (see Figure PUBLIC-6). NDS and LID reuse stormwater in rain gardens, reduces impervious surfaces, and through other means limits the amount or rate of stormwater entering City systems.

NDS and LID use open, vegetated swales, stormwater cascades, and small wetland ponds instead of pipes and vaults (see Figure PUBLIC-5). NDS and LID can also be designed to work in tandem with engineered drainage.

DRAINAGE GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-4. **Provide storm drainage systems that protect property and public safety and that prevent erosion and flooding.**

Policy PUBLIC-4.1 The City will prepare and maintain a drainage master plan to provide phased extension of drainage infrastructure to serve new growth and address existing deficiencies.

[1] U.S. Army Corps of Engineers. Unified Facilities Criteria, Design: Low Impact Development Manual. October 25, 2004.

Figure PUBLIC-5
Roadside Drainage Swale

Figure PUBLIC-6
Planter Strip Stormwater Infiltration

Policy PUBLIC-4.2 As part of the master plan and capital improvements planning, the City will set priorities and make repairs to the City's existing stormwater drainage system.

Policy PUBLIC-4.3 The City will develop a funding mechanism to improve existing drainage systems and develop new ones in existing City areas that currently lack stormwater drainage infrastructure.

Policy PUBLIC-4.4 New development shall construct and dedicate facilities for drainage collection, conveyance, and detention, and shall contribute on a fair-share basis to areawide drainage facilities, as directed by the City's drainage master plan.

Policy PUBLIC-4.5 Drainage infrastructure will be phased to serve the new growth area. Temporary drainage facilities may be required at some phases of new development, to be replaced by permanent facilities at buildout.

Policy PUBLIC-4.6 The City will identify regional, state, or federal funding and will leverage this funding, as appropriate, to make improvements to the City's existing drainage infrastructure to encourage infill development.

Policy PUBLIC-4.7 The City will explore opportunities in the new growth area to provide oversized stormwater drainage infrastructure that can accommodate both flows from new development and flows from existing city areas that lack the necessary infrastructure. The City or Redevelopment Agency will consider reimbursing new development for these improvements, on a fair-share basis.

Policy PUBLIC-4.8 During the planning of new development and the installation of drainage infrastructure, appropriate steps shall be taken to avoid increasing any drainage problems in the existing developed city.

Policy PUBLIC-4.9 The City will include in the drainage master plan and capital improvements planning a program to repair canal levees, where necessary, to prevent overtopping during storm events.

Policy PUBLIC-4.10 The City will coordinate with the California Department of Transportation (Caltrans) to improve drainage infrastructure and address inter-agency flooding issues.

Policy PUBLIC-4.11 The City's drainage master plan will incorporate regional, state, and federal standards and regulations, as appropriate, and will be consistent with Reclamation District 777 and RD 2056 standards, as applicable.

Policy PUBLIC-4.12 New development shall be designed to control surface runoff discharges to comply with City standards, National Pollutant Discharge Elimination System Permit requirements, and Regional Water Quality Control Board standards, as applicable.

Implementation Program PUBLIC-4.1

The City will adopt a drainage master plan, consistent with the policy direction in the 2030 General Plan, to provide for phasing and financing of drainage improvements in the existing developed city and in the new growth area.

The master plan will include an inventory of existing development, estimates of future needs in the existing city, and estimates of future growth in the new growth area. The drainage master plan will address how to meet future growth needs, if possible, without any rate increases in the existing city.

The drainage master plan will also identify deficiencies and provide for drainage improvements in the existing developed city. As part of both the Drainage Master Plan and capital improvements planning, the City will set priorities and make repairs to the City's existing stormwater drainage system. Areas in the existing developed city that lack drainage infrastructure will take priority in the improvement schedule.

The City will update the drainage master plan, as necessary, to address growth needs, regulatory changes, and technological innovations. The City will incorporate analysis from the wastewater master plan into its capital and ongoing fee programs.

Goal PUBLIC-5. Use best environmental practices in the City's drainage systems to ensure water quality and take advantage of cost-saving multi-use opportunities.

Policy PUBLIC-5.1 The City's drainage master plan will plan and provide for appropriate components of natural drainage systems, which not only can be less costly to construct and maintain compared to a traditional piped system, but also provide water quality benefits and allow stormwater facilities to provide community amenities.

Policy PUBLIC-5.2 The City's drainage master plan should incorporate the use of newly constructed, appropriately landscaped drainage swales to filter, slow down, and better convey stormwater runoff.

Policy PUBLIC-5.3 Existing Reclamation District 777 and Reclamation District 2056 drainage channels should be improved, to the greatest extent feasible, to create more naturalized swales that provide stormwater conveyance. These channels should be restored with native, low-maintenance landscaping to filter stormwater and enhance neighborhood aesthetics.

Policy PUBLIC-5.4 New single-family residential projects should be designed to allow building drainage to sheet flow across the front yard to be filtered through drainage swales located in the landscaped planter strip between the sidewalk and street, where possible.

Policy PUBLIC-5.5 Under the City's drainage master plan, open playfield portions of parks will be used for stormwater detention.

Policy PUBLIC-5.6 Drainage swales should have adjacent pathways to allow circulation of pedestrians, bicyclists, and stormwater in the same corridor, connecting with parks that are also designed to detain stormwater (see also the Parks and Recreation Element).

Policy PUBLIC-5.7 The City's master planning for drainage and for parks and recreation should account for the cost savings of this dual-use application of both park and drainage impact fees.

Policy PUBLIC-5.8 New development should use low impact development (LID) techniques such as preserving or restoring natural landscape features for drainage, minimizing hard (impervious) surfaces, and using other methods that reduce, recycle, and filter stormwater.[2]

Policy PUBLIC-5.9 The City will provide incentives designed to induce the construction of low impact development (LID) designs in development. The City's reduced drainage fees should be designed to offset additional costs involved in using LID features, if possible.

Implementation Program PUBLIC-5.1

The City will adopt a drainage master plan, consistent with the policy direction in the 2030 General Plan, to provide for phasing and financing of drainage improvements in the existing city and in the new growth area.

The City's drainage master plan will implement natural drainage systems that use newly constructed or restored drainage swales to convey stormwater runoff.

The City's drainage and parks and recreation planning and fees should account for the cost savings of this dual-use application of both park and drainage impact fees. Planning and fees should consider savings of low impact development (LID) techniques, where appropriate.

Implementation Program PUBLIC-5.2

The City will revise the Public Works Improvement Standards (City standards), as necessary, to be consistent with the 2030 General Plan. Development projects, instead of being required in each case to detain stormwater on-site, will contribute to areawide drainage facilities, as directed by the drainage master plan.

City standards should also be revised to allow the use of larger drainage swales and smaller filtration drainage swales within planter strips along streets. The City will consider revising standards to allow the use of tracked "Hollywood" driveways for single-family residential development, a design that reduces impervious surface and stormwater runoff (see Figure PUBLIC-7). City standards for this type of driveway, if they become adopted, must be carefully developed to ensure high quality construction of driveways, good drainage, and good maintenance of the landscaped area to prevent deterioration and ensure proper function.

[2] For information about LID concepts, please refer to the U.S. EPA's Web site: http://www.epa.gov/nps/lid/.

Figure PUBLIC-7
Tracked, or "Hollywood" Driveway.

FLOOD PROTECTION GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Please also refer to the Safety Element of this General Plan for policy on flood protection.

Goal PUBLIC-6. **Protect property and public health through adequate flood protection.**

Policy PUBLIC-6.1 The City will coordinate with ongoing regional efforts to verify and improve flood protection for the Planning Area, consistent with state and federal regulations.

Policy PUBLIC-6.2 The City will assess fees for new development on a fair-share basis to fund regional flood protection improvements needed to meet state and federal standards.

Policy PUBLIC-6.3 The City will proactively identify and take advantage of regional, state, and federal funding that may be available for use in flood protection improvements.

Implementation Program PUBLIC-6.1

The City will continue its participation with the regional flood protection joint powers authority addressing the assessment and improvement of levees on the west side of the Feather River to meet state and federal standards.

SCHOOLS

CONTEXT

The Live Oak Planning Area is served by the Live Oak Unified School District (LOUSD). There are six schools in this district: Encinal Elementary School (grades kindergarten through eight [K–8]), Luther Elementary School (grades K–4), Live Oak Middle School (grades 5–8), Live Oak High School (grades 9–12), Valley Oak Continuation High School (grades 9–12), and Live Oak Alternative School (grades 1–12) Figure PUBLIC-8). Encinal Elementary School is located outside the Planning Area and Valley Oak Continuation High School shares facilities with Live Oak High School. LOUSD uses portable classrooms, as necessary, to accommodate the overflow of students.

Table PUBLIC-1 below lists each of the LOUSD schools and shows each facility's capacity and student enrollment for the 2007–2008 school year. The enrollments and capacities are compared to assess which schools have available capacity for additional students and which schools may currently be enrolled beyond capacity, indicating the need for additional school facilities. As shown, three of the five schools within the District already serve more students than they have the capacity to serve; the other two schools are have some remaining capacity, although both schools are more than 90 percent filled. Since LOUSD schools are already overcrowded, this indicates the need for new schools to serve the existing population; new growth will further increase this need.

TABLE PUBLIC-1
LIVE OAK UNIFIED SCHOOL DISTRICT SCHOOLS ENROLLMENT AND CAPACITY

School	Enrollment (2007-2008 School Year)[1]	Facility Capacity[2]	Percentage of Capacity Filled
Luther Elementary School	652	610	106.9%
Encinal Elementary School	80	73	109.6%
Live Oak Middle School	561	594	94.4%
Live Oak High School	558	530	105.3%
Live Oak Alternative School[3]	55	60	91.7%

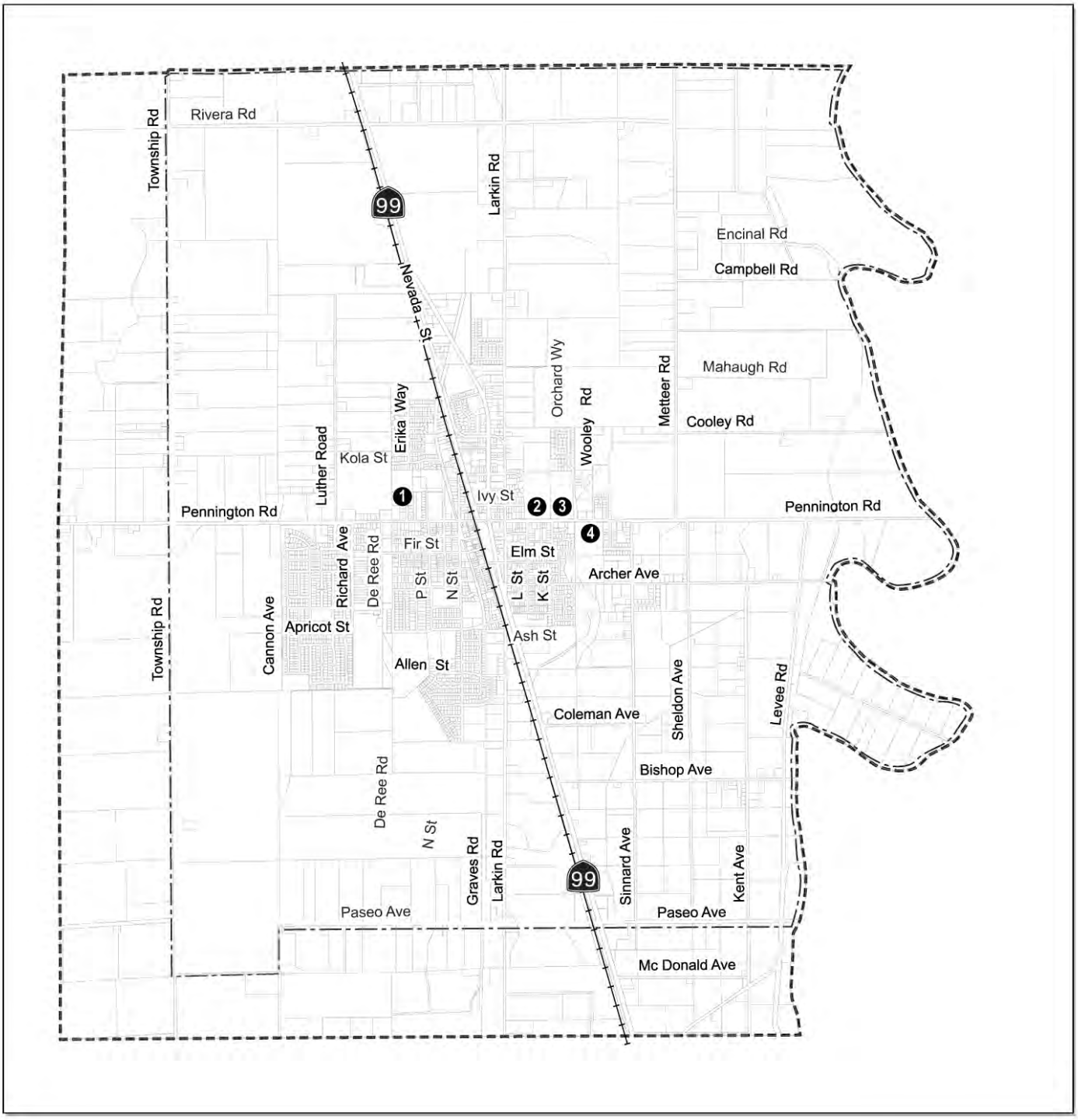
Notes:

1 Enrollment information provided by California Department of Education, Educational Demographics Unit, Data Quest – District Level Enrollment Reports, prepared December 1, 2008 with data current as of October 15, 2008. http://dq.cde.ca.gov/dataquest/, accessed December 1, 2008.

2 Capacity information provided by Chris Peters, Chief Financial Officer, Live Oak Unified School District. Personal Correspondence, February 17, 2009.

3 Includes 26 students enrolled in Live Oak Alternative School and 29 students enrolled in Valley Oak Continuation High School, since facilities are shared.

In its future enrollment projections, LOUSD uses a generation factor of 0.5 students per dwelling unit. To make grade-specific projections possible, LOUSD breaks down this factor for different groups of grades. The generation factor breaks down to 0.243 students per unit for grades K–5, 0.114 for grades 6–8, and 0.143 for grades 9–12. The LOUSD updates its student generation rates and impact fees periodically, in order to keep pace with demographic changes.



LEGEND

Boundaries
- Study Area
- Sphere of Influence

Parcels

Schools
1. Luther Elementary
2. Live Oak High
3. Live Oak Alternative
4. Live Oak Middle

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Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008

Figure PUBLIC-8
Schools in the Live Oak Planning Area

SCHOOLS GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-7. **Support high-quality public schools to meet the needs of current and future Live Oak residents.**

Policy PUBLIC-7.1 The City will coordinate with the Live Oak Unified School District to determine appropriate locations for new schools. If possible, schools should be located within Civic Centers and within walking or biking distance of all homes within their attendance boundaries.

Policy PUBLIC-7.2 The City will coordinate with the Live Oak Unified School District to take advantage of efficiencies available through joint-use arrangements between LOUSD and the City park and recreational facilities and joint-use library facilities.

Policy PUBLIC-7.3 Joint-use facilities could occur on existing and new school sites, and could be existing or new City-owned facilities, as appropriate. Maintenance responsibilities and costs of joint-use facilities should be shared between the City and LOUSD.

Policy PUBLIC-7.4 New development shall contribute school development impact fees, construct and dedicate new school facilities, or provide a combination of both, according to state law and LOUSD practices. Development impact fees should be designed to reflect relatively smaller anticipated household sizes (on a per-unit basis) in Small Lot Residential, Medium-Density Residential, and Higher-Density Residential projects, compared to Lower-Density Residential projects.

Policy PUBLIC-7.5 The City will ensure that areas around planned school sites offer safe and convenient pedestrian and bicycle access from the surrounding neighborhood. New developments shall provide safe routes to and from school sites from surrounding planned neighborhoods.

Policy PUBLIC-7.6 The City will partner with the Live Oak Unified School District on job training programs, agriculture-oriented education, youth and adult language programs, after school programs, youth summer programs and other mutually-beneficial informal and formal educational and recreational programs.

Policy PUBLIC-7.7 The City will proactively coordinate with the Live Oak Unified School District in applying for grants and other funding that could be used for development of joint-use facilities, or collaborative educational and recreational programs.

Policy PUBLIC-7.8 The City will coordinate with the Live Oak Unified School District to offer a youth job shadow program with City employees. The City will encourage local businesses and nonprofit entities to participate in such a program.

Implementation Program PUBLIC-7.1

The City will involve the Live Oak Unified School District in long-range land use planning and review of project proposals. The City and LOUSD should coordinate on guidelines for the provision of school sites in new development areas, including site size and configuration, and on design of joint-use park and recreational facilities and joint-use library facilities. The City will coordinate with Sutter County, which currently collects library fees from development within Live Oak, to possibly apply those fees to joint-use facilities at existing or future school sites. The City will coordinate with LOUSD on school site location and acquisition as part of the planning process for new development proposals. The City will make subdivision map approval conditional on payment of mitigation fees for school impacts, on school construction and dedication, or on some combination of both methods for meeting developer obligations, as applicable.

LIBRARIES

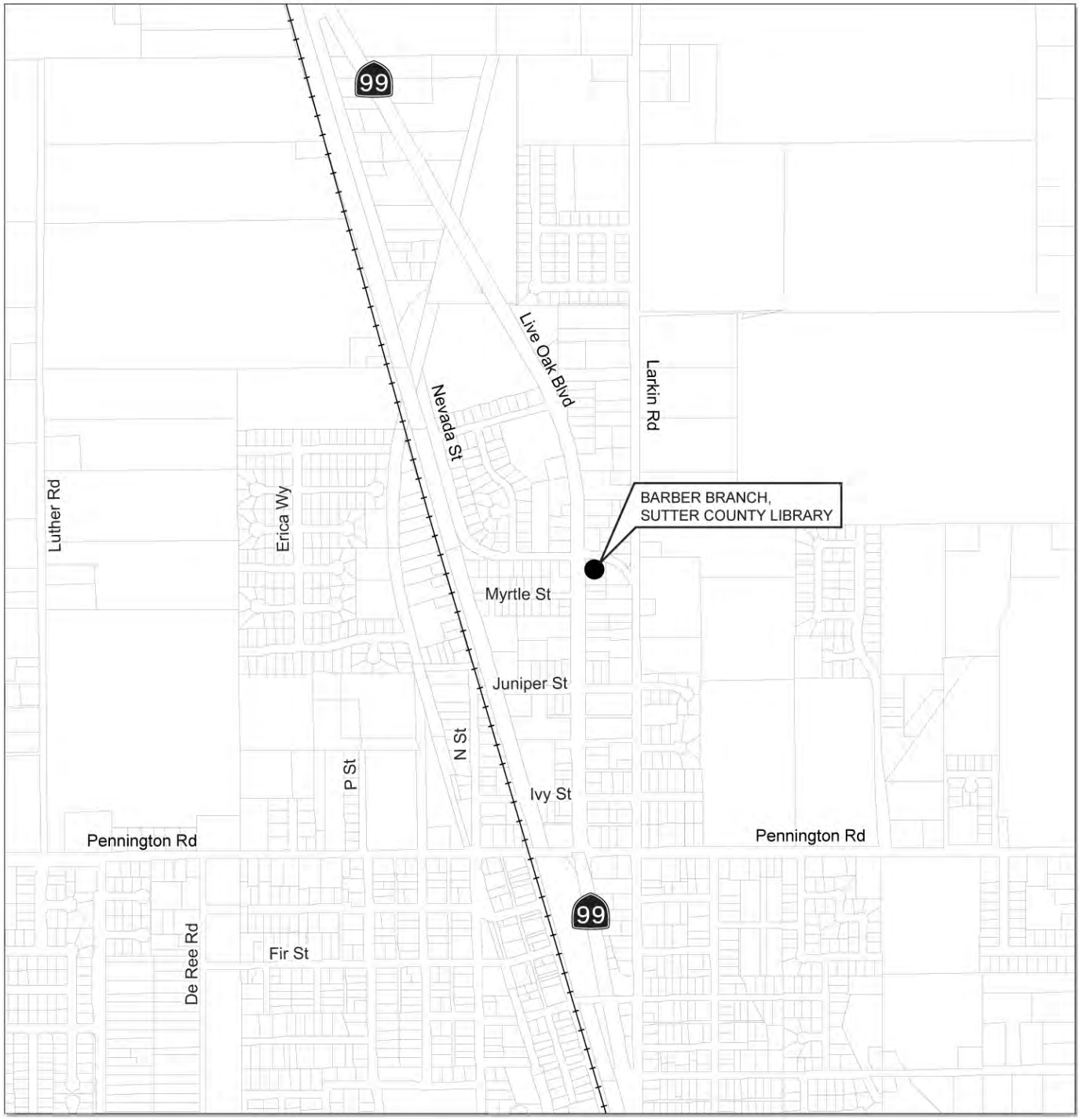
CONTEXT

Live Oak is served by the Sutter County Library system, which has a Main Branch in Yuba City. The Barber Branch is located in Live Oak at 10321 State Route (SR) 99. This branch is open 20 hours per week, Monday through Friday (Figure PUBLIC-9).

There are approximately 14,700 items available for public use in the branch, all of which are books and periodicals. Approximately 5,000 items are checked out from the branch each year. [3] In addition to these materials, patrons have immediate access to the Sutter County Library's entire catalog, which includes over 60,000 items. The Sutter County Library shares circulation with the Sacramento, Woodland, Folsom, and Colusa County Libraries and materials are delivered daily from those library systems to each of the Sutter County Library branches. The library also has interlibrary loans with other regional libraries, so library patrons may also borrow materials not in the Library's catalog, if needed. [4] In the Barber Branch, there are four computers available for public use, all of which feature both the library catalog and internet service. The Barber Branch has 1,932 square feet of floor space, which equates to 0.3 square feet of library floor space per capita.

In addition to access to a large library catalog, the Sutter County Library has educational programs offered out of the Main Branch in Yuba City. These programs include children's reading programs, story times for toddlers, preschoolers, and school age children, teen programs, game nights, book clubs for pre-teens and adults, community classes during certain times of the year, citizenship classes, and an adult literacy program. A community meeting space is located at the Main Branch, but due to the popularity of the adult literacy program, the space is primarily used as a classroom for the program. [5]

[3] Arlene Wheeler, Branch Librarian, Sutter County Library Barber Branch, Personal correspondence, February 17, 2009.
[4] Roxanna Parker, Director, Sutter County Library, Personal correspondence, December 22, 2008.
[5] Steve Lim, Service Coordinator, Sutter County Library, Personal correspondence, December 22, 2008.



LEGEND

Parcels

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Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008

Figure PUBLIC-9
Library Locations

Due to limited staffing and hours, other library branches are currently not able to provide as many of these additional services. The Sutter County Library is better able to provide these programs at the Main Branch, but all Library users may participate in the programs provided out of the Main Branch. Programs at the Barber Branch are limited to story time, a summer reading program, and tours of the library given to schools visiting the facility. [6]

LIBRARIES GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-8. **Develop library facilities and provide high-quality library services sufficient to accommodate current and future needs of all Live Oak residents.**

Policy PUBLIC-8.1 The City will encourage the Sutter County Library to develop additional library facilities or expand existing facilities in Live Oak, using a guideline of 0.5 square feet of public library facilities per capita.

Policy PUBLIC-8.2 The City will encourage the Sutter County Library to increase service hours and the library's collection of books, periodicals, and other media, where feasible.

Policy PUBLIC-8.3 The City will explore opportunities with the Live Oak Unified School District to develop joint school and community use libraries.

Implementation Program-8.1

The City will coordinate with the County to identify funding sources for development of new library facilities and expansion of existing facilities with a guideline of providing 0.5 square feet of public library space per capita as the City grows. The City will coordinate with the County in identifying specific standards for levels of service, should the County elect to establish this service standard as a part of that General Plan update process. The City will coordinate with the Sutter County Library to increase service hours and the library's collection of books, periodicals, and other media, where feasible.

New public library facilities in should locate within Neighborhood or Civic Centers. The City will coordinate with the County (which currently collects library development impact fees) and the Live Oak Unified School District on joint-use agreements so that existing library facilities in schools can be opened to the public and planned library facilities in new schools can be jointly used, maintained, and staffed as a way of helping achieve the 0.5 square feet per capita guideline.

[6] Roxanna Parker, Director, Sutter County Library, Personal correspondence, December 22, 2008.

LAW ENFORCEMENT

CONTEXT

Law enforcement and police protection services for the city of Live Oak are provided by a Sutter County Sheriff's Department substation. Live Oak had its own police department until 1980, when the department was eliminated and the City began contracting with Sutter County for law enforcement services. There are currently nine law enforcement officers located at the Live Oak substation (Figure PUBLIC-10). These include one sergeant, one lieutenant, and seven deputies. The Live Oak contract area, the area served by the Sheriff's Department under the contract with the City, includes all of the city, as well as an area outside the City limits that has roughly the same boundaries as the City's Sphere of Influence. Specifically, this contract area is bound by the county line to the north, Feather River to the east, Paseo Road to the south, and Township Road to the west. [7]

Currently, Live Oak has an average of 1.05 officers per 1,000 residents (based on Live Oak's 2008 Department of Finance population estimate of 8,539). As of 2008, the County's overall staffing ratio was 1.6 officers per 1,000 residents; the Sheriff's adopted goal is 1.1 officers per 1.000 residents.[8] Therefore, County staffing exceeds this goal, but staffing within Live Oak falls short of the adopted staffing ratio goal.

In 2006, the Sheriff's Department had an average response time of 8 minutes 11 seconds for priority 1 calls and 9 minutes 54 seconds for priority 2 calls. The Sheriff's Department does not currently have an adopted response time standard. [9]

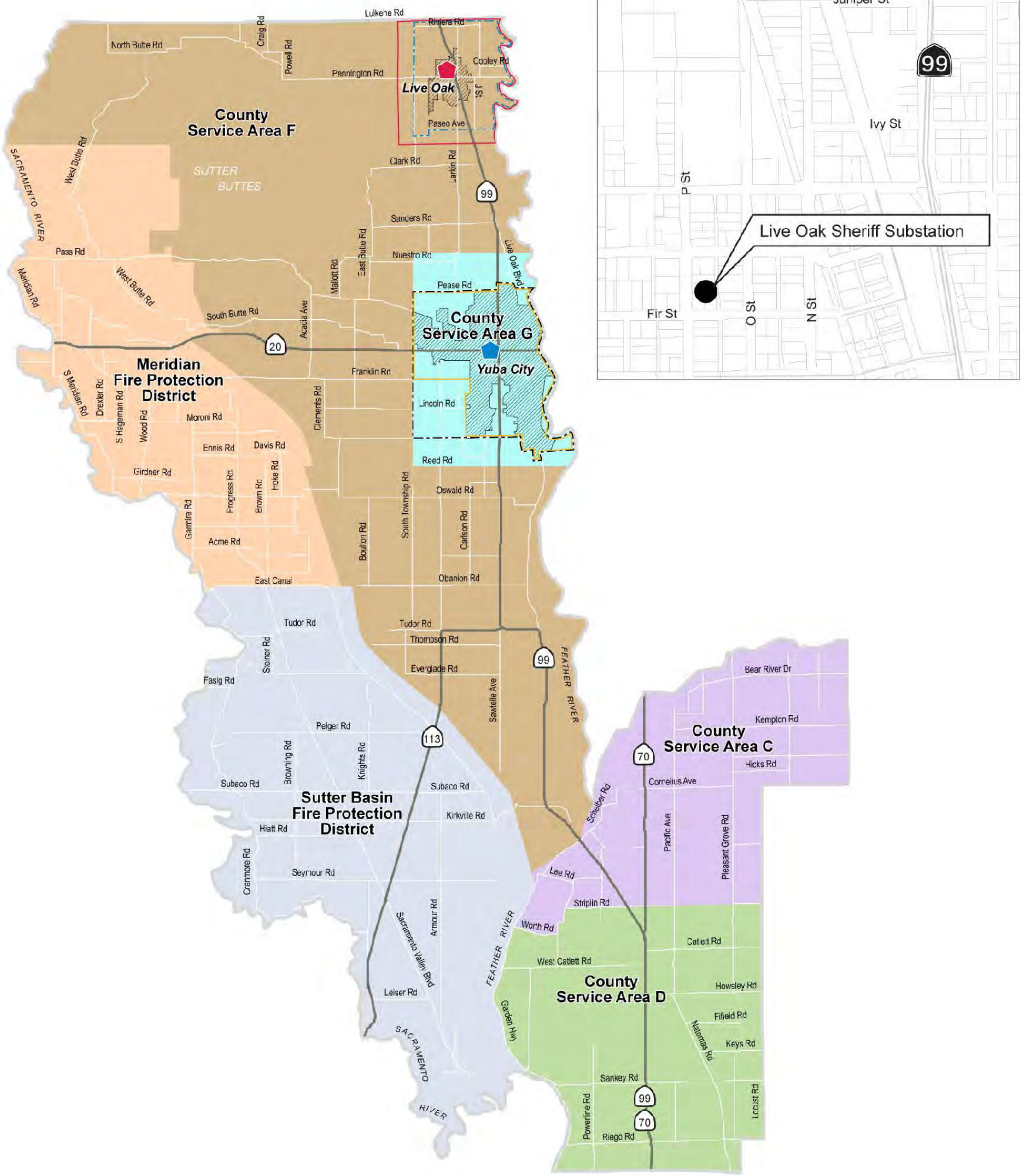
The Sutter County General Plan Update Technical Background Report identified the need for an expansion of the Sutter County jail facility as a constraint for continuing to provide law enforcement services in the County. According to the report, in 2007, the jail was consistently near its capacity of 352 inmates. In addition, the report specifically indicated that additional officers and facilities would be needed to accommodate growth in the City of Live Oak, in order to meet service demands. [10]

LAW ENFORCEMENT GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-9. **Support law enforcement services that protect the health, safety, and welfare of Live Oak residents.**

Policy PUBLIC-9.1 The City will coordinate with the Sutter County Sheriff's Department to ensure that law enforcement service for Live Oak residents is adequate.

[7] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, Page 3.3-2.
[8] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, Page 3.3-3.
[9] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, Page 3.3-1.
[10] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, Page 3.3-2.



LEGEND

Boundaries
- Sutter County
- Live Oak Contract Area
- Live Oak Sphere of Influence
- Yuba City Sphere of Influence

Sheriff and Police
- Sutter County Sheriff's Department Headquarters
- Live Oak Sheriff Substation
- Yuba City Police Department Service Area

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Base Image: Name Year
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Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008

Imagine the future...
City of Live Oak
General Plan

Figure PUBLIC-10
Law Enforcement Service Areas and Stations

Policy PUBLIC-9.2 The City will coordinate with the Sutter County Sheriff's Department to plan for law enforcement facilities and equipment in Live Oak that keeps pace with growth and development.

Policy PUBLIC-9.3 The City shall attempt to establish a mechanism to provide funding for additional law enforcement staff, facilities, and equipment needed to serve the needs of new growth. New development shall contribute on a fair-share basis toward improvements for law enforcement necessary to serve new growth.

Policy PUBLIC-9.4 The City will encourage efficiencies in new or expanded law enforcement facilities in Live Oak through sharing locations with other public service providers.

Policy PUBLIC-9.5 The City will involve law enforcement officials in review of proposed development projects, and will, as appropriate, make addressing law enforcement recommendations a condition for approval.

Policy PUBLIC-9.6 The City will require that new development address such principles of Crime Prevention through Environmental Design (CPTED) as access and community surveillance, and will explore opportunities to reduce or eliminate design elements in existing development that may promote and/or enable criminal activities. [11]

Policy PUBLIC-9.7 The City will encourage the Sheriff's Department to implement policing programs that increase police presence within Live Oak and to emphasize more street patrol and traffic enforcement to make residents feel safe and confident.

Policy PUBLIC-9.8 The City will establish and support community outreach programs aimed at encouraging residents to be proactive in crime prevention in Live Oak. Such programs include neighborhood watch, youth outreach programs, and other community-based programs.

Implementation Program-9.1

The City will coordinate with the Sutter County Sheriff's Department on expansion of law enforcement facilities and equipment needed to serve new growth. The City's development impact fee structure will provide for appropriate funding for facility expansion.

[11] Crime prevention through environmental design is a strategic approach influencing criminal behavior through physical design components that facilitate surveillance by the citizenry and the police ("eyes on the street"), create active public spaces, establish boundaries between public and private space, and otherwise enhance security and deter crime. Please refer to the following web sites for more information: http://www.cpted-watch.com/, http://www.cpted.net/, http://www.cptedtraining.net.

FIRE PROTECTION

CONTEXT

The City of Live Oak contracts with the Sutter County Fire Department to run the Live Oak Fire Department (LOFD). LOFD provides fire protection services for the entire Live Oak Planning Area and much of the northern section of the county. LOFD has one station, located in the city, which serves all of these areas. The Live Oak Fire Station is located within County Service Area F (CSA-F), which includes two other fire stations, the Sutter Station located in the community of Sutter, and the Oswald-Tudor Station, located in the rural area south of Yuba City (Figure PUBLIC-11).

In 2005, LOFD's station had four paid staff, including three career fire lieutenants and one fire apparatus engineer, as well as 16 volunteers. Sutter County has a minimum staffing standard of one career fire lieutenant and/or fire apparatus engineer at each station, including the Live Oak Station.

Two fire captains (who are not counted above as part of station staff) collaboratively manage the three CSA-F stations. The office for one of the captains is located at the LOFD station. Typical call volume for Live Oak is approximately 100 emergency calls per 1,000 persons. Current call volume is 850 to 1,000 incidents per year. One staffed engine can handle approximately 1,000 calls per year. A maximum response time of 4 minutes within the city has been suggested by the LOFD as a response time standard.

The Sutter County General Plan Update Technical Background Report reported that the average response time in the CSA-F area was 7 minute 57 seconds in 2006. However, within Live Oak, the average response time was less than 5 minutes for the urban areas. [12] The LOFD does not have adopted response time service standards, but recommends using a four minute maximum response time standard for planning the locations of future stations within the Live Oak service area. [13]

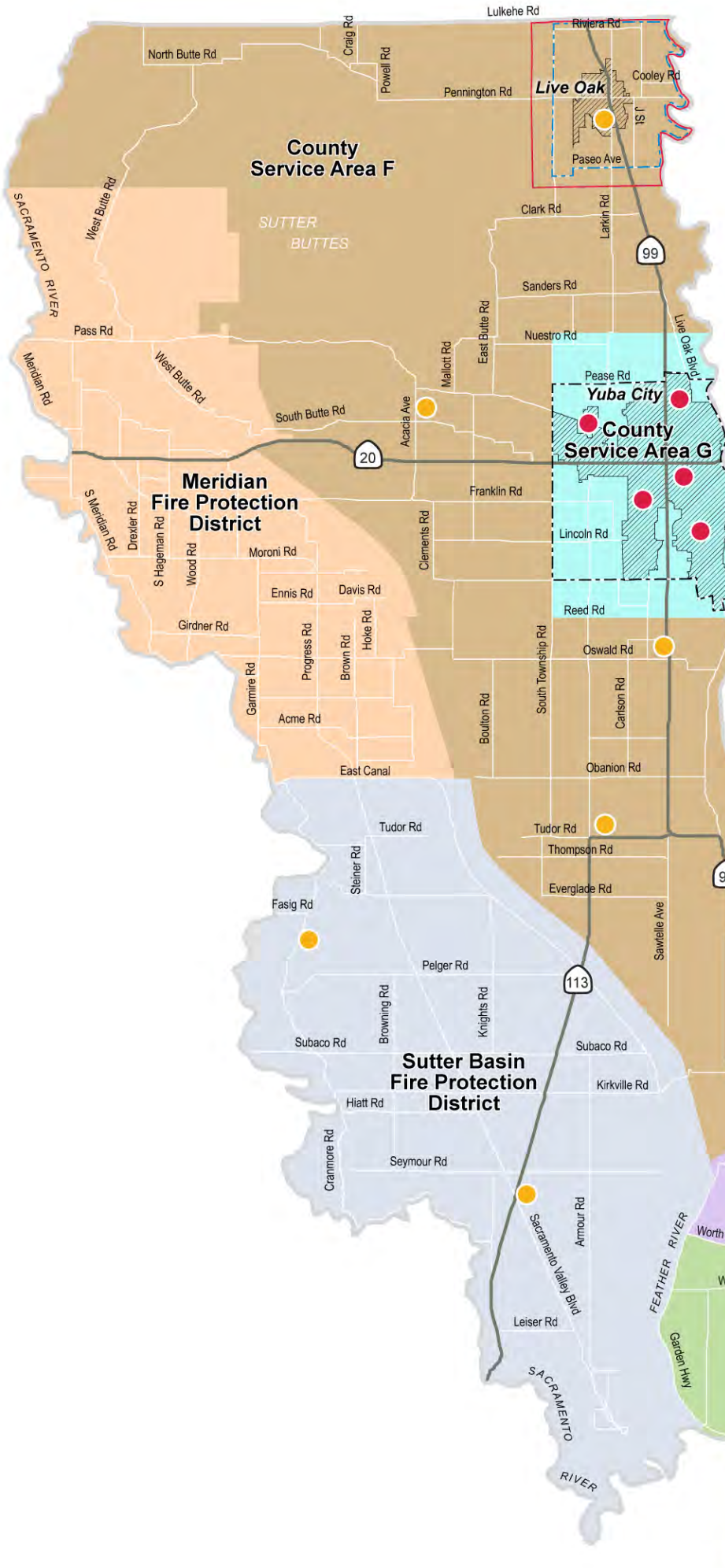
Constraints to fire protection services identified in the Sutter County General Plan Update Technical Background Report include the increase in calls for service in areas experiencing development and growth and longer average response times for incidents in rural areas. [14]

FIRE PROTECTION GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-10. **Support high-quality and efficient fire protection services for Live Oak residents and businesses.**

Policy PUBLIC-10.1 The City will ensure that fire protection providers have facilities with sufficient capacity, personnel, and equipment to meet growth needs in the City for fire protection and related emergency services, as determined by the City Council and using the following guidelines:

[12] Sutter County General Plan Update Technical Background Report, February 2008, page 3.3-13.
[13] City of Live Oak, Live Oak General Plan Update Background Report, 2006, page PSF-19.
[14] Sutter County General Plan Update Technical Background Report, February 2008, pages 3.3-8 – 3.3-9.



LEGEND

Boundaries
- Sutter County
- Live Oak Study Area
- Live Oak Sphere of Influence
- Yuba City Sphere of Influence

Fire Department
- Sutter County Fire Stations
- Yuba City Fire Stations

0 1.5 3
MILES

N

Base Image: Name Year
G 08110072.01 016 1/09

Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008

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City of Live Oak
General Plan

Figure PUBLIC-11
County Fire Service Areas and Live Oak Fire Station

- ✓ The City's fire response time guideline is 5 minutes for all incidents within the City of Live Oak. When this response time standard cannot consistently be met, the City will evaluate whether additional fire stations, staff, and/or equipment are necessary to meet the standard.

- ✓ New fire stations will be constructed, as necessary, to achieve an average response time of 4 minutes or less. New development shall set aside land for future fire station locations, as directed by the City.

Policy PUBLIC-10.2 The City will examine the feasibility of establishing a mechanism to provide funding for additional fire protection staff, facilities, and equipment. New development will contribute development impact fees on a fair-share basis for fire protection facilities and equipment to serve new development areas.

Policy PUBLIC-10.3 The City will coordinate with the fire protection personnel to review development proposals and ensure projects are planned and designed in a manner that promotes fire safety, provides adequate emergency access, and meets all applicable fire codes.

Policy PUBLIC-10.4 The City will encourage funding efficiencies in new or expanded fire protection facilities in Live Oak through co-location with other public service providers, such as law enforcement.

Goal PUBLIC-11. Ensure that adequate infrastructure, water supply, water storage, and water pressure is available for fire flow requirements.

Policy PUBLIC-11.1 The City will provide adequate water supply, storage, and appropriately-sized distribution pipelines to provide appropriate fire flows and emergency reserve, according to County fire flow standards until such time as the City adopts its own standards.

Policy PUBLIC-11.2 New development shall provide adequate minimum fire flow pressures and emergency fire reserve capacity, as required by the City, to ensure public safety and protection of property.

Policy PUBLIC-11.3 Fire sprinklers are required in new industrial, commercial, and multi-family residential developments within the city, and according to state law.

Implementation Program-11.1

The City will coordinate with the Sutter County Fire Department on expansion of fire protection facilities and equipment needed to serve new growth. The City will structure its development impact fees to provide appropriate funding of facility expansion to meet the needs of new growth.

SOCIAL SERVICES

CONTEXT

A range of social services are available to residents of Live Oak and the surrounding areas, as described below.

The Sutter County Human Services Department serves all of Sutter County, including Live Oak. This department provides programs intended to prevent or contain infectious disease and to improve public health. The Department evaluates and treats psychiatric disorders, substance abuse problems, and general medical problems. The Department also determines eligibility for public assistance programs and secures and maintains employment for county residents.

Another county social service agency serving Live Oak is the Sutter County Department of Child Support Services (SCDCSS). SCDCSS exists to provide child support establishment and enforcement services for children and families in the county. Its services include:

- ✓ establishing paternity, child support payments, and medical coverage;
- ✓ locating noncustodial parents and their assets to enforce court orders;
- ✓ collecting and distributing child and spousal support payments;
- ✓ maintaining accounts of payments owed and received; and,
- ✓ modifying and enforcing court orders.

Live Oak is also served by the Yuba-Sutter Department of Veterans' Services. Located in Marysville, the department is a bi-county agency for which Yuba County acts as a lead agency. The Veterans' Services Office helps veterans, their surviving spouses, and dependents obtain benefits by providing information and assisting them in filing claims with the U.S. Department of Veterans Affairs (VA) and the California Department of Veterans Affairs (CDVA).

Many social services are also provided by private entities. These include a senior care facility called Live Oak Manor. This facility is a privately operated for-profit facility that provides 24-hour care, medical treatment, housekeeping, dietary services, nursing services, social work services, housing, and activities for as many as 99 seniors. [15]

In addition to this facility, the California Department of Department of Social Services (CDSS) Community Care Licensing Division keeps records of licensed adult care facilities in the state. Adult residential facilities provide 24-hour non-medical care for 18- to 59-year old physically, developmentally, and/or mentally disabled adults who are unable to provide for their own needs. Two facilities are located in Live oak – one with a capacity for six people and one with capacity for four people. [16]

The CDSS Community Care Licensing Division also maintains records of licensed child care facilities. Family child care centers are those that operate out of a private home, and may serve up to eight children (in Small Family Child Care Homes) and 14 children (in Large Family Child Care Homes). There

[15] Hospital-data.com, Live Oak Manor, Inc. – Live Oak, CA, Detailed Hospital Profile, http://www.hospital-data.com/hospitals/LIVE-OAK-MANOR,_INC.-LIVE-OAK.html, accessed December 22, 2008.

[16] California Department of Social Services Community Care Licensing Division, Facility Search Data, http://www.ccld.ca.gov/docs/ccld_search/ccld_search.aspx, accessed December 22, 2008.

are seven licensed Large Family Child Care Homes in Live Oak. Data for Small Family Child Care Homes was not provided. Child Care Centers are those facilities that are located in commercial facilities and may be able to accommodate many more children, depending on staffing levels. In all, the Community Care Licensing Division has records of five Child Care Centers in Live Oak, including one School Aged Child Care Center with a capacity of 28, one Infant Center with a capacity of 12, and three Child Care Centers, with capacities ranging from 18 to 110. [17]

Other necessary social services provided in Live Oak include a medical clinic, two dental offices, and a pharmacy. [18] There are no hospitals located within the city, but nearby hospital facilities include the Fremont Medical Center in Yuba City, Rideout Medical Center in Marysville, and Biggs Gridley Memorial Hospital in Gridley. [19]

SOCIAL SERVICES GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-12. Improve the level and quality of social services to address local needs.

Policy PUBLIC-12.1 The City will coordinate with the County and with nonprofit service agencies to improve child care, day care, senior care, homeless services, and other local needs during General Plan buildout.

Policy PUBLIC-12.2 The City will coordinate with service providers to ensure that enough sites for social services are available to ensure that such facilities are accessible to all residents, both within the existing developed city and in new growth areas.

Policy PUBLIC-12.3 The City will encourage the development of facilities required to provide basic social services and to maintain a high standard of living for all Live Oak residents. Such facilities include, but are not limited to, hospitals and other medical facilities, senior centers, child care facilities, gymnasiums, housing and homeless facilities, legal aid offices, and other social services sites (see also the Housing Element for information on transitional housing and other housing related services).

Policy PUBLIC-12.4 The City will encourage funding efficiencies in developing social service facilities through co-location of social service providers in existing and new facilities.

[17] California Department of Social Services Community Care Licensing Division, Facility Search Data, http://www.ccld.ca.gov/docs/ccld_search/ccld_search.aspx, accessed December 22, 2008.
[18] Live Oak Chamber of Commerce, Services, http://www.liveoakchamber.org/liveoak/services.html, accessed December 22, 2008.
[19] Fremont-Rideout Health Group website, http://www.frhg.org/hospital.aspx?id=24, accessed December 22, 2008.

GENERAL GOVERNMENT SERVICES

CONTEXT

The City of Live Oak is managed by an elected five-member City Council and appointed City Manager, who is responsible for managing City operations and carrying out City Council policies. The City operates five departments, including Finance, Public Works, Community Development, Parks and Recreation, and Building. In addition, the City operates committees and commissions that aid in City operations that fall outside of the responsibility of the City departments. These include: the Streets, Lights, and Traffic Committee; Parks and Recreation Committee; Community Relations Committee; and the Planning Commission. As mentioned previously, the City contracts with Sutter County for law enforcement and fire protection services. The City also maintains contracts with private firms for building plan checks and engineering services. [20]

All of the City's general government services are located at City Hall, 9955 Live Oak Boulevard.

GENERAL GOVERNMENT SERVICES GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-13. Conveniently located general government facilities.

Policy PUBLIC 13.1 New general government facilities shall be located either downtown, or within Neighborhood Centers or Civic Centers to place these uses within walking or bicycling distance from homes and in areas where transit facilities will be focused.

Implementation Program PUBLIC-13.1

The City will coordinate with the Redevelopment Agency to identify appropriate sites for the future relocation of City Hall. Other locations appropriate for other necessary general government facilities will also be identified. In addition, the City and the redevelopment agency will work together to identify possible funding mechanisms with which the new City Hall and other government facilities could be developed.

[20] Sutter County Local Agency Formation Commission, City of Live Oak Municipal Service Review and Sphere of Influence Update, December 2006, page 10.0-1.

SOLID WASTE

CONTEXT

The Live Oak Planning Area is served by Yuba-Sutter Disposal, Incorporated (YSDI) for solid waste disposal, recycling, and green waste disposal service.

YSDI has two weekly solid waste collection routes in the City of Live Oak, each of which takes approximately nine hours to complete. YSDI has two routes for green waste collection in Live Oak. These green waste routes take a combined total of approximately 15 hours to complete. [21]

All of Live Oak's solid waste is disposed of at the Ostrom Road Landfill near Wheatland. The Ostrom Road Landfill contains 225 acres of permitted landfill land and can accept up to 3,000 tons of municipal solid waste per day. The landfill has a total capacity of nearly 42 million cubic yards and an expected closure date of 2066. [22]

As of December 2008, YSDI had 1,947 residential customers and 95 commercial customers in Live Oak. From October 1, 2007 to September 30, 2008, YSDI collected approximately 3,590 tons of solid waste from the city of Live Oak, which does not include recycling or green waste. YSDI has no plans for new facilities to serve Live Oak at this time. [23]

SOLID WASTE GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-14. **Provide high-quality solid waste collection services and make use of environmental best practices to reduce the city's waste stream.**

Policy PUBLIC-14.1 The cost of recycling and yard waste collection shall be substantially less than the same volume of garbage, as appropriate, to encourage recycling and composting of yard waste.

Policy PUBLIC-14.2 The City will encourage the use of compost in community gardens and other appropriate locations. The City will coordinate with the local solid waste collection provider to implement community or Citywide composting facilities for yard waste collected locally.

Policy PUBLIC-14.3 The City will comply with state law on solid waste collection and will implement regulations of the California Integrated Waste Management Board.

Policy PUBLIC-14.4 The City will pursue funding and grants to help fund solid waste reduction programs.

[21] Terry Bentley, Yuba-Sutter Disposal, Inc., Written Correspondence, March 9, 2009.
[22] California Integrated Waste Management Board, Jurisdiction Landfill Overview: California Waste Stream Profiles, www.ciwmb.ca.gov, accessed February 17, 2009.
[23] Terry Bentley, Yuba-Sutter Disposal, Inc., Written Correspondence, March 9, 2009.

Policy PUBLIC-14.5 Construction and demolition waste from development projects should be recycled or reused to aid in reducing the City's overall waste stream.

Policy PUBLIC-14.6 The City will implement recycling education programs for city residents to promote source reduction, recycling, and composting to decrease the City's waste stream.

Implementation Program-14.1

City government offices shall implement a program to promote the use of recycled materials and "green office" practices in all City facilities, wherever economically feasible. The City will encourage the same types of practices in private businesses through education programs.

PRIVATE UTILITIES

CONTEXT

Many necessary services in Live Oak are provided by private utility providers. For example, electricity and natural gas services are provided by the Pacific Gas and Electric Company (PG&E), and telecommunications services are provided primarily by AT&T and Comcast for telephone, internet, and cable television. Other utilities may also provide internet, cable and/or satellite television, and cellular phone services. These companies are summarized below.

ELECTRICITY & NATURAL GAS

In Live Oak and the entire Planning Area, both electricity and natural gas services, are provided by PG&E. Major electricity facilities within Live Oak include the Live Oak substation, as well as several main transmission lines, most of which run alongside major roads within the Planning Area above ground. In addition to these major aboveground lines, there are smaller three-phased and one-phased aboveground and below-ground lines that branch off of the major lines and into neighborhoods. [24] See the Background Report prepared for the Live Oak General Plan Update for a more detailed description of the locations of these facilities.

In addition to electricity facilities, PG&E also owns and operates natural gas facilities within the Planning Area, including high pressure gas lines and transmission beneath several major roads. Some of these facilities are also located beneath several side streets located throughout the City. [25] See the Background Report prepared for the Live Oak General Plan Update for a more detailed description of the locations of these facilities.

[24] City of Live Oak, Live Oak General Plan Update Background Report, page PSF-20.
[25] City of Live Oak, Live Oak General Plan Update Background Report, page PSF-20.

OTHER UTILITIES

AT&T provides local and long distance telephone, internet, satellite television, and cellular phone services to Live Oak and the surrounding areas. Infrastructure necessary to provide these services including fiber optic lines, above- and below-ground services lines, and internet remote terminals are located strategically throughout Sutter County. Some services, such as DSL internet, are only available within a certain distance from this infrastructure. AT&T is in the process of modernizing many of its older facilities. [26] Other cellular phone service providers in the area include T-Mobile, Verizon, Metro PCS, Virgin Mobile, and Net 10. Cellular phone towers and underground facilities are located strategically throughout the County. [27] Cable television is provided by Comcast, which has operates both above- and below-ground facilities throughout Sutter County and leases some capacity from AT&T's fiber optic lines. Comcast repairs and improves facilities as needed.[28] In addition to these providers, Electric Lightwave, Inc. (ELI) also provides some communication services in Sutter County, including data communications, point-to-point internet feed, T1 internet access, and long distance voice communications. Infrastructure includes underground and overhead fiber optic cable and copper cable, and improvements are made as needed. [29]

PRIVATE UTILITIES GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Goal PUBLIC-15. **Coordinate with adequate and efficient private utilities to meet the needs of Live Oak residents for natural gas, electricity, telecommunications, and other utility services.**

Policy PUBLIC-15.1 New development shall accommodate public and private utilities (natural gas, electricity, telecommunications, and other utility services) in rights-of-way and easements, according to City standards.

Policy PUBLIC-15.2 The City will work with local gas, communications, and electricity providers to maintain and improve current levels of service and to meet future demands and promote the City's economic development policies.

Policy PUBLIC-15.3 The City will provide all utility providers the opportunity to participate in the planning process for new development in Live Oak.

Policy PUBLIC-15.4 The City will encourage active coordination between developers and utility providers in order to ensure that the best possible services are provided to existing and future city residents. Such coordination will also ensure public safety related to existing underground utilities.

[26] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, page 3.1-91.
[27] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, page 3.1-92.
[28] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, page 3.1-91.
[29] Sutter County, Sutter County General Plan Update Technical Background Report, February 2008, page 3.1-92.

Policy PUBLIC-15.5 In new growth areas, new utility infrastructure shall be placed underground wherever possible. Where infrastructure cannot be placed underground, it shall be designed and built to blend as much as possible with the characteristics of the natural and/or created surrounding environment.

Policy PUBLIC-15.6 The City will coordinate with utility providers to relocate existing utility infrastructure underground during street construction or repair work, infill development, or other infrastructure work.

Policy PUBLIC-15.7 New utility infrastructure required to serve new development will be funded entirely by those that benefit from new development. Existing residents shall not pay for the extension and development of utility infrastructure necessary to provide services to new development.

Policy PUBLIC-15.8 The City will encourage and accommodate community renewable energy collection and use, and other renewable energy and energy conservation programs in all new and existing development.

Implementation Program PUBLIC-15.1

The City will coordinate with private utility providers and Sutter County regarding the expansion of electricity, natural gas, and telecommunication facilities needed to serve new growth in Live Oak. The City will coordinate with utility companies in identifying efficiencies in serving new development and in identifying needs for upgrades for existing utility customers.

PUBLIC SAFETY ELEMENT

INTRODUCTION

The Public Safety Element contains goals, policies, and implementation measures related to public safety in the city of Live Oak. The Public Safety Element directs the City to evaluate potential hazards, develop policies and procedures to avoid hazards, and create adequate emergency responses. The State General Plan Guidelines require the Public Safety Element to contain analysis of the following issues:

- ✓ seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure;
- ✓ subsidence, liquefaction, and other seismic hazards identified on seismic hazard maps;
- ✓ slope instability leading to mudslides and landslides;
- ✓ other known geologic hazards;
- ✓ flooding; and,
- ✓ wildland and urban fires.

In addition to the required topics, the Public Safety Element will also address the handling and transport of hazardous materials, the control of West Nile virus, crime prevention, and existing evacuation routes. This Element contains maps of evacuation routes and known seismic or geologic hazards as required by Government Code Section 65302 (g). Information related to urban fire hazards, including a discussion of peakload water supply requirements, can be found in the Public Utilities Element. Descriptions of fire hazard information related to minimum road widths and turnouts requirements are addressed in the Circulation Element.

Live Oak was a participant in the development of the Sutter County Multi-Hazard Mitigation Plan and adopted this plan in 2007. This plan is hereby incorporated by reference. The Sutter County Local Hazard Mitigation Plan was updated in August 2013.

KEY ISSUES

The City has identified a variety of potential natural and human-caused safety issues. The discussion focuses on hazardous waste materials and geologic, flood, and fire hazards within the City Planning Area that have the potential to affect residents of, and property in Live Oak. Some of the more prevalent issues facing the City include the following:

- ✓ Areas are susceptible to localized flooding from the Live Oak Slough.
- ~~✓ The Feather River levee system poses a flood hazard within the vicinity of Live Oak.~~

- ✓ An identified seepage/boil area on a County-operated levee poses a flood hazard south of the Live Oak Planning Area.
- ✓ The Lake Oroville and Lake Shasta dams pose flood hazards.
- ✓ Older buildings in the city have inadequate fire detection and abatement systems.
- ✓ Potential water flow pressure issues may inhibit fire incidence response in older sections of the City.
- ✓ Hazardous waste sites are located within the City planning boundaries.

BACKGROUND AND CONTEXT

SEISMIC HAZARDS

Seismic hazards are geological hazards caused by earthquake activity. The State of California has identified five major areas of critical seismic concern including:

1. surface ruptures;
2. ground shaking;
3. ground failure;
4. tsunamis; and,
5. seiches.

Earthquakes are the primary cause of all seismic hazards. Earthquakes occur on fault lines in the earth's crust and vary in intensity, location, magnitude, and duration. An earthquake is the result of a sudden rupture of built-up energy in the earth's crust. This rupture or breakage releases energy, moving outward from the epicenter, in the form of seismic waves. The seismic energy of an earthquake is greatest at the epicenter of earthquake. The ability of the seismic energy to travel depends on the underlying geology of an area. Solid or dense materials, such as granite bedrock, do not conduct seismic waves as well as loose geologic material, such as alluvium.

Live Oak's geologic context and geographic location increase the risk of certain seismic hazards and reduce the risk of others. Earthquakes can result in direct hazards or in indirect hazards. Direct hazards include surface ruptures, fault displacement, and ground shaking. The nearest active fault to the Live Oak Planning Area is the Cleveland Hills Fault, located at Lake Oroville more than 15 miles away. The lack of active faults in the Planning Area means that the community faces little to no threat of surface rupture and fault displacement. On the other hand, the alluvium soils found within the Sacramento Valley and Planning Area are capable of effectively conducting seismic waves. Ground shaking can occur at some distance from the epicenter of an earthquake and has historically been the dominant form of seismic activity affecting the Planning Area.

Geologists use the Modified Mercalli Scale to measure the intensity of ground motion during a seismic event. The Live Oak vicinity has not experienced ground shaking at a Modified Mercalli Scale level of VII

or above, the level at which damage to unreinforced masonry buildings would be expected, during the period of 1800 through 1996.[1]

Indirect seismic hazards include ground failure, tsunamis, seiches, and dam failure. Ground failure occurs when the stresses in the ground exceed the resistance of earth materials to deformation or rupture. Instability comes about when stresses are increased by natural or human-made causes, such as by earthquakes, fills, and ground water withdrawal. Various types of ground failure can occur including liquefaction, lateral spreading, landslides, differential settlement, subsidence, and erosion. The liquefaction potential of soils in the Live Oak area is generally moderate, though areas of higher potential exist in areas parallel to the Feather River. Landslide risks are low because of the low level of topographical relief in the area. Other hazards related to ground failure, such as differential settlement, subsidence, and erosion, can be addressed through appropriate soil investigation before construction, as specified in the City's goals and policies.

Live Oak is not at risk for tsunamis or seiches based on its inland location and the absence of nearby large bodies of water. Risks associated with dam failure are addressed in the flood hazards section below.

FLOOD HAZARDS

The Live Oak Planning Area is vulnerable to four types of floods:

- ✓ localized flooding;
- ✓ riverine flooding;
- ✓ levee failure/overtopping; and,
- ✓ dam failure.

High-intensity rainfall is the primary cause of localized flooding. Flooding from weather events frequently occurs in developed or urbanized areas with large amounts of impervious surfaces or in areas that have inadequate storm drainage systems. Riverine flooding occurs during or after prolonged periods of rainfall, or if rain events and snowmelt are combined. The Feather River, which forms the eastern border of the General Plan Study Area, consists of a large watershed that stretches to the Sierra Crest. The city's location in the lower portions of the watershed exposes the community to substantial risk from riverine flooding. Additionally riverine flooding can overwhelm the integrity of the local or regional levee system. Levee failure can result if water overtops a levee, if high river levels saturate the levee banks, or if the levee itself is structurally defective. Levee failure can occur very rapidly with little warning. Once a levee is breached, floodwaters can inundate large low-lying areas. Levee overtopping or failure could cause catastrophic flooding in the Planning Area.

Dam failure occurs when a dam is not structurally sound or is unable to withstand damages resulting from seismic activity. The degree and speed of dam failure depends on the dam's structural characteristics. The Planning Area is susceptible to a variety of dam failure hazards. Sutter County has identified that a catastrophic failure of the Shasta, Oroville, Bullards Bar, and Camp Far West dams

[1] California Division of Mines and Geology. 1996. *Probabilistic Seismic Hazard Assessment for the State of California*. California Department of Conservation, Sacramento, CA. In cooperation with the U.S. Geological Survey, Washington, D.C.

would have a significant impact on Sutter County. Failures of the Oroville and Shasta dams would be expected to have the most severe consequences on Live Oak.

FLOODPLAIN

The Live Oak General Plan encompasses a relatively flat area. The drainage pattern of the city is split into two drainage sheds. The majority of the land west of the Southern Pacific Railroad drains south to Reclamation District (RD) No. 777 drainage canal Lateral No. 1. The land east of the railroad drains south and is collected in Live Oak Slough, which is the main canal for RD 777. Live Oak is susceptible to localized flooding by Live Oak Slough, which runs along the east side of the City. ~~The 100-year flood zone (Federal Emergency Management Agency [FEMA] Flood Insurance Rate Map Panel 060395 0001 C) occurs on the east side of State Route (SR) 99 from just south of Juniper Street to Date Street and to L Street to the east (Figure SAFETY-1).~~ The potential for major flooding in Sutter County, including the Live Oak Planning Area, is primarily a function of the integrity of the reservoir, levee, and bypass systems that provide flood protection (Figure SAFETY-1).

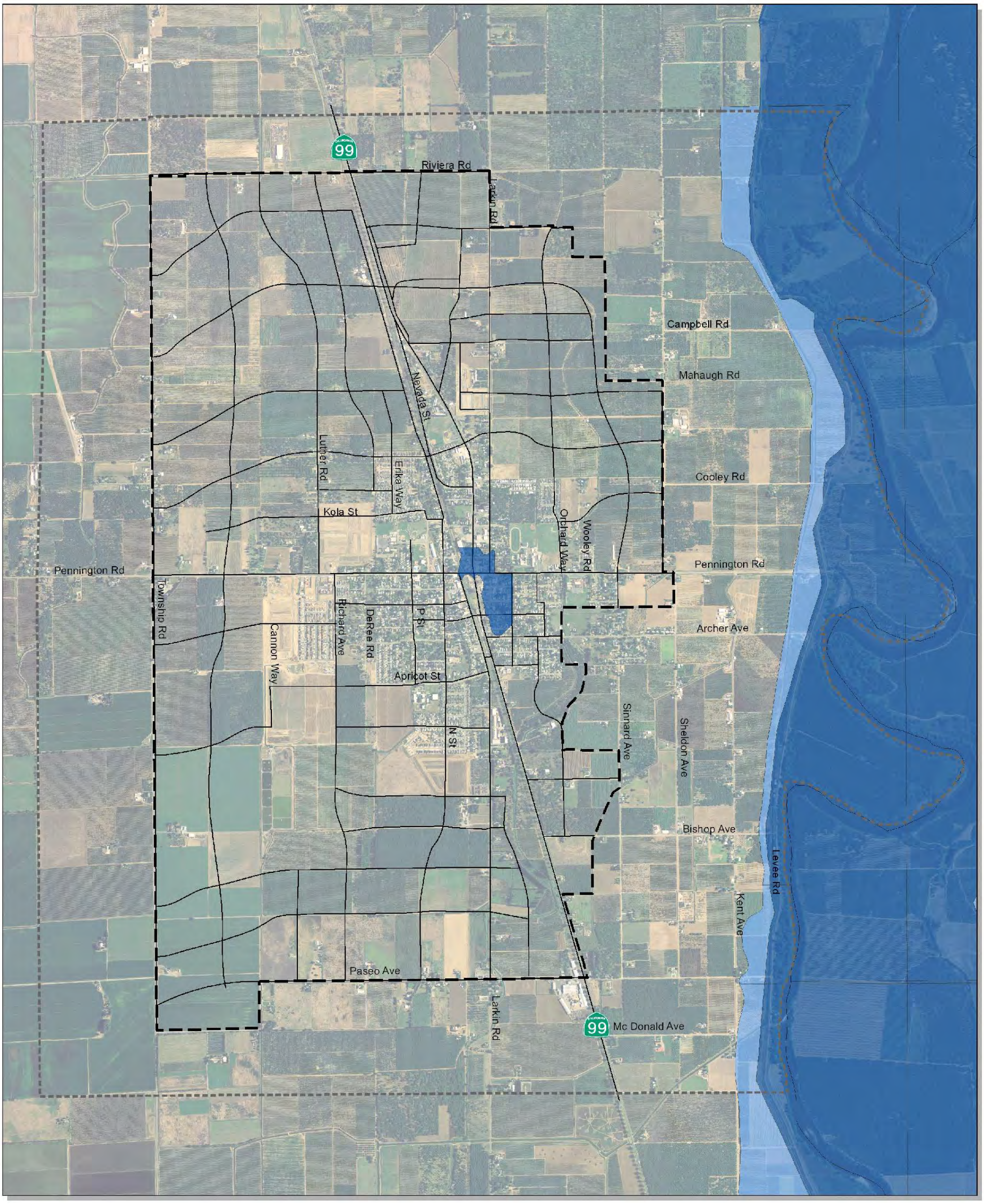
FLOODPLAIN ISSUES

The primary method of flood control in Sutter County is a system of levees along the Sacramento and Feather Rivers. There are approximately 280 miles of levees within the County. Both urban and agricultural areas are protected by these levees. However, ~~R~~recent ~~and ongoing~~ studies ~~have~~ found that some of these levees ~~do~~ did not meet, or ~~have not been~~ were not certified as meeting, the current levee design criteria for protection against the 2~~1~~00-year flood. As a result, much of the county was ~~is~~ considered vulnerable to flooding from levee failure.

~~It is anticipated that t~~The Sutter County Pilot Feasibility Study (SCPFS), ~~being~~ conducted by the Army Corps of Engineers, ~~will~~ produced a plan to provide 2~~1~~00-year flood protection to the major urban areas within the county, ~~. Although it will be several years before this study is complete, the planning objective is to achieve 200-year flood protection to the major urban areas within the county,~~ pursuant to Senate Bill (SB) 5 requirements, and to obtain FEMA levee certification. ~~By 2015, F~~for areas with an existing or projected (within next 10 years) ~~a~~ population of 10,000 or greater ~~or expected population of 10,000 within the next 10 years~~, local governments cannot approve new developments unless the land under review has 200-year flood protection, or efforts are in place to provide that level of protection by 2025. The Feather River West Levee Project (FRWLP), began construction of the most critical sections of the existing levees, and is expected to be completed in 2017. Post-FRWLP mapping based on completion of these improvements shows that the City's Planning Area is outside the 200-year floodplain. A complete discussion is provided in Appendix C, "Background Information, SB 5 General Plan Amendment for 200-Year Flood Protection." ~~For areas with a population of less than 10,000, new development cannot be approved unless the area has 100-year flood protection.~~

WILDLAND AND URBAN FIRE HAZARDS

According to the California Department of Forestry and Fire Protection, the City of Live Oak is located within an area of low wildland fire risk. Although isolated grass fires do occur within the Planning Area, the potential for large wildfires is constrained by the City's relatively flat topography and the lack of



LEGEND

Boundaries

- Study Area
- Planning Area
- Roads
- 100-yr Floodplain (A)
- 500-yr Floodplain (X500)

0 2,250
FEET

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X 08110072.01 027 8/09

Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by EDAW 2008, Butte County 2000, Yuba County 2007

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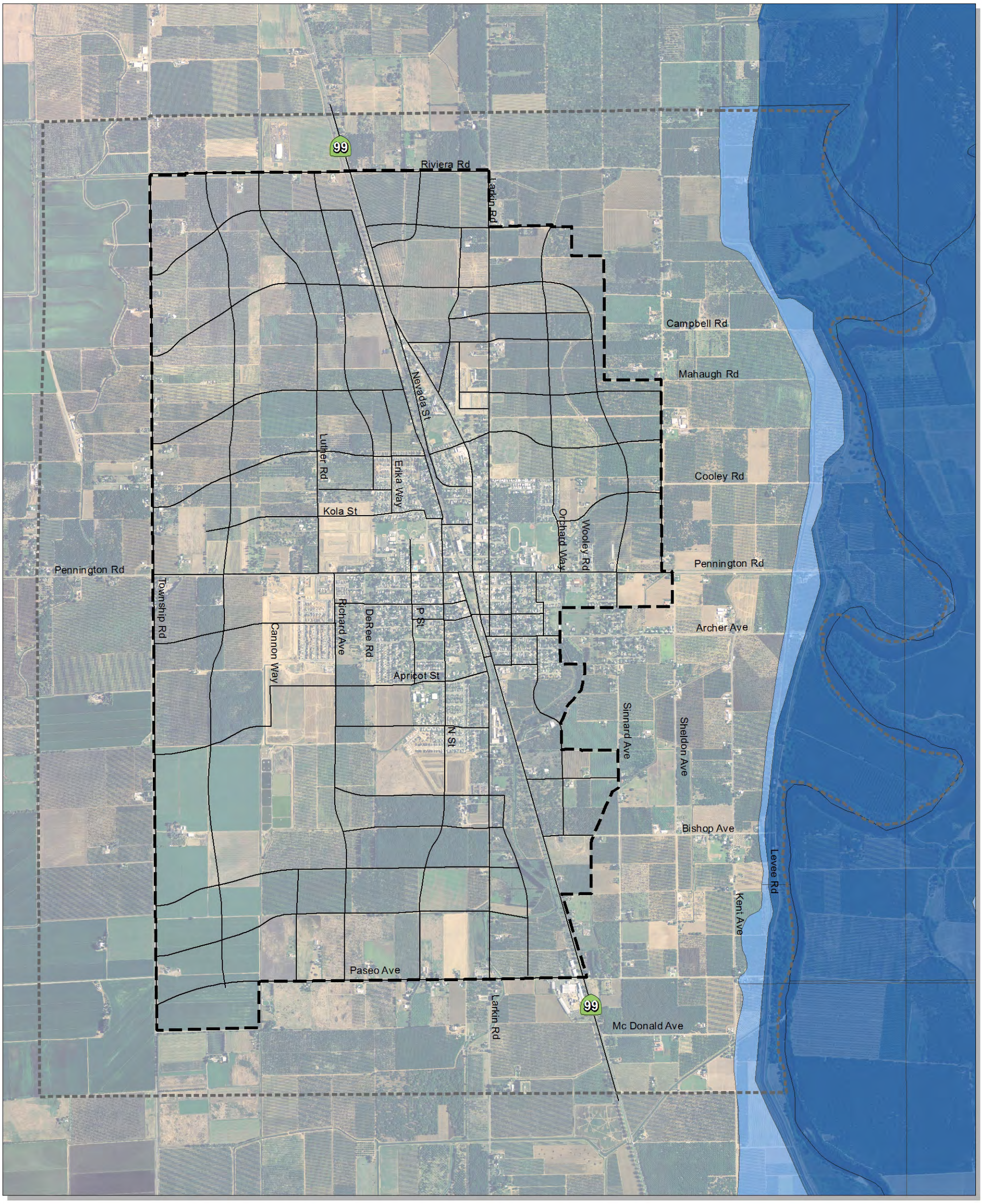
~~Figure SAFETY-1~~

~~Floodplain Map~~



LEGEND

Boundaries

- Study Area
- Planning Area
- Roads
- 100-yr Floodplain (A)
- 500-yr Floodplain (X500)

0 2,250

FEET

N

X 08110072.01 027 6/16

Source: Sutter County Assessor's Office, Live Oak GIS, Adapted by AECOM 2016, Butte County 2000, Yuba County 2007

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Figure SAFETY-1
Floodplain Map

complex fuels. Therefore, wildfire and clearances around proposed structures for wildfire-prone areas is not relevant, and no addressed in this General Plan. Like other communities in the state, Live Oak manages urban fire risks by enforcing its development code and municipal ordinance and by contracting fire suppression services from the Sutter County Fire Department. The City does however contain some older buildings that present heightened levels of fire risk. These older buildings often have inadequate fire detection and abatement systems. Additionally, the water systems in the older section of the city may not provide recommended levels of water flow for fire incidents.

HAZARDOUS MATERIALS

Hazardous materials are substances that are dangerous to the public's health and safety if they are improperly used, stored, transported, or disposed. Hazardous materials include substances known to be toxic, flammable, explosive, corrosive, infectious, carcinogenic, or radioactive. The most significant concern regarding hazardous materials releases in Live Oak Planning Area is the presence of SR 99 and the Union Pacific Railroad in the city. Accidents or spills could release hazardous substances such as gasoline, diesel, or transported hazardous materials/hazardous wastes. Additionally, data from the Central Valley Regional Water Quality Control Board indicates that 10 sites are recorded as containing leaking underground storage tanks in the City. These sites involve gas, diesel, and waste oil contamination of soils and water aquifers.

The U.S. Environmental Protection Agency's (EPA's) environmental mapping database indicates that three hazardous waste sites are in Live Oak. Hazardous waste sites include facilities regulated by EPA that handle materials that can pose a substantial or potential hazard to human health or the environment when improperly managed. There are no known hazardous waste disposal sites located within Live Oak. Yuba-Sutter Disposal Inc. provides hazardous waste disposal programs for the city residents and businesses. [2]

An additional public health concern related to hazardous materials is the potential of agricultural pesticides to drift onto adjacent residential, civic, and commercial uses during application. This drift can occur during aerial spraying and applications of orchard fogging pesticides. Buffers, as described in the Conservation and Open Space Element, are intended to minimize potential conflicts (e.g., pesticide drift) between urban and agricultural uses.

CRIME PREVENTION

A critical component of public safety is the protection of residents and businesses from crime. Sadly, the City of Live Oak has experienced a substantial increase in the number of crimes over the last 5 years. In particular, the incidence of assault, burglary larceny, and vehicle theft has increased. Additionally, gang related activity has become more common in the community.

The City and the Sheriff's Office have recently engaged in a community policing strategy where officers use community interaction and support to help control crime. Community members help police by reporting crimes, identifying suspects, and keeping their eyes on activities in their neighborhoods. This

[2] Please refer to the Safety Background Report and the Hazards and Hazardous Materials Section of the 2030 City of Live Oak General Plan EIR (under separate cover) for additional discussion of hazardous materials within the community.

change is thought to have led to the public's willingness to engage the help of law enforcement officers in conflicts and situations for which people would previously not have called law enforcement. Additional outreach programs and crime prevention techniques and strategies will be used in the community to ensure safety within the community.

WEST NILE VIRUS

A number of mosquito-borne diseases have occurred historically in Sutter County including malaria, western equine encephalomyelitis, St. Louis encephalitis, and West Nile virus. In recent years, West Nile virus has posed the most serious public health concern for the Planning Area. The disease can be potentially deadly to humans and livestock. Twenty-one cases of West Nile virus have occurred in Sutter County since its discovery in California in 2003 (Sutter County 2007). The regions' agricultural lands and numerous areas with standing water provide habitat for the mosquito species that carries the disease. The City and the Sutter-Yuba Mosquito and Vector Control District (SYMVCD) have attempted to control West Nile virus by reducing the mosquito population and educating residents on how to protect themselves. The SYMVCD uses physical, biological, and chemical methods to control mosquito populations. The SYMVCD also conducts a West Nile virus surveillance program and maintains records of all identified cases of the disease.

EVACUATION ROUTES

The potential for emergencies related to geologic hazards, flood, fire, and hazardous materials requires the City to have a planned evacuation route system (see Figure SAFETY-2 "Evacuation Route"). Evacuation routes will vary depending on the characteristics of the specific hazard event. The specific location and type of event will determine which evacuation plan will be implemented by the County. The County's multi-hazard plan designates planned evacuation routes. In general, SR 99 will be used as the primary evacuation route for hazard events affecting the Live Oak Planning Area.

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

Following are Live Oak's goals and policies to address existing and future public safety issues.

Goal PS-1. **Design buildings to prevent property damage and injury from hazards.**

Policy PS-1.1 All new buildings in the City shall be built under the seismic requirements of the California Building Code.

Policy PS-1.2 The City will encourage the retrofitting of older buildings to current safety standards, as specified in locally applicable fire and building codes.

Policy PS-1.3 New development shall ensure adequate water flow for fire suppression as required by City Public Works Improvement Standards.

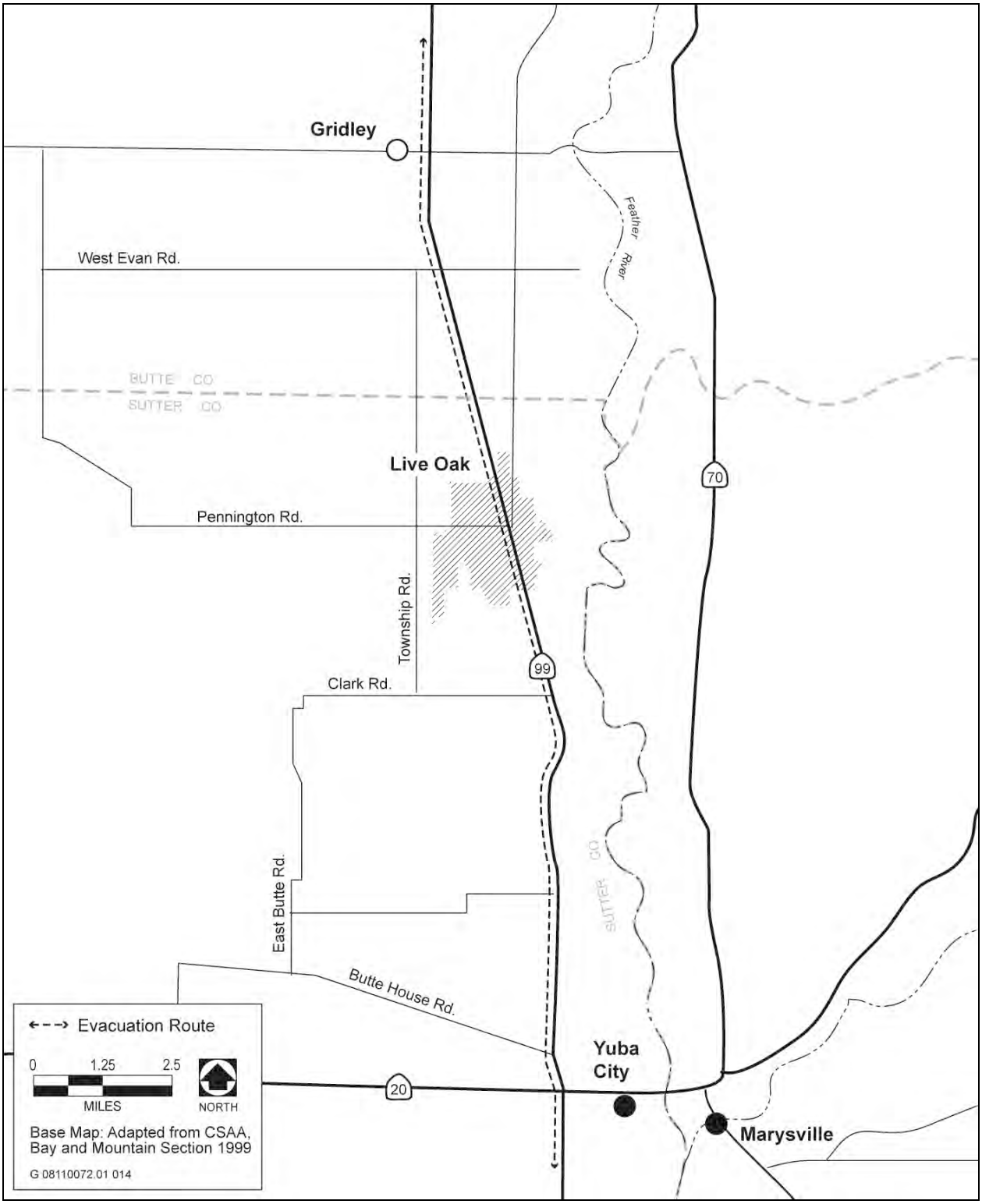

Figure SAFETY-2
Evacuation Route

Goal PS-2. **Minimize the loss of life and damage to property caused by flood events.**

Policy PS-2.1 The City will coordinate with the Sutter Butte Flood Control Agency to ensure that flood control facilities protecting Live Oak's Planning Area from flood risks to the City are well maintained and capable of protecting existing and proposed structures from flooding, in accordance with state law.

Policy PS-2.2 The City will regulate development within floodplains according to state and federal requirements to minimize human and environmental risks and maintain the City's eligibility under the National Flood Insurance Program.

Policy PS-2.3 The City will require evaluation of potential flood hazards before approving development projects.

Policy PS-2.4 The City will require applicants for development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures from the City's master drainage plan to prevent on- or off-site flooding.

Policy PS-2.5 New development shall be required to be consistent with regional flood control improvement efforts. New development shall contribute on a fair-share basis to regional solutions to improve flood protection to meet state and federal standards.

Policy PS-2.6 The City will use the most current flood hazard and floodplain information from state and federal agencies (such as the State Department of Water Resources, the Federal Emergency Management Agency, and the Army Corps of Engineers) as a basis for project review and to guide development in accordance with federal and state regulations.

Policy PS-2.7 As feasible, new development should incorporate stormwater treatment practices that allow percolation to the underlying aquifer and minimize off-site surface runoff (and therefore flooding).

Policy PS-2.8 If any project, including the modification of an existing project, falls within the jurisdiction regulated by the Central Valley Flood Protection Board (CVFPB) (e.g., levees, regulated streams, and designated floodways), the City must apply for an encroachment permit from the CVFPB.

Goal PS-3. **Provide for adequate emergency response.**

Policy PS-3.1 The City shall maintain and update the City's emergency response plan, as needed, and ensure ongoing consistency with the General Plan.

Policy PS-3.2 The City will add a section to the emergency response plan on railroad safety to address potential releases related to accidents or spills of hazardous substances, such as gasoline, diesel, or transported hazardous materials/hazardous wastes.

Policy PS-3.3 The City will maintain mutual aid agreements with other agencies in Sutter County.

Policy PS-3.4 The City will coordinate with the County Office of Emergency Services to identify and establish evacuation routes and operational plans to be used in case of dam failure, flood disaster, and fire. The City will provide relevant outreach to residents and businesses regarding evacuation routes for each hazard type.

Policy PS-3.5 The City will require development and maintenance of a road system that provides adequate access for emergency equipment.

Policy PS-3.6 As feasible, locate new essential facilities outside of flood hazard zones, including hospitals and healthcare facilities, emergency shelters, fire stations, emergency response centers and emergency communication facilities.

Policy PS-3.7 Essential facilities that must be located within flood hazard zones should incorporate feasible site design or building construction features that will minimize flood damage and increase functionality during flooding events.

Goal PS-4. Protect the community from the harmful effects of hazardous materials.

Policy PS-4.1 The City, through its discretionary review authority, will assess potential risks associated with hazardous materials used, stored, transported, and disposed, and ensure they are handled in a safe manner and in compliance with local, state, and federal safety standards.

Policy PS-4.2 The City will require that dumpsites for hazardous materials are cleaned in conformance with applicable federal and state laws before new uses are established.

Policy PS-4.3 The City will coordinate with appropriate federal, state, and regional agencies to address local sources of groundwater and soil contamination, including underground storage tanks, septic tanks, agriculture, and industrial uses.

Policy PS-4.4 New development adjacent to areas of ongoing agricultural development outside the City's Sphere of Influence shall provide agricultural buffers that are adequate to protect future residents from harmful effects of agricultural chemical use (see Conservation and Open Space Element).

Policy PS-4.5 The City will support efforts to identify and remediate soils and groundwater contaminated with toxic materials, and to identify and eliminate sources contributing to such contamination.

Goal PS-5. Improve community safety and reduce opportunities for criminal activity.

Policy PS-5.1 New development shall be designed to maximize surveillance through physical design features, including, but not limited to, fronting buildings onto all parks

and other public spaces, visible entryways from surrounding structures and businesses; well-defined and visible walkways and gates; well-lighted driveways, walkways, and exteriors; and landscaping that preserves or enhances visibility.

Policy PS-5.2 The City will ensure that public areas and amenities such as transit stops, sidewalks, plazas, parks, trails, and pedestrian/bicycle paths are appropriately lighted, free of hiding places, and frequently patrolled.

Policy PS-5.3 The City will attempt to reduce criminal activity through educational efforts that focus on crime prevention by conducting community education programs.

Policy PS-5.4 The City will involve neighborhoods in crime prevention, disaster preparedness, citizen volunteer police services and shelter management through the establishment of neighborhood watch programs.

Implementation Program PS-1

The City will continue its participation with the regional flood protection joint powers authority addressing the assessment and improvement of levees on the west side of the Feather River to meet federal and state standards. The City will implement development impact fees to provide for necessary levee studies and improvement programs in coordination with the regional flood control joint powers authority. The City will proactively identify and take advantage of federal, state, and regional funding that may be available for use in flood protection improvements.

Implementation Program PS-3

Consistent with state law, the City will consult with the Central Valley Flood Protection Board and local flood protection agencies serving the Planning Area, to obtain updated floodway and floodplain maps, data, and policies. When this information is available, if necessary, the City will update the General Plan and revise all applicable development standards, including the zoning code. Subdivision approvals, development agreements, permits, and other City entitlements will incorporate these revised City policies and regulations.

Implementation Program PS-4

If necessary, the City will update the General Plan to incorporate 200-year floodplain mapping from the California Department of Water Resources and Central Valley Flood Protection Board, once available.

Implementation Program PS-5

In review of new development projects, require disclosure of risk where proposed development would occur in flood risk areas. This disclosure may include notifying new residents in these areas and encouraging purchase of appropriate insurance.

Implementation Program PS-6

The City will ensure proper training to emergency services staff, periodic equipment testing, and assessment of disaster preparedness. The City will provide opportunities for emergency preparedness training to interested members of the public and City personnel. The City will provide public access to emergency plans in areas such as City Hall, libraries, and schools.

Implementation Program PS-7

The City will adopt and implement a fire sprinkler ordinance to provide protection and to promote fire safety in older at-risk buildings.

Implementation Program PS-8

The City will establish a public education campaign that encourages owners of older buildings to retrofit these structures to current safety standards, as specified in the California Building Standards Commission uniform codes, such as the California Fire Code and California Building Code.

ENVIRONMENTAL CHECKLIST
FOR ADDENDUM TO THE CITY OF LIVE OAK GENERAL PLAN EIR

Prepared in conjunction with the SB 5 General Plan Amendment

The City of Live Oak is amending its 2030 General Plan to comply with the Central Valley Flood Protection Act of 2008 (Senate Bill 5, 2007), which requires cities and counties within the Sacramento-San Joaquin Valley to incorporate Urban Level of Flood Protection (ULOP) requirements in their general plans. The ULOP is defined as the "level of protection that is necessary to withstand flooding that has a 1-in-200 chance of occurring in any given year using criteria consistent with, or developed by, the Department of Water Resources."

The Live Oak 2030 General Plan adopted in 2010 preceded the requirements of Senate Bill (SB) 5 and related flood protection bills. The SB 5 General Plan Amendment (GPA) incorporates additional flood protection and management information and 200-year flood protection goals, policies, and implementation programs in Live Oak's 2030 General Plan. This addendum provides an environmental analysis of the SB 5 GPA to the 2030 General Plan project compared to the adopted 2030 General Plan EIR (SCH# 2008092050). California Environmental Quality Act (CEQA) Guidelines Section 15164 allows an addendum to a previously certified or adopted environmental document to be prepared when only minor technical changes or changes that would not result in new significant impacts are proposed in a project. The changes to the 2030 General Plan include the addition of specific information, goals, policies, and programs that reflect current statewide flood protection strategies.

The purpose of this checklist is to evaluate the environmental impact categories in terms of any "changed condition" (i.e., changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result. A "no" answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed with mitigation measures in the 2030 General Plan EIR. This document cites the 2030 General Plan EIR and reference documents used in preparation of the 2030 General Plan EIR. The environmental categories might be answered with a "no" in the checklist because the SB 5 GPA does not introduce changes that would result in a modification to the conclusion of the General Plan EIR. Based on the analysis, the SB 5 GPA to the 2030 General Plan does not involve any new impacts or substantially increase impacts compared to that analyzed as a part of the adopted 2030 General Plan EIR.

EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

WHERE WAS IMPACT ANALYZED?

This column provides a cross-reference to the section or sections of the prior environmental documents where information and analysis may be found that relate to the environmental issue listed under each topic.

DO PROPOSED CHANGES INVOLVE NEW SIGNIFICANT IMPACTS?

In accordance with Section 15162(a)(1) of the CEQA Guidelines, this column indicates whether the changes represented by the current project would result in new significant impacts that have not already been considered and mitigated by the prior environmental review or a substantial increase in the severity of a previously identified impact. A "yes" response would require that additional environmental analysis (a supplemental or subsequent EIR) be prepared.

ANY NEW CIRCUMSTANCES INVOLVING NEW IMPACTS?

In accordance with Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether changes to the project site or the vicinity (i.e., the circumstances under which the project is undertaken) have occurred, subsequent to the prior environmental documents, that would result in the current project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact. A "yes" response would require that additional environmental analysis (a supplemental or subsequent EIR) be prepared.

ANY NEW INFORMATION REQUIRING NEW ANALYSIS OR VERIFICATION?

In accordance with Section 15162(a)(3)(A–D) of the CEQA Guidelines, this column indicates whether new information of substantial importance (i.e., that was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified as complete) is available that requires an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigation measures remain valid.

If the new information shows that (A) the project would have one or more significant effects not discussed in the prior environmental documents; or (B) significant effects previously examined would be substantially more severe than shown in the prior environmental documents; or (C) mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) mitigation measures or alternatives that are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative, then the question would be answered "Yes," requiring the preparation of a subsequent or supplemental EIR. However, if the additional analysis completed as part of this environmental review finds that the conclusions of the prior environmental documents remain the same and no new significant impacts are identified, or identified environmental impacts are not found to be more severe, or additional mitigation is not necessary, then the question would be answered "No" and no additional environmental documentation (supplemental or subsequent EIR) is required. New studies completed as part of this environmental review are attached to this addendum or are on file with the City of Live Oak Planning Department at 9955 Live Oak Boulevard, Live Oak, CA 95953.

MITIGATION MEASURES IMPLEMENTED OR ADDRESS IMPACTS?

In accordance with Section 15162(a)(3) of the CEQA Guidelines, this column indicates whether the prior environmental documents provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures may have already been implemented. A "yes" response will be provided in either instance. If "NA" is indicated, this environmental review concludes that the impact does not occur with this project and therefore no mitigations are needed. A "no" response indicates that revised mitigation would be required to address the identified impact.

DISCUSSION AND MITIGATION SECTIONS

DISCUSSION

A discussion of the elements of the checklist is provided under each environmental category to explain the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

MITIGATION MEASURES

Applicable mitigation measures from the prior environmental review that apply to the project are listed under each environmental category. If revised mitigation is required to address an identified impact, that mitigation is described here.

CONCLUSIONS

A discussion of the conclusion relating to the analysis is contained in each section. A conclusion that the changes to the project involve no new significant impacts or substantially more severe impacts is required to support the use of an addendum as the appropriate level of environmental analysis.

I. VISUAL RESOURCES

ENVIRONMENTAL ISSUES	Where Was the Impact Analyzed in Prior Environmental Document?	Do Proposed Project Changes Lead to New or Substantially More Severe Significant Impacts?	Do Changed Circumstances Lead to New or Substantially More Severe Significant Impacts?	Does Any New Information Require New Analysis or Verification in an EIR?	Do Prior Mitigation Measures or Acceptable Revised Measures Address Impacts?
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	Page 4.12-2	No	No	No	Yes
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Page 4.12-2	No	No	No	Yes
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Page 4.12-4	No	No	No	Yes
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Page 4.12-5	No	No	No	Yes

DISCUSSION

a & b) The 2030 General Plan EIR analysis concluded that the General Plan would result in urban development that would permanently alter and block some views of the Sutter Buttes, as well as view of agricultural lands. Although the 2030 General Plan includes policies and programs to provide adequate buffer space between development and agricultural lands to maintain those views, encourage future urban development to take advantage of view of the Sutter Buttes and agricultural lands from being blocked by development, the impacts remain significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects to scenic resources.

c) The 2030 General Plan EIR analysis concluded that the General Plan would result in urban development that would substantially alter the current visual character within and surrounding the City of Live Oak. Although 2030 General Plan policies requiring buffering of agricultural lands and enforcement of right-to-farm policies would limit the size of the agricultural area affected by the urban development envisioned under the General Plan, impacts to the community's visual character are significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects to visual character.

d) The 2030 General Plan EIR analysis concluded that the General Plan would result in the development of new urban uses, which would create substantial new sources of light and glare in areas currently used for agriculture. Although the 2030 General Plan includes policies to reduce spillover light and encourage use of low-reflectance surfaces, these measures would not reduce adverse effects to below the level of significance. A Statement of Overriding Consideration was approved for adverse effects of lighting and glare.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the

environment, it would not result in effects on scenic resources and visual character, or create new sources of light and glare that are more severe than those described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to visual resources. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in effects to visual resources that are more severe than those described in the original 2030 General Plan EIR.

II. AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
a) 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?	Page 4.8-6	No	No	No	Yes
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	N/A	No	No	No	N/A
c) 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))?	N/A	No	No	No	N/A
d) Result in the loss of forest land or conversion of forest land to non-forest use?	N/A	No	No	No	N/A
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	Page 4.8-11	No	No	No	Yes

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that development under the General Plan would result in the conversion of Important Farmland to nonagricultural uses. The 2030 General Plan includes policies and programs that are intended to conserve agricultural land and reduce conflicts between agricultural operation and adjacent uses. However, the 2030 General Plan identifies urban land uses for all areas of the City's Planning Area, including areas of high-quality agricultural land and areas currently zoned for agriculture use. This impact would remain significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects to Important Farmland.

b) Currently, there are no properties in the Planning Area protected under the Williamson Act contract.

c & d) Currently, there is no forestland (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)) in the Planning Area.

e) The Planning Area includes a large amount of agricultural land with non-agricultural land use designations. The original 2030 General Plan EIR analysis concluded that future development within this area could result in the conversion of adjacent farmland. The 2030 General Plan includes policies and programs that are intended to reduce conflicts between agricultural operations and adjacent uses, including policies requiring buffering of agricultural uses and enforcing right-to-farm policies. However, the General Plan would allow development of land that is currently in agricultural use, and that would be adjacent to ongoing agricultural operations, potentially resulting in conflicts with these ongoing agricultural uses. This impact would remain significant an unavoidable. A Statement of Overriding Consideration was approved for adverse effects to farmland.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on agricultural and forest land conversion; conflicts with Williamson Act contracts; adjacent agricultural land uses; and, existing zoning for forestland, timberland or timberland zoned Timberland Production, that are more severe than those described under the original General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to agricultural resources. No further mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on agricultural resources that are more severe than those described in the original 2030 General Plan EIR.

III. AIR QUALITY

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	Page 4.13-19	No	No	No	Yes
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Pages 4.3-16, 4.3-22, and 4.3-23	No	No	No	Yes
c) 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 which exceed quantitative thresholds for ozone precursors)?	Pages 4.3-16, 4.3-22, and 4.3-23	No	No	No	Yes
d) Expose sensitive receptors to substantial pollutant concentrations?	Page 4.3-24	No	No	No	Yes
e) Create objectionable odors affecting a substantial number of people?	Page 4.3-27	No	No	No	Yes

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that 2030 General Plan policies and programs would reduce air pollutant emissions that affect both Live Oak and the region; however, development allowed under the General Plan would still result in operation emissions in excess of significance thresholds used by the Feather Region Air Quality Management District (FRAQMD) for relevant clean air plans. This impact is significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to conflicts with current air quality planning efforts.

b, c, & d) The original 2030 General Plan EIR analysis concluded that 2030 General Plan policies and programs would reduce criteria air pollutants and precursors from short-term construction related emissions and long-term operational emissions from activities associated with development under the General Plan, but impacts would remain significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to short-term construction-related and long-term operational emissions. Long-term, operational, local mobile-source emissions of carbon monoxide (CO) would not be expected to substantially contribute to emissions concentration that would exceed air quality standards. Proposed sensitive land uses and toxic air contaminant (TAC) sources would be adequately sited under the 2030 General Plan policies and programs to minimize exposure to substantial concentration of TACs to less than significant.

e) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in the exposures of sensitive receptors to emissions of objectionable odors. Minor sources of odors (e.g., construction equipment, State Route 99, Union Pacific Railroad line) would result in exposure of sensitive

receptors (on- or off-site) to excessive project-generated odor sources. Proposed on-site receptors could also be exposed to excessive odors from existing land uses (e.g., food processing facilities waste water treatment plant expansion, and agricultural land uses) on a regular basis. However, the 2030 General Plan includes policies and programs to reduce these impacts to less than significant.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on relevant clean air policies, or effects related to exposure to criteria air pollutants and precursors, local mobile-source emissions of CO, TACs, or objectionable odors that are more severe than those described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to air quality. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on air quality that are more severe than those described in the original 2030 General Plan EIR.

IV. BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	Page 4.6-23	No	No	No	Yes
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	Page 4.6-26	No	No	No	Yes
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?	Page 4.6-26	No	N0	No	Yes
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	N/A	No	No	No	N/A
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Page 4.6-25	No	No	No	Yes
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	N/A	No	No	No	N/A

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in loss or degradation of existing populations or of suitable habitat for special-status plants, wildlife, and fish. However, General Plan policies and programs would avoid, minimize, and/or compensate for these potential adverse effects. This impact is less than significant. The SB 5 GPA flood management and protection information,

goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on special-status plants and wildlife, and areas that would be considered suitable habitat for these species, that are more severe than those described in the original 2030 General Plan EIR.

b & c) The original 2030 General Plan EIR analysis concluded that construction of infrastructure, roadways, or developments resulting from implementation of the General Plan could result in adverse effects on federally and state protected wetlands and/or riparian vegetation. However, 2030 General Plan policies and programs are designed to avoid adverse effects to the riparian and wetland habitat occurring in the Planning Area and would ensure unavoidable indirect effects would be mitigated. Therefore, implementation of the General Plan is unlikely to result in substantially adverse effects to federally and state protected wetlands and/or state protected riparian vegetation. These impacts are less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on federally and state protected wetlands and/or state protected riparian vegetation that are more severe than those described in the original 2030 General Plan EIR.

d & f) The Feather River is designated critical habitat for spring-run Chinook Salmon and steelhead, and the riparian corridor along the river provides an important migratory wildlife corridor. However, the Planning Area does not include the Feather River's riparian corridor, does not designate land use change along the river, and there are no adopted conservation plans, natural community conservation plans, or other approved state, regional or local habitat conservation plan in the vicinity of the Planning Area. Thus, implementation of the 2030 General Plan would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridor, impede the use of native wildlife nursery sites, or conflict with any local, regional or state conservation plan. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on fish and wildlife movement, native wildlife nursey sites, or conflict with any local, regional or state conservation plan.

e) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in adverse effects on native trees and/or large heritage trees; however, General Plan policies and programs would avoid, minimize, and/or compensate for potential adverse effects to trees. This impact is considered less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on native trees and/or large heritage trees that are more severe than described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to biological resources. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on biological resources that are more severe than those effects described in the original 2030 General Plan EIR.

V. CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	Page 4.11-13	No	No	No	Yes
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Pages 4.11-14 and 4.11-17	No	No	No	Yes
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Page 4.7-6	No	No	No	Yes
d) Disturb any human remains, including those interred outside of formal cemeteries?	Page 4.11-18	No	No	No	Yes

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in changes that could affect historic structures, historic districts, or the historic character of Live Oak, but that 2030 General Plan policies and programs would ensure that the context of historic features is considered in future development. This impact is considered less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects to existing historic structures, districts, or the historic character of Live Oak that are more severe than those described in the original 2030 General Plan EIR.

b) The original 2030 General Plan EIR analysis identified 16 significant or potentially significant cultural resources (e.g. historic district, cemetery, railroad tracks) and concluded the General Plan goals and policies would ensure that potential historic features were assessed for their significance. Impacts to these resources, which could affect their potential historic significance, could then be mitigated, reducing the impacts to less than significant. Construction activities under the General Plan would involve grading, excavation, or other ground-disturbing activities, which could disturb or damage as-yet-undiscovered archaeological resources or human remains. However, 2030 General Plan policies and programs combined with existing regulations would reduce these impacts to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects to known and as-yet-unknown cultural resources that are more severe than those described in the original 2030 General Plan EIR.

c) The original 2030 General Plan EIR analysis concluded that construction associated with implementation of the General Plan could disturb previously unknown paleontological resources during earthmoving activities. Although the City is unaware of any significant paleontological resources in the Planning Area, it recognizes that

resources could be uncovered during 2030 General Plan buildout; therefore, implementation of a General Plan program will minimize potential adverse impacts on unique, scientifically important paleontological resources. This impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects on paleontological resources that are more severe than those described in the original 2030 General Plan EIR.

d) The original 2030 General Plan EIR analysis concluded that while some burial ground locations are known, ground-disturbing activities associated with development in the Planning Area could uncover prehistoric or historic human remains. The 2030 General Plan goals, policies and programs would reduce impacts by requiring adherence to California Health and Safety Code Section 7050.5 and Section 7052, and California Public Resources Code Section 5097, which outline procedures for the treatment of human remains. Therefore, this impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects to human remains that are more severe than those described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to cultural resources. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on cultural resources that are more severe than those effects described in the original 2030 General Plan EIR.

VI. GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	Page 4.7-17	No	No	No	Yes
ii) Strong seismic ground shaking?	Page 4.7-17	No	No	No	Yes
iii) Seismic-related ground failure, including liquefaction?	Page 4.7-18	No	No	No	Yes
iv) Landslides?	Page 4.7-18	No	No	No	Yes
b) Result in substantial soil erosion or the loss of topsoil?	Page 4.7-19	No	No	No	Yes
c) 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?	Page 4.7-20	No	No	No	Yes
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	Page 4.7-21	No	No	No	Yes
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	N/A	No	No	No	N/A

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that the General Plan would not result in development in areas prone to strong seismic ground shaking; however, it would result in development in areas with moderate potential for seismic-related ground failure, including liquefaction and associated lateral spreading, landslides, and collapse resulting from loss of strength during earthquake shaking. Implementation of 2030 General Plan policies and programs and existing California Building Code (CBC) regulations that reduce the potential for

substantial adverse effects due to the exposure to seismic ground shaking or ground failure. This impact is less than significant The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to seismic ground shaking and ground failure that are more severe than those described in the original 2030 General Plan EIR.

b) The original 2030 General Plan EIR analysis concluded that development under the General Plan would result in substantial soil erosion or the loss of topsoil; however, implementation of policies and programs in the 2030 General Plan and existing regulations would result in use of best practices to prevent soil erosion and topsoil loss. This impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to soil erosion or loss of topsoil that are more severe than those described in the original 2030 General Plan EIR

c) The original 2030 General Plan EIR analysis concluded that buildout of the General Plan would result in construction of occupied structures in areas located on a geologic unit or soil that is unstable or that would become unstable. Unstable soils include soils subject to landsliding, lateral spreading, liquefaction, or collapse caused by earthquake shaking, seasonal saturation of soils and rock materials, or grading and construction activities. Implementation of existing regulations, as well as the 2030 General Plan policies and programs would reduce the impacts of unstable soils associated with General Plan buildout through application of best management practices and engineering controls. The impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and implementation programs do not authorize any additional development or disturbance. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to unstable soils that are more severe than those described in the original 2030 General Plan EIR.

d) The 2030 General Plan EIR analysis concluded that buildout of the General Plan would result in construction of occupied structures in areas with expansive soils; however, implementation of existing regulations and 2030 General Plan policies and programs would reduce the impacts of expansive soils through application of best management practices and engineering controls. This impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to expansive soils that are more severe than those described in the original 2030 General Plan EIR.

e) The 2030 General Plan would not include construction of new buildings or land uses that would rely on septic systems for disposal of sewage. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to septic systems.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to geology and soils. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on geology and soils that are more severe than those effects described in the original 2030 General Plan EIR.

VII. GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Page 4.14-18	No	No	No	Yes
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Page 4.14-18	No	No	No	Yes

DISCUSSION

a & b) The original 2030 General Plan analysis concluded that General Plan development-generated greenhouse gas (GHG) emissions would not be anticipated to conflict with AB 32 (i.e., an agency-adopted regulation for the purpose of reducing GHG emissions). The 2030 General Plan policies and programs were designed to reduce GHG emissions and accommodate for growth in a more GHG-efficient manner than the 1994 General Plan. Implementation of these policies and programs, as well as mitigation measures, would ensure consistency with the mandates of AB 32. However, buildout of the 2030 General Plan would still result in substantially higher GHG emissions compared to existing levels because of the large amount of development and potential for simultaneous construction of multiple sites; taken together with 2030-modeled emissions, implementation of the 2030 General Plan could represent a cumulatively considerable contribution to the significant cumulative impact of climate change. The impact is significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to greenhouse gas emissions.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to GHG emissions, or applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, that are more severe than those described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs, as well as mitigation measure 4.14-1, as identified in the original 2030 General Plan EIR, as applicable, to address impacts to GHGs. No additional mitigation measures are required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on GHGs that are more severe than those effects described in the original 2030 General Plan EIR.

VIII. HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Page 4.15-11	No	No	No	Yes
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	Page 4.15-11	No	No	No	Yes
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Page 4.15-14	No	No	No	Yes
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, would it create a significant hazard to the public or the environment?	Page 4.15-13	No	No	No	Yes
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	N/A	No	No	No	N/A
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	N/A	No	No	No	N/A
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Page 4.15-12	No	No	No	Yes
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?	N/A	No	No	No	N/A

DISCUSSION

a & b) The original 2030 General Plan EIR analysis concluded the future population growth during buildout of the General Plan would result in an increase in the routine transport, use and/or disposal of hazardous materials, which could result in exposure of such materials to the public through either routine use or accidental release. However, implementation of 2030 General Plan policies, in combination with existing regulations, would reduce these potential impacts to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to routine transportation, use, or accidental release of hazardous materials that are more severe than those described in the original 2030 General Plan EIR.

c) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in development of uses that would emit or handle hazardous material or waste within one-quarter mile of new or existing schools. However, implementation of 2030 General Plan policies would prevent future conflicts between hazardous materials handling and emissions, and schools. This impact is therefore, less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to emissions or handling of hazardous materials or waste within proximity of schools that are more severe than those described in the original 2030 General Plan EIR.

d) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in environmental or public exposure to hazardous materials from development on known hazardous materials sites (Cortese-listed sites pursuant to Government Code Section 65962.5) within the Planning Area. However, while 2030 General Plan policies and current regulations would not absolutely prevent exposure to hazardous materials on these sites, they would reduce potential impacts related to development on these sites to a less-than-significant level. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to exposure to hazardous materials from development on Cortese-listed sites that are more severe than those described in the original 2030 General Plan EIR.

e & f) The Planning Area is not subject to any Airport Land Use plans, and there are no private airstrips in the Planning Area. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to conflicts with public airport plans or private airstrips.

g) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would create additional traffic and residences that requiring evacuation in case of emergency. Implementation of 2030 General Plan policies would ensure conformance with countywide emergency response programs and continued cooperation with emergency-response service providers. This impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to interference with an adopted emergency-response plan that are more severe than those described in the original 2030 General Plan EIR.

h) The Planning Area does not include any areas of moderate, high, or very high fire hazard severity zones. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to high, or very high fire hazard severity zones.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to hazards and hazardous materials. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on hazards or hazardous materials that are more severe than those effects described in the original 2030 General Plan EIR.

IX. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	Pages 4.5-29 and 4.5-36	No	No	No	Yes
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 (e.g., 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)?	Page 4.5-38	No	No	No	Yes
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 on- or off-site erosion or siltation?	Page 4.5-33	No	No	No	Yes
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	Page 4.5-33	No	No	No	Yes
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Pages 4.5-29, 4.5-33, and 4.10-16	No	No	No	Yes
f) Otherwise substantially degrade water quality?	Page 4.5-36	No	No	No	Yes
g) 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?	Page 4.5-40	No	No	No	Yes
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	Pages 4.5-13 and 4.5-5	No	No	No	Yes

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
i) 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?	Pages 4.5-42 and 4.5-43	No	No	No	Yes
j) Result in inundation by seiche, tsunami, or mudflow?	N/A	No	No	No	N/A

DISCUSSION

a & f) The original 2030 General Plan EIR analysis concluded that development under the General Plan would result in additional discharges of pollutants to receiving water bodies from nonpoint sources (e.g., increased surface water runoff from impervious sources such as rooftops and sidewalks) and construction and grading activities. Such pollutants would result in adverse changes to the water quality of local water bodies. Additionally, many construction-related wastes have the potential to degrade existing water quality. However, implementation of 2030 General Plan policies and programs, combined with current land use, stormwater, grading, and erosion control regulations, including permitting requirements, would reduce these impacts to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to water quality or waste discharge that are more severe than those described in the original 2030 General Plan EIR.

b) The original 2030 General Plan EIR analysis concluded that development and land use changes consistent with General Plan would result in additional impervious surfaces and the diversion of groundwater to surface water. Resulting reductions in groundwater recharge in the groundwater basins underlying the Planning Area could affect groundwater levels and the yield of hydrologically connected wells. However, implementation of 2030 General Plan policies and programs would reduce the potential for impacts on groundwater to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to groundwater recharge or supplies that are more severe than those described in the original 2030 General Plan EIR.

c & d) The original 2030 General Plan EIR analysis concluded that development and land use changes consistent with the General Plan would increase the amount of impervious surfaces, thereby increasing the total volume and peak discharge rate of stormwater runoff. This could alter local drainage patterns, increasing watershed flow rates above the natural background level (i.e., peak flow rates). Increased peak flow rates may exceed drainage system capacities, exacerbate erosion in overland flow and drainage swales and creeks, and result in downstream sedimentation. General Plan policies would reduce downstream flooding and erosion through federal and regional regulations and City performance standards for development design that controls surface runoff discharge, reducing potential impacts to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that

contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to stormwater drainage patterns that are more severe than those described in the original 2030 General Plan EIR.

e) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in increased runoff that could exceed capacity of existing stormwater drainage system and that the City would need to provide new and expanded stormwater drainage facilities in order to accommodate growth anticipated under the General Plan. Implementation of 2030 General Plan policies and programs would require that the City prepare and maintain a drainage master plan and include performance standards such that new development would be designed to control surface runoff discharges. The 2030 General Plan policies and programs also call for LID standards to reduce stormwater runoff levels, improve infiltration to replenish groundwater sources, and reduce pollutants close to their source. These policies and programs along with existing City and County grading, erosion, and flood control regulations would reduce the impact to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to flooding that are more severe than those described in the original 2030 General Plan EIR.

g & h) The original 2030 General Plan EIR analysis concluded that development under the General Plan could result in the development of residential or commercial structures in floodplains, thereby exposing people and structures to flood hazards. However, implementation of General Plan policies and programs combined with enforcement of existing flood control regulations would reduce this impact to less than significant

The proposed SB 5 GPA includes information about a Letter of Map Revision (LOMR) to the City of Live Oak from the Federal Emergency Management Agency (FEMA) received in January 2014, which included an annotated FIRM panel map. The LOMR and annotated FIRM panel map revised a small area in the City's Planning Area that is susceptible to localized flooding from Zone A to "Contained" (in storm drain), and indicates incorporation of the modification. Zone A is defined as an area of 100-year flood; base flood elevation and flood hazard factors not determined. Incorporation of the LOMR eliminates FEMA designated100-year floodplains in the General Planning Area.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map or placing structures within a 100-year flood hazard area that would impede or redirect flood flows. The proposed GPA flood protection and management goals, policies, and programs provide additional benefit in flood protection and management than those described in the original 2030 General Plan EIR.

h) Section 4.5 of the original 2030 General Plan EIR, "Hydrology and Water Resources," includes information about surface water and groundwater regulations in the General Planning Area. Federal, State, and local regulations provide a framework for addressing all aspects of hydrology and water quality resulting from General Plan implementation, including development of structures in 100-year flood hazard zones that would impede or redirect flood flows. As described in Section 4.5.1, "Regulatory Setting," of the EIR, drainage design criteria in the City of Live Oak Public Works Improvements Standards provides that:

- Placement of any fills across an existing drainage course shall incorporate a means by which excess flows not handled by the drainage system can flow overland via essentially the same course as prior to placing the fill across the drainage course, without inundating or damaging any structure.

The City received a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA) in January 2014, which includes an annotated FIRM panel map. The LOMR and annotated FIRM panel map revised a small area in the City's Planning Area that is susceptible to localized flooding from Zone A to "Contained" (in storm drain), and indicates incorporation of the modification. Zone A is defined as an area of 100-year flood; base flood elevation and flood hazard factors not determined. Incorporation of the LOMR eliminates the prior FEMA designated100-year floodplain in the General Planning Area. The SB 5 GPA incorporates this information into the EIR. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to placing structures within a 100-year flood hazard area that would impede or redirect flood flows. The proposed GPA flood protection and management goals, policies, and programs provide additional benefit in flood protection and management than those described in the original 2030 General Plan EIR.

i) The Feather River Levee system protects the Sutter Basin, including the 2030 General Planning Area. Levees can fail because of earthquake-induced slumping, landslides, liquefaction, overtopping, and high volume flows. The original 2030 General Plan EIR analysis concluded that implementation of 2030 General Plan policies and programs, combined with relevant state and local regulations, would reduce the potential for effects on the Planning Area from levee failure. The proposed GPA will also indirectly lead to improved flood protection and emergency preparedness for the residents of Live Oak. The Sutter County Emergency Operations Plan identified two dams, Oroville and Thermalito Afterbay, which would affect the Planning Area in the unlikely event of dam failure. However, implementation of policies and programs in the 2030 General Plan would minimize the potential for effects from dam failure. Potential impacts from levee or dam failure are less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to flooding from levee or dam failure that are more severe than those described in the original 2030 General Plan EIR.

j) The Planning Area is located in an area not subject to seiche or tsunami, and the area topography is relatively level and not subject to mudflow. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to seiche, tsunami, or mudflow.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts to hydrology and water quality. No additional mitigations is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on hydrology or water quality that are more severe than those effects described in the original 2030 General Plan EIR.

X. LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Physically divide an established community?	Page 4.1-7	No	No	No	Yes
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Page 4.1-8	No	No	No	Yes
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	Page 4.1-8	No	No	No	Yes

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would result in changes to existing land uses and extend development and associated infrastructure into areas that are currently undeveloped. Although the division of any existing community is unlikely, the 2030 General Plan goals and policies would prevent division of communities in the future. Overall, policy and land use diagram changes in the 2030 General Plan promotes connectivity throughout the City, including promoting infill development of underutilized land that may currently create divisions in neighborhoods, as well as promoting efficient circulation patterns. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects to existing developed portions of the community that are more severe than those described in the original 2030 General Plan EIR.

b) The original 2030 General Plan EIR analysis concluded that the General Plan's goals, policies, and programs would not conflict with other applicable land use plans, policies, or agency regulation with jurisdiction over the Planning Area, including the 2008 Metropolitan Transportation Plan (MTP), Sutter County General Plan, Sutter Local Agency Formation Commission, and the Sacramento Area Council of Governments (SACOG) Blueprint, that would result in physical effects under CEQA. The purpose of this checklist is to evaluate the environmental impact categories in terms of any "changed condition" (i.e., changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result. The EIR demonstrates consistency between Live Oak 2030 General Plan policies and the 2008 MTP plan for transportation, land use, and air quality on a regional level. In 2016, SACOG approved an updated MTP, having conferred with jurisdictions within its six-county region to parallel transportation and land use planning efforts, maintaining consistency between the MTP and local general plan policies. The regional plan update included inputs from Live

Oak's 2030 General Plan. Updates to the MTP do not present a significant change in the regulatory setting that would result in a new environmental impact compared to that analyzed in the General Plan EIR. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to conflicts with other applicable land use plans, policies, or agency regulations that are more severe than those described in the original 2030 General Plan EIR.

c) The original 2030 General Plan EIR analysis did not include analysis of potential conflicts with conservation plans as there were no habitat conservation plans or natural community conservation plans, which covered the Planning Area; the Yuba-Sutter Natural Community Conservation Plan/Habitat Conservation Plan (referred to as the Yuba-Sutter Regional Conservation Plan) is still under development. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to conflicts with any applicable habitat conservation plan or natural community conservation plan.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts related to land use and planning. No other mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on land use and planning that are more severe than those effects described in the original 2030 General Plan EIR.

XI. MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	N/A	No	No	No	N/A
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	N/A	No	No	No	N/A

DISCUSSION

a & b) The original 2030 General Plan EIR analysis concluded that no known mineral resources of value to the region and residents of the state have been identified in the Planning Area, and no locally important mineral resources are identified in local land use plans. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to mineral resources.

MITIGATION MEASURES

No mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on mineral resources that are more severe than those effects described in the original 2030 General Plan EIR.

XII. NOISE

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the project:					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	Page 4.4-17, 4.4-25, 4.4-27, and 4.4-30	No	No	No	Yes
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Page 4.4-31	No	No	No	Yes
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Page 4.4-17, 4.4-25, and 4.4-27	No	No	No	Yes
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Page 4.4-25	No	No	No	Yes
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	N/A	No	No	No	N/A
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	N/A	No	No	No	N/A

DISCUSSION

a & c) The original 2030 General Plan EIR analysis concluded that traffic generated by land uses accommodated under the General Plan would increase noise levels along transportation routes. However, 2030 General Plan policies and programs for new development to include site planning techniques and/or feasible mitigation to reduce noise associated with vehicular transportation routes, as well as agricultural activities and buildout of stationary and area sources (e.g., mechanical equipment, schools, landscape and building maintenance activities) will reduce potential impacts to less-than-significant levels. Railroad operations within the City consist of freight and Amtrak passenger service on the Union Pacific Railroad (UPRR) mainline track. The City has included all feasible noise mitigation as policies and programs in the 2030 General Plan, including cooperation with UPRR to reduce or eliminate the use of horns in noise sensitive areas of the community. Although the City has included 2030 General Plan policies and programs to ensure that its citizens are protected from excessive noise levels from train pass-bys, given the proximity of existing and proposed sensitive land uses to the railroad line, it cannot be

guaranteed that the City's objectives can be achieved in every case. The impact of railroad noise in excess of local standards is considered significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to railroad noise. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to vehicular, stationary and area-source, and railroad noise that are more severe than those described in the original 2030 General Plan EIR.

b) The original 2030 General Plan EIR analysis concluded that short-term construction source vibration levels and vibration from train pass-bys could exceed Caltrans' recommended standard of 0.2 in/sec peak particle velocity (PPV) with respect to the prevention of structural damage for normal buildings, and the FTA maximum acceptable vibration standard for 80 vibration decibels (VdB) with respect to human response for residential uses (i.e. annoyance) at vibration-sensitive land uses. However, implementation of 2030 General Plan policies would reduce potential impacts to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to short-term groundborne vibration levels that are more severe than those described in the original 2030 General Plan EIR.

d) The original 2030 General Plan EIR analysis concluded that short-term construction noise levels associated with development under the General Plan could exceed the applicable City standards at nearby noise-sensitive receptors, and if occurring during more-sensitive hours could result in annoyance and/or sleep disruption. However, the application of policies in the 2030 General Plan and compliance with the City's Municipal Code that would restrict construction activities to less sensitive daytime hours would reduce potential impacts to less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to short-term construction noise that are more severe than those described in the original 2030 General Plan EIR.

e & f) There are no airports in the immediate vicinity of the City of Live Oak, and there are no private airstrips in the Planning Area, although occasional commercial, military, and general aviation aircraft overflights occur at higher altitudes. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to noise associated with public airports or private airstrips.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts related to noise. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on noise that are more severe than those effects described in the original 2030 General Plan EIR.

XIII. POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
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)?	Page 4.1-13	No	No	No	Yes
b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	N/A	No	No	No	N/A
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	N/A	No	No	No	N/A

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would accommodate population growth in the City and its Planning Area. However, Live Oak has accommodated a balance of residential, commercial, employment, civic, recreational, and open space uses to avoid growth inducement in other areas. The City's 2030 General Plan land use policies would reduce the potential to induce growth not accounted for in the General Plan. The impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to inducement of population growth that are more severe than those described in the original 2030 General Plan EIR.

b & c) The 2030 General Plan does not require land use change and does not include any infrastructure planning elements that would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Although some changes, such as allowing mixed uses in the downtown area, would result in changes to land uses in the area, the General Plan does not propose any changes that would require the removal or displacement of existing housing. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to displacement of existing people or housing, necessitating the construction of replacement housing elsewhere.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address potential impacts related to population and housing. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on population and housing that are more severe than those effects described in the original 2030 General Plan EIR.

XIV. PUBLIC SERVICES AND FACILITIES

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:					
Fire protection?	Page 4.9-8	No	No	No	Yes
Police protection?	Page 4.9-9	No	No	No	Yes
Schools?	Page 4.9-11	No	No	No	Yes
Parks?	Page 4.9-12	No	No	No	Yes
Other public facilities?	Page 4.9-15	No	No	No	Yes

DISCUSSION

a) Fire and Police Protection: The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would increase the population in the City of Live Oak, increasing demand for fire and police protection services, which would result in the need for additional and/or expanded fire and police protection facilities and services. The 2030 General Plan policies would ensure that new fire and police facilities and services are funded and constructed to serve new development. Future facilities construction plans would be subject to project-level CEQA analysis and mitigation. The 2030 General Plan includes policies, programs, and the EIR includes mitigation measures, where necessary, that would reduce or avoid impacts. There is no additional significant impact related to construction of these facilities beyond that which is comprehensively analyzed throughout the EIR. The impact is less than significant.

School Facilities and Parks: The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would result in an increase in population in the City of Live Oak, including the number of school-aged children, which would result in an increase in demand for school services and expanded school facilities, as well as parks. Buildout of the General Plan would increase people and demand for new and existing parks, and enrollment within the Live Oak Unified School District would increase over existing capacity at some of its schools. However, policies in the 2030 General Plan address or avoid these potential impacts, including policies to match future parkland with future population growth. Additionally, the payment of school impact fees is designed to offset the cost of new school facility construction. The 2030 General Plan includes policies, programs, and the EIR includes mitigation measures, where necessary, that would reduce or avoid impacts. There is no additional significant impact related to construction of these facilities beyond that which is comprehensively analyzed throughout the EIR. The impact is less than significant.

Libraries: The original 2030 General Plan EIR analysis concluded that development under the General Plan would generate new population in Live Oak, which would create an increase in demand for library services and potentially the need for new or expanded library facilities. The City has no regulatory control over library facilities and services because Sutter County owns and operates the library; thus, the City cannot guarantee that any deficiencies in library facilities and services would be rectified. However, implementation of 2030 General Plan policies are intended to offset the need for additional library services through innovative solutions that would be triggered by new growth in the City. There is no significant impact related to construction of these facilities beyond that which is comprehensively analyzed throughout the EIR. The impact is less than significant.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to fire and police protection and services, schools, parks, and libraries that are more severe then described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies, programs, and mitigation measures as identified in the original 2030 General Plan EIR, as applicable, to address potential impacts related to fire and police protection and services, schools, parks, and libraries. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on fire and police protection services, schools, parks, and libraries that are more severe than those effects described in the original 2030 General Plan EIR.

XV. RECREATION

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
a) 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?	Page 4.9-12; 4.9-14	No	No	No	Yes
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	Page 4.9-12	No	No	No	Yes

DISCUSSION

a & b) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would result in an increase in population in the City of Live Oak, which would result in an increased demand on existing City park and recreation facilities and the need for additional and/or expanded parks and recreation facilities. Demand on existing City park facilities would lead to accelerated deterioration of these facilities if not properly maintained. The goals and policies of the 2030 General Plan, along with the requirement for new development to provide parkland or in-lieu fees, would aid in providing an increased amount of parkland such that the likelihood of overuse by new residents and accelerated physical deterioration of existing facilities would be reduced to less than significant.

The specific environmental impacts of constructing a new individual park or recreation facility cannot be determined at the programmatic level of analysis. Development and operation of park facilities may result in potentially significant impacts (such as damage to habitat and noise) that are addressed through policies, programs, and mitigation measures identified in the EIR. Various park and recreational expansion or improvement projects have been identified in certain areas of the City, which would be subject to specific environmental analysis and mitigation, in accordance with the requirements of CEQA. There is no additional significant impact related to construction of these facilities beyond that which is comprehensively analyzed throughout the EIR. The impact is less than significant.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to recreation facilities that are more severe then described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies, programs, and mitigation measures as identified in the original 2030 General Plan EIR, as applicable, to address potential impacts related to recreation. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on recreation that are more severe than those described in the original 2030 General Plan EIR.

XVI. TRAFFIC AND TRANSPORTATION

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Pages 4.2-21, 4.2-25, 4.2-28, and 4.2-30	No	No	No	Yes
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Pages 4.2-21, 4.2-25, 4.2-28, and 4.4-30	No	No	No	Yes
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?	N/A	No	No	No	N/A
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Page 4.2-33	No	No	No	Yes
e) Result in inadequate emergency access?	Page 4.2-33	No	No	No	Yes
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	N/A	No	No	No	N/A

DISCUSSION

a & b) The original 2030 General Plan EIR analysis concluded that development under the General Plan would degrade City roadways operating at level of service (LOS) D or better to LOS E or LOS F levels. However, implementation of 2030 General Plan policies and programs related to circulation improvement strategies would generally provide acceptable LOS for City roadway segments. UPRR crossings fall under the California Public Utilities Commission (PUC) and would require input from the railroad and, due to proximity of the state highway, Caltrans. It should be noted that because railroad crossing are under the jurisdiction of the PUC, the City cannot

guarantee that the actions taken by the City with regard to railroad crossings can be implemented and will require investigation of design options. The impact is less than significant.

The original 2030 General Plan EIR analysis concluded that development under the General Plan would contribute traffic to intersections that would operate in excess of acceptable LOS. With implementation of measures for Planning Area intersections involving only City streets (and not State Route 99), traffic conditions could be maintained at the minimum level established by the 2030 General Plan. The impact to City street intersections is less than significant. Improvements to intersections with State Route (SR) 99 require coordination with other agencies (Caltrans and PUC). Although the City identified all potential feasible mitigation, the City cannot guarantee implementation of required improvements while meeting other agency requirements to achieve acceptable LOS at identified intersections with SR 99. The impact is considered significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to degradation of LOS at intersections with SR 99.

The original 2030 General Plan EIR analysis concluded that development under of the General Plan would contribute traffic to regional roadways (i.e., located outside the City of Live Oak sphere of influence) currently operating at LOS C or better. Implementation of 2030 General Plan policies and programs related to a regional approach to planning and funding improvements of County roads would reduce these impacts, particularly LOS E conditions, which exceeds Sutter County's minimum LOS D standard, on Larkin Road north of Riviera Road. However, because the exact nature of the improvements were not knowable at the time, there is no guarantee that LOS on Larkin Road will not exceed LOS D and without improvements would be LOS F. Therefore, the impact is considered significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to degradation of regional/County roadway LOS.

The original 2030 General Plan EIR analysis concluded that buildout of the General Plan would result in four State Route (SR) 99 segments operating at LOS F; although, implementation of policies and programs provides that the City collaborate with Caltrans in the development of an Access Managements Plan that identifies acceptable improvements for improved operations. However, there is no guarantee that a high enough level of access control on SR 99 will be implemented under the Access Management Plan that achieves peak period congestion that satisfies City LOS standards. Therefore, the impact is significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to degradation of highway LOS.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to local and regional roadway, intersection, and highway LOS that are more severe then described in the original 2030 General Plan EIR.

c) Because the closest airport to the 2030 General Planning Area, Sutter County Airport, is located 10 miles southwest of Live Oak, implementation of the General Plan would not 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. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to air traffic patterns.

d & e) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would add multi-modal trips to the existing and planned transportation network. If not properly designed, certain aspects of the 2030 General Plan could introduce traffic hazards. However, policies and programs in the 2030 General

Plan and the City's standards would ensure adequate emergency access and avoid introducing substantial traffic hazards. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to traffic hazards or emergency access that are more severe then described in the original 2030 General Plan EIR.

f) The 2030 General Plan identifies an extensive range of policies and programs designed to ensure the safety and convenience of pedestrian and bicycle travel, which was not substantively addressed in the 1994 General Plan. Therefore, conflicts with policies intended to promote alternatives to vehicular travel were not analyzed in the original 2030 General Plan EIR. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts related traffic and transportation. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on traffic and transportation that are more severe than those effects described in the original 2030 General Plan EIR.

XVII. PUBLIC UTILITIES

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Page 4.10-14	No	No	No	Yes
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Pages 4.10-11 and 4.10-15	No	No	No	Yes
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Page 4.10-16	No	No	No	Yes
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Page 4.10-12	No	No	No	Yes
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	Page 4.10-15	No	No	No	Yes
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Page 4.10-18	No	No	No	Yes
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Page 4.10-18	No	No	No	Yes

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would require upgrades to wastewater treatment infrastructure. However, the upgrades would not exceed any wastewater

treatment requirements of either the Central Valley Regional Water Quality Control Board (CVRWQCB) or the State. A 2030 General Plan policy requires master planning for wastewater treatment capacity and phased expansion of the wastewater treatment plant (WWTP) to serve new growth anticipated under the General Plan, and implementation of improvements to achieve compliance with wastewater treatment standards. There is no land uses in the General Plan that would be expected to generate wastewater of such poor quality and concentration or in such amounts that future treatment systems would not be able to adequately treat according to applicable water quality standards. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to exceeding wastewater treatment requirements of the CVRWQCB or the State that are more severe than those described in the original 2030 General Plan EIR.

b & e) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would accommodate land use change and result in population growth that increase demand for wastewater collection, conveyance, and treatment facilities and require construction of new water supply and distribution facilities. It is anticipated that land use change under the General Plan would generate wastewater demand in excess of the capacity of the City's existing wastewater treatment plant, necessitating the expansion of existing or construction of new wastewater facilities. Construction of wastewater and water facilities could have adverse effects on the physical environment. Technical sections in the original 2030 General Plan EIR evaluated the direct effects of construction and operation of these facilities relative to specific environmental issue areas (e.g., noise, air quality). General Plan policies and mitigation measures identified in the original EIR, where necessary, would reduce or avoid impacts as noted throughout the EIR. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to new water and wastewater collection, conveyance, and treatment facilities that are more severe than those described in the original 2030 General Plan EIR.

c) The original 2030 General Plan EIR analysis concluded that the City would need to provide new and expanded stormwater drainage facilities in order to accommodate growth anticipated under the General Plan. Technical sections of the original 2030 General Plan EIR evaluated the direct effects of construction and operation of these facilities relative to specific environmental issue areas (e.g., air quality, noise). Construction of such facilities could result in significant adverse environmental effects; however, 2030 General Plan policies and mitigation measures identified in the original EIR, where necessary, will minimize the impacts. There are no additional significant impacts beyond those considered comprehensively throughout the original EIR. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to stormwater drainage facilities that are more severe than those described in the original 2030 General Plan EIR.

d) The original 2030 General Plan EIR analysis concluded that the City would need to provide additional water supplies to meet the demand that would be created by buildout of the 2030 General Plan. However, by adhering to the General Plan policies, the City of Live Oak would reduce its overall water demand using conservation measures. Although water demand would increase substantially over current levels, the City's total water demand in 2030 would be roughly 0.4 percent of the East Butte Subbasin's total storage capacity. There has not been substantial decrease in groundwater levels that would suggest long-term water supply will be a substantial issue in the region. The SB 5 GPA flood management and protection information, goals, policies, and programs do not

authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to water supplies that are more severe than those described in the original 2030 General Plan EIR.

f & g) The original 2030 General Plan EIR analysis concluded that implementation of the General Plan would allow for the development of new homes and businesses within Live Oak, which would result in an increase in the amount of solid waste sent to landfills. The majority of solid waste generated within the City of Live Oak is transported to and disposed of at the Ostrom Road Landfill. The combination of 2030 General Plan policies and existing regulations related to the disposal and reduction of solid waste reduces the amount of solid waste generated locally and sent to the Ostrom Road Landfill. Additionally, though the City does not manage the Ostrom Road Landfill, its portion of waste stream to the landfill is less than 4 percent of the total municipal waste the landfill receives on an annual basis. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to solid waste disposal that are more severe than those described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs, and mitigation measures as identified in the original 2030 General Plan EIR, as applicable, to address impacts related to public utilities. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on public utilities that are more severe than those effects described in the original 2030 General Plan EIR.

XVIII. ENERGY

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
Would the Project:					
a) Increase the demand for consumption of energy?	Page 4.13-9	No	No	No	Yes

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that the General Plan would allow for a large amount of urban development, which would increase the demand and consumption of energy. However, the 2030 General Plan includes policies and programs intended to establish efficient land use patterns and efficient use of energy in areas of land use change. This impact is less than significant. The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects related to energy consumption that are more severe then described in the original 2030 General Plan EIR.

MITIGATION

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address impacts related to the consumption of energy. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on energy consumption that are more severe than those effects described in the original 2030 General Plan EIR.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Where Was Impact Analyzed in Prior Environmental Document?	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Mitigation Measures Address Impacts?
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	Sections 4.6 and 4.11	No	No	No	Yes
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	Chapter 6	No	No	No	Yes
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	Sections 4.3, 4.4, 4.5, 4.7, and 4.15	No	No	No	Yes

Authority: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

DISCUSSION

a) The original 2030 General Plan EIR analysis concluded that development under the General Plan would result in the use of both renewable and nonrenewable natural resources (e.g., fossil fuels, lumber and other forest products, water) for construction and future operation. Land uses and development would also result in changes to traffic and circulation and therefore would increase emissions of air pollutants, GHG emissions, and noise, and any conversion of agricultural lands would be a significant and irreversible environmental change. Biological resource impacts resulting from implementation of the 2030 General Plan, including loss of special-status species plans, loss of special-status wildlife and fish species, loss of native and heritage trees, and loss and degradation of sensitive natural communities or federally protected wetlands, would all be reduced to less than significant levels following mitigation. Policies and programs in the 2030 General Plan are designed to avoid or reduce biological impacts to less-than-significant levels with a range of conservation, restoration, and preservation strategies. Impacts on cultural resources, including examples of the major periods of California history or prehistory, can be reduced to less-than-significant level by applying goals, policies, and programs in the 2030 General Plan.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in effects to the environment, including biological resources and cultural resources, that are more severe then described in the original 2030 General Plan EIR.

b) The original 2030 General Plan EIR analysis concluded that development under the General Plan would result in cumulatively considerable impacts related to air quality, noise, transportation and circulation, agricultural resources, and visual resources:

Air Quality: The original 2030 General Plan EIR analysis concluded that air quality in the region does not meet State of California standards. Implementation of the 2030 General Plan would cause significant short- and long-term criteria pollutant emissions. The cumulative effects from short- and long-term criteria pollutants generated from development under the 2030 General Plan, combined with related projects, are cumulatively considerable and significant and unavoidable.

Noise: The original 2030 General Plan EIR analysis concluded that implementation of the 2030 General Plan, along with regional growth and traffic conditions, would cause changes in traffic noise levels over existing traffic noise levels. The 2030 General Plan would make a cumulatively considerable contribution to this significant impact.

Transportation and Circulation: The original 2030 General Plan EIR analysis concluded that regional population and employment growth is anticipated to result in traffic volumes along regional roadways, such as SR 99, that exceed acceptable levels of service. This represents a significant cumulative impact. While the General Plan includes various policies to reduce traffic demand and mitigation for roadways segments and intersections, traffic is anticipated to exceed level of service standards at certain roadway segments and intersections. The 2030 General Plan would make a cumulatively considerable contribution to this significant cumulative impact.

Agricultural Resources: The original 2030 General Plan EIR analysis concluded that combined with past, present, and future development within Sutter, Butte, and Yuba County farming areas, implementation of the 2030 General Plan would result in direct conversion of agricultural land that would contribute to an incremental decline in Important Farmland to the region. The loss of Important Farmland is a cumulatively considerable impact when considered in connection with the significant cumulative losses that would occur through implementation of the 2030 General Plan, past farmland conversions, and planned future development.

Visual Resources: The original 2030 General Plan EIR analysis concluded that despite a range of policies and programs in the 2030 General Plan that would reduce or avoid adverse visual impacts throughout the Planning Area, urban development of agricultural lands and open space would occur. Growth and development in Sutter County, Butte County, and Yuba County would involve similar conversion of former agricultural lands, open space, and elements of the rural landscape. Cumulative visual impacts are considered cumulatively considerable contribution to a significant cumulative impact.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance beyond that contemplated in the 2030 General Plan EIR. Because the proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, it would not result in cumulatively considerable impacts that are more severe then described in the original 2030 General Plan EIR.

c) The original 2030 General Plan EIR analyzed potential effects that would cause indirect or direct adverse effects on human beings, such as effects related to air quality, geology and soils, hazards and hazardous materials, noise, and water quality:

Air Quality: The original 2030 General Plan EIR analysis concluded that 2030 General Plan policies and programs would reduce criteria air pollutants and precursors from short-term construction-related emissions and long-term operation emissions from development under the General Plan, though they would remain significant and unavoidable. A Statement of Overriding Consideration was approved for adverse effects related to short-term construction-related and long-term operational emissions. Long-term, operational, local mobile-source emission of CO would not be expected to substantially contribute to emissions concentration that would exceed air quality standards. Proposed sensitive land uses and TAC sources would be adequately sited under the 2030 General Plan to minimize exposure to substantial concentration of TACs to less than significant. Sensitive receptors could be exposed to excessive odors from existing land uses (e.g., food processing facilities, wastewater treatment plant expansion, agricultural land uses); however, the 2030 General Plan policies and programs would reduce these impacts to less than significant.

Geology and Soils: The original 2030 General Plan EIR analysis concluded that implementation of existing regulations and 2030 General Plan policies and programs, would reduce impacts, including substantial risks to life related to unstable and expansive soils associated with General Plan buildout through application of best management practices and engineering controls to less than significant. Implementation of 2030 General Plan policies and programs and existing California Building Code (CBC) regulations reduce the potential for substantial adverse effects due to seismic ground shaking or ground failure.

Hazards and Hazardous Materials: The original 2030 General Plan EIR analysis concluded that in combination with existing regulations, 2030 General Plan policies would reduce public exposure to increased routine transport, use, and/or disposal of hazardous materials and potential impacts from development on Cortese-listed sites. The 2030 General Plan policies would prevent future conflicts between hazardous materials handling and emissions and schools and ensure conformance with countywide emergency response programs and continued cooperation with emergency-response service providers resulting in impacts to adopted emergency and evacuation plans that are less than significant. The Planning Area does not include any areas of moderate, high, or very high fire hazard severity zones, is not subject to any Airport Land Use plans, and there are no private airstrips in the Planning Area that would result in these potential safety hazards for people residing or working in the area.

Noise: The original 2030 General Plan EIR analysis concluded that the 2030 General Plan policies and programs include all feasible noise mitigation that reduces noise related to railway operations. However, given the proximity of existing and proposed sensitive land uses to the UPRR mainline track, it cannot be guaranteed that the City's noise standards can be achieved with every train pass-by; therefore, impacts related to railroad noise that could expose persons to noise in excess of local standards is considered significant and unavoidable. The 2030 General Plan policies and programs would reduce noise associated with vehicular transportation routes, agricultural activities, and stationary and area sources to less than significant. Exposure of persons to excessive groundborne vibration or groundborne noise levels and short-term construction noise from development under the General Plan would be reduced to less than significant with implementation of 2030 General Plan policies and programs.

Hydrology and Water Quality: The original 2030 General Plan EIR analysis concluded that implementation of 2030 General Plan policies and programs, along with existing regulations, would reduce discharges of pollutants to receiving water bodies and downstream flooding and erosion from increased stormwater runoff to less than significant. Although implementation of the 2030 General Plan policies and programs, combined with relevant state and local regulations, would reduce potential effects related to levee or dam failure to less than significant,

the proposed SB 5 GPA will lead to improved flood protection and emergency preparedness for Live Oak residents.

The SB 5 GPA flood management and protection information, goals, policies, and programs do not authorize any additional development or disturbance. The proposed GPA does not propose any physical action that could result in a direct or indirect effect on the environment, including air quality, geology and soils, hazards and hazardous materials, noise, and water quality, that would result in effects to human beings that are more severe than those described in the original 2030 General Plan EIR.

MITIGATION MEASURES

The City of Live Oak will implement 2030 General Plan policies and programs as identified in the original 2030 General Plan EIR, as applicable, to address potential impacts to the environment and human beings, and those impacts that are cumulatively considerable in the context of past, current, and future projects. No additional mitigation is required.

CONCLUSION

The SB 5 GPA would not result in direct or indirect effects on the environment or human beings, or result in cumulatively considerable impacts that are more severe than those effects described in the original 2030 General Plan EIR.

APPENDIX C

Background Information

SB 5 General Plan Amendment for 200-Year Flood Protection

SB 5 General Plan Amendment for 200-Year Flood Protection
City of Live Oak

Background Information

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July 2016

TABLE OF CONTENTS

Section **Page**

Exhibits

ACRONYMS AND ABBREVIATIONS

Cal OES	California Office of Emergency Services
CEQA	California Environmental Quality Act
CVFPB	Central Valley Flood Protection Board
CVFPP	Central Velley Flood Protection Plan
CVFMPP	Central Valley Flood Management Planning Program
DSOD	DWR Division of Safety of Dams
DWR	California Department of Water Resources
EIR	Environmental Impact Report
FEMA	Federal Emergency management Agency
FIRM	Federal Insurance Rate Maps
FRWLP	Feather River West Levee Project
GPA	General Plan Amendment
LHMP	Local Hazard Mitigation Plan
LMA	Local Management Agency
MOU	Memorandum of Understanding
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management
RFMP	Regional Flood Management Plan
SBFCA	Sutter Butte Flood Control Agency
SBPFS	Sutter Basin Pilot Feasibility Study
SFMP	Statewide Flood Management Program
SPFC	State Plan of Flood Control
SRFCP	Sacramento River Flood Control Project
SSJRBCS	Sacramento and San Joaquin River Basins Comprehensive Study
SSIA	Statewide System Investment Approach
TSP	Tentatively Selected Plan
ULDC	Urban Levee Design Criteria
ULOP	Urban Levels of Flood Protection
USACE	United States Army Corps of Engineers

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1 INTRODUCTION

1.1 SB 5 GENERAL PLAN AMENDMENT

The City of Live Oak is amending the General Plan to be consistent with the Central Valley Flood Protection Act of 2008 (SB 5, 2007), which requires cities and counties within the Sacramento-San Joaquin Valley to incorporate Urban Level of Flood Protection requirements in their general plans. The intent of SB 5 and related flood management bills is to strengthen the linkage between local land use planning decisions and floodplain management practices, and provide new requirements and standards for flood protection. Together these bills added and amended sections of the California Government Code, Health and Safety Code, Public Resources Code, and Water Code.

1.2 BACKGROUND INFORMATION ORGANIZATION

The SB 5 Bills require cities and counties to amend their local general plans no later than July 2, 2015, and to update local zoning ordinances to be consistent with their amended general plan by July 2, 2016. This document (Appendix C) provides the background information needed to fulfill the requirements of SB 5 and related bills. Appendix C is organized as follows:

- Section 1.0 Introduction provides an overview of the City of Live Oak and new general plan requirements of the SB 5 bills that will be met through the General Plan Amendment
- Section 2.0 Regional hydrology provides summary of historical flooding and structural flood management and protection systems
- Section 3.0 Local flooding management and protection, including background information on areas subject to flooding, flood emergency response, and other non-structural flood management strategies
- Section 4.0 Flood Protection Goals, Policies, and Implementation Programs
- Section 5.0 Safety Element Amendment Consultation Letters and Responses

1.3 CITY OF LIVE OAK

First settled in 1866, and incorporated in 1947, the City of Live Oak is located within the Sacramento Valley in Sutter County, California. As of 2014, the City has a population of approximately 8,500 residents. (ACS, 2014) The City is located between the Sutter Buttes to the west and the Feather River to the east, the Butte-Sutter County boundary to the north, and the unincorporated areas of Sutter County to the south. The nearest cities are Gridley to the north in Butte County and Yuba City to the south. The City of Live Oak adopted its General Plan with the most recent comprehensive update in 2010.

The City of Live Oak is responsible for providing residents with public facilities and services, such as police and fire protection; water, wastewater, and solid waste disposal services; stormwater drainage facilities, and parks/recreation services. Additionally, the City needs to evaluate community safety concerns from both man-made and natural hazards and develop policies and procedures to avoid these hazards, and create adequate emergency response. Public safety concerns include flood hazards such as localized flooding, potential flooding

from regional flood-protection system failure, and emergency response in the event of flooding. Flood management and protection services are delivered in cooperation with a variety of federal, state and local agencies. Locally, these agencies include the local maintaining agencies (LMA), which are directly responsible for levee maintenance, Sutter County Sheriff's Office, Sutter County Fire Department, and the Sutter County Office of Emergency Management (OEM). Community goals, policies, and implementation programs related to flood management and protection and emergency evacuation are included in the City's General Plan.

1.4 CALIFORNIA 200-YEAR FLOOD PROTECTION STANDARDS

On October 10, 2007, the California Legislature signed Senate Bill 5 (SB 5) into law, which enacted the Central Valley Flood Protection Act of 2008. SB 5, and a series of related Senate and Assembly bills, including SB 17, and Assembly Bills (AB) 5, 70, 156, and 162, establishes the State standard for flood protection in urban areas as protection from the 200-year frequency flood. Under these bills, both "urban and urbanizing" areas (cities and counties) in the Sacramento-San Joaquin Valley must provide Urban Levels of Flood Protection (ULOP) (200-year) standards no later than 2025. California Government Code defines urban and urbanizing areas, as follows:

Urban Area - A developed area in which there are 10,000 residents or more (California Government Code [CGC] §65007(l)).

Urbanizing Area - A developed area or an area outside a developed area that is planned or anticipated to have 10,000 residents or more within the next 10 years (CGC §65007(m)).

ULOP flood protection standards are to be instituted through local general plans and zoning. Each SB 5 affected city and county must amend their general plan to contain flood protection and management information and requirements as outlined in CGC §65962.9. After General Plan Amendment adoption, these cities and counties must update local zoning ordinances to be consistent with their amended general plan (CGC §65962.1). Unless the local land use agency certifies that 200-year flood protection has been provided, or that "adequate progress" has been made toward provision of 200-year flood protection by 2025, new development is prohibited in urban or urbanizing areas potentially exposed to 200-year flooding more than three feet deep.

1.5 SB 5 FLOOD PROTECTION AND RELATED FLOOD MANAGEMENT BILLS

The California Legislature enacted six interrelated flood management bills, summarized below, in 2007 to improve flood management in a sustainable way. Four of these bills (SB 5, AB 70, AB 156, and AB 162) affect the responsibility of cities and counties to address flood risks as part of local land use planning processes.

1.5.1 SB 5 (MACHADO, 2007)

SB 5 establishes the State flood standard for urban and urbanizing areas in Water Code §9602(i) as the ULOP, which now requires 200-year flood protection. SB 5 limits urban and urbanizing areas in the Sacramento-San Joaquin Valley from approving development projects unless they provide 200-year flood protection, or are making progress toward achieving 200-year flood protection. SB 17 and AB 162, as described below, are companion bills that the California Legislature signed into law at the same time as SB 5.

1.5.2 SB 17 (FLOREZ, 2007) AND AB 5 (WOLK, 2007)

SB 17 and AB 5 renamed the State Reclamation Board in the Department of Water Resources (DWR) as the Central Valley Flood Protection Board (CVFPB), transferring the duties and corresponding funding allocated to the Reclamation Board. The laws also provide the administrative requirements for the CVFPB. Among a number of mandates, the bills directed DWR to prepare a preliminary report of the State Plan of Flood Control (SPFC) facilities and the Central Valley Flood Protection Plan (CVFPP) for CVFPB adoption. The CVFPP (DWR, 2012) is a strategic flood management plan that guides California's participation with cooperation from federal and local agencies in managing flood risk along the Sacramento and San Joaquin river system. The CVFPP comprehensively addresses flood risks, setting out improvements in operation and maintenance practices, and provides institutional support for flood management. The CVFPP provides guidance for regional flood management plans (RFMPs), flooding requirements of local general plans and zoning, and local flood management and facility improvement plans.

1.5.3 AB 156 (LAIRD, 2007)

AB 156 provides additions to the California Water Code (CWC) that institutes requirements for local maintaining agencies who maintain either project levees or non-project levees that also benefit land within the boundaries of an area protected by a project levee. These local maintaining agencies must submit each year, specific information relative to the project levee they operate and maintain (e.g., known conditions that might impair or compromise project levee flood protection).

1.5.4 AB 162 (WOLK, 2007)

AB 162 supplements the SB 5 requirements for those cities and counties that are also located within the boundaries of the Sacramento-San Joaquin Drainage District. Created by the State Legislature in 1913, the statute allows the State Engineer at the time to procure data and perform surveys and examinations of the San Joaquin and Sacramento rivers and their tributaries for furthering the CVFPB's plan for controlling floodwaters of the rivers, preserving navigation, and protecting lands susceptible to their overflows. AB 162 stipulates additional requirements for cities and counties in amending their general plan Safety Element, as well as requirements for the Land Use and Conservation Elements. AB 162 also requires that cities and counties consult with agencies during preparation and amendment of general plan Safety Elements, and contains specifications related to Housing Element updates. The City of Live Oak is within the Drainage District. At this time, there are no proposed changes to the City's General Plan Housing Element.

1.5.5 AB 70 (JONES, 2007)

AB 70 makes a local government jointly liable with the State, for property damage costs resulting from a flood if it unreasonably approves new development in areas protected by SPFC facilities.

1.6 200-YEAR FLOOD REQUIREMENTS FOR LOCAL GOVERNMENTS

Over the last 60 years, California has experienced more than 30 major flood events, resulting in more than 300 lives lost, more than 750 injuries, and billions of dollars in disaster claims.[1] Therefore, the State established a

[1] DWR, State Flood Management Planning Program, http://www.water.ca.gov/sfmp/

long-term goal to improve flood protection. This goal includes promoting a clear understanding of the flood risk in California, expanding information and technical assistance to flood protection and land use agencies, improving flood protection and facility design standards, and an enforcement system for the new requirements. The Statewide Flood Management Planning (SFMP) program is led by the DWR through the FloodSAFE Initiative and the Division of Statewide Integrated Water Management. The Central Valley Flood Management Program is an effort to improve flood management specifically for the Central Valley. Two integral features of the program directed to local governments within the Central Valley include the Urban Level of Flood Protection and the Central Valley Flood Protection Plan (DWR, 2012).

1.6.1 URBAN LEVELS OF FLOOD PROTECTION (ULOP)

A key requirement of SB 5 is for certain urban and urbanizing areas within the Sacramento-San Joaquin Valley to provide ULOP. The ULOP is defined as the "level of protection that is necessary to withstand flooding that has a 1-in-200 chance of occurring in any given year using criteria consistent with, or developed by, the Department of Water Resources." ULOP does "not mean shallow flooding or flooding from local drainage that meets the criteria of the national Federal Emergency Management Agency standard for flood protection." (CGC §6507[n]) Levees that are intended to provide ULOP must conform to State-defined Urban Levee Design Criteria (i.e., 200-year flood protection).

There are five locational criteria for the ULOP to apply, an SB 5 affected city or county must meet all criteria. The City of Live Oak meets three criteria (the City is an urban or urbanizing area that is planned or anticipated to have 10,000 residents within the next ten years, the City is within the Sacramento-San Joaquin Valley, and the City is located within a watershed with a contributing area of more than 10 square miles). The City does not meet the remaining two criteria: 1) is located within a flood hazard zone that is mapped as either a special hazard area or an area of moderate hazard on Federal Emergency Management Agency's (FEMA) official (i.e., effective) Flood Insurance Rate Map for the National Flood Insurance Program (NFIP) and 2) is located within an area with a potential flood depth above 3 feet from sources other than localized conditions. Localized conditions include localized rainfall, water from stormwater and drainage problems, and temporary water and wastewater distribution system failure. Therefore, the City of Live Oak is not subject to the ULOP standard.

1.6.2 CENTRAL VALLEY FLOOD PROTECTION PLAN (CVFPP)

Adopted by the CVFPB in 2012, the CVFPP provides a broad understanding of the potential for flooding in the Central Valley, describes the existing flood protection systems and the adequacy of these systems, and sets out a statewide strategy for funding flood protection improvements. The financing strategy is known as the Statewide System Investment Approach (SSIA). The CVFPP is primarily concerned with SPFC facilities, which are shared federal-State flood control facilities (e.g., levees, channels, pumping plants) the State is obligated to cooperate in maintaining and improving. The primary regional goal of the CVFPP is to improve flood risk management by reducing the chance of flooding and damages once flooding occurs, and public safety, preparedness, and emergency response. Secondary goals include improving operations and maintenance of flood management systems, integrating the recovery and restoration of key ecosystem functions into the flood management system, improving institutional support, and promoting multi-benefit projects. The CVFPP also identifies the need for more area-specific regional flood management plans (RFMPs). An RFMP has been drafted for the Feather River Region (SBFCA, 2014), which includes the Butte Basin, Sutter Basin, terraces, and alluvium. The Live Oak 2030

General Plan Area is within the Sutter Basin. The CVFPP is updated on a 5-year cycle and local plans must be consistent with the CVFPP.

1.7 LIVE OAK 2030 GENERAL PLAN

Pursuant to CGC §65000, each planning agency (city or county) is required to prepare and adopt a "comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgement bears relation to its planning." A general plan describes the communities land use and development objectives, goals, policies, and implementation programs. The City of Live Oak conducted a comprehensive update of its general plan, which the City adopted in 2010. (City of Live Oak, 2010a) The Live Oak Land Use Diagram is shown in Figure 1 (Figure LU-5 in the Land Use Element).

Live Oak's 2030 General Plan provides goals, policies, and implementation programs for development through 2030, and addresses the seven general plan elements required by law. These seven elements include land use, circulation (transportation and local public utilities and facilities), housing, conservation, open space, noise, and safety. The City's 2030 General Plan also provides elements that address other local conditions, specifically community character and parks and recreation. The safety element requires policies and programs to protect the community from risks associated with seismic, geologic, flood, and wildfire hazards. The City of Live Oak's existing safety goals, policies, and implementation programs related to community flood protection and management are located in the 2030 General Plan Public Safety Element, the Public Utilities, Services, and Facilities Element, and the Conservation and Open Space Element. The SB 5 GPA will amend the City's 2030 General Plan to incorporate SB 5 and other related flood management and protection bill requirements.

1.8 SB 5 SAFETY ELEMENT REQUIREMENTS

The Live Oak 2030 General Plan adopted in 2010 preceded the requirements of the SB 5 bills. The 2030 General Plan Safety Element includes the Safety Element requirements in effect at the time (GOV §65302(g) (1)); FEMA 100-year flood protection was the accepted flood protection standard:

> *A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.*

The SB 5 bills provide detailed Safety Element requirements related to flood protection, including the addition of specific information, and for the establishment of goals, policies, and implementation measures that reflect current statewide flood protection strategies and feasible implementation measures. Live Oak's 2030 General Plan needs to be amended to reflect the requirements of the SB 5 Bills.

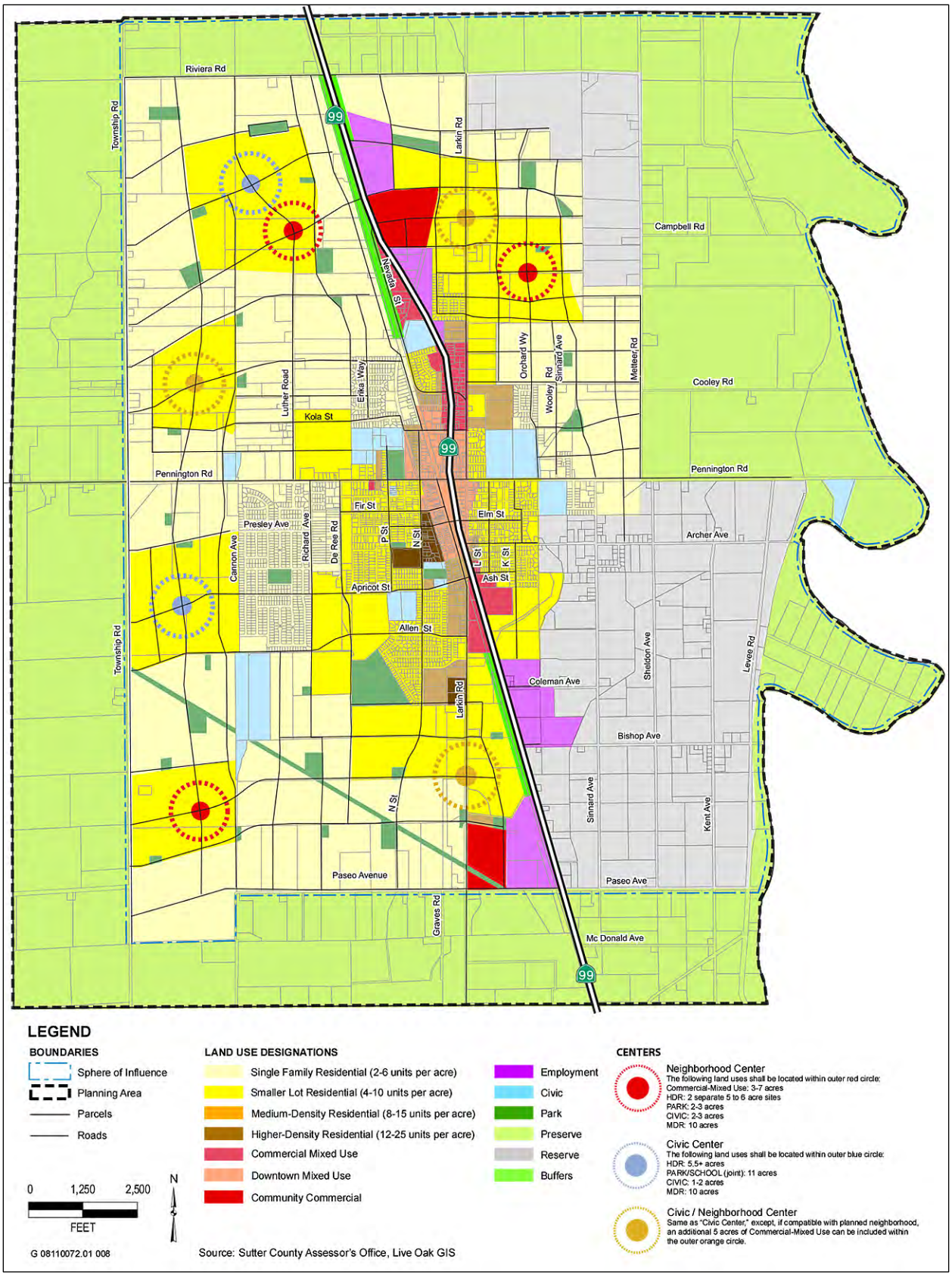


Figure 1 – Live Oak Land Use Diagram

California Government Code §65302(g) (2) states that the safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency (FEMA). The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(i) National Flood Insurance Program maps published by FEMA.

(ii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iii) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(iv) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

(v) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vi) Maps of levee protection zones.

(vii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(viii) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(ix) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(x) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

The Live Oak 2030 General contains information, goals, policies, and implementation programs related to the Safety Element requirements in three locations:

- Public Safety Element, Background and Context - Flood Hazards Section
- Public Utilities, Services, and Facilities Element, Drainage and Flood Protection Section
- Conservation and Open Space Element

The Conservation and Open Space Element provides limited information to flooding and flood control, peripherally identifying notable hydrologic features in and bordering the 2030 General Plan Area, as well as groundwater resources, and includes goals, policies and implementation programs for the protection of water resources. Detailed information related to flooding from the Sacramento River and its tributaries, including the Feather River, and flooding-related information required by the SB bills is not provided here.

1.9 GENERAL PLAN AMENDMENTS AGENCY CONSULTATION AND REVIEW

Government Codes §65302(g) (5) and 65302.7 require agency consultation and review. Prior to amending the safety element, cities and counties are required to consult with the CVFPB, the California Office of Emergency Services (Cal OES), and the California Geological Survey of the Department of Conservation. Cities and counties must also submit the draft safety element for review by CVFPB, and "every local agency that provides flood protection to the city or county." For the City of Live Oak, this agency is the Sutter Butte Flood Control Agency (SBFCA) Documentation of the City's consultation and agency review are found in Section 5.0.

1.10 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A general plan amendment is considered a "project" according to the California Environmental Quality Act (CEQA) Guidelines (Guidelines §15378(a)(1)), and its potential environmental effects of the proposed general plan amendment's goals, policies, and implementation programs must be considered before the general plan amendment can be adopted. The City is using its certified 2030 General Plan environmental impact report (EIR) to address potential impacts or rule out effects if otherwise consistent with the general plan. Therefore, the City as the lead agency prepared an addendum to the 2030 General Plan EIR in conjunction with the SB 5 GPA. Prior to

adoption of the SB 5 GPA, and after the required agency review of the SB 5 GPA, the City Council will consider whether the amendment would have a significant effect on the environment, and consider adopting the 2030 General Plan EIR Addendum.

1.11 GENERAL PLAN AMENDMENT ADOPTION

The City of Live Oak will conduct public hearings for consideration of the SB 5 GPA before the Live Oak Planning Commission and City Council in October, 2016. Hearings will be noticed in accordance with the requirements of Government Code §65353 and §65091. After considering the Planning Commission's recommendations, the City Council will consider approving the SB 5 GPA, and certifying the 2030 General Plan EIR Addendum. The City Council is also anticipated to make findings that the City of Live Oak Title 17 Zoning Regulations (amended December 21, 2011) is consistent with the SB 5 GPA and a zoning update is not required, and that the SB 5 GPA is consistent with the existing 2030 General Plan.

2 REGIONAL HYDROLOGY AND FLOOD PROTECTION

The Sacramento River Basin is the largest river basin in California, covering approximately 27,000 square miles, and supplies water for much of California. Major water supplies in the region are provided through surface storage reservoirs. There are more than 40 major surface water reservoirs in the region. Sutter County, including the 2030 Live Oak General Plan Area, is within the Sacramento River Basin, situated between the Sacramento River on the west and the Feather River on the east. The 2030 General Plan Area and most of Sutter County are located within the Feather River watershed (See Figure 2). Flow in the lower Feather River above the 2030 General Plan Area is controlled mainly by releases from Lake Oroville, the second largest reservoir within the Sacramento River Basin.

The flood management system along the Sacramento River and its tributaries manages flood flows originating from the Sacramento River Basin. Major tributaries to the Sacramento River include the Feather, Yuba, Bear, and American Rivers, which discharge to the Sacramento River from the east. The primary tributary to the Sacramento River upstream of the Live Oak 2030 General Plan Area is the Feather River. The Feather River West Levee system protects the 326-square mile Sutter Basin area, within the larger Sacramento River Basin, which includes the Cities of Live Oak, Yuba City, Biggs, and Gridley.

2.1 REGIONAL FLOODING AND FLOOD PROTECTION HISTORY

Initial local levee construction was based upon historical water levels. Competing levees on either side of the Feather River, as well as increased sedimentation from upstream hydraulic mining, constrained the flood carrying capacity of the river. As a result, the levees were overtopped, failed, and then rebuilt to a higher elevation. While the federal courts put an end to hydraulic mining, the California Debris Commission proposed a comprehensive plan consisting of levees, weirs, and bypasses to reduce the risk of flooding in the Sacramento Valley. In 1911, the State formally adopted the plan, and the California Reclamation Board (now known as the Central Valley Flood Protection Board or CVFPB) was empowered to approve plans for the construction of levees along the Sacramento River, its tributaries and within any of the overflow basins. The Sacramento River Flood Control Project (SRFCP), which encircles the Sacramento River Basin, was initially authorized by the Flood Control Act of 1917. Since then the United States Army Corps of Engineers (USACE), the State, and local communities continue to extend the system and improve the existing levees. In 1938, USACE rebuilt the Feather River West Bank Levees from Shanghai Bend to Yuba City in accordance with the established design criteria. (USACE, 2013)

The Sutter Basin topography provides for broad and shallow floodplains with a northeast to southwest flow toward the deeper southern basin. Since 1950, extensive flooding has occurred in the Sutter Basin during 19 events.[2] Past flooding events have caused loss of life and extensive economic damage. Two major flood events include the Christmas Flood in 1955 and the January 1997 Floods.

On December 23, 1955 and proceeded by abnormal and heavy rainfall, a break in the levee on the Feather River south of Yuba City occurred at about midnight. At the time, there was no upstream- dedicated flood storage at Oroville or New Bullards Bar Dams and Reservoirs because they had not been constructed yet.

[2] USACE, 2013

Source: CVFMPP, 2010

Figure 2 – Sacramento River Basin, 5 Major Watersheds with SPFC facilities

The cities of Linda, Oliverhurst, Yuba City, and Marysville were evacuated. The initial surge of water spread westerly through Gilsizer Slough to the Sutter Bypass and northerly into Yuba City. The bridge over the Feather River at 5th Street was washed-out and telephone service was lost south of Colusa Avenue. To the north, the water spread north of Colusa Avenue (Highway 20) in several areas. Within less than 24 hours, the heart of Sutter County was flooded from the Feather River on the east and south to the Sutter Bypass on the west and southwest. Nearly 100,000 acres were flooded and resulted in 38 deaths, injuries to 3,200 people, and nearly $40 million in property damage. In 1997, a series of storms doubled the average snow pack in the Sierra Nevada Mountains. Eventual runoff from the snowpack was quickly filling several dams and Sutter County was notified about the potential for substantial uncontrolled releases into the river from the Oroville Dam, resulting in voluntary and mandatory evacuation for several areas in the County. A levee in the Sutter Bypass experienced a massive break. The City of Meridian was the hardest hit area in Sutter County with approximately 50 square miles under water. Virtually every facility was destroyed or damaged, including nearly 100 homes and a school, which was standing in four feet of water. No lives were lost, but the estimated financial losses to individuals and businesses were about $18 million. Not including long-term damage to orchard trees, agricultural losses exceeded $5 million, and losses to County public agencies amounted to approximately $10 million. DWR's Regional Flood Atlas - Draft (DWR, 2013) contains a more detailed flood history of the Feather River Region area as a whole, as well as descriptions of individual events. In the City of Live Oak, there have been seven historical claims for flood losses totaling $66,660. These were for pre-Flood Insurance Rate Map (FIRM) structures. National Insurance Program data indicates that there are no repetitive loss buildings in the City (County of Sutter, 2013a, b).

Geotechnical analysis and evaluation of past levee performance indicated that existing project levees within the Sutter Basin, which are part of the authorized SRFCP, did not meet USACE levee design criteria, and were at risk of breach failure at stages less than overtopping the levees. Because residents, businesses, and local governments within the Sutter Basin were acutely aware of the flood risks, they created the Sutter Butte Flood Control Agency (SBFCA) to address flood protection, as well as tax assessments specifically for reducing the flood risk. The SBFCA formally sought partnership in improving flood protection in the form of a continuing feasibility study with CVFPB and the federal government to address the flood risk. When USACE's Federal Pilot Program for planning modernization was initiated in 2011 to develop a new risk-informed planning process paradigm, both SBFCA and CVFPB readily supported and signed on to be part of the pilot program (USACE, 2013).

2.2 FLOOD PROTECTION FACILITIES

Federal agencies provide flood protection, primarily through the USACE, by evaluating flood risk and developing federal design standards for the construction of federally authorized flood control facilities such as reservoirs, bypasses and levees. Although the State has had a long-term partnership with the federal government, being the primary agency responsible for inspecting and maintaining the federally constructed flood control facilities, historically, the State did not have a major role in the planning, design standard development, or in flood protection facility construction, until the passage of the SB 5 bills.

2.2.1 UPSTREAM RESERVOIRS

The construction of large reservoirs on the Sacramento, Feather, and Yuba River offer flood risk reduction by regulating flood discharge flows. The Oroville Dam and Reservoir, built in 1967, and operated by the State of California, is a unit of the Feather River Project, which is part of the State Water Project. The State Water Project is a water storage and delivery system of reservoirs, aqueducts, powerplants, and pumping plants. The Oroville

Dam is located on the Feather River, a tributary of the Sacramento River, in the Feather River Canyon, about 6 miles upstream from the town of Oroville. The dam was built for multi-purpose functions: water supply, flood control, power generation, recreation, and conservation. The reservoir provides water supply to the areas adjacent to the Feather River, as well as additional water for diversions from Sacramento-San Joaquin Delta to areas in the San Joaquin Valley, San Francisco Bay Area, and Southern California. The 750,000 acre-feet flood control storage space in the Oroville Reservoir provides flood protection to the cities of Marysville, Yuba City, Oroville, and many smaller communities located in the floodplain, including Live Oak.

New Bullards Bar, built in 1969 and operated by the Yuba County Water Agency, is located on the Yuba River. It provides 170,000 acre-feet of flood control space. Operations at New Bullards Bar are coordinated with operations at Oroville to control flood flows on the Feather River. For both Oroville and New Bullards Bar, the flood control space was purchased under Section 7 of the Flood Control Act of 1944 (58 Stat. 890) by the federal government. Any encroachment into the flood control space must be released during the flood season, as defined by the water control operations manual.

Flood control operations for the Feather River (as defined in the Oroville and New Bullards Bar Water Control Manuals) require Feather River flows to not exceed 150,000 cubic feet per second (cfs) at Oroville, 180,000 cfs above Yuba River, and 300,000 cfs below Yuba River. Insofar as possible, the Feather River below Bear River must be limited to 320,000 cfs. During very large floods, releases greater than 150,000 cfs at Oroville may be required, as indicated by the emergency operations, in order to minimize uncontrolled spillway discharges.

Given the unregulated local flows in the Feather River and Yuba River drainage areas as well as the uncertainties associated with regulating for downstream controls, the State, in cooperation with

Yuba County Water Agency and USACE, has invested heavily in coordinating operations, including developing models, establishing off-site data servers, and holding annual mock operations scenarios. (USACE, 2013)

2.2.2 FEDERAL LEVEES

Federal levees are referred to as “project” levees and are built to comply with USACE guidelines. Flood management facilities protecting the City of Live Oak consist of federal project levees along the west side of the Feather River. The levees are a portion of the Sacramento River Flood Control Projects (SRFCP), which includes levees on the Sacramento River with adjacent reaches of its tributaries, including the Feather River, and distributaries. Construction of the SRFCP began in 1918 and continued for decades. The SRFCP includes most of the levees, weirs, control structures, bypass channels, and river channels that comprise the State Plan of Flood Control (SPFC). About 980 miles of levees were involved in the project. The State of California adopted and authorized the SRFCP in1953 and assurances of co-operation were provided in the 1953 Memorandum of Understanding (MOU) (USACE and the California Reclamation Board, 1953). This MOU included levee construction standards for river project levees and bypass levees, and outlined maintenance responsibilities. The plan specified no differences in levee standards for urban versus agricultural levees. All levees on the Feather River within the Sutter Basin are part of the SRFCP that was constructed by USACE (CVFMPP, 2010).

2.2.3 STATE PLAN OF FLOOD CONTROL (SPFC) LEVEES

Under long-term federal-State agreements, the State commits to the maintenance of federally constructed flood protection facilities, which are part of the State Plan of Flood Control (SPFC). The SPFC by definition (CWC §9110(f)) consists of:

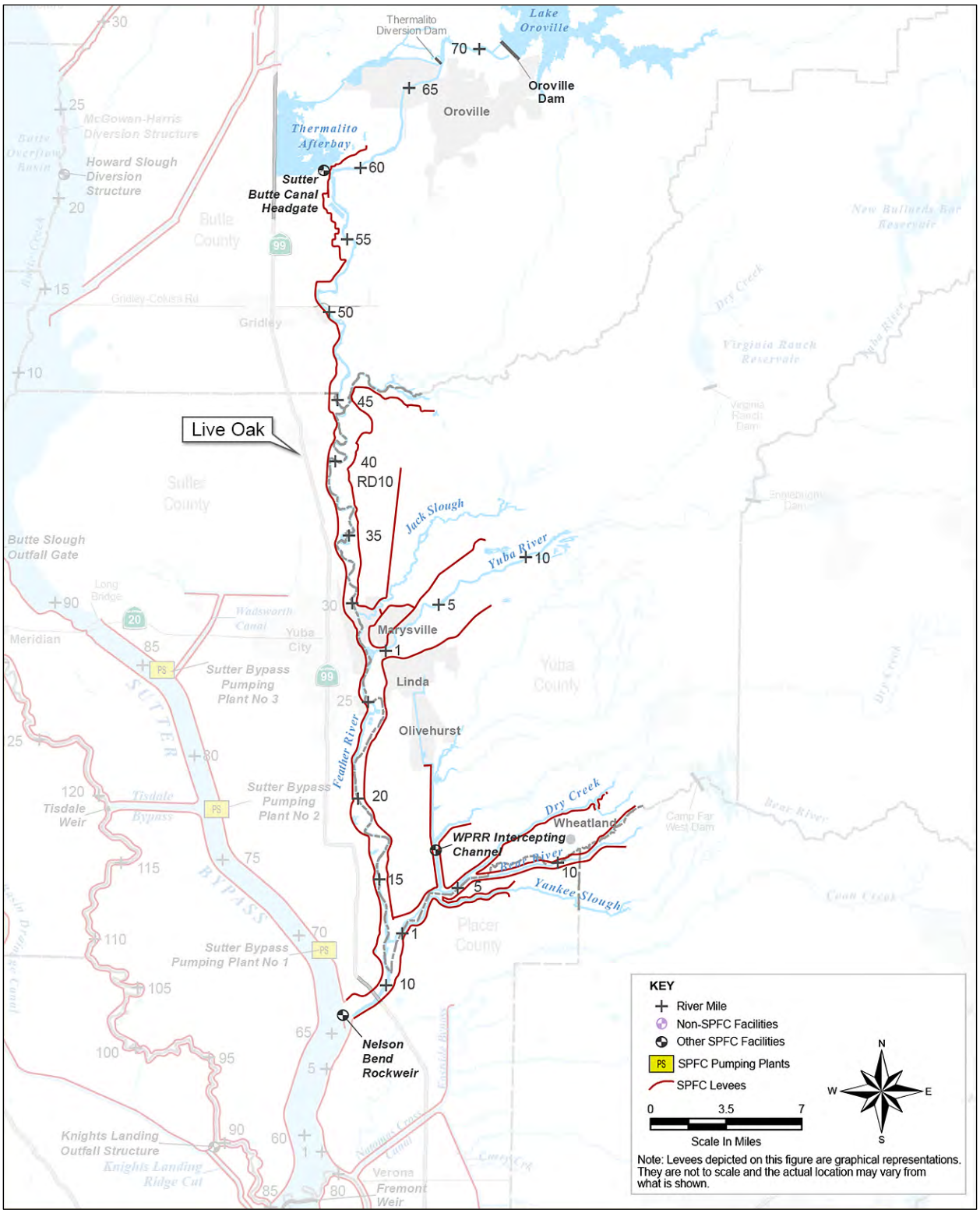
> *"the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento Flood Control Project described in Section 8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds .. .... for which the (state) has provided the assurances of non-federal cooperation to the United States, and those facilities identified in Section 8361."*

The State Plan of Flood Control facilities in the Feather River Watershed include levees as well as channels, weirs, and pumping plants. Figure 3 shows the SPFC facilities in the Feather River Watershed in relation to the City of Live Oak.

During the development of the Central Valley Flood Protection Plan (CVFPP), the areas protected by the facilities of the SPFC were organized into flood planning regions, including the Feather River Region, to account for variations in land use conditions, flood protection facilities and flood hazards. The Feather River Region includes areas protected by SPFC levees (project levees) near the Feather, Yuba, and Bear Rivers above Verona. This region's land uses are primarily rural, but does include several urban areas, including Biggs, Gridley, Live Oak, Marysville, Yuba City, Olivehurst, and Linda (DWR, 2013a).

Levee maintenance work is delegated by the State to the local maintaining agencies (LMAs), which can be any city, county, district or other political subdivision of the State that is authorized to maintain levees.

Existing levees along the Feather River, Sutter Bypass, Cherokee Canal, and Wadsworth Canal, as well as the Butte Basin, are features of the SRFCP. The SRFCP is designed to keep flows from frequent flood events within the river, and convey and divert larger flood flows into the Yolo and Sutter bypass system. The Sutter Bypass borders the Sutter Basin on the southwest, receives flood flows from the Sacramento River, Feather River, and Butte Basin. The CVFPB is responsible for operations and maintenance of the SRFCP levees. Under the oversight of the CVFPB, which is staffed by DWR, the SRFCP levees within the Sutter Basin are maintained by three different local maintenance agencies: DWR, Sutter maintenance yard; Levee District 1; and Levee District 9. The levees are maintained in accordance with a Standard Operations and Maintenance Manual for the SRFCP prepared by USACE (USACE, 2013).



Source: CVFMPP, 2010

Figure 3 – Feather River Watershed, SPFC facilities

2.3 FEATHER RIVER WEST LEVEE PROJECT (FRWLP)

As mentioned earlier, residents, businesses, and local governments of Sutter Basin are keenly aware of flood risk, which led to creation of the SBFCA. The SBFCA is a joint powers agency formed in 2007 by the Counties of Butte and Sutter, the Cities of Biggs, Gridley, Live Oak, and Yuba City, and Levee Districts 1 and 9. The agency has the authority to finance and construct regional levee improvements. In 2007, SBFCA embarked on a comprehensive evaluation of the Feather River West Levee (FRWL) system to evaluate and identify the deficiencies, their magnitude and severity, and the remedial measures required to bring the FRWL system up to the current federal and state flood protections standards. SBFCA's goal is to achieve a minimum 200-year level of flood protection for urbanized and urbanizing areas within the Sutter Basin, as much of the County was considered vulnerable to flooding from levee failure.

While only the southwest portion of the Sutter Basin, including the southern portion of Yuba City, are susceptible to flooding from the Sutter Bypass, nearly the entire Basin, including Live Oak, is susceptible to flooding from the Feather River. The local Feather River Levee Project (FRWLP) involves the construction of slurry walls, stability berms, and seepage berms to remediate the identified geological problems, including under-seepage and embankment instability for about 41 miles of the existing Feather River project levees from the Thermolito Afterbay south to a point approximately 4 miles north of the Feather River-Sutter Bypass confluents. The FRWLP is a distinct project formulated independently and separate from the Federal Sutter Basin pilot project. The FRWLP is intended to advance the implementation of local flood risk-reduction measures in conjunction with implementation of a Federal Project. (USACE. 2013)

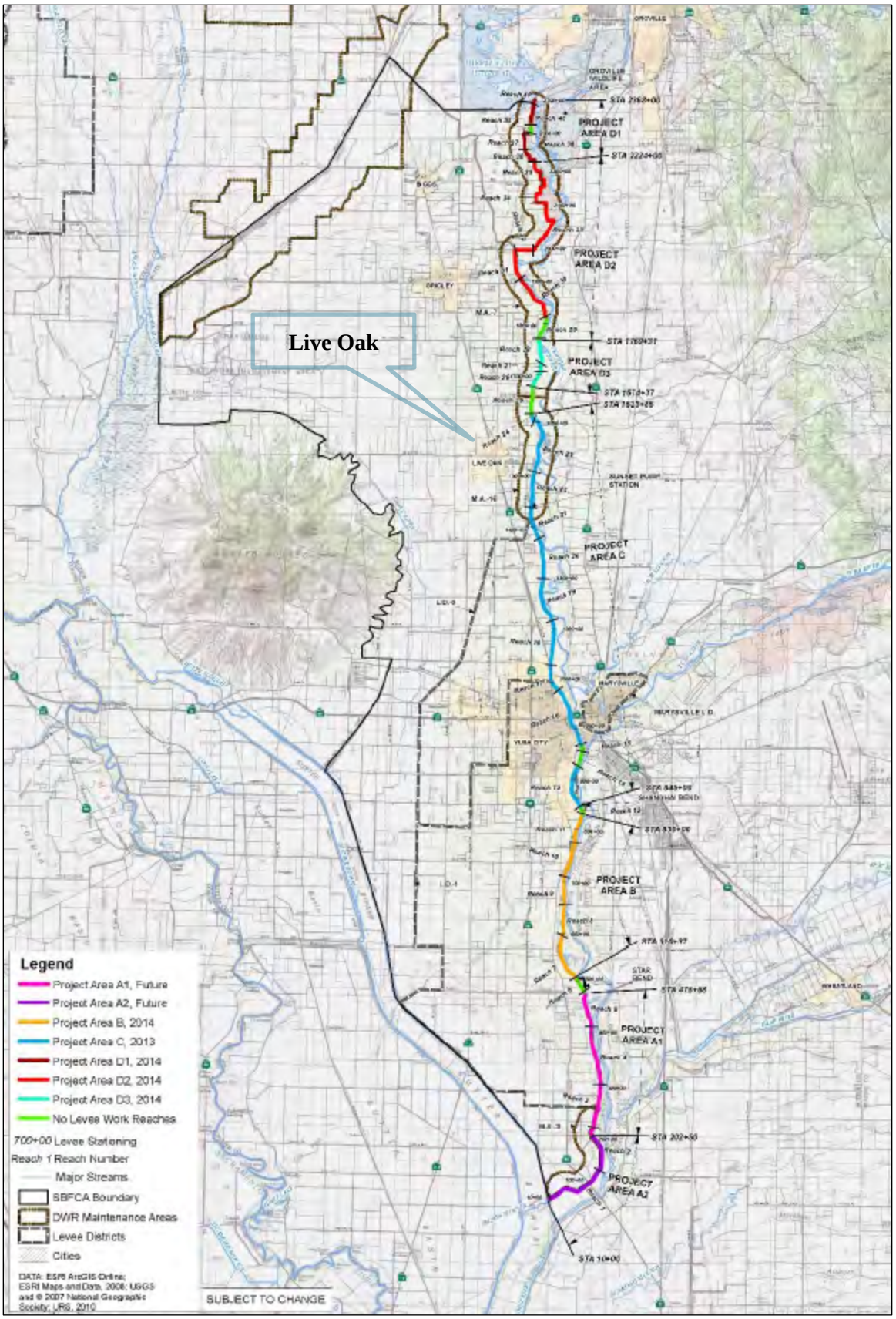
As a part of ongoing efforts to achieve a minimum 200-year level of flood protection for urban areas in the Sutter Basin, SBFCA divided the FRWL Project (FRWLP) into four project areas: Project Areas A, B, C, and D (See Figure 4). In 2013, the SBFCA first started construction on the required state 200-year flood protection improvements (Project Areas B, C, and D). Construction is expected to be completed in 2017. Planning work for Project Area A (south of Yuba City), is ongoing and the goal is to improve this reach to ensure the required 100-year protection for this section of the levee system. It is important to note that Reaches 26-28 (FRWL stationing 1674+37 thru 1769+31) are not being remediated to provide a 200-year level of protection since these levees are located on high ground and the 200-year water surface would not contribute to the Sutter Basin floodplain if these levees were removed[3] (SBFCA, 2014a).

The 200-Year Post-Feather River West Levee Project Floodplain Mapping report (SFBCA, 2016) documents the development of the post-Feather River West Levee Project (FRWLP) 200-year floodplain maps. The study analyzed potential flooding under three scenarios: interior drainage problems, Sutter Bypass levee breaches, and Feather River Levee breaches south of Star Bend (outside of the FRWLP Areas B, C, and D). Interior drainage sources are localized flooding problems often caused by storm drain system overload, or an unusually heavy amount of rainfall. The Report presents the 200-year post-project floodplain extent based upon completion of the FRWLP improvements for Project Areas B, C, D, and the Star Bend setback, which runs from Thermalito Afterbay to south of Star Bend (River Mile 17.0; Levee STA 478+68). This Report did not analyze or address flood risk from the Cherokee Canal or Butte Sink. The Cherokee Canal is a component of the SPFC that diverts excess floodwater originating in the foothills northeast of the Thermalito Afterbay. Cherokee Canal is a channelized portion of Dry Creek that flows southwesterly from central Butte County to the Butte Sink. The

[3] Sutter Butte Main Canal: Investigation Regarding Inflow from a Feather River West Levee Breach, PBI, 2011

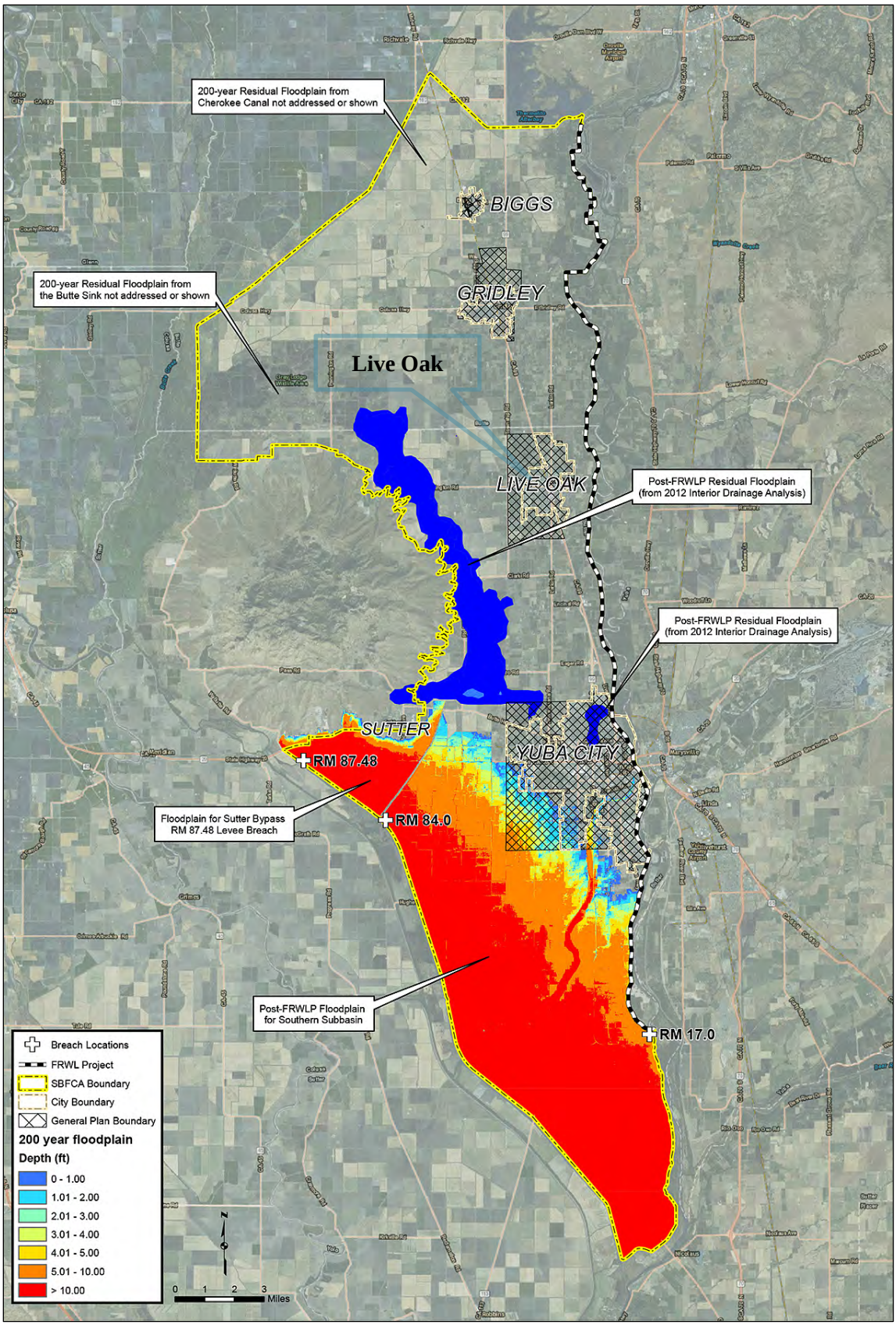
Cherokee Canal and Butte Sink are located in the furthest northwest region of the Sutter Basin and are primarily in FEMA Zone A (inundated by 100-year flooding; FEMA base flood elevations [BFEs] have not been determined). However, available FEMA 100-year mapping and 200-year mapping produced by the San Joaquin River Basins Comprehensive Study (USACE, 2002), available on DWR Best Available Maps (BAM) website (http://gis.bam.water.ca.gov/bam/) show that flooding from these sources are outside the reach of the Live Oak 2030 General Plan area.

In total, the comprehensive 200-year post-FRWLP floodplain map incorporates potential 200-year flooding of the Sutter Basin under each of the above noted scenarios. The resulting 200-year post-floodplain map for the entire Sutter Basin highlighting depths greater than 3-feet is shown in Figure 5. As shown in Figure 5, under the above flooding scenarios and with completion of the FRWLP, it is unlikely that 200-year flooding would reach the Live Oak 2030 General Plan Area.



Source: SBFCA, 2016

Figure 4 – FRWLP Construction Phasing Plan



Source: SFBCA and Peterson.Brustad,Inc., 2016

Figure 5 – Sutter Basin 200-Year Post- FRWLP Project Residual Floodplain Depths

3 FLOODING IN THE CITY OF LIVE OAK

High-intensity rainfall is the primary cause of localized flooding. Flooding from weather events frequently occurs in developed or urbanized areas with large amounts of impervious surfaces or in areas that have inadequate storm drainage systems. Riverine flooding occurs during or after prolonged periods of rainfall, or if rain events and snowmelt are combined. The Feather River, which forms the eastern border of the 2030 General Plan Area, consists of a large watershed that stretches to the Sierra Crest. The city's location in the lower portions of the Feather River Watershed exposes the community to substantial risk from riverine flooding.

Additionally, riverine flooding can overwhelm the integrity of the local or regional levee system. Levee failure can result if water overtops a levee, if high river levels saturate the levee banks, or if the levee itself is structurally defective. Levee failure can occur very rapidly with little warning. Once a levee is breached, floodwaters can inundate large low-lying areas. Levee overtopping or failure could cause catastrophic flooding in the 2030 General Plan Area. However, as noted in the above section (Sutter Butte Flood Control Agency), the goal of the Feather River West Bank Levee Project improvements is to protect the Sutter Basin, including the Live Oak 2030 General Plan Area, by providing 200-year flood protection.

Dam failure occurs when a dam is not structurally sound or is unable to withstand damages resulting from seismic activity. The degree and speed of dam failure depends on the dam's structural characteristics. The Planning Area is susceptible to a variety of dam failure hazards. Due to the relatively flat topography surrounding the City, dam failure would result in sheet flow. This is opposed to the "bowl effect" of the southern portions of the County. As shown in a later section (3.1.3 – Local Flood Hazard Areas) of this document, the City of Live Oak should have ample warning time to prepare evacuation.

3.1 LOCAL FLOOD PROTECTION

The Live Oak 2030 General Plan area is relatively flat due to its location in the Sacramento Valley, near the Feather River. The drainage pattern of the city is split into two drainage sheds. The majority of the land west of the Southern Pacific Railroad drains south to Reclamation District (RD) No. 777 drainage canal Lateral No. 1. The land east of the railroad drains south and is collected in Live Oak Slough, which is the main canal for Reclamation District (RD) 777. Live Oak is susceptible to localized flooding by Live Oak Slough, which runs along the east side of the City. These channels drain into the East Intercepting Canal or the West Intercepting Canal, which drain in the Wadsworth Canal, a levee channel that flows into the Sutter Bypass channel. The West and East Intercepting canals and the Wadsworth Canal are owned, operated, and maintained by DWR.

3.1.1 RECLAMATION DISTRICT NO. 777 (RD 777)

RD 777 provides drainage to most of the Live Oak General Plan Area. The District operates laterals 1, 2, 6, 6A, 14, and the Main Canal (Live Oak Slough) in the area in and around the Planning Area. The original RD 777 drainage channel capacities were documented in a 1921 letter to the RD 777 Board of Trustees. The drainage channels were sized to provide a capacity of 15 cubic feet per second (cfs) per square mile of tributary area. This flow rate was based on a daily runoff value of 0.5 inches (RD 777 2006: 3-1).

3.1.2 RECLAMATION DISTRICT 2056 (RD 2056)

RD 2056 provides storm drainage to an area in the northwestern portion of Live Oak's 2030 General Plan Area. The original RD 2056 drainage channel capacities were sized to provide a capacity of 15 cfs per square mile of tributary area, based on a daily runoff of 0.5 inches. Drainage facilities would be designed to accommodate the runoff from the full buildout of the Live Oak 2030 General Plan (City of Live Oak 2006c: 22).

3.1.3 LOCAL FLOOD HAZARD AREAS

As noted in Section 2.2, SB 5 affected cities are required to include information related to flooding in their general plan Safety Element. Required flood hazard information and maps include information from USACE, and maps identifying CVFPB floodways, dam failure inundation, Awareness Floodplains, DWR 200-year designated floodplains, Levee Protection Flood Zones, and areas potentially subject to flooding in the event of a failure of levees and floodwalls. Although some of the required information overlaps or is superseded by more recent or accurate information, all required information and maps are included and/ or addressed, as follows:

1. **Flood Hazard Zones** – defined in SB 5 as "an area subject to flooding that is delineated as either a special hazard areas or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency [FEMA]."

   Flood Insurance Rate Maps (FIRMS) for the City of Live Oak and the Planning Area include FIRM Panel 0603940030B and 0603940035B issued by the FEMA. Panel 0603930030B map is not printed by FEMA as the area is Zoned X, which FEMA defines as having minimal flooding hazards. These areas are deemed protected from the one percent annual (100-year) chance flood by levee, dirt, or other structures that are subject to possible failure or overtopping during larger floods. Referencing FIRM Panel 0603940035B (Panel 35 of 325), the area surrounding the City limits of Live Oak (Planning Area) is in Zone X500, which is a 0.2 percent annual (500-year) chance flood event floodplain. FIRM Panel 0603950001c shows a small area in the Live Oak 2030 General Plan Area is susceptible to flooding (Zone A). Zone A is defined as an area of 100-year flood; base flood elevations and flood hazard factors not determined. As discussed in Section 3.1 of this document, this area is susceptible to localized flooding from the Live Oak Slough. FEMA floodplain mapping is also shown in the Feather River Regional Flood Atlas-Draft, Map 16.

   In January 2014, the City of Live Oak received a Letter of Map Revision (LOMR) from FEMA with an annotated FIRM panel map, which revises the small area in the City's Plan Area that is susceptible to localized flooding from Zone A to "Contained" (in storm drain), and indicates incorporation of the modification. However, per FEMA, the FIRM panel map will not be physically revised until changes warrant physical revision and republication in the future. Figure 6 (Figure Safety-1 in Public Safety Element) shows the FEMA 100- and 500-year floodplain maps, combined, and has been updated to reflect the LOMR.

2. **United States Army Corps of Engineers (USACE) Information** – The USACE was responsible for preparing the Sacramento and San Joaquin River Basins Comprehensive Study (SSJRBCS) after the floods of 1997. In addition to a post-1997 flood risk and damage assessment, the SSJRBCS (USACE, 2002) addresses the entire Central Valley flood control system, plan development for flood control and environmental restoration, and hydrologic/hydraulic modeling of the system including reservoir operations. Among other things, the SSJRBCS includes mapping of the 100-year floodplain and of the 200-year and 500-year floodplains. The SSJRCS maps are posted and available for review on the DWR Best Available Mapping web site : http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/

   USACE also initiated the Sutter Basin Pilot Feasibility Study (SBPFS) in 2000 at the request of Sutter County through the California Central Valley Flood Protection Board (formerly the California Reclamation Board). The SBPFS Final Report (USACE, 2013) addressed the flood risk in the Sutter Basin in Sutter and Butte

Counties, including assessing the risk for flooding; describes a range of alternatives formulated to reduce flood risk; and identifies a Tentatively Selected Plan (TSP) for implementation. The SBPFS Final Report-Final Environmental Impact Report/Supplemental Environmental Impact Statement can be found at: http://www.spk.usace.army.mil/Portals/12/documents/civil_works/Sutter/Final_Report/SutterPilotFeasibilityReport_FEIR-SEIS.pdf

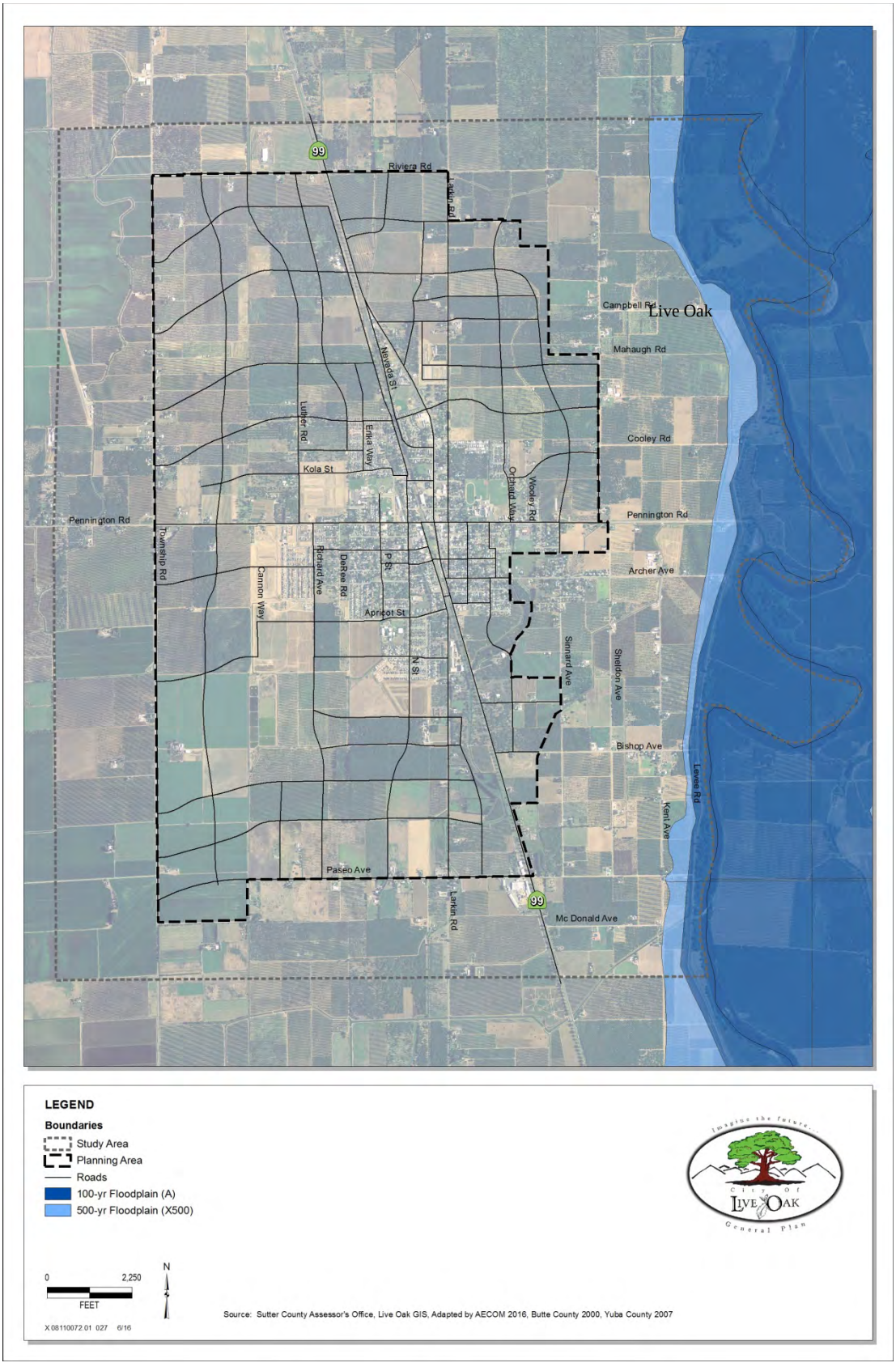
More recent and locally-accurate 200-year floodplain maps have been developed for the Sutter Basin (SBFCA, 2016). Subsequent to the request for the Feasibility Study, the SBFCA and the State proposed to implement the Feather River West Levee Project (FRWLP), which is similar to the Feasibility Study. SBFCA requested and received approval under 33 United States Code Section 408 for certain levee improvement work in the SBPFS study area. SBFCA's stated intent was to begin construction on the FRWLP to address the most critical sections of the existing levee and thereby advancing construction of the federal project expected to result from the SBPFS. Construction began on the FRWLP in 2013. The 200-Year Post-Feather River West Levee Project Floodplain Mapping (SBFCA, 2016) was developed to show the floodplain extents based upon completion of the FRWLP 200-year flood protection improvements (See Figure 5).

3. **CVFPB Designated Floodway Maps** – Floodways refer to channel of the stream and the reasonably required portion of the adjoining floodplain for flood passage, and is the primary non-structural flood management program employed through the CVFPB (CVFMPP, 2010). The CVFP has the authority to designate floodways as a means to manage land use in these floodways to maintain adequate flood passage capacity. Available CVFPB designated floodway maps are posted on the CVFPB website: http://www.cvfpb.ca.gov/maps/. Review of the website confirms that the CVFPB has not designated any floodways in or adjacent to the City of Live Oak.

4. **Levee Flood Protection Zones (LFPZs)** – LFPZs estimate the maximum area that may be inundated if a project levee were to fail when water surface elevation is at the top of a project levee. LFPZs describe areas that would be flooded to more than three feet in depth, and areas that would be flooded to a depth of less than 3 feet, if the river water level contained by a SPFC levee is at the top then released because of levee failure. DWR is required to develop these maps to estimate the maximum potential for flooding due to levee failure. The LPFZ inundation areas in Live Oak are shown on Figure 7 (Map 3 of the Feather River Atlas – Draft (DWR, 2013) and available online at http://gis.lfpz.water.ca.gov/lfpz/). As noted by DWR, lands not in a LPFZ are not invulnerable to flood risk as some may also experience flooding from other sources.

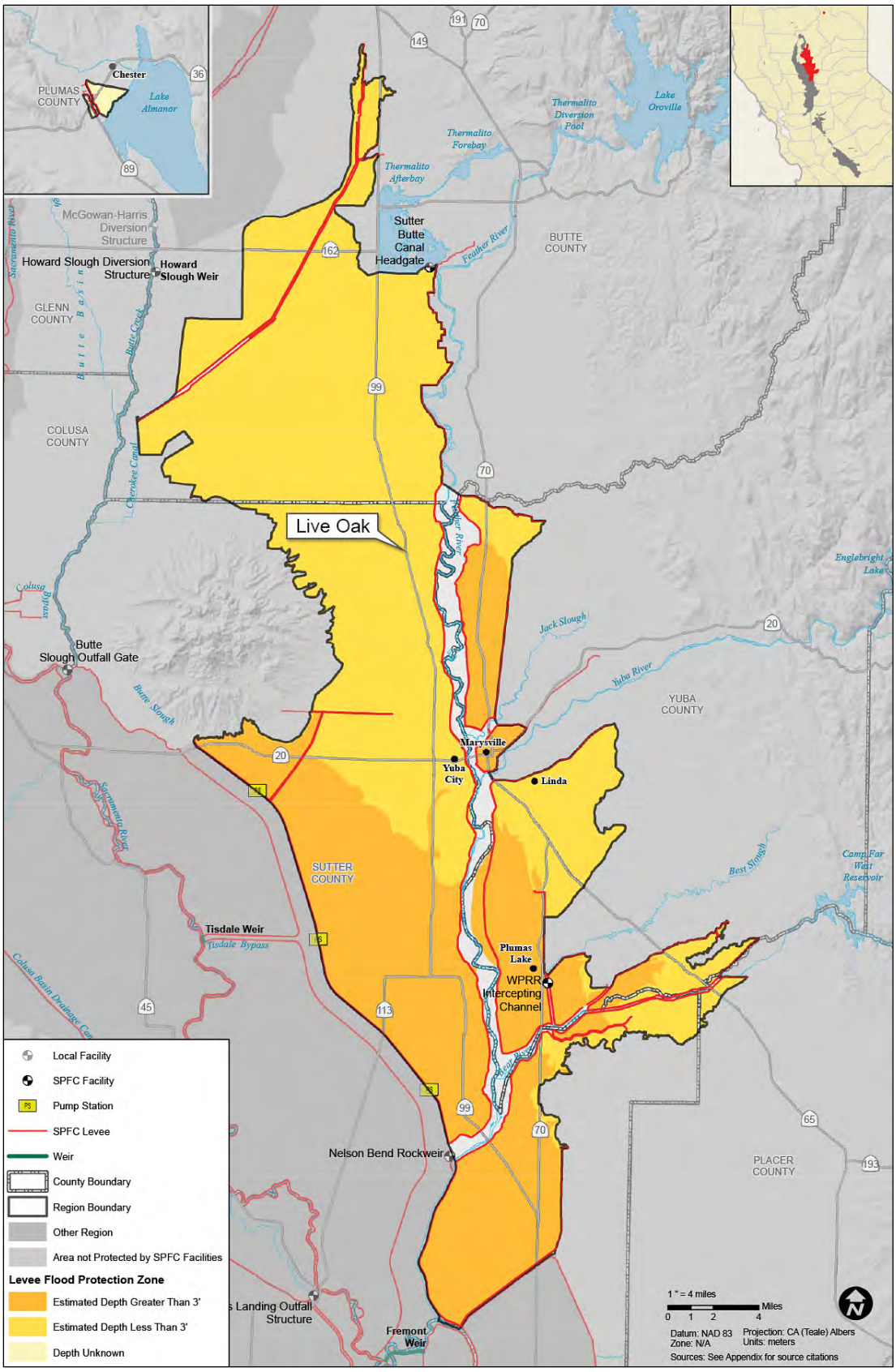
5. **Areas Subject to Inundation in the Event of Failure of Project or Non-Project Levees or Floodwalls** – The maximum potential flooding from failure of project levees is described by LFPZs. Areas subject to potential inundation as a result of levee failure of project levees are also described by the FEMA Flood Insurance Rate Maps and floodplain mapping in both the USACE Sacramento-San Joaquin River Basins Comprehensive Study and the Sutter Basin Pilot Feasibility Final Report – FEIR/SEIS. As mentioned earlier, the 200-Year Post -Feather River West Levee Project Floodplain Mapping (SBFCA, 2016) shows floodplain extents based upon completion of the FRWLP 200-year flood protection improvements.

6. **Awareness Floodplain Mapping Program** – DWR established the Awareness Floodplain Mapping project to identify flood hazard areas that may not otherwise be mapped, e.g. under the FEMA National Flood Insurance Program (NFIP), and to provide communities with an additional tool for understanding potential flood hazards. The DRW Awareness Floodplain Maps can be found at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/. The website states there are no completed studies or Awareness Floodplain Maps available for Sutter County. However, there is a discrepancy as the DWR Best Available Mapping (http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/) shows an Awareness Map floodplain along the Live Oak Slough, which is described in Section 3.1.



Source: City of Live Oak 2030 General Plan

Figure 6 – Floodplain Map



Source: DWR, 2013

Figure 7 – Feather River Levee Flood Protection Zones

7. **Dam Failure Inundation Maps** – Flood inundation maps prepared by DWR indicate that the 2030 General Plan Area and much of the surrounding area is within the flood hazard zone for the Oroville and Thermalito Afterbay dams. An evacuation plan is integrated into the Sutter County Office of Emergency Management, Emergency Operations Plan (2015).

   Dam inundation mapping procedures (19 CCR §2575) are required by the State Office of Emergency Services (OES) for all dams where human life is potentially endangered by dam flooding inundation. The Sutter County OES provides for the development, establishment, and maintenance of programs and procedures to help protect the lives and property of Sutter County residents from the effects of natural disasters, including floods from dam failures. The County OES works with the County and individual city departments with disaster exercises and evacuation preparations. Sutter County utilizes three emergency activation phases in its flood warning system (City of Live Oak, 2010b).

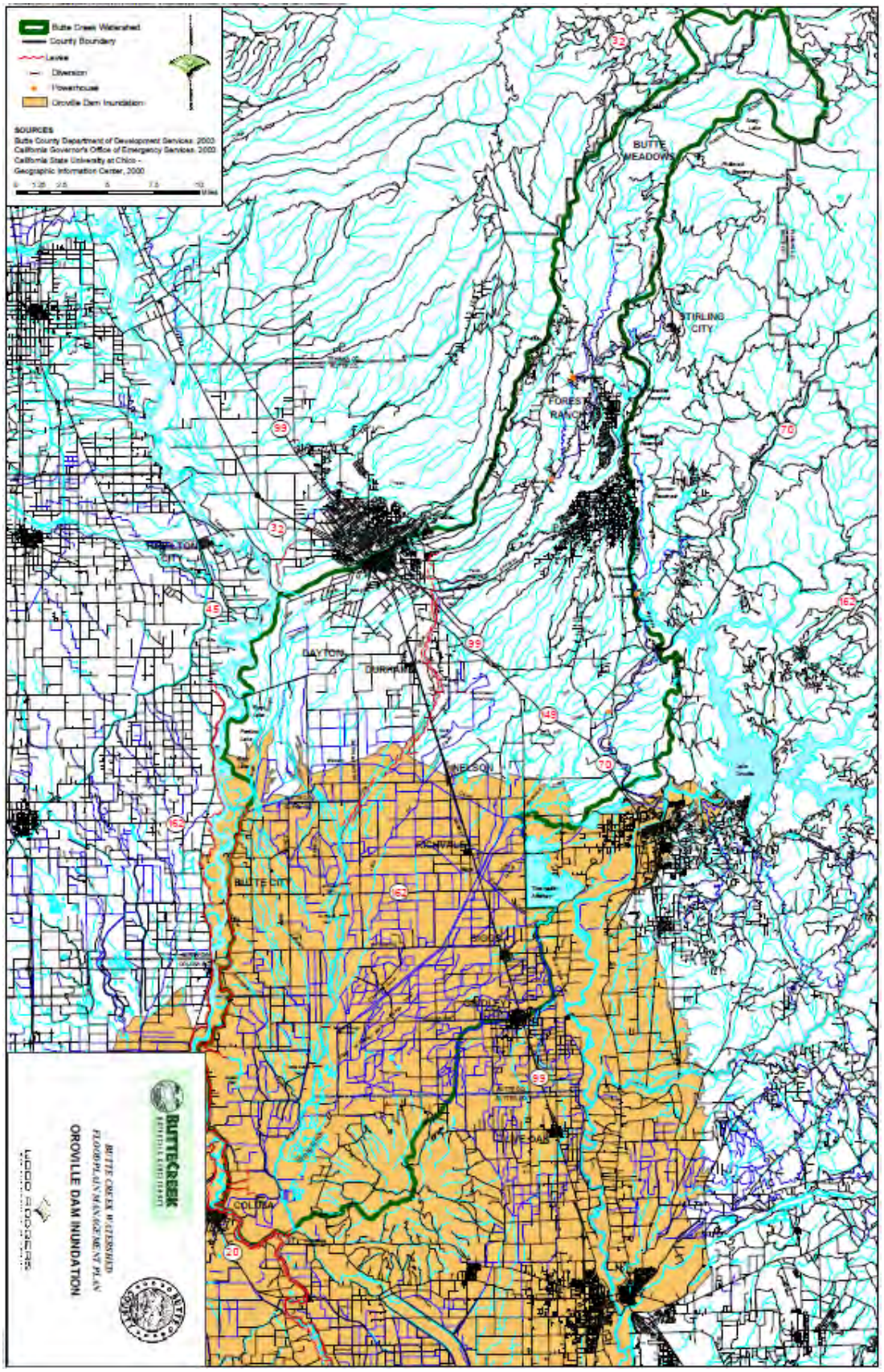
   The City of Live Oak planning area is subject to inundation from Oroville and Thermalito Afterbay Dams in the event of dam failure (County of Sutter Emergency Operations Plan, Annex 5, Floods and Dam Failure, 2015). Oroville Dam is on the Feather River, approximately 20 miles northeast of Live Oak. Live Oak is downstream from this dam. Lake Oroville is the widened section of the river held back by the dam. Lake Oroville has a capacity of 3.5 million acre-feet. Regulated flood releases from the Oroville Dam are 150,000 cfs. Channel capacity of the regulated Feather River channel downstream ranges from 210,000 to 320,000 cfs. Figure 8 shows Oroville Dam inundation in the event of dam failure. Limited development is happening in the City. While future development my place more structures in the dam inundation areas, due to the low risk of dam failure, development will be allowed in all these areas. Additionally, as noted in the County's Emergency Operations Plan, the City of Live Oak should have ample warning time to prepare evacuation in the event of dam failure.

   - Estimated Flood Arrival Times for Oroville Dam Failure (reported by DWR):
     Location Main Channel Flood Wave: City of Live Oak - 4.3 hours
     Total Inundation Time: City of Live Oak - 11.3 hours

   - Estimated Flood Arrival Times for Thermalito Afterbay Dam Failure (reported by DWR):
     Location Main Channel Flood Wave: City of Live Oak - 12.4 hours
     Total Inundation Time: City of Live Oak - 15.5 hours

   The Oroville and Thermalito Afterbay dams have been constructed and are maintained consistent with California Water Code Division 3, which has regulatory jurisdiction over the dams and contains specific requirements for maintenance and operations, emergency work, investigations and studies (Part 1, Chapter 4), repairs and alterations (Part 1, Chapter 5) and inspections and approvals (Part 1, Chapter 7). State Law requires that dams be evaluated regularly to verify their structural integrity, including resistance to earthquake damage.

   Although unlikely, failure of a dam would release stored water that could inundate downstream areas and result in loss of life, damage to property, displacement of residents and damage to water resource and other infrastructure. However, there is no substantial evidence to suggest that dam failure is likely.



Source: Butte County, 2005

Figure 8 – Oroville Dam Inundation

3.2 EXPOSURE TO FLOODING: POPULATION, ESSENTIAL FACILITIES, REAL PROPERTY, PLANNED GROWTH

The California Flood Future report (DWR, 2013) provides a look at the statewide exposure to flood risk, identifies and addresses the barriers to improved flood management, and encourages land use plan practices that reduce the consequences of flooding. The current SPFC system protects a population of over one-million people and many billions of dollars in public and private assets currently located within floodplains. These at-risk assets include major freeways, railroads, airports, water supply systems, utilities, and other public and private infrastructure of national, regional and statewide importance.

Potential flooding involves significant risks to lives and property in the City of Live Oak, including potential loss of life and injury, damage to and destruction of buildings, permanent or temporary loss of utility services, damage to transportation infrastructure, and interruption in the delivery of goods and services, as well as general social and economic impacts on the community. As identified in the Sutter County Local Hazard Mitigation Plan (LHMP), critical facilities in Live Oak include at risk population facilities, including schools, congregate care facilities, and essential service facilities. Essential service facilities in Live Oak include evacuation shelters, fire station, police/sheriff's office, medical health facility, wastewater treatment facility, and government, water supply, stormwater, and waste water facilities (Sutter County, 2013a). Based on recent analysis, the Feather River West Levee Project improvements will provide 200-year flood protection for population and assets within the City of Live Oak.

3.3 EMERGENCY RESPONSE

Emergency response to flooding and flooding threats is primarily the responsibility of local agencies including the City of Live Oak, the Sutter County Fire Department, Sutter County Sheriff's Office, and the Sutter County Office of Emergency Services. The State of California and the federal government serve a larger coordinating role in emergency response planning, financing, and logistical support; these agencies have established uniform Incident Command Systems, which are the basis for County, City, and other agency emergency action plans.

One of the goals of the Sutter County LHMP includes improving community awareness, education, and preparedness for hazards that threaten the County's communities. This awareness includes information regarding evacuation and sheltering options, during and after a disaster event. Appendix F of the Sutter County LHMP specifically addresses risk assessment and mitigation related to localized flooding. Annex A (City of Live Oak) of the Sutter County LHMP details the hazard mitigation planning elements specific to Live Oak, with a focus on providing additional detail on the risk assessment and mitigation strategy for the community. The Sutter County LHMP along with Annex A functions as the City of Live Oak's Flood Safety Plan, and addresses planned responses to emergencies affecting the City.

The Sutter County LHMP also references the Sutter County Emergency Operations Plan (2015), which addresses in detail the planned response to emergency situations associated with natural disasters, technological incidents, and national security emergencies in or affecting Sutter County. The Emergency Plan has been developed to provide a comprehensive (multi-use) emergency management program for Sutter County; it is designed to establish the framework for implementation of the California Standardized Emergency Management System (SES) for Sutter County, a political subdivision of the State of California, located within Mutual Aid Region III (as designated by the Governor's Office of Emergency Services). Further, the Emergency Plan and its associated

annexes meet those conditions of emergency management and the basic tenets of Incident Command System (ICS) required by the National Incident Management System (NIMS). The purpose of both is to provide uniform incident management organization and procedures that can be used effectively and simultaneously by public safety agencies at all levels of government, including local agencies in Sutter County. The Emergency Plan is intended to facilitate multi-agency and multi-jurisdictional emergency operations coordination, particularly between Sutter County and local governments, including special districts and state agencies. (County of Sutter, 2013a)

The potential for emergencies related to geologic hazards, flood, fire, and hazardous materials requires the City to have a planned evacuation route. In the event of a flooding incident or threatened incident, the City of Live Oak plays a key role in response together with the Sutter County Sheriff's Office and the Sutter County Fire Department. The Sutter County Emergency Operations Plan designates planned evacuation routes. State Route (SR) 99 is the primary evacuation route for hazard events affecting the Live Oak Planning Area (See Figure SAFETY-2 in the Public Safety Element).

3.4 OTHER NON-STRUCTURAL FLOOD MANAGEMENT STRATEGIES

In addition to the provision of flood protection structures and emergency response planning, several other agencies regulate floodplain areas and/or resources commonly found within these areas to provide flood management resources for the prevention and preparation for flood events. These resources include flood-related information, mapping and plans, establishment of standards and criteria, inspection, maintenance, and improvement of existing facilities and planning to minimize flood exposure.

3.4.1 LEVEE MAINTENANCE

Under the oversight of the CVFPB, the SRFCP levees within the Sutter Basin are maintained by three different local maintenance agencies: DWR, Sutter maintenance yard; Levee District 1; and Levee District 9. These agencies have primary responsibility for operating, inspecting, and correcting problems with SPFC levees and other structures near the City's General Plan area. The levees are maintained in accordance with a Standard Operations and Maintenance Manual for the SRFCP prepared by USACE.

3.4.2 EXPOSURE REDUCTION

The City of Live Oak reduces flood risk exposure primarily through its land use planning and zoning authority; the zoning code is the primary implementing mechanism of the General Plan. Unlike the General Plan, which provides long-range, comprehensive general policies for the general direction of land use in the City, the Zoning Code provides more specific description of the types of uses that are allowed in certain areas, development standards (e.g. setbacks, building heights, lot coverage) and other detailed guidance for property development. The zoning code is required to be consistent with the General Plan.

Live Oak discourages urban development in 100-year floodplain areas. The City's floodplain ordinance (Chapter 15.21 of the City's Municipal Code) prohibits development in the floodplain unless stringent guidelines are met. Existing 2030 General Plan goals, policies and implementation measures do not include the ULOP 200-year flood protection standard. As an SB 5 affected city, adoption of the SB 5 GPA will be the City's first step in incorporating goals and policies that support this new standard.

The City also reduces exposure to flood risk through its participation in the FEMA NFIP, which promotes reduced flood insurance premiums for development that is not located within the 100-year floodplain. This benefit indirectly effects floodplain management by encouraging development outside the 100-year floodplain. The management program objective is to protect people and property within the City. As a participant NFIP, the City of Live Oak has administered floodplain management regulations that meet the minimum requirements of the NFIP. The City of Live Oak will continue to comply with the requirements of the NFIP in the future.

Ongoing development has occurred within the City over the last few years, and additional growth of the city is anticipated in the City's revised General Plan, particularly in/around the southwest, northwest, and northeast quadrants of the City. A critical element in planning for the City's new growth is determining infrastructure needs and funding mechanisms to pay for the required infrastructure. Development of agricultural land results in construction of buildings and pavement, which greatly increases the runoff rate and total volume of runoff. Consequently, new drainage facilities, including storm drain collection systems, open channels, detention basins, and pump stations, are needed to manage the increased runoff and to prevent flooding.

There are two primary sources of stormwater runoff that are of concern to the City: regional runoff, which originates outside the City and runoff from properties located inside the City. The City owns and maintains storm drainpipe systems, detention basins, and pump stations to provide drainage and prevent flooding within the City and convey runoff to the Reclamation District 777 (RD 777) open channel drainage system. At buildout of the City of Live Oak 2030 General Plan, the northwest corner of the City will be within RD 2056 service area. Minor street flooding occurs, although infrequently, in the City of Live Oak. Many of the road and streets within the City of Live Oak were constructed without curbs and gutters, which contributes to minor nuisance ponding of storm water. In the 2011 Live Oak Drainage Study, an analysis of existing drainage infrastructure was performed resulting in 10-year storm depths in some areas up to 1-foot or less. Many homes in Live Oak are built on raised foundations, so flooding depths of less than 1-foot may not actually enter the homes. A 100-year analysis resulted in flooding in some areas of up to 1-foot or 2-feet deep. Future development in the City will add more impervious surfaces and need to drain those waters. The City has a track record of addressing localized flooding in the past, and will continue those efforts in the future (County of Sutter, 2013b).

3.4.3 STANDARDS AND CRITERIA

With the passage of the SB 5 Bills, the State has assumed a more active role in flood management. The State's involvement now includes: collecting and disseminating floodplain mapping and other information, developing an inventory of State Plan of Flood Control facilities, establishing the 200-year flood protection standard for urban areas (ULOP), establishing the Urban Levee Design Criteria (ULDC); and requiring local governments to either provide 200-year flood protection or cease urban development in flood-prone areas until it has made "adequate progress" toward 200-year flood protection by 2025.

3.4.4 FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

On April 1, 1979, then President Jimmy Carter signed the executive order that created FEMA. FEMA co-ordinates the federal government's role in preventing or mitigating for the effects of, and preparing and responding to domestic natural and man-made disasters that overwhelm the resources of local and state authorities. FEMA provides a wide range of emergency assistance, including response to flood emergencies. FEMA is also the primary federal agency for floodplain mapping and management. FEMA administers the

National Flood Insurance Program (NFIP). As a means to encourage communities to adopt and enforce floodplain management regulations, the NFIP subsidizes flood insurance for property owners within a NFIP participating community if the community regulates land use and development in accordance with FEMA standards. These standards are based partly on the designation of floodplain areas in FEMA-prepared Flood Insurance Rate Maps (FIRMs). FIRMs are updated periodically to reflect the level of flood protection provided in flood-prone areas as well as changing conditions such as land use, water flow, levee condition, and drainage patterns. The FIRMs are considered the "regulatory floodplain" from a federal and local perspective, and considered the "base flood plain" by the USACE.

The design and condition of levees are key elements of FIRM mapping. Under and through seepage problems have resulted in major levee failures in Yuba City in 1955 and 1997. As a result, the levees did not provide 100-year flood protection as required by FEMA, or the State's requirement for 200-year flood protection for urban and urbanizing areas. The Feather River West Levee Project (FRWLP) anticipated to be completed in 2017, will rehabilitate 44 miles of levees along the west bank of the Feather River, from Thermalito Afterbay south to the Sutter Bypass, addressing underseepage and through seepage which is caused by water pressure and velocity both under and through the levees. The project provides 200-year level of flood protection for the City of Live Oak 2030 General Plan Area (County of Sutter, 2013b).

3.4.5 U.S. ARMY CORPS OF ENGINEERS (USACE)

USACE has approximately 37,000 dedicated civilians and soldiers delivering engineering services. The USACE is primarily responsible for planning, designing, and constructing federally authorized flood management facilities, as wells as analysis of flood risk and flood protection improvement feasibility and operation of flood control reservoirs and other facilities. These responsibilities include analysis, engineering, construction and inspection of federal levees.

The USACE develops and adopts levee and other flood protection standards in cooperation with the State. The USACE is responsible for implementing most federally-authorized flood control projects, in partnership with State and local agencies. These projects are constructed under agreements where the State of California, through DWR and the CVFPB, and with the local maintaining agencies, assumes liability and principal maintenance responsibility for facilities constructed by the USACE. All of the levees providing flood protection in the vicinity of Live Oak are federal project levees. Any modification of an existing federal flood management project requires approval from USACE under 33 USC 408.

USACE conducts routine annual levee inspections and more-detailed periodic 5-year inspection to determine whether federal maintenance standards are met. In 2000, USACE initiated the Sutter Basin Pilot Feasibility Study (SBPFS) at the request of Sutter County through the CCVFPB. SBFCA became a joint non-federal sponsor with the CVFBP of the Feasibility Study. The SBPFS Final Report assesses the risk of flooding in the Sutter Basin, describes the range of alternatives formulated to reduce flood risk, and identifies a Tentatively Selected Plan (TSP) for implementation. The TSP consists of levee improvements to existing levees of the Sacramento River Flood Control Project, extending along approximately 41 miles of the Feather River. Prior to completion of the SBPFS and Final Draft Report (2013), the SBFCA and the State proposed to implement the Feather River West Levee Project (FRWLP), which is similar to the Study, with a goal of 200-year flood protection. FRWLP construction began in 2013.

3.4.6 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)

DWR's primary responsibility is for managing and protecting California's water. In cooperation with other agencies, DWR works to protect people, and protect, restore, and enhance the natural and human environments. To that end, DWR has broad range of water-related responsibilities. In addition to oversight and inspection of the SPFC facilities, including the Feather River levees, DWR oversees LMA activities. As mentioned earlier, levee maintenance is delated to LMAs. In the Sutter Basin, the LMAs include the Sutter maintenance yard; Levee District 1; and Levee District 9. DWR administers State-funding programs to assist LMAs with levee maintenance and improvements. Additionally, DWR serves as the States National Flood Insurance Program (NFIP) Coordinating Office for FEMA.

The SB 5 increased the flood protection standard to a 1-in 200-year flood event (ULOP), and because DWR provides flood-related technical, financial, and emergency response assistance to local agencies, DWRs role expanded under the SB 5 bills. DWR activities related to flood protection are coordinated through FloodSAFE. Launched in 2006, and recognizing that addressing flood damage statewide will take decades, FloodSAFE California is a long-term strategic initiative to reduce flood risk, with an emphasis on the Central Valley and the Delta. Communities and resources in these areas face high risk of catastrophic damage. As the State's principal flood management agency, the California Legislature assigned the State's initial 200-year flood protection strategy to DWR and the Central Valley Flood Protection Board, which is staffed by DWR. Pursuant to the SB 5 bills, initial efforts include publication of floodplain mapping, preparation of the CVFPP, and definition of urban flood protection and levee standard. FloodSAFE is also an important component of DWR's Integrated Water Management Plan, which is designed to achieve a sustainable, robust, and resilient flood and water management system.

The new requirements triggered the need for substantial additional technical evaluation, public information and planning, engineering and financing for necessary improvements. The DWR efforts under FloodSAFE, include:

- preparing the first inventory of SPFC facilities, which are identified in the State Plan of Flood Control Descriptive Document (CVFMPP, 2010).

- conducting urban levee evaluation (ULEs) and non-urban levee evaluation (NULEs) for hidden defects. ULE and NULEs programs determine if project and non-project levees meet levee design standards, and needed remedial measures to meet these standards. These programs provide a more detailed evaluation of local flood protection systems.

- developing Urban Levee Design Criteria (ULDC), which provides guidance for design, evaluation, operation, and maintenance of levees and floodwalls in urban and urbanizing areas. (DWR, 2012)

- developing Urban Level of Protection (ULOP) Criteria, which aids local governments in interpreting the SB 5, and related flood protection bill requirements. The ULOP provides minimum criteria for determining the applicability of the SB 5 bills to local government land-use decisions and the required findings, including supporting evidence, to permit future development in floodplain areas.

- providing Best Available Mapping (BAM), which is a compilation of "best" available mapping of flood risk and exposure, based on existing information. These maps provide initial assistance for flood protection planning and will be updated with more detailed information at a later time. Current mapping includes FEMA

Digital FIRM (DFIRM) maps, LFPZ maps, maps of federal and non-federal project levees, USACE floodplain mapping and Awareness Floodplain Maps.

- creating the California Levee Database, which has locational information for more than 10,000 miles of levees and flood control structures throughout California. In partnership with FEMA, DWR starting assembling levee ownership and risk factor information while ensuring compatibility and coordination with similar federal (i.e. USACE) efforts.

- funding the development of the RFMPs, which details DWR's vision for local flood management, and that it will use for future DWR studies. RFMPs include flood hazard identification, risk analysis, review of existing protection measures, identification of potential projects and funding, evaluation of system resiliency, and compatibility with State goals and Integrated Regional Water Management Plans (IRWMP). The Sutter Butte Flood Control Agency (SBFCA) completed a draft RFMP for the Feather River Region, which includes Live Oak. The RFMP is an important resource for this General Plan Amendment.

3.4.7 CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES (CAL OES)

The California Governor's Office of Emergency Services (Cal OES) is responsible for overseeing and coordinating State emergency preparedness, response, recovery, and homeland security activities. When areas within California are affected by disaster that affect public safety, Cal OES dispatches team members to work with local leaders and first responders. The goal of the agency is to protect lives and property, and recovery from both natural and man-made disasters, including wild land fires, earthquakes, storms, droughts, terrorism, hazardous material spills, and flooding. Cal OES develops emergency response plans such as the State Emergency Management System (SEMS). Cal OES coordinates with regional OESs to ensure consistent delivery of emergency services. In California, dams are regulated by DWR, Division of Safety of Dams (DSOD). Inundation maps are a crucial part of a comprehensive emergency action planning (EAP). DSOD determines the hazard classification of a dam based on potential consequences. EAPs and inundation mapping of High Hazard Potential (HHP) dams are under the jurisdiction of CAL OES Dam Safety Program within the Hazard Mitigation Division. Additionally, the California Dam Safety Act requires dam owners to submit maps of potential inundation from dam failure to Cal OES, which in turn makes these maps available to the county OES and other local emergency preparedness agencies.

3.4.8 SUTTER COUNTY

As a jurisdiction participating in the NFIP, Sutter County is responsible for implementing FEMA floodplain management regulations in the unincorporated area.

The Sutter County Office of Emergency Management (OEM) serves many of the same functions as the California OES but is responsible for overall coordination of local emergency planning and response, including planning and response to flooding events. The County OEM is responsible for planning, response, and recovery activities associated with natural or man-made emergencies and disasters, including flooding events, throughout the County and coordination of those activities with local agencies, the California Emergency Management Agency (CalEMA) and FEMA. The County OEM has prepared and makes available to the public a range of flood protection materials. The County also prepared the County Emergency Operations Plan (EOP) that address the planned response to emergency situations in or affecting the County. The EOP and its associated annexes, is

intended to facilities multi-agency and multi-jurisdictional coordination, particularly between Sutter County and local governments, including special districts and state agencies, in emergency operations. It is designed to establish a framework for implementation of the California Standardized Emergency Management System (SEMS) for the County, a political subdivision of the State of California, located within Mutual Aid Region III (as designated by the Governor's Office of Emergency Services). The EOP Floods and Dam Failure Annex (Annex 5) addresses localized flooding, slow-rise flooding associated with levee system failure, and flooding caused by catastrophic failure of one or more dams in the region. The Annex also provides information and guidance for the Emergency Operation Team during a flooding disaster/emergency. EOP Evacuation and Mass Care/Shelter Annex (Annex 9) was written to augment existing checklists and Standard Operating Procedures (SOP) currently in place. The ultimate decision to evacuate an area is usually left to the elected officials in chard of that jurisdictional unit, who are advised by the local Emergency Operations Director. The Annex identifies general procedures for evacuation and shelter.

3.4.9 SUTTER BUTTE FLOOD CONTROL AGENCY (SBFCA)

As mentioned earlier in this document, the SBFCA is a joint powers agency formed in 2007 by the counties of Butte and Sutter; the cities of Live Oak, Gridley, Biggs, Yuba City; and the Levee Districts 1 and 9. SBFCA plans, designs and co-ordinates regional flood control improvements to protect lives and property in the Sutter Basin. Funded by DWR, the SBFCA in partnership with DWR, Yuba County Water Agency (YCWA), Three Rivers Levee Improvement Authority (TRLIA), and Marysville Levee Commission developed the Feather River Regional Flood Management Plan (2014). The Plan aligns the Feather River Region's flood management priorities with the CVFPP in managing flood risk in the Sacramento River and the San Joaquin River. The CVFPP provides a broad vision to help guide regional and State-level financing plans for system-wide improvements. The regional planning effort has been divided into six regions, including the Feather River Region. The Regional Flood Management Plans (RFMP) brings the CVFPP to fruition by further providing a level of detail that was needed to clearly define local and regional flood management needs. The purpose of RFMP is to clearly establish regional flood management priorities and facilitate future funding and implementation of flood-risk reduction projects.

The primary regional goal of the CVFPP is to improve flood risk management in reducing the chance of flooding and damages once flooding occurs, and improve public safety, preparedness, and emergency response. Secondary goals include improving operations and maintenance of flood management systems, integrating the recovery and restoration of key ecosystem functions into the flood management system, improving institutional support, and promoting multi-benefit projects. The Feather Region RFMP are consistent with these broader goals. The Feather River Management Plan specific objectives include:

- Urban and Urbanizing - Provide 200-year flood protection for urban and urbanizing areas of the region, including Marysville, Yuba City, portions of Sutter, RD 784 and Wheatland.
- Small Communities - Provide 100-year flood protection for the small communities in the region, including Rio Oso and Nicolaus.
- Rural Agricultural Areas - Improve flood protection for the rural agricultural areas within the region.

- Flood System Sustainability - Improve the flexibility and sustainability of the regional flood management system in light of climate change and regulatory constraints by reducing the costs and increasing the effectiveness of levee maintaining agencies.

- Agricultural Sustainability - Support and strengthen the regional economy, primarily founded on highly productive farmland; achieve wildlife habitat objectives through preservation and/or modification of current agricultural practices to the extent feasible; and modify State and federal floodplain regulations to help sustain agricultural uses of regional floodplain.

- Multiple Objectives - Incorporate multiple objectives such as environmental restoration, agricultural enhancement, improved water quality, open space, energy production, and recreation, to the extent compatible with existing land uses and supported by affected landowners.

- State Systemwide Investment Approach (SSIA) and Regional Projects - Describe opportunities to link SSIA to regional projects and/or objectives. Accordingly, describe challenges of these linkages.

4 FLOOD PROTECTION GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

As described in the SB 5 Bills, the Safety Element shall establish goals, policies and objectives "for the protection of lives and property that will reduce the risk of flood damage." As described in more detail in

AB 162, the Safety Element shall:

> "establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:
>
> (i) Avoiding or minimizing the risks of flooding to new development.
>
> (ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.
>
> (iii) Maintaining the structural and operational integrity of essential public facilities during flooding.
>
> (iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities.
>
> (v) Establishing cooperative working relationships among public agencies with responsibility for flood protection."

The 2030 General Plan Public Safety Element, Public Utilities, Services and Facilities Element, and the Conservation and Open Space Element include goals, policies, and implementation programs that meet the Safety Element requirements related to flood protection and management. These goals, policies, and implementation programs, with the addition of the proposed amended Safety Element policies PS-3.6 and PS-3.7, meet the SB 5 and AB 162 requirements. The proposed amended Safety Element policies PS-3.6 and PS-3.7 are shown below in underline. The applicable goals, policies, and implementation programs are listed below:

Public Safety Element:

Goal PS-2: Minimize the loss of life and damage to property caused by flood events.

- Policy PS-2.1: The City will coordinate with the Sutter Butte Flood Control Agency to ensure that flood control facilities protecting Live Oak's Planning Area from flood risks to the City are well maintained and capable of protecting existing and proposed structures from flooding, in accordance with state law.

- Policy PS-2.2: The City will regulate development within floodplains according to state and federal requirements to minimize human and environmental risks and maintain the City's eligibility under the National Flood Insurance Program.

- Policy PS-2.3: The City will require evaluation of potential flood hazards before approving development projects.

- Policy PS-2.4: The City will require applicants for development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures from the City's master drainage plan to prevent on- or off-site flooding.

- Policy PS-2.5: New development shall be required to be consistent with regional flood control improvement efforts. New development shall contribute on a fair-share basis to regional solutions to improve flood protection to meet state and federal standards.

- Policy PS-2.6: The City will use the most current flood hazard and floodplain information from state and federal agencies (such as the State Department of Water Resources, the Federal Emergency Management Agency, and the Army Corps of Engineers) as a basis for project review and to guide development in accordance with federal and state regulations.

- Policy PS-2.7: As feasible, new development should incorporate stormwater treatment practices that allow percolation to the underlying aquifer and minimize off-site surface runoff (and therefore flooding).

- Policy PS-2.8: If any project, including the modification of an existing project, falls within the jurisdiction regulated by the Central Valley Flood Protection Board (CVFPB) (e.g., levees, regulated streams, and designated floodways), the city must apply for an encroachment permit from the CVFPB.

Goal PS-3: Provide for adequate emergency response

- Policy PS-3.1: The City shall maintain and update the City's emergency response plan as needed and ensure ongoing consistency with the General Plan.

- Policy PS-3.4: The City will coordinate with the County Office of Emergency Services to identify and establish evacuation routes and operation plans to be used in case of dam failure, flood disaster, and fire. The City will provide relevant outreach to residents and businesses regarding evacuation routes for each hazard type.

- Policy PS-3.6: As feasible, locate new essential facilities outside of flood hazard zones, including hospitals and healthcare facilities, emergency shelters, fire stations, emergency response centers and emergency communication facilities.

- Policy PS-3.7: Essential facilities that must be located within flood hazard zones should incorporate feasible site design or building construction features that will minimize flood damage and increase functionality during flooding events.

- Implementation Program PS-1: The City will continue its participation with the regional flood protection joint powers authority addressing the assessment and improvement of levees on the west side of the Feather River

to meet federal and state standards. The City will implement development impact fees to provide for necessary levee studies and improvement programs in coordination with the regional flood control joint powers authority. The City will proactively identify and take advantage of federal, state, and regional funding that may be available for use in flood protection improvements.

- Implementation Program PS-3: Consistent with state law, the City will consult with the Central Valley Flood Protection Board and local flood protection agencies serving the Planning Area, to obtain updated floodway and floodplain maps, data, and policies. When this information is available, if necessary, the City will update the General Plan and revise all applicable development standards, including the zoning code. Subdivision approvals, development agreements, permits, and other City entitlements will incorporate these revised City policies and regulations.

- Implementation Program PS-4: If necessary, the City will update the General Plan to incorporate 200-year floodplain mapping from the California Department of Water Resources and Central Valley Flood Protection Board, once available.

- Implementation Program PS-5: In review of new development projects, require disclosure of risk where proposed development would occur in flood risk areas. This disclosure may include notifying new residents in these areas and encouraging purchase of appropriate insurance.

Public Utilities, Services, and Facilities

Goal PUBLIC-4: Provide storm drainage systems that protect property and public safety and that prevent erosion and flooding.

- Policy Public-4.9: The City will include in the drainage master plan and capital improvements planning a program to repair canal levees, where necessary, to prevent overtopping during storm events.

Goal PUBLIC-6: Protect property and public health through adequate flood protection.

- Policy PUBLIC-6.1: The City will coordinate with ongoing regional efforts to verify and improve flood protection for the Planning Area, consistent with state and federal regulations.

- Policy PUBLIC-6.2: The City will assess fees for new development on a fair-share basis to fund regional flood protection improvements needed to meet state and federal standards.

- Policy PUBLIC-6.3: The City will proactively identify and take advantage of regional, state, and federal funding that may be available for use in flood protection improvements.

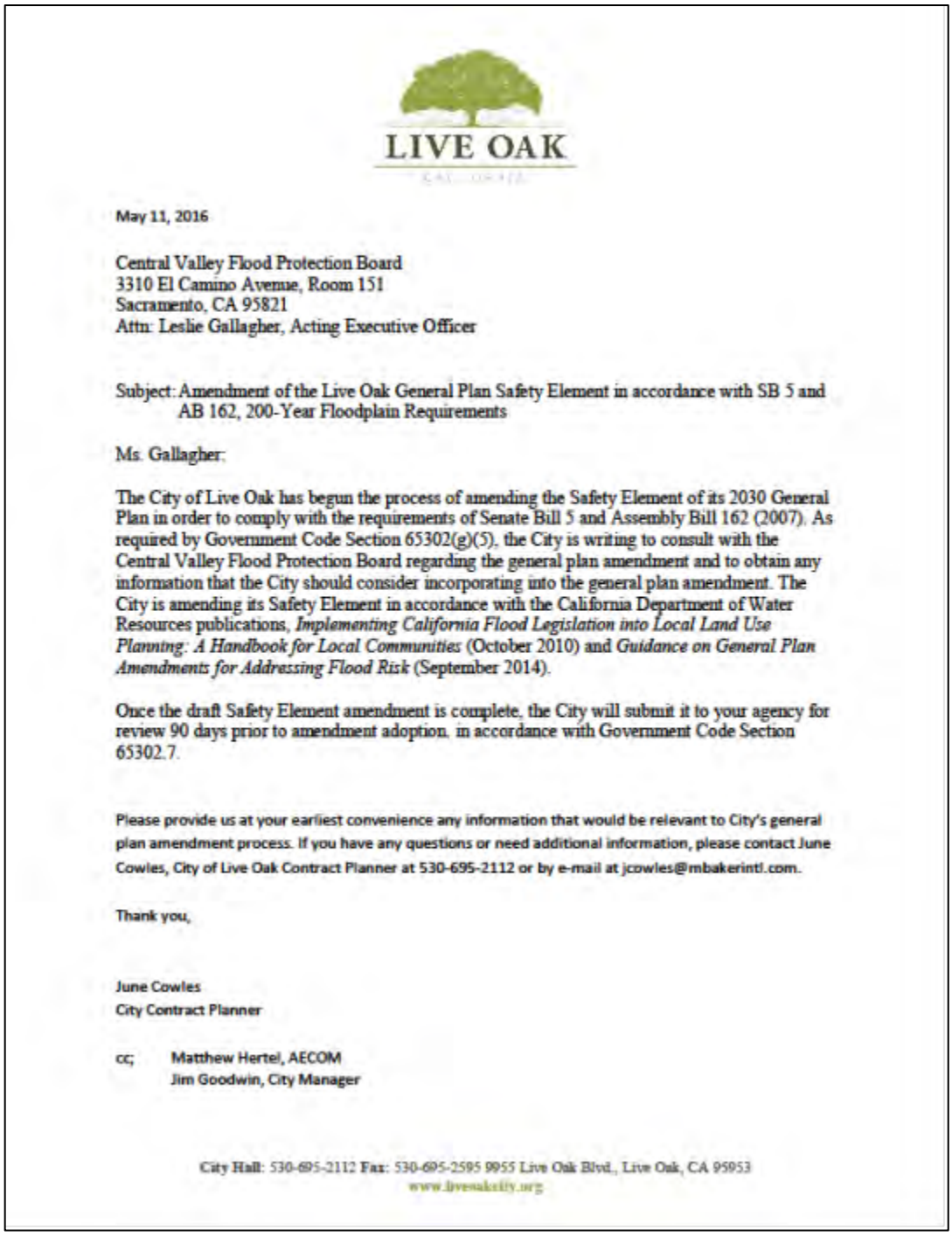
- Implementation Program Public-6.1: The City will continue its participation with the regional flood protection joint powers authority addressing the assessment and improvement of levees on the west side of the Feather River to meet state and federal standards.

Conservation and Open Space Element:

Goal WATER-1: Maintain and improve groundwater and surface water quality.

- Policy Water-1.3: The City will require developments to use best management and design practices to reduce stormwater runoff levels, improve infiltration to replenish groundwater sources, and reduce pollutants close to their source. The City will require new development to use permeable surfaces for hardscape wherever possible. Impervious surfaces such as driveways, streets, and parking lots should be interspersed with vegetated areas that allow for infiltration of stormwater. LID techniques, such as rain gardens, filter strips, swales, and other natural drainage strategies, should be used to absorb stormwater, reduce polluted urban runoff, recharge groundwater, and reduce flooding.

5 SAFETY ELEMENT CONSULTATION LETTERS AND RESPONSES



LIVE OAK

May 11, 2016

Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, CA 95821
Attn: Leslie Gallagher, Acting Executive Officer

Subject: Amendment of the Live Oak General Plan Safety Element in accordance with SB 5 and AB 162, 200-Year Floodplain Requirements

Ms. Gallagher:

The City of Live Oak has begun the process of amending the Safety Element of its 2030 General Plan in order to comply with the requirements of Senate Bill 5 and Assembly Bill 162 (2007). As required by Government Code Section 65302(g)(5), the City is writing to consult with the Central Valley Flood Protection Board regarding the general plan amendment and to obtain any information that the City should consider incorporating into the general plan amendment. The City is amending its Safety Element in accordance with the California Department of Water Resources publications, *Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities* (October 2010) and *Guidance on General Plan Amendments for Addressing Flood Risk* (September 2014).

Once the draft Safety Element amendment is complete, the City will submit it to your agency for review 90 days prior to amendment adoption, in accordance with Government Code Section 65302.7.

Please provide us at your earliest convenience any information that would be relevant to City's general plan amendment process. If you have any questions or need additional information, please contact June Cowles, City of Live Oak Contract Planner at 530-695-2112 or by e-mail at jcowles@mbakerintl.com.

Thank you,

June Cowles
City Contract Planner

cc; Matthew Hertel, AECOM
Jim Goodwin, City Manager

City Hall: 530-695-2112 Fax: 530-695-2595 9955 Live Oak Blvd., Live Oak, CA 95953
www.liveoakcity.org

From: Cowles, June
To: Hertel, Matthew
Subject: Fwd: General Plan Safety Element Review for Live Oak
Date: Wednesday, May 18, 2016 11:11:32 AM
Attachments: Safety Element Review Crosswalk_SEPT 2014_V2.doc
Live Oak City - Amendment of the Live Oak General Plan Safety Element in....pdf

Matt, please see below.
Sent from my Verizon Wireless 4G LTE DROID

-------- Original Message --------
Subject: General Plan Safety Element Review for Live Oak
From: "Porbaha, Mohammad Ali@DWR" <Mohammad.Porbaha@water.ca.gov>
To: "Cowles, June" <JCowles@mbakerintl.com>
CC: "Butler, Eric@DWR" <Eric.Butler@water.ca.gov>

To: June Cowles, Live Oak City Contract Planner
From : Central Valley Flood Protection Board (CVFPB)

This message is to acknowledge receipt of your May 11, 2016 letter to the CVFPB regarding your desire to submit an application for review of amendments to the Live Oak General Plan Safety Element.

- Attached is a revised version of the Safety Element Review Crosswalk. Please make sure the second and the third columns are well populated and well justified.
- Please make sure all figures/maps have labels, date and reference the data source.
- Please submit one hard copy of the revised amendments (with track changes, if possible), a cover letter and the digital version of all materials (including the crosswalk) using a portable device.

Let me know, if you have any questions. Thanks.

ALI

ALI PORBAHA
(916) 574-2378
Central Valley Flood Protection Board
3310 El Camino Avenue, Suite 151
Sacramento, CA 95821

LIVE OAK

May 11, 2016

California Office of Emergency Services
3650 Schriever Avenue
Mather, CA 95655
Attn: Mark Ghilarducci, Director

Subject: Amendment of the Live Oak General Plan Safety Element in accordance with SB 5 and AB 162, 200-Year Floodplain Requirements

Mr. Ghilarducci:

The City of Live Oak has begun the process of amending the Safety Element of its 2030 General Plan in order to comply with the requirements of Senate Bill 5 and Assembly Bill 162 (2007). As required by Government Code Section 65302(g)(5), the City is writing to consult with the California Office of Emergency Services regarding the general plan amendment and to obtain any information that the City should consider incorporating into the general plan amendment. **The City specifically requests that your agency provide dam failure inundation maps for areas in proximity to the City of Live Oak (i.e. Oroville, Afterbay).**

The City is amending its Safety Element in accordance with the California Department of Water Resources publications, *Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities* (October 2010) and *Guidance on General Plan Amendments for Addressing Flood Risk* (September 2014).

Please provide us at your earliest convenience any information that would be relevant to City's general plan amendment process. If you have any questions or need additional information, please contact June Cowles, City of Live Oak Contract Planner at 530-695-2112 or by e-mail at jcowles@mbakerintl.com.

Thank you,

June Cowles
City Contract Planner

cc; Matthew Hertel, AECOM
Jim Goodwin, City Manager

City Hall: 530-695-2112 Fax: 530-695-2595 9955 Live Oak Blvd., Live Oak, CA 95953
www.liveoakcity.org

LIVE OAK

May 11, 2016

California Geological Survey of the Department of Conservation
801 K Street, MS 12-30
Sacramento, CA 95814

Subject: Amendment of the Live Oak General Plan Safety Element in accordance with SB 5 and AB 162, 200-Year Floodplain Requirements

To Whom it May Concern:

The City of Live Oak has begun the process of amending the Safety Element of its 2030 General Plan in order to comply with the requirements of Senate Bill 5 and Assembly Bill 162 (2007). As required by Government Code Section 65302(g)(5), the City is writing to consult with the California Geological Survey of the Department of Conservation regarding the general plan amendment and to obtain any information that the City should consider incorporating into the general plan amendment.

The City is amending its Safety Element in accordance with the California Department of Water Resources publications, *Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities* (October 2010) and *Guidance on General Plan Amendments for Addressing Flood Risk* (September 2014).

Please provide us at your earliest convenience any information that would be relevant to City's general plan amendment process. If you have any questions or need additional information, please contact June Cowles, City of Live Oak Contract Planner at 530-695-2112 or by e-mail at jcowles@mbakerintl.com.

Thank you,

June Cowles
City Contract Planner

cc; Matthew Hertel, AECOM
Jim Goodwin, City Manager

City Hall: 530-695-2112 Fax: 530-695-2595 9955 Live Oak Blvd., Live Oak, CA 95953
www.liveoakcity.org

Reynolds, Lisa

From:	Hertel, Matthew
Sent:	Friday, May 06, 2016 12:48 PM
To:	m.inamine@sutterbutteflood.org
Cc:	June Cowles (jcowles@pmcworld.com); Jim Goodwin (citymgr@liveoakcity.org)
Subject:	City of Live Oak - Amendment of the Live Oak General Plan Safety Element in accordance with SB 5 and AB 162, 200-Year Floodplain Requirements
Categories:	Active

Good Afternoon Mr. Inamine,

The City of Live Oak has begun the process of amending the Safety Element of its 2030 General Plan in order to comply with the requirements of Senate Bill 5 and Assembly Bill 162 (2007). The City is amending its Safety Element in accordance with the California Department of Water Resources publications, *Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities* (October 2010) and *Guidance on General Plan Amendments for Addressing Flood Risk* (September 2014).

The City has received the 200-Year Post-Feather River West Levee Project Floodplain Mapping, and we will be incorporating this information into the safety element amendment.

Please provide any additional information that the City should consider incorporating into the general plan amendment. Specific data needs include:

- Historical data on flooding including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding. A similar request will be sent to DWR.
- Dam failure inundation maps for areas in proximity to the City of Live Oak (i.e. Oroville, Afterbay). A similar request will be sent to the California Office of Emergency Services.

Once the draft Safety Element amendment is complete, the City will submit it to your agency for review 90 days prior to amendment adoption in accordance with Government Code Section 65302.7.

Thank you for your time.

Matt Hertel, AICP
Senior Planner | Project Manager
Design + Planning | Community Engagement
D 916-414-5893
M 978-870-6305
matt.hertel@aecom.com

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Sacramento, CA 95811
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1

LIVE OAK PLANNING COMMISSION MINUTES
REGULAR MEETING OF SEPTEMBER 6, 2016
City Hall – 9955 Live Oak Boulevard, Live Oak, CA 7:00 PM

A. CALL TO ORDER

The meeting was called to order at 7:00 p.m.

B. ROLL CALL

Commissioners Weston, Eller, Albers, Alcocer, and Chair Bains were present.
Commissioner Norton was absent.
Commissioner Repka arrived after the Pledge.

C. PLEDGE OF ALLEGIANCE

Commissioner Ellers led the Pledge of Allegiance

D. APPEARANCE OF INTERESTED CITIZENS

None were present

E. APPROVAL OF MINUTES

1. The minutes of August 16, 2016 regular meeting were approved with 1 revision;
    - Motion to approve with the correction for the Myrtle Street CUP as a motion was stated to" approve the Myrtle St. CUP for a residential unit within the Commercial Zoning District."

Motion made to approve the August 16, 2016 Planning Commission meeting minutes with the 2 noted corrections. Seconded by Commissioner Albers.

AYES: 5
NOES: 0
ABSTAIN:1
Chairman Bains abstained as he was not at the August 16th meeting.

F. PUBLIC HEARINGS

2. Recommendation of the City of Live Oak Bicycle, Pedestrian, and Trails Plan

Staff gave the staff report presentation for the City of Live Oak Bike, Pedestrian, and Trails Plan. Introduced the Consultant from Alta, Rory Renfor. The Consultant gave a power point presentation on the Bike, Pedestrian, and Trails Plan.

Commissioner Weston asked about the regional plan looking outside the immediate area for connections.

Rory Renfor stated that the Plan did include a map showing the regional plan. However, the plan needed to focus on the immediate area as the Plan needed to have a set geographic area.

Commissioner Weston stated that on pg. 2-5 the direction needed to be corrected to "East" as the River park is east of the Town. He added that he liked the vision.

Commissioner Eller stated he takes several walks with his wife in the evening and he would like to see trails be connected as of right now there are trails that end and then pick up somewhere else.

Rory Renfor stated that the Plan helps with that regarding showing the big picture and helping to be a catalyst towards winning grants to complete trails.

Chairman Bains asked about Pennington Road, do we need to work with other jurisdictions?

Rory Renfor stated yes, we will need to work with other jurisdictions.

Chairman Bains stated that on Table 5-4 it does not list one of the streets, Elm St as it show is in Figure 5-5.

Commissioner Albers asked about future modes of transportation, does the plan include that discussion?

Rory Renfor stated the plan does not discuss future mode of transportation and stated his guess it would actually be a City Code issue.

With no further questions, a Motion was made.

Motion: Commissioner Weston made a motion to approve with the noted changes of the City of Live Oak Bike, Pedestrian, and Trail Plan

Second: Commissioner Eller

AYES: 6
NO: 0

G. ADJOURNMENT

The meeting was adjourned at 8:15 pm.

CENTRAL VALLEY FLOOD PROTECTION BOARD
GENERAL PLAN SAFETY ELEMENT REVIEW CROSSWALK

The General Plan Safety Element Review Crosswalk is based on the currently effective requirements of Government Code Section 65302.7, which state each city and county within the boundaries of the Sacramento-San Joaquin Drainage District (SSJDD) must submit the draft safety element, or draft amendment to the safety element, to the Central Valley Flood Protection Board (CVFPB) for review 90 days prior to element adoption. The CVFPB then has 60 days to review the safety element and provide written recommendations for changes regarding:

1. Uses of land and policies in areas subjected to flooding that will protect life, property, and natural resources from unreasonable risks associated with flooding.
2. Methods and strategies for flood risk reduction and protection within areas subjected to flooding.

Each city and county must consider the CVFPB's recommendations prior to the adoption of the draft safety element. If the legislative body determines not to accept all or some of the recommendations, findings must be made in writing to the CVFPB that states the reasons why. If the CVFPB's recommendations are not available within 60 days, action can be taken by the local jurisdiction without the recommendations devoid of penalty; however, if recommendations are submitted after the 60 days, the local governing body must consider the recommendations at the next time the jurisdiction considers amendments to the safety element.

Consultation with the Central Valley Flood Protection Board

Prior to preparation or revision of the safety element cities and counties must consult with the CVFPB based on the currently effective requirements of Government Code Section 65302(g)(5). The purpose of the consultation with the CVFPB is to assist with guidance related to areas subject to flooding and to direct jurisdictions to the most current relevant technical information available regarding flood risk reduction and protection. It is recommended that cities and counties consult with the CVFPB through written communication, phone calls, and/or electronic communication at http://www.cvfpb.ca.gov/.

PART 1 – INSTRUCTIONS

Please fill out the application information below under Part 2 and checklist requirements in Part 3 and send, along with the draft safety element, to:

Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, California 95821

PART 2 – APPLICATION INFORMATION

Jurisdiction: City of Live Oak	**Mailing Address:** Michael Baker International 2729 Prospect Park Drive, Suite 220, Rancho Cordova, CA 95670		
Jurisdiction Contact/Title: June Cowles, Senior Planner	**Phone Number:** 866-828-6762 ext. 10397 (office); 916-298-6653 (cell)	**E-mail Address:** jcowles@mbakerintl.com	**Date of draft safety element:** June 23, 2016
CVFPB Use Only			
CVFPB Reviewer/Title:		**CVFPB Receipt Date:**	

PART 3 – CHECKLIST OF REQUIREMENTS

Government Code Section 65302(g) includes 2007 State flood risk management legislative direction to local jurisdictions to review and revise the general plan safety element to identify new information regarding flood hazards. For guidance regarding how to respond to the specific requirements under Section I and II below, reference the Department of Water Resources' *Handbook* for *Implementing California Flood Legislation into Local Land Use Planning* at http://www.water.ca.gov/LocalFloodRiskPlanning/. This Review Crosswalk serves as a typical checklist that is recommended by the CVFPB; however, the CVFPB may ask for additional information in addition to this checklist within their review letter.

Items to Consider before Filling out the Review Crosswalk

Cities and counties are required to consult with, and submit to, the CVFPB only if the bottom two conditions apply:

1. located within Sacramento-San Joaquin Drainage District (http://www.cvfpb.ca.gov/ssjdd_maps/), and
2. processing a draft general plan safety element or draft general plan safety element amendment?

If the answer is "yes" to both questions above, continue with the Review Crosswalk.

Section I: Identification of Flood Hazard Information

Jurisdiction Use Only			CVFPB Use Only	
Safety elements must identify information regarding flood hazards per GC 65302(g)(2)(A)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**	**CVFPB Reviewer's Comments**	**No Comments**
i. Does the new or updated safety element include flood hazard zones, as identified by FEMA?	Page 3-2 of Appendix C discusses flood hazard zones. Flood Insurance Rate Maps (FIRMS) for the City of Live Oak and the Planning Area include FIRM Panel 0603940030B and 0603940035B issued by FEMA. Panel 0603930030B map is not printed by FEMA as the area is Zoned X, which FEMA defines as having minimal flooding hazards. Referencing FIRM Panel 0603940035B (Panel 35 of 325), the area surrounding the City limits of Live Oak (Planning Area) is in Zone X500, which is a 0.2 percent annual (500-year) chance flood event floodplain. In January 2014, the City of Live Oak received a Letter of Map Revision (LOMR) from FEMA with an annotated FIRM panel map, which revises the small area in the City's Planning Area that is susceptible to localized flooding from Zone A to "Contained" (in storm drain), and indicates incorporation of the modification. However, per FEMA, the FIRM panel map will not be physically revised until changes warrant physical revision and republication in the future. Figure 6 on Page 3-4 of Appendix C (Figure Safety-1	Page: Appendix C page 3-2 and 3-4 (Figure 6)		❑

Jurisdiction Use Only			CVFPB Use Only	
Safety elements must identify information regarding flood hazards per GC 65302(g)(2)(A)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**	**CVFPB Reviewer's Comments**	**No Comments**
	in the Public Safety Element of the City of Live Oak 2030 General Plan) shows the FEMA 100- and 500-year floodplain maps, combined, and has been updated to reflect the LOMR.			
ii. Does the new or updated safety element include National Flood Insurance Program (NFIP) maps, published by FEMA?	Figure 6 on Page 3-4 of Appendix C (Figure Safety-1 in the Public Safety Element of the City of Live Oak 2030 General Plan) shows the FEMA 100- and 500-year floodplain maps combined and has been updated to reflect the LOMR, which revises the small area in the City's Planning Area that is susceptible to localized flooding from Zone A to "Contained" (in storm drain) and indicates incorporation of the modification. Per FEMA, the FIRM panel map will not be physically revised until changes warrant physical revision and republication in the future.	Page: Appendix C page 3-2 and 3-4 (Figure 6)		❑
iii. Does the new or updated safety element contain information about flood hazards available from the U.S. Army Corps of Engineers including the Corps Sacramento and San Joaquin River Basins Comprehensive Study?	Page 3-2 of Appendix C provides information about the flood hazards available from the U.S. Army Corps of Engineers (USACE): The USACE was responsible for preparing the Sacramento and San Joaquin River Basins Comprehensive Study (SSJRBCS) after the floods of 1997. In addition to a post-1997 flood risk and damage assessment, the SSJRBCS (USACE, 2002) addresses the entire Central Valley flood control system, plan development for flood control and environmental restoration, and hydrologic/hydraulic modeling of the system including reservoir operations. Among other things, the SSJRBCS includes mapping of the 100-year floodplain and of the 200-year and 500-year floodplains. The SSJRCS maps are posted and available for review on the DWR Best Available Mapping web site : http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/ USACE also initiated the Sutter Basin Pilot Feasibility Study (SBPFS) in 2000 at the request of Sutter County through the California Central Valley Flood Protection Board (CVFPB)(formerly the California Reclamation Board). The SBPFS Final Report-Final Environmental Impact Report/Supplemental Environmental Impact Statement can be found at: http://www.spk.usace.army.mil/Portals/12/documents/civil_works/Sutter/Final_Report/SutterPilotFeasibilityReport_FEIR-SEIS.pdf	Page: Appendix C page 3-2		❑

Jurisdiction Use Only			CVFPB Use Only	
Safety elements must identify information regarding flood hazards per GC 65302(g)(2)(A)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**	**CVFPB Reviewer's Comments**	**No Comments**
iv. Does the new or updated safety element include dam failure inundation maps, available from CalEMA (prepared pursuant to GC Section 8589.5)?	Page 3-6 of Appendix C provides information about dam failure inundation maps. Dam inundation mapping procedures (19 CCR §2575) are required by the State Office of Emergency Services (OES) for all dams where human life is potentially endangered by dam flooding. An inundation map prepared by DWR for the Oroville Dam in the event of dam failure is provide on page 3-7 (Figure 8) of Appendix C. Cal OES did not respond to a request dated May 11, 2016 for dam failure inundation maps for the areas in proximity to the City of Live Oak.	Page: Appendix C page 3-6 and 3-7 (Figure 8)		❑
v. Does the new or updated safety element include designated floodway maps, available from the CVFPB?	Page 3-3 of Appendix C provides information about CVFPB Designated Floodway Maps. Available CVFPB designated floodway maps are posted on the CVFPB website: http://www.cvfpb.ca.gov/maps/. Review of the website confirms that the CVFPB has not designated any floodways in or adjacent to the City of Live Oak.	Page: Appendix C page 3-3		❑
vi. Does the new or updated safety element include Awareness Floodplain Mapping Program maps and 200-year flood plain maps, available from DWR?	Page 3-3 of Appendix C provides information about the Awareness Floodplain Mapping Program. The DRW Awareness Floodplain Maps can be found at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/. The website states there are no completed studies or Awareness Floodplain Maps available for Sutter County. However, there is a discrepancy as the DWR Best Available Mapping (http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/), shows an Awareness Map floodplain along the Live Oak Slough, described in Section 3.1 of Appendix C. Live Oak is susceptible to localized flooding by Live Oak Slough, which runs along the east side of the City.	Page: Appendix C page 3-3		❑
vii. Does the new or updated safety element include maps of levee flood protection zones (LFPZs),	Page 3-3 of Appendix C provides information about levee flood protection zones (LFPZs). The LFPZ inundation areas in Live Oak are shown on Figure 7 on page 3-5 of Appendix C (Map 3 of the Feather River Atlas – Draft DWR, 2013) and available online at http://gis.lfpz.water.ca.gov/lfpz/).	Page: Appendix C page 3-3 and 3-5 (Figure 7)		❑

Jurisdiction Use Only			CVFPB Use Only	
Safety elements must identify information regarding flood hazards per GC 65302(g)(2)(A)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**	**CVFPB Reviewer's Comments**	**No Comments**
available from DWR?				
viii. Does the new or updated safety element include areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls (contact DWR for assistance, if needed)?	Page 3-3 of Appendix C provides information about areas subject to inundation in the event of failure of project or non-project levees or floodwalls. The maximum potential flooding from failure of project levees is described by LFPZs. Areas subject to potential inundation as a result of levee failure of project levees are also described by the FEMA Flood Insurance Rate Maps and floodplain mapping in both the USACE Sacramento-San Joaquin River Basins Comprehensive Study and the Sutter Basin Pilot Feasibility Final Report – FEIR/SEIS. The 200-Year Post -Feather River West Levee Project (FRWLP) Floodplain Mapping (Sutter Butte Flood Control Agency (SBFCA), 2016) shows with completion of the FRWLP, it is unlikely that 200-year flooding would reach the Live Oak 2030 General Plan Area(see Figure 5 on page 2-10 of Appendix C). In 2013, the SBFCA first started construction on the improvements (Project Areas B, C, D and Star Bend setback as shown in Figure 4 of Appendix C). Construction is expected to be completed in 2017. Evacuation route information is included on page 3-9 through 3-10 of Appendix C.	Page: Appendix C page 3-3, 2-10 (Figure 5), 2-9 (Figure 4), 3-9, and 3-10		❑
ix. Does the new or updated safety element include historical data on flooding including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by	Page 2-1 of Appendix C provides historical data on flooding in the Feather River Region, which includes Live Oak. Specific information about historical flood damage within Live Oak is found on page 2-3 of Appendix C. In the City of Live Oak, there have been seven historical claims for flood losses totaling $66,660. These were for pre-Flood Insurance Rate Map (FIRM) structures. National Insurance Program data indicates that there are no repetitive loss buildings in the City.	Page: Appendix C page 2-1 and 2-3		❑

Jurisdiction Use Only			CVFPB Use Only	
Safety elements must identify information regarding flood hazards per GC 65302(g)(2)(A)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**	**CVFPB Reviewer's Comments**	**No Comments**
flooding, varies by Jurisdiction (contact DWR for assistance, if needed)?				
x. Does the new or updated safety element include existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities, varies by jurisdiction (contact DWR for assistance, if needed)?	As of FEMA's LOMR letter to Live Oak dated January 24, 2014, a small area within Live Oak is no longer within a FEMA designated100-year floodplain. Both the 100-year and 500-year FEMA designated floodplains are outside the City's General Plan Area (see Figure 6 - Floodplain Map, on page 3-4 of Appendix C). Additional information about the LOMR is on page 3-2 of Appendix C. Figure 5 (Appendix C, page 2-10) also shows the City's General Plan Area is not in the 200-Year Post-FRWLP Project Residual Floodplain. Additional information about City policy regarding development in floodplain areas is on page 3-9 in Appendix C. Live Oak discourages urban development in 100-year floodplain areas. The City's floodplain ordinance (Chapter 15.21 of the City's Municipal Code) prohibits development in the floodplain unless stringent guidelines are met.	Page: Appendix C pages 3-2, 3-4 (Figure 6), 2-10 (Figure 5), and 3-9		❑
xi. Does the new or updated safety element include reference to local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services?	See Appendix C, Section 3.4 "Other Non-Structural Flood Management Strategies," specifically Sections 3.4.4 through 3.4.9 starting on page 3-10, which includes information on FEMA, USACE, DWR, Cal OES, Sutter County, and SBFCA. Reclamation District (RD) information (RD 777 and RD 2056) is located on pages 3-1 and 3-2 of Appendix C.	Page: Appendix C pages 3-10, 3-1, and 3-2		❑

Section II: Protection of the Community from the Unreasonable Risks of Flooding

Jurisdiction Use Only					CVFPB Use Only	
Based on the above information in Section I, safety elements must establish a set of comprehensive goals, policies, and feasible implementation measures under GC 65302(g)(2)(B) and 65302(g)(2)(C)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)** ✓ **Goal**	✓ **Policy**	✓ **Imp. Measure**	**CVFPB Reviewer's Comments**	**No Comments**
Do the new or updated safety element goals, policies, and implementation measures accomplish the following:						
I. Avoid or minimize the risks of flooding to new development?	Goals, policies, and implementation programs to avoid or minimize risks of flooding to new development are listed on pages PS-8 through PS-13 of the Public Safety Element and pages 4-1 through 4-3 of Appendix C. Goal PS-2 is to minimize the loss of life and damage to property caused by flood events. Policies include: coordinating with SBFCA to ensure flood control facilities protecting Live Oak's Planning Area are well-maintained (PS-2.1); regulating development within floodplains according to state and federal requirements (PS-2.2); and evaluating potential flood hazards before approving development projects (PS-2.3). New Development is required to be consistent with regional flood control efforts (PS-2.5) and the City will use current agency flood hazard and floodplain information as the basis for project review (PS-2.6). Development applicants shall submit drainage	Appendix C pages 4-1 through 4-3				❑
		X	X	X		

Jurisdiction Use Only					CVFPB Use Only	
Based on the above information in Section I, safety elements must establish a set of comprehensive goals, policies, and feasible implementation measures under GC 65302(g)(2)(B) and 65302(g)(2)(C)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)** ✓ **Goal**	✓ **Policy**	✓ **Imp. Measure**	**CVFPB Reviewer's Comments**	**No Comments**
Do the new or updated safety element goals, policies, and implementation measures accomplish the following:						
	studies that adhere to City stormwater requirements and measures to prevent on- or off-site flooding (PS-2.4), and where feasible, new development shall incorporate stormwater treatment to allow percolation to underlying aquifer and minimize off-site surface runoff (PS-2.7).					
II. Part a: Evaluate whether new development should be located in flood hazard zones?	Goals, policies, and implementation programs to avoid or minimize risks of flooding to new development are listed on pages PS-10 through PS-12 of the Public Safety Element and pages 4-1 through 4-3 of Appendix C. Goal PS-2 is to minimize the loss of life and damage to property caused by flood events and includes policies PS-2.1 through PS-2.7 (noted above). Policies PS-3.6 and PS-3.7 require locating essential facilities outside of flood hazard zones, when feasible, or the incorporation of feasible design or features that minimize flood damage and increase functionality during flooding events in flood hazard zones.	Appendix C pages 4-1 through 4-3 X	X	X		❑

Jurisdiction Use Only					CVFPB Use Only	
Based on the above information in Section I, safety elements must establish a set of comprehensive goals, policies, and feasible implementation measures under GC 65302(g)(2)(B) and 65302(g)(2)(C)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**			**CVFPB Reviewer's Comments**	**No Comments**
		✓ Goal	**✓ Policy**	**✓ Imp. Measure**		
Do the new or updated safety element goals, policies, and implementation measures accomplish the following:						
	Implementation Program PS-5 requires disclosure of risk in flood risk areas when reviewing new development projects, including notifying new residents and encouraging purchase of appropriate insurance.					
II. Part b: Identify construction methods or other methods to minimize damage if new development is located in flood hazard zones?	Goals, policies, and implementation programs are listed on pages 4-1 through 4-3 in Appendix C, including Goal PS-2 to minimize loss of life and property damage caused by flood events and Goal Public-6 to protect property and public health through adequate flood protection. Policy PS-2.7 and Water-1.3 requires use of permeable surfaces, wherever possible, interspersed with natural drainage strategies to reduce flooding. Policy-2.4 requires development applicants to incorporate measures to prevent on- or off-site flooding. Policy PS-3.7 requires incorporation of feasible design or features that minimize flood damage and increase functionality of essential facilities (e.g. hospitals) during flooding events in flood hazard zones.	Appendix C pages 4-1 through 4-3				❑
		X	X	X		

Jurisdiction Use Only					CVFPB Use Only	
Based on the above information in Section I, safety elements must establish a set of comprehensive goals, policies, and feasible implementation measures under GC 65302(g)(2)(B) and 65302(g)(2)(C)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)** ✓ **Goal**	✓ **Policy**	✓ **Imp. Measure**	**CVFPB Reviewer's Comments**	**No Comments**
Do the new or updated safety element goals, policies, and implementation measures accomplish the following:						
III. Maintain the structural and operational integrity of essential public facilities during flooding?	Policy PS-3.7 on page PS-11 of the Public Safety Element states: Essential facilities that must be located within flood hazard zones should incorporate feasible site design or building construction features that will minimize flood damage and increase functionality during flooding events. Other related goals, policies, and implementation programs are listed on pages 4-1 through 4-3 in Appendix C, including Goal PS-3 to provide adequate emergency response, and Policies PS-3.1 (maintaining updated emergency response plan), PS-3.4 (establishing evacuation routes with outreach to residents and businesses), and PS-3.6(noted above in II. Part a). Implementation Program PS-5 requires disclosure of risk where proposed development would occur in flood risk areas during review of new development projects.	Appendix C pages 4-1 through 4-3 X	X	X		❑

Jurisdiction Use Only					CVFPB Use Only	
Based on the above information in Section I, safety elements must establish a set of comprehensive goals, policies, and feasible implementation measures under GC 65302(g)(2)(B) and 65302(g)(2)(C)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)** ✓ **Goal**	✓ **Policy**	✓ **Imp. Measure**	**CVFPB Reviewer's Comments**	**No Comments**
Do the new or updated safety element goals, policies, and implementation measures accomplish the following:						
IV. Locate, when feasible, new essential public facilities outside of flood hazard zones (including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities) or identify construction methods or other methods to minimize damage if these facilities are located in flood hazard zones?	Policies PS-3.6 on page PS-11 of the Public Safety Element states: As feasible, locate new essential facilities outside of flood hazard zones, including hospitals and healthcare facilities, emergency shelters, fire stations, emergency response centers and emergency communication facilities. Other related goals, policies, and implementation programs are listed on pages 4-1 through 4-3 in Appendix C, including Goal PS-3 to provide adequate emergency response and Policy PS-3.7 (see above). Implementation Program PS-5 requires disclosure of risk where proposed development would occur in flood risk areas during review of new development projects.	Appendix C pages 4-1 through 4-3 X	X	X		❑
V. Establish cooperative working relationships among public agencies with responsibility for flood protection?	Goals, policies, and implementation programs listed on pages PS-10 and PS-11 of the Public Safety Element and pages 4-1 through 4-3 in Appendix C, including Goal PS-2 to minimize the loss of life and damage caused by flood events, including	Appendix C pages 4-1 through 4-3 X	X	X		❑

Jurisdiction Use Only					CVFPB Use Only	
Based on the above information in Section I, safety elements must establish a set of comprehensive goals, policies, and feasible implementation measures under GC 65302(g)(2)(B) and 65302(g)(2)(C)	**Jurisdiction's Notes for CVFPB Reviewer**	**Location in the Safety Element (Page #)**			**CVFPB Reviewer's Comments**	**No Comments**
		✓ **Goal**	✓ **Policy**	✓ **Imp. Measure**		
Do the new or updated safety element goals, policies, and implementation measures accomplish the following:						
	Policy PS-2.1, which calls for coordinating with SBFCA to ensure flood control facilities protecting Live Oak's Planning Area are well maintained. Implementation Programs PS-1 states the City will continue to partner with regional flood protection joint powers authority regarding the Feather River levees (west side) and PS-3 states the City will consult with CVFPB and local flood protection agencies to obtain updated flood hazard and floodplain information, and update the General Plan accordingly.					

Section III – Additional Considerations and Information the Central Valley Flood Protection Board Recommends Including

- Identify evacuation routes in the event of flooding from any source.
- If the city or county is vulnerable to multiple sources of flooding, delineate each flooding source and resulting inundation area.
- Include a plan that differentiates the existing and planned development areas, and also includes flood hazard zones (associated with the above Section I, "x").
- Geographic information systems (GIS) electronic mapping that layers, when possible, floodplain mapping information, land use designations, safety evacuation routes, natural features, dam failure inundation, and other applicable flood management information on one figure.

Lastly, as a reminder for cities and counties within the Sacramento-San Joaquin Drainage District, the CVFPB has an encroachment permit requirement that must be adhered to and should be included as a general plan policy, as applicable, for local conditions:

- If any project, including the modification of an existing project, falls within the jurisdiction regulated by the CVFPB (e.g., levees, regulated streams, and designated floodways), the city or county must apply for an encroachment permit from the CVFPB.

LIVE OAK

DATE:	February 7, 2017
TO:	City of Live Oak Planning Commission
FROM:	June Cowles, Contract City Planner
Application:	Tentative Subdivision Map Extension No. 17-1;
Applicant/Owner:	Larkin Road Ltd Partnership
Location/APN:	Located east of Larkin Road and north of Kola Street APNs 06-100-015, 06-100-025, and 06-100-026
Environmental:	Previously adopted Negative Declaration
General Plan:	Smaller Lot Residential and Medium Density Residential
Zoning:	Small Lot Residential and Medium Density Residential Zone District
Acres:	Approximate 12.89 acres

RECOMMENDED ACTION:
Approve a three-year extension request to February 2, 2020 of Tentative Subdivision Map Extension Request No. 17-1, subject to the required Findings and project Conditions of Approval.

BACKGROUND:
On February 2, 2006, the Planning Commission approved a Tentative Subdivision Map, Robbins Subdivision TSM2005-0809 that created a 63 residential lot subdivision, See Attachment 2. In October 2007 a two-year extension was approved for TSM2005-0809. The State of California since then has approved several Assembly Bills and Senate Bills to extend current TSM in order to assist during the economic downturn. The current Robbins Subdivision expiration date is February 2, 2017. The applicant request letter for a three-year extension was received on December 23, 2016 to which extended the expiration date for another 60 days so that the request can reviewed by the Planning Commission.

PROJECT DESCRIPTION:
The applicant is requesting an extension of three years to comply with the conditions of approval for Tentative Subdivision Map 2005-0809, See Attachment 3. Pursuant to the Subdivision Map Act, Section 66452.11.

PROJECT ANALYSIS:
General Plan and Zoning Conformance:
The General Plan Land Use designation for the project site is Smaller Lot Residential and Medium Density Residential and the zoning is Small lot Residential District (R-2) and Medium Density Residential (R-3), the proposed TSM remains consistent with both the General Plan and Zoning District.

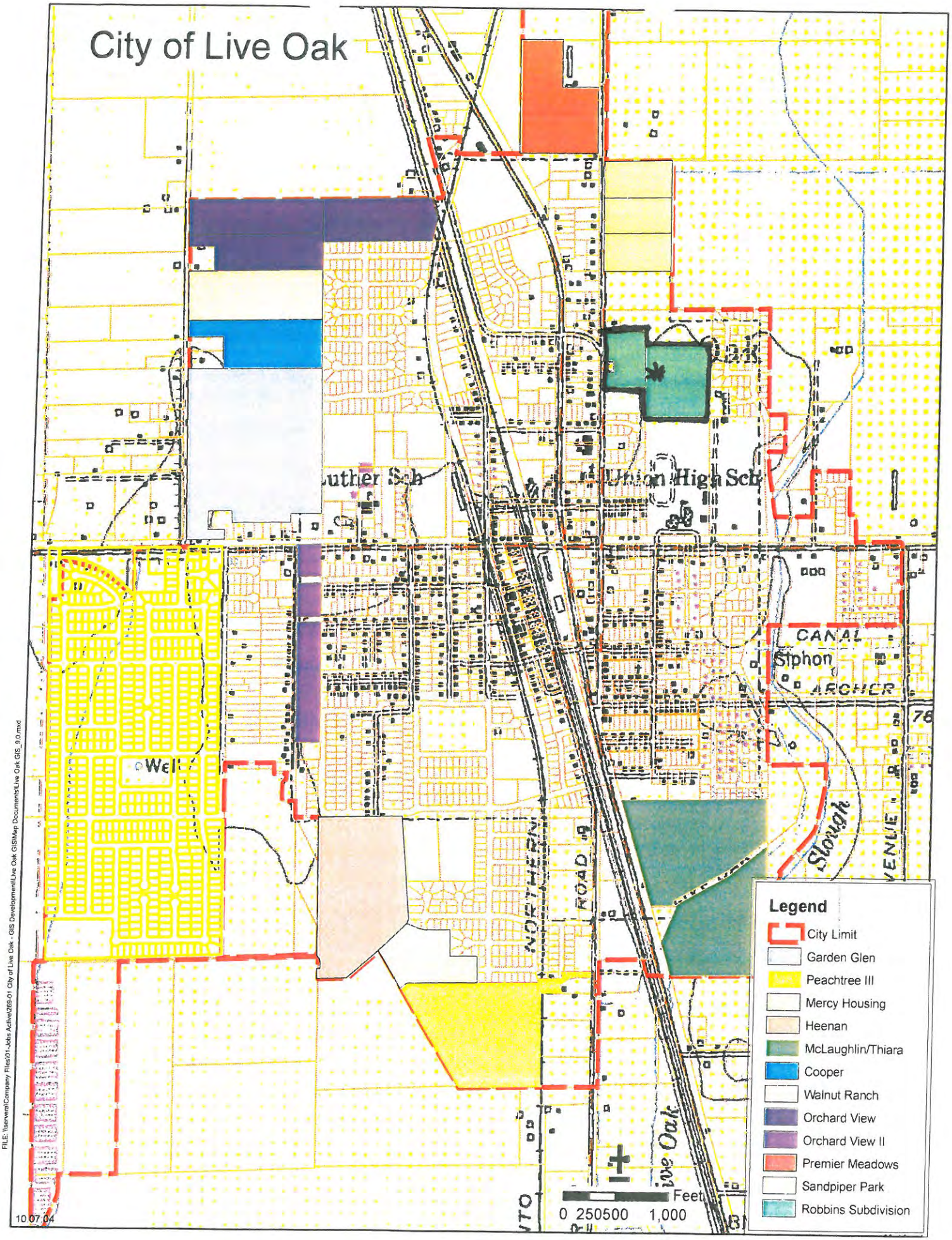
Time Extension of an Approved map (Subdivison Map Act and Live Oak Municipal Code:
As set forth in the Subdivision Map Act Sec 66452.6.e of the State Government Code tentative maps expire after two years if no final map is recorded. The person filing the tentative map may subsequently request an extension of time to process a final map. The Planning Commission may grant an extension or extensions of a tentative map. Pursuant to section 16.20.220 of the Live Oak Minicipal Code, the City's policy has been to grant extensions to give the City the opportunity to re-evaluate the map and surrounding area conditions. Sec 66452.6.e of the Subdivision Map Act allows discretionalry extensions up to five years. If the extension request is granted, this will be the last map extension approved for this subdivision by the City of Live Oak.

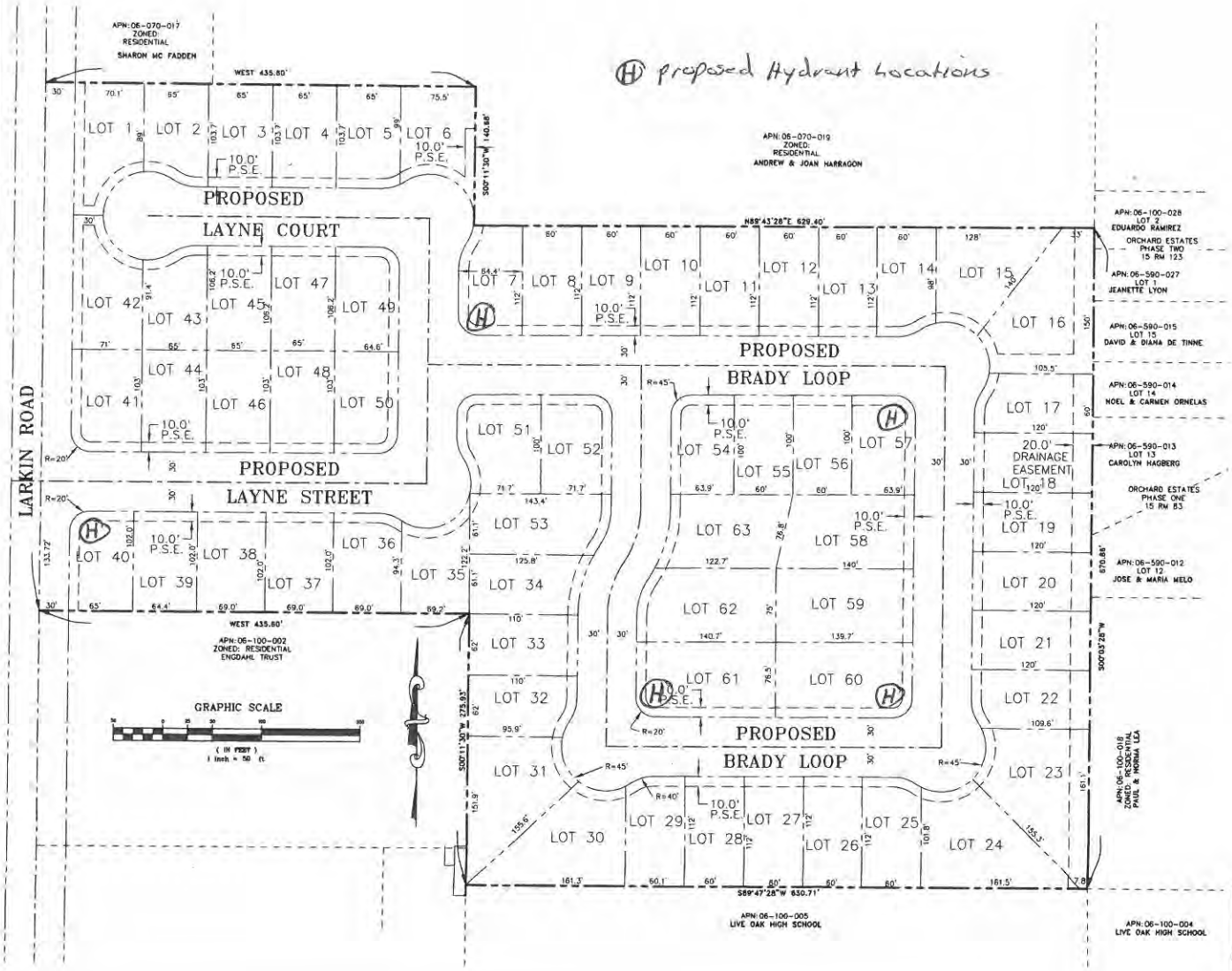
Staff recommends tha the Planning Commission grant a three-year extension for the subdivision map to allow the applicant additional time to meet the July 2005 Conditions of Approval.

ENVIRONMENTAL ANALYSIS:
A Negative Declaration has been previously circulated and adopted for the project. The project site and surrounding conditions remain unchanged, and thus no new environmental impacts were identified.

ATTACHMENTS:

1. Project Vicinity Map
2. Robbins Tentative Subdivision Map
3. Applicant Request Letter
4. Resolution with Conditions of Approval


City of Live Oak
Legend
City Limit
Garden Glen
Peachtree III
Mercy Housing
Heenan
McLaughlin/Thiara
Cooper
Walnut Ranch
Orchard View
Orchard View II
Premier Meadows
Sandpiper Park
Robbins Subdivision
0 250500 1,000
Feet
CANAL
Siphon
Slough
ROAD
10.07.04
FILE: \\server\Company Files\01-Jobs Active\269-01 City of Live Oak - GIS Development\Live Oak GIS\Map Documents\Live Oak GIS_9.0.mxd



PROJECT INFORMATION:

OWNER: ANN F. ROBBINS AND 10329 LARKIN ROAD LP
10329 LARKIN ROAD
LIVE OAK, CA

SUBDIVIDER: STEVEN BROWN AND BB, LLC.
269 TECHNOLOGY WAY #2
ROCKLIN, CA 95765
CONTACT: STEVEN BROWN
PHONE: (916) 813-5249
FAX: (916) 652-4192

ENGINEER: OURADA ENGINEERING
3111 SUNSET BLVD, SUITE L
ROCKLIN, CA 95677
CONTACT: STEVEN OURADA
PHONE: (916) 624-1221
FAX: (916) 624-1232

ROBBINS SUBDIVISION

BEING A PARCEL OF LAND IN SEC. 32, T.17 N., R.3 E., MDB&M

EXISTING USE: VACANT
PROPOSED USE: SINGLE FAMILY HOMES
ACREAGE: 13.0486 AC.

STREET CROSS SECTION TO BE PER CITY OF LIVE OAK DESIGN STANDARD 701 FOR LOCAL AND COLLECTOR STREETS.

PAVEMENT TO BE 3" ASPHALT OVER 8" BASE OR MEET A T.I. OF 5.5, WHICHEVER IS GREATER. STREETS TO BE 36' OF PAVING WITH 2.5' CURB AND GUTTER ON EACH SIDE ALONG WITH A 4' RESIDENTIAL SIDEWALK ON BOTH SIDES OF EACH STREET.

UTILITIES ARE SHOWN ON A PRELIMINARY UTILITY PLAN AND ARE TO BE CONSTRUCTED TO THE CITY OF LIVE OAK REQUIREMENTS.

UTILITY NOTE

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

SIGNATURE: _____
STEVEN R. OURADA
LS# 6389

DATED: DECEMBER 15, 2005

LICENSED LAND SURVEYOR
Steven R. Ourada
EXP. 12-31-06
L.S. #6389
STATE OF CALIFORNIA

TENTATIVE SUBDIVISION MAP	JOB NO. SB-1174
APN: 06-100-015 10329 LARKIN ROAD	SHEET 1 OF 1
CITY OF LIVE OAK COUNTY OF SUTTER STATE OF CALIFORNIA	
Prepared for STEVEN BROWN	DRAWN BY: DEF
OURADA ENGINEERING 3111 SUNSET BLVD., SUITE L ROCKLIN, CALIFORNIA 95677	DATE: 12/15/05
PHONE: (916) 624-1221 FAX: (916) 624-1232	DRAWING: SB1174.DWG

Date: January 19, 2017

To: City of Live Oak Planning Commission

Ref: Ronald Layne Beaubien "The Beaubien Family Trust"
10329 Larkin Road L.P.
Larkin Road
Live Oak, California
Robbins Subdivision
Tentative Subdivision
MAP TSM 2005-0809
APN 06-100-025, 06-100-26, 06-100-15

TO WHOM IT MAY CONCERN:

Please accept this letter to request a time extension because of economic conditions for Subdivision MAP TSM 2005-0809 (Robbins Subdivision / Larkin Road Limited Partnership) to subdivide and develop approximately 15 acres into 63 single family lots on the above reference property.

I look forward to hearing from you concerning my request.

Sincerely,

Ronald L. Beaubien
732 Margarita Avenue
Coronado, California 92118

RESOLUTION NO. 05-2017
A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF LIVE OAK APPROVING A THREE-YEAR EXTENSION FOR TENTATIVE SUBDIVISION MAP TSM2005-0809 (ROBBINS SUBDIVISION)/ LARKIN ROAD LIMITED PARTNERSHIP WITH AN ALL-INCLUSIVE LIST OF THE CONDITIONS OF APPROVAL FOR APN(s): 06-100-025, 06-100-026, 06-100-015

At a Regular Meeting of the Planning Commission of the City of Live Oak duly called and held on February 7, 2017 at 7:00 p.m. on said day, it was moved by Commission member _____, seconded by Commission member _____ and carried that the following Resolution be adopted:

WHEREAS, The applicant representing Larkin Road Limited Partnership has submitted an application to extend Subdivision Map No. TSM2005-0809 (Robbins Subdivision)/ Larkin Road Limited Partnership to subdivide and develop approximately 15 acres into 63 single family lots; and

WHEREAS, the assessor parcel number(s) 06-100-25, 06-100-26, 06-100-015 at which the development is proposed is addressed as 10329 Larkin Road, Live Oak, CA; and

WHEREAS, the approval for APN(s): 06-100-025, 06-100-026, 06-100-015 would have expired on February 2, 2017, but the applicant submitted an application for extension prior to the expiration as per Section 16.20.220 of the Live Oak Zoning Code; and

WHEREAS, the Live Oak Planning Commission held a meeting on February 7, 2017 and granted a three year extension to APNs: 06-100-025, 06-100-026, 06-100-015 with the original conditions of approval; and

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Live Oak does thereby grant a three year extension to Tentative Subdivision Map TSM2005-0809 (Robbins Subdivision) Larkin Road Limited Partnership **to expire on February 2, 2020** with the following original conditions pertaining thereto:

A. Preparation of the Final Map shall comply with all related provisions of the California Subdivision Map Act, the Live Oak Municipal Code, the Uniform Fire Code, and the Live Oak Public Works Improvement Standards.

B. The development of the parcels of property created by this map shall be subject to the laws, rules, regulations, and construction standards in effect at the time a Building Permit is issued as to each particular parcel.

C. Provide all improvements along Larkin Road frontage including drainage, underground utility installation, barrier curb, gutter, and sidewalk per Live Oak Municipal Code and development standards. In addition to the improvements directly along the subject parcel, the applicant will provide curb, gutter, and sidewalk from the project location south to the existing sidewalk at Kola Court.

D. Provide water storage capacity for 65 homes prior to building construction. This shall consist of purchasing a minimum of 65,000 gallons of storage entitlement in a 1.4 million gallon water storage tank that is being designed and constructed. The Development Agreement/Subdivision Agreement will provide all details regarding fair-share compensation for the construction of this facility. This is a cost to be born by the developer, and is over and above the monies paid in impact fees. In order to satisfy the tentative development condition that the Subdivider provides water capacity or storage for 65 homes prior to construction. The City shall collect water storage capacity costs from Subdivider for Subdivider's fair share of the cost to construct and install a 1.4 million gallon water storage tank in the city. Payment shall be made prior to recordation of final map in the estimated amount of: **$92,857.05** based upon the requirement of 1,000 gallons of water storage per dwelling unit, the water storage fee per dwelling unit shall be equal to 1/1400, or $1,428.57 per dwelling unit.

E. Applicant to verify that adequate capacity exists with current water, sewer, and stormwater main lines along Larkin Road and other adjacent roadways to support additional development. Should additional capacity be required, applicant will provide all additional capacity at his sole and separate expense.

F. Dedication of sufficient property to provide for a minimum of 30' of street right-of-way east of the Section line comprising the centerline of Larkin Road along the property frontage.

G. Provide frontage for all lots created by this subdivision solely along those streets created by the subdivision and to be dedicated to the City. No lots are to have frontage on or access to Larkin Road. The Final Map shall provide a one (1) foot wide "No Access" strip on the lot side of the Larkin Road right-of-way line along the entire length of each lot, which abuts said right-of-way.

H. The City Engineer and the Director of Public Works must approve any variations from the Current City of Live Oak Public Works Improvement Standards for internal street design.

I. On a document to be recorded concurrently with the Final Map the following items, to be implemented at the time of development of any of the parcels being created by the map, will be addressed:

   a. Any Construction work within City right-of-ways shall be accomplished under an encroachment permit issued by the Public Works Department.

   b. Water, fire and wastewater system improvements shall be designed and constructed in accordance with the City of Live Oak Public Works Improvement Standards, as approved by the Public Works Department. All occupied structures located or constructed on the parcels created by this land division shall be connected to the City water system and the City sanitary sewer system.

   c. All occupied structures located or constructed on the parcels created by this land division shall be provided with underground natural gas, electric, telephone and cable television services.

d. All fees, exactions or any other charges or obligations applicable to the development of any particular parcel created by this map, shall be those that are in effect at the time a Building Permit is issued for the development of that particular parcel. (This applies to all fees, exactions or other charges whether or not they were in existence when the Tentative Map was filed and whether or not they have been modified or amended between the time of the filing of the Tentative Map and the issuance of a Building Permit).

e. Applicant/Developer shall pay water, sewer, and drainage connection and mitigation (AB 1600) fees in the amounts in effect at the time building permits are issued, subject to separate terms detailed in Development Agreement.

f. Survey monumentation in conformance with the requirements of the Live Oak Municipal Code, the California Land Surveyors Act and the California Subdivision Map Act shall be provided.

g. All easements of record that affect this property shall be shown on the Final Map.

K. Prior to recording of the final map the Applicant/Developer shall execute a subdivision agreement with the City of Live Oak.

L. Prior to recording of the final map the Applicant/Developer shall annex the subject property into, or establish a Special Assessment (SA) or Community Facilities District (CFD) as directed by the City in order to ensure adequate operational and maintenance funding availability. The SA or CFD will pay for any and all municipal services such as fire, police, parks, lighting, animal control, and any other identified municipal services. The Applicant/Developer will be responsible for all costs required to establish the SA or CFD. Should several developments be included in the initial SA or CFD, the costs will be shared on a proportional basis as determined by the City.

M. Prior to recording of the Final Map, any public or landscaped areas within the boundaries of the subdivision (if any) will be annexed into a Special Assessment or Community Facility District in order to pay all future costs associated with operation and maintenance of those improvements.

N. Prior to recording of the Final Map, the Applicant/Developer shall submit complete Public Improvement Plans and Specifications, along with all supporting documentation and calculations, prepared by a registered civil engineer in accordance with LOMC § 16.20.180. The plans shall include the design of the on-site storm drainage detention facility, in accordance with the Live Oak Public Works Improvement Standards, which will collect and detain all runoff from the subdivision and meter the outflow (measured at the subdivision boundary) to no more than the predeveloped peak discharge from the site as required by Reclamation District No. 777. The plans, specifications, and calculations shall be submitted to Reclamation District No. 777 for approval. The developer shall pay for any and all costs for the review. The Final Map will not be approved and recorded until the City Engineer has approved all Public Improvement Plans and Specifications.

O. Applicant/Developer shall construct such approved drainage facilities as are required to convey drainage from the subdivision being developed to acceptable natural drainage courses. Applicant/Developer shall include, as part of the Final design, a plan, and all necessary details to convert the proposed stormwater detention basin into a park/open space area.

P. The Director of Public Works and the City Engineer, prior to final map approval, shall approve the design of any storm drainage facilities. All open ditches, including the ditch adjacent to the property to the east, shall be filled and water directed to pipes and culverts per LOMC standards.

Q. Applicant shall be solely responsible for any additional state or federal permits as may be required including, but not limited to, Army Corps of Engineers or California Department of Fish and Game.

R. Applicant/Developer to provide the city with electronic copies of all parcel maps and improvement details such as water, sewer, and drainage infrastructure details in a form that is compatible with, and able to integrate into, the City's GIS program.

S. Should it be necessary to acquire any additional right of way for the purpose of access or infrastructure, the applicant will be responsible for any and all costs associated with such acquisition.

T. Applicant/Developer to submit building and landscape plans to Design Review Board for approval prior to issuance of building permits (LOMC § 15.08.020).

Passed and adopted at a Regular Meeting of the Planning Commission of the City of Live Oak held on the February 7, 2017 by the following vote:

Planning Commissioners

AYES:
NOES:
ABSTAINING:
ABSENT:
APPROVED:

_____

Planning Commission Chairperson

ATTEST:

_____

City Planner, June Cowles